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BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of:  

)  

) 19-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

WEDNESDAY, NOVEMBER 13, 2019

10:00 A.M.
Reported by:
Peter Petty
APPEARANCES

Commissioners

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

Staff Present: (* Via WebEx)

Drew Bohan, Executive Director
Le-Quyen Nguyen, Chief of Staff
Darcie Houck, Chief Counsel
Lisa DeCarlo, Staff Counsel
Cory Irish, Chief Counsel’s Office
Noemi Gallardo, Public Advisor
Rosemary Avalos, Public Advisor’s Office
Lindsay Buckley, Director of Communications &
External Affairs
Peter Strait, Project Manager
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:

i. **In the Matter of U.S. Department of Energy** (High Level Waste Repository) (Atomic Safety Licensing Board, CAB-04, 63-001-HLW); State of California v. United States Department of Energy (9th Cir. Docket No. 09-71014)

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)

iii. **State Energy Resources Conservation and Development Commission v. Electricore, Inc. and ZeroTruck** (Sacramento County Superior Court (34-2016-00204586)


v. **City of Los Angeles, acting by and through, its Department of Water and Power v. Energy Commission** (Los Angeles Superior Court, Case No. BS171477).

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viii. Chukwuemeka (Emeka) Okemiri v. California Energy Commission, et al. (Sacramento Superior Court, Case No. 34-2018-00246019)


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:

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CHAIR HOCHSCHILD: Good morning and welcome, friends. Let’s start with the Pledge of Allegiance.

(Whereupon the Pledge of Allegiance is recited)

CHAIR HOCHSCHILD: Well, welcome everybody. So 44 years ago the California Energy Commission was born with a mission to make things better and to push for a cleaner, healthier future for the next generation. And in the intervening time we’ve saved the people of California over $100 billion on their energy bills from the energy codes and standards.

We have invested heavily in the clean energy technologies of the future and really incubated the solar and wind and electric vehicle industries around the country and around the world. And I’m very, very proud of all of our staff for the hard work that they do every day. None of this would have been possible, our agency would have been possible were it not for the dedication and vision of Charlie Warren who passed away last week.

And I recall right when I started at the Energy Commission as a Commissioner about six-and-a-half years ago I looked him up and asked if he would be able to have lunch with me. He very kindly said yes and what I learned in that lunch was what drove him. He was a man of vision, a
generous, generous heart and politically very skilled to do what he did, the negotiations with Ronald Reagan, which were intense and heated and difficult but ultimately successful. It’s a rare feat. And I know I speak for all my colleagues when I say we are proud to come to work every day in a building that’s named after him. His legacy lives on.

And we’re very, very lucky today to be joined by Charlie Warren’s family: Tom Warren, Cynthia Warren, Linda Healy, Noel Nabeshima -- I hope I say that right -- and Alison Carson. If we could ask all of you to stand, we want to give you a standing ovation.

(Whereupon a standing ovation was given.)

CHAIR HOCHSCHILD: Thank you so much.

So what we’re going to do, we do have a resolution here in a minute, but I want to first open up to my colleagues if there’s any comments my fellow Commissioners would like to make about Charlie Warren.

COMMISSIONER DOUGLAS: You know, I just wanted to say that we had the opportunity to meet Charlie Warren and spend time with him at a number of events around the Energy Commission. And he was so fun to talk to and so generous with his time and so caring about the work we did do and so interested in how the Energy Commission has evolved over time. And the nature of the challenges that we face today,
which are derived from but are not the same as what drove
the creation of the Energy Commission 44 years ago.

And I think it meant a lot to him to see the
impact that his work has had over decades in California.
And it certainly meant a lot to me to have the opportunity
to meet him and to have the opportunity to kind of share
back and forth with him. So anyway I really appreciate all
of you being here as well. And I loved meeting and talking
to Charlie Warren.

VICE CHAIR SCOTT: I would echo very much those
same sentiments. I only had the opportunity to meet him
once or twice and that was during our 40th anniversary for
the Energy Commission. But he was so warm and thoughtful
and engaging. And the vision that he had for the state, I
think, is still really quite amazing. And it’s completely
transformed the way that the State of California and
probably the rest of our country and the world have gone.

And so to have that level of vision to bring that
dedication and care to the people of California, it really
was an honor for me to get to meet him. And then it’s an
honor to follow in his footsteps, so my condolences to your
family. And he was a wonderful warm, thoughtful visionary
man.

COMMISSIONER MCALLISTER: So (indiscernible)
condolences. I know it must be a hard time. He had an
amazing life and so obviously we can all, and you can take heart in that.

I got the sense the few times that I met him I got the sense he was a really happy with the results, the fruits of his labor, because he was really proud of what we were doing. And I got that sense. It seemed palpable when you talked to him. He was interested in sort of what was happening day in and day out at the Commission, but also just as an enterprise. He saw it as just such an amazing force for good and rightfully so. And I think taking some ownership of that was totally appropriate and really improved and was a positive influence on his life. So I enjoyed that.

And actually we have an item today that we’re going to -- you read the Warren-Alquist Act and it seems like it could have been written yesterday. It’s like it’s so present and so current. And we have an item that we’ll be voting on, which is using some of the authority that was imbedded back in the mid ’70s in a progressive and innovative way. But there was the bedrock for it right there, so he laid a really strong foundation.

And lastly I enjoyed telling that whole story about how the Warren-Alquist Act came into being and actually was signed by Ronald Reagan. Because Charlie Warren and Al Alquist had the vision to put it together and
have it waiting in the wings and had done all the leg work and the spade work over the previous years. So when there was a crisis, they were prepared for it and Reagan dusted it off and signed it. It was just such an amazing story.

So it takes that. You make your own luck and he was a master at that, so thanks for being here and my condolences.

CHAIR HOCHSCHILD: Okay. So what we’re going to do, we have some very special personal remarks in a moment that Holly is going to share. But before we do that I’m just going to read a resolution we’re going to give you today in his honor. So,

"Whereas, Charlie Warren was born in Kansas City, Missouri on April 26th, 1927, he received a Bachelor of Arts in Economics from the University of California at Berkley and a Juris Doctorate from Hastings College of Law; and

"Whereas, Warren served in the United States Army in Japan from 1944 to 1946; and

"Whereas, Warren was a member of the San Francisco law firm of Darwin, Peckham and Warren from 1952 to 1955; in Los Angeles, he was a member of the law firm of Bodle, Fogel and Warren from 1955 to 1960; and a member of the law firm Warren, Adell and Miller from 1960 to 1974; and
"Whereas, Warren was elected in 1962 to the California State Assembly, he was elected to represent the 56th Assembly District, which became the 46th Assembly District after redistricting. He represented the Los Angeles area including Hollywood and Wilshire until 1977; and

"Whereas, as a member of the Assembly, Warren worked on numerous issues including fair housing, civil rights, pay equity, transportation, air quality and other environmental issues; and

"Whereas, Warren and Senator Alfred Alquist coauthored the 1974 Warren-Alquist State Energy Resource and Conservation and Development Act, which addressed the state’s growing demand for energy and established the California Energy Commission. The Energy Commission, which is the state’s primary energy policy and planning agency is leading California to a 100 percent clean energy future.

"Whereas, to honor the two men who helped create the organization as part of the Energy Commission’s 40th anniversary in 2015 the Sacramento headquarters building was renamed the Warren-Alquist State Energy Building; and

"Whereas, Warren was one of the principal authors of the 1976 Coastal Protection Legislation that created the California Coastal Commission, to protect and enhance California’s coast and ocean for present and future
generations; and

"Whereas, Warren also initiated and developed the first statewide 911 emergency telephone system in the U.S.; and

"Whereas, Warren also served as Chair of the California Democratic State Central Committee from 1966 to 1968; and

"Whereas after leaving the State Assembly, Warren served on President Jimmy Carter’s Cabinet as Chair of the Council on Environmental Quality from 1977 to 1979. At the Council he oversaw the promulgation of the legally binding regulations for federal agency compliance with the National Environmental Policy Act requirement for environmental impact statements; and

"Whereas, Warren also served as Chair of the Energy Taskforce of the National Legislative Conference as a member of the Environmental Advisory Committee of Federal Energy Administration as a member of the California Coastal Commission.

"Now therefore be it resolved that the California Energy Commission recognizes and commends Charles Warren. He was a man of great integrity with a bold and expansive vision and a generous heart."

So congratulations.

(Applause.)
CHAIR HOCHSCHILD: So we’ll present that to you. At this time, I’d like to invite Ali (phonetic) up to the podium. Ali, thank you again for agreeing to come speak and we’re going to hear a little bit more about Charlie Warren the person.

ALI: Okay, can you hear me?

CHAIR HOCHSCHILD: Yes, yes.

ALI: Okay. Great. It is with great sadness and grief I stand here today to honor the memory of the one and only Charles H. Warren and give you all a glimpse of what an extraordinary man, mentor and dear friend Charles Warren was to me. First, to Charles Warren’s family and friends and colleagues, I’m extremely sorry for our loss and I extend condolences to everyone.

After moving from the journey to California in late 1980, I met Charles Warren in April 1981 when he hired me to be the secretary for him and a block of four other environmental consulting firms, which were sharing office space.

Charles turned out to be my first West Coast male role model who always showed care and concern for me. I could share with him any of my life circumstances and he would always offer his opinion on how I could best deal with the situation, and suggesting others who could help me deal with whatever the issue was at the time. One person
he referred me to was his lovely wife, Audrey, who was a
tremendous resource for me.

To have someone like Charles Warren who was
willing to lead, guide me and share life experiences with
me as I was becoming an adult was so invaluable to me. I
would like to give you an example of what a kind and fair
man Charles Warren was. When he hired me, I was 19, with
minimum work experience. I was referred to him by Martha
Gorman, a trusted family friend of his. He introduced me
and afterwards to my delight he offered me the job, which I
gladly accepted. There were two conditions. He was going
to give me a three-month probation period and reduce my
salary during that time.

Well, at the end of the first month, he told me
that he could tell I would work out well for the group. He
further let me know that I was no longer on probation and
that I was going to get my full salary starting that month.
Who does that? The answer is Charles Warren.

Throughout my career, all the positions I’ve held
can be linked back to my very good fortune of having met,
worked for and becoming friends with Charles Warren.

In the CEC resolution for him you heard of
Charles Warren’s many selfless life accomplishments, which
allowed many to have a better quality of life. We all will
forever owe him a debt of gratitude and thanks.
It seems surreal that our Friday lunches have abruptly come to a close. I am so grateful to have had those special moments with Charles and Audrey. And will always cherish the memories of those fun times and of our letting each other know we were loved.

Charles Warren has left his footprints behind and it is evident that he was here among us as he left a great legacy, which includes his fabulous family and the issues he solved for California and nationwide. This world was made better by having him in it. He did it all very humbly.

Charles Warren was a one of a kind man. I miss and will miss him dearly. I do recognize that I am so blessed and privileged to have known the down-to-earth, wonderful, extraordinary and loving man, Charles Warren.

For a job well done on earth in all areas of your life, Charles Warren, you are loved and you can now rest in peace. Thank you.

(Applause.)

CHAIR HOCHSCHILD: That was beautiful.

(Applause.)

CHAIR HOCHSCHILD: Thank you. At this time I would like to invite up any members of the Warren family who’d like to make any remarks.

MS. HEALEY: I’m his daughter, Linda. I wanted
to thank you so much for taking the time to honor my father. He was a modest man who never liked to focus on his achievements, but all of us in this room know that through his actions including the establishment of this Commission he made a difference in California and indeed the world.

I’m reminded of the last time I was here. It was the dedication of this building as the Warren-Alquist Building. Dad had a speech prepared, but in looking around the room he realized that the audience included many staff members and his initial prepared speech needed some amending. He checked his notes and spoke off the cuff doing his best to help Commission Members and staffers remember the significance of their work and to inspire them to tirelessly carry on. I know that’s what he’d want you all to focus on today.

Again, many thanks from our family for recognizing a man who is special not only to his family but also helped put California on the path to cleaner energy.

Thank you.

CHAIR HOCHSCHILD: Thank you. (Applause.)

What I suggest we do is, Katie, why don’t we get a picture if we could with all the members of the Warren family and the Commissioners here with the resolution.

(Whereas photos are taken.)
CHAIR HOCHSCHILD: I think Charlie would want nothing more than for us to continue with our mission. And that actually begins with adding some good people. Every agency in the State of California is only as good as the people in it. And so first of all, I’m very pleased to announce my new Chief of Staff, Le-Quyen Nguyen, who’s over here, who -- (applause) yeah, congratulations Le-Quyen.

She is phenomenally well organized, which is what I need in the chaos of my week. And she’s been at the Commission since 2007, ran the New Solar Homes Program, was our Distributed Generation and Technical Lead, was an Advisor very ably to Commissioner Douglas, worked on land use issues, tribal issues and most recently ran the Supply Office here. We’re really, really proud of you and happy to have you on the team and getting me organized here. I’m much in need of that.

And then we also have a terrific new Lead for our Communications team in the form of Lindsay Buckley. So Lindsey was hard to get. She was at the Air Resources Board for five years working with Mary Nichols, was heavily recruited by the PUC, by CalEPA and CARB wanted to keep her.

And we’re really lucky to have her incredible talents here, because half of what we need to do is actually communications. We are doing some very, very bold
policy work here on pushing for 100 percent clean energy and clean transportation. And sharing those stories effectively around the state and around the nation and around the world is paramount.

So I also want to recognize her mother, Tracie, (phonetic) who is here. So thank you for joining. And at this time, I want to invite Lindsay up and I will swear her in.

(Whereupon Lindsay Buckley is sworn in to office.)

CHAIR HOCHSCHILD: Okay. Let’s move on to the Consent agenda. Is there a motion for the consent calendar?

COMMISSIONER MCALLISTER: Move consent.

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.

Let’s move on to Item 2, Paul Jacobs.

So Paul is another superstar here. And we have a resolution in your honor, Paul. Thank you for joining, which I’ll read quickly here.

"Whereas, Paul Jacobs spent his career of more than 35 years as a public servant with the State of California and during that time was integral to
implementing and growing multiple state environmental and
energy policy enforcement programs that continually
substantially contribute to a better quality of life for
all Californians; and

"Whereas, Mr. Jacobs built the California Energy
Commission’s Office of Compliance Assistance and
Enforcement into a robust program that plays an important
role in ensuring fair business practices in capturing
critical energy efficiency and water use saving by
enforcing a wide range of appliance and equipment
regulations; and

"Whereas, Mr. Jacobs brought his professional
experience to bear in helping develop and improve
compliance aspects of other Energy Commission programs; and

"Whereas Mr. Jacobs managed multiple
groundbreaking and successful air quality enforcement
programs during his decades of tenure at the Energy
Commission’s sister agency, the California Air Resources
Board; and

"Whereas, Mr. Jacobs benefitted the state
workforce through his longstanding dedication to
development, recruitment and mentorship, therefore be it
resolved that the California Energy Commission commends and
thanks him for his years of public service and acknowledges
his contributions to environmental quality and his
accomplishments throughout the many years of service that he’s given the Energy Commission and the people of the state of California.

"The Energy Commission congratulates Paul Jacobs on his retirement and wishes him good health and happiness and all the best in the future endeavors." Congratulations Paul. (Applause.)

So if we can have Drew make a few brief remarks and then we’ll hear from Paul.

COMMISSIONER MONAHAN: Oh, can I actually, do you mind? Can I say something nice about Paul, because he’s a special guy?

CHAIR HOCHSCHILD: Sure.

COMMISSIONER MONAHAN: So I first met Paul when I was working for the Union of Concerned Scientists reducing diesel pollution and Paul was at the Air Resources Board. And I’ve got to say it’s just a wonderful thing that this very accomplished compliance leader who was really focused on making sure that enforcement was carried out to the letter of the law was also such an incredibly nice and generous person.

And when he was just very welcoming when I worked at an environmental nonprofit and when I started here at the Commission, he reached out to me immediately and he was like, "Come and have lunch. Let’s talk." I mean he was
mentoring me in my first couple of weeks here at the
commission. So just a personal thank you for your
leadership and the fact that you could be so accomplished
and so deft at making sure that there was compliance by the
regulated community and also be so nice. I think you’re a
great role model for all of us.

COMMISSIONER DOUGLAS: So I think I’m going to
have to jump in and embarrass Paul too. Paul, you’ve been
a real pleasure to work with. And Paul helped build our
Compliance Program, especially on appliances energy
efficiency standards. But other programs as well, really
from the ground up. And he took the risk of taking a jump
to the Energy Commission to share expertise that he had
honored over a career at the Air Resources Board. And we
benefitted greatly and will going forward from the legacy
he’s left here for us.

And I couldn’t agree more with Patty that on top
of being tremendously effective and skilled and
knowledgeable and good at what he does, he’s just a really
great person to have around. He’s really fun to be with.
And I will mess having Paul here at the Commission. So
thank you for your work for us, Paul.

VICE CHAIR SCOTT: I will jump in here as well.
I just kind of echo everything that you have heard already.
It’s been a real pleasure to get to work with you. I think
that you really did help the Energy Commission to up our
game in the compliance space. You brought a new level of
professionalism and expertise to us. And compliance really
matters, so we can set great standards and have great
goals, but if we don’t make sure that we’re complying all
along the way then we can’t actually meet those. And so
that role is incredibly important and often understated.
It kind of goes on in the background, but you do such a
fantastic job with that. It’s been a pleasure to work with
you and I wish you all the best.

COMMISSIONER McALLISTER: Okay. Well, since I’m
here, so I wanted to give Rob Oglesby who’s in the audience
kudos for bringing Paul here. I mean, just fishing him out
of that ocean and bringing him up here was great.

And so on the Appliances front, I got regular
briefings and kept track of all that. And, Paul, you built
a team that was being such a nice guy I think you attracted
a lot of nice people onto your team and Kirk and others.

And on the one hand if you look at our website,
and you look at all the settlements that we’ve gotten in
the Appliances realm, it’s a lot of money. And it’s sort
of there’s these big waves of robotic vacuum cleaners and
then another category and another category as all the
(indiscernible) ride each other around. And they come in,
"Oh, they’re not compliant. Oh, they’re not compliant."
And just mopping that up and making sense of it. And figuring out what’s a just conversation with each company is a highly technical and difficult thing to do. And yet just look at the web page and there’s an immense amount of success there and some revenue that helps fund this effort, right?

On the other hand, you hear from the regulated community and they say, "Wow, you know we had to pay a fine, but it really was a pretty great experience."

(Laughter.) I mean those two things usually do not go together. And it’s just a testament to the team that you’ve built and the fairness, the fundamental fairness of that activity here at the Commission.

And I think just overall it helps the Legislature saw fit to give us that authority. And I think it’s pretty incontrovertible that we’ve used it well and to the benefit of the state. And that is in large measure due to your leadership and competence. So thank you very much.

CHAIR HOCHSCHILD: I second all those. You know, in hockey you get credited with an assist if you’re two passes away. So Rob, you should be taken in also. So let’s hear from Drew and then we’ll hear from Paul.

MR. BOHAN: Well, thank you. I think the Commissioners covered it pretty well, but I just wanted to say thank you to Paul for what he’s done for our
organization. Rob Oglesby had this idea there was this
guy, Paul Jacobson, who might fit into the organization.
So he asked me to have lunch with him four years ago. And
I came back and said I think Paul would be great. So we
brought him on, gave him basically a blank slate and said
can you help develop something? And we all are well aware
of the job he’s done.

And I just wanted to underscore something you all
said too. I’ve been in some very difficult conversations
with him about really contentious matters. And he’s had
every reason to do otherwise, but I’ve never heard him once
say an unkind thing about anybody else. And so
thank you, Paul.

CHAIR HOCHSCHILD: All right, let’s hear from
Paul.

MR. JACOBS: Well, thank you Chair Hochschild and
Commissioners. I’d like to thank you for your leadership
and inspiration over the years. California is recognized
as a worldwide leader in energy policy and environmental
protection. And your work has played a critical role in
this.

Please know that your work has made a huge
difference to the 40 million plus Californians and the
earth’s 7.2 billion inhabitants making our planet more
sustainable through generations to come.
Upon my arrival about four years ago, and it was many a lunches, Drew was being modest there, they had really, really encouraged me to make that leap. I knew that we had tremendous support from all of you; your advisors; the Executive Office; Rob; Drew and Kourtney; the small offices; Barry Albert; Lisa Negri, who had to do all the financial analysis assessments for their ability to pay; the Chief Counsel’s Office under Kourtney Vaccaro and her stellar legal team, which is critical to the success of an enforcement program; the program divisions; and Mark Hutchison and his successor Rob Cook and their administrative team; the Accounting Office who has to collect and deposit all of our penalties; the Budget Office, who helps us get the BCPs through the legislative process to secure more staff and funding; the Facilities team; their IT team and the list goes on.

Then also I’d like to recognize my tremendous staff. And then also our contractors that we brought on; a number of universities to do our testing including Professor Marbach at Cal State University, Sacramento; Professor Siminovitch at UC Davis; CLTC, and Tom Kirchstetter at Lawrence Berkeley National Laboratory.

I would be here all day today trying to recognize everyone, so I apologize for those that I haven’t mentioned.
In my next chapter, I have offers for part-time consulting and to return as a retired annuitant. But I need to recharge my battery and hopefully these battery chargers are working for me. (Laughter.)

I have other planned activities including volunteering at various associations such as the Alzheimer’s Association. I lost my mother and grandmother, and last night my mother-in-law to this terrible disease. I’m volunteering at Loaves & Fishes and Habitat for Humanity, but I need to get my eye surgery done. Many of you have heard that story, before I can do that.

I did work in construction; the three-generation Jacob’s Masonry business going through college and the like. But I don’t want to go and work for them quite yet. So I want to make sure the eyes are fixed, so I can make sure I’m building straight walls and the like. (Laughter.)

Other projects that I’ll be engaged in, and I’m currently engaged in, I’m very active doing environmental mentoring consulting, recruiting to the UC Berkeley Alumni Association and the Society of Automotive Engineers. They recruited me to be one of their college recruiters. As a matter of fact, I was down at Berkeley last week doing one of these events.

And as I told Jessica Wu, your fabulous Recruiting Officer here, I’m always available for any help
she needs. Recruiting and education are critically important to sustain our staffing not only here but also in other organizations to advance the clean energy and environmental protection agenda.

We all know climate change is an existential threat we all face. And we have no Planet B as one of my favorite tee shirts says.

Thank you from the bottom of my heart for this great opportunity. I will miss all of you, but I’m only a call, email, LinkedIn, ping or text away. It has been an honor and pleasure to work with all of you. Thank you.

(Applause.)

CHAIR HOCHSCHILD: Thank you so much, Paul. And there’s a great saying I love, which is where there’s great effort there’s great light. And I really have sensed the light coming from you. Why don’t we come up and do a photo together with the resolution?

(Off mic colloquy.)

CHAIR HOCHSCHILD: Oh, my apologies. You were going to -- let’s hear from you first, Rob, and then we’ll do a photo. Thank you.

MR. OGLESBY: Chair Hochschild and Commissioners, thank you for allowing me to add my voice to the chorus of well-deserved praise for Paul Jacobs, his amazing career, his contributions, his dedication as a public servant, his
longtime commitment to the environment and now his well-
deserved retirement.

I’ve known Paul for over 25 years, closer to 30, Paul, where we begin our work our early career at the Air
Resources Board working on pollution issues. And we worked
closer together when we were both assigned to do some
technical work on an emissions pollution trading scheme
that had been bouncing through the Legislature and needed a
close look and a critical evaluation. And we got to know
each other real well then.

And I came to know that Paul was an exceptional
human being. And he spent years on the air quality
frontier ensuring that we achieved the emissions benefits
that we were seeking to make our air healthful.

We were lucky to draw him over to the Energy
Commission where he could continue his work where he had to
build his own infrastructure as you heard, including the
procedures. He just had the knowhow and the wherewithal to
bring the infrastructure, to have the lab, the testing, to
make sure that we could make sure the Energy Commission and
the goals for the Energy Commission, our energy regulations
and our environmental goals, were furthered here by fully
achieving our standards.

So with that, I wanted to congratulate Paul for a
job well done and wish him well on his well-earned, well-
deserved retirement. So thank you.

CHAIR HOCHSCHILD: Thank you, Rob.

Let’s invite Paul up and we’ll do a photo here.

(Whereas photos are taken.)

CHAIR HOCHSCHILD: Well, I do hope you recharge your batteries, Paul. We’re investing very heavily in recharging infrastructure across the state, so make use of that.

CHAIR HOCHSCHILD: Let’s move on to Item 3, Discussion of CEC Energy Resilience Efforts.

MR. BOHAN: Great. Thank you, Chair.

As we all know, wild fires have been raging across the state for the last couple of years in unprecedented size and scope. And they’ve touched all of us. Folks have lost their lives. Others have lost property.

And this year we’ve seen a lot more public safety power shutoffs. They’ve impacted some of you on the dais, others in this room. And our Governor has made clear this is not the new normal. And I wanted to just let you know that the CEC is doing a lot of work in this area and wanted to call up two of our experts to talk about what we’re doing. We’re doing things both in the immediate term, so first up is Justin Cochran. He’s our Emergency Coordinator and Nuclear Advisor to the Chair. And he has spent some
MR. COCHRAN: Good day, Commissioners. I’m here to briefly speak on two issues. One is the Energy Commission’s role in the recent emergency activity response efforts. And the other is the agency’s emergency programming and planning activities.

On April 2nd of 2019, the California Natural Resources Agency delegated additional responsibilities to our agency making us the lead state agency for Emergency Support Function 12.

As the lead state agency, the Energy Commission is tasked with providing guidance, ongoing communication, coordination and oversight throughout all phases of an emergency. In this role, the Energy Commission coordinates closely with the California Governor’s Office of Emergency Services, the California Utilities Emergency Association. And the purpose of that is just for efforts that are consistent with the state’s emergency plans.

The Energy Commission is a state central hub for energy information. In its expanding role, the Commission supports emergency services and critical energy infrastructure operations during a declared emergency in
cooperation with state agencies the private sector and relevant stakeholders.

During the recent October public safety power shutoffs and fires, Commission staff were activated and reported to state operations center to support emergency response efforts. Conventional subject matter experts were tasked with providing critical information on key energy infrastructure impacts and coordinating with state and private sector partners to mitigate the effect of grid de-energization.

Staff efforts included supporting state emergency response taskforce activities, reporting on critical infrastructure to state leadership, and developing recommended courses of action to mitigate the impacts of grid de-energization.

California law requires state agencies to regularly engage in planning and preparedness activities. One of the ongoing interagency planning activities is the Southern California Catastrophic Earthquake Plan Update. Energy Commission staff have been involved in multi-agency workshops focused on expanding planned functionality by providing energy infrastructure insight and recommendations. As part of its ongoing mission, the Energy Commission has maintained extensive knowledge and historical understanding of the regional petroleum supply
and petroleum infrastructure.

This is the basis of one of the more powerful emergency support tools available to Commission leadership, the Petroleum Fuel Set Aside Program. The Petroleum Fuel Set Aside Program is intended to ensure fuel supplies are available to emergency services during widespread shortage of supply.

The program is implemented at the direction of the Governor in response to extreme transportation fuel supply shortages. Once implemented the program empowers the Energy Commission to hold and redirect petroleum stocks as needed to ensure health, safety and the welfare of the publics.

Petroleum supplies are directed at the judgement of the Chair of the Energy Commission in coordination with the Director of the Governor’s Office of Emergency Services. Diverted fuel is to be used for supporting emergency functions in the disaster area or for disaster mitigation operations. The program has not be formally activated since 1979, but Commission staff have engaged regularly with our state partners to provide informal assistance over the years.

That concludes my update. Thank you for your time and attention.

MR. BOHAN: Thank you.
Next up is Lorie ten Hope. She is the Deputy Director for our Research and Development Division and is going to talk a little bit about our work on resiliency.

MS. TEN-HOPE: Good morning Chair and Commissioners. So I just want to highlight a few areas in our research program that have so far been really a great resource in these more recent resilience challenges that we’ve had. And then also some of the research that is underway that we hope will really amplify the role that microgrid storage and other technologies can play to help communities and individual customers, both ride out the impacts of the PSPS events that have been experienced, but also climate threats that we haven’t yet experienced.

So first I just want to highlight a little bit about the climate science. Before we mitigate the results we really want to understand what are the climate risks that California is likely to face, and what are communities and commercial customers, residential customers likely to face in terms of wild fires, floods, earthquakes and other climate-related issues going forward

We were part of a trifecta of the Fourth Climate Assessment that was a really rich body of work that gave some real insights to the climate risks that we are experiencing and are anticipated. And we’re also now gearing for the Fifth Climate Assessment.
One of the awards that you have already made, and our staff is beginning to work on is an agreement with Infomatics, which is really trying to understand much better our fire risk in future climate conditions with tree mortality and warmer temperatures. And that will give us some insights into the infrastructure that’s most at risk.

Turning from the science to the technology, microgrids have gotten a lot of attention in the last few weeks and for good reason. And the Energy Commission has been a proud partner in supporting microgrids for the past decade. We currently are funding over 22 microgrids at 38 different sites. Some of those are active and were called on most recently in the last PSPS. And others are still in the design phase.

One of the microgrids that has been called on a couple of times is Blue Lake Rancheria and it’s been heavily covered in the press. It’s a casino. And my prior Executive Director at one point says. "We’re funding a casino?" It’s an emergency shelter for the North Coast area and so it becomes a really important area for the North Coast in emergency situations.

And in the last October PSPS event, they were able to serve an estimated, on their estimates, 10,000 people came to their facilities. Some were residents that were medically dependent equipment that they were able to
charge. And people were able to charge their cell phones and communicate. Their fueling stations were active and thousands and thousands of bags of ice, which if you have no refrigeration is a valued commodity.

Some of our other microgrids were standing ready. They were in or near a PSPS area, including Los Positas Community College, the Richmond Hospital, Kaiser Hospital and the Fremont fire stations. All were ready to be able to island themselves and keep their critical facilities operating.

So the other facilities that are on either up and operating or coming are critical facilities like ports, the Ports of San Diego and Long Beach, three military bases, wastewater treatment plants, colleges. And other commercial endeavors that are really interested in the resilience and sustainability, but also being able to do that with clean energy resources and less or no dependence on fossil backup generation.

And but microgrids aren’t for every situation. It has sophisticated controls. It’s expensive. It’s still not plug and play and commercially available for everybody. So we’re also looking and supporting Solar Plus storage. These are solutions that give resilience at multi-family buildings, commercial facilities and are more easily deployed resilience strategy.
We also -- I just wanted to mention one of our entrepreneurs is just a small grant. They’re developing storage backup for telecommunication systems, so that they can be the portable delivery to backup communication systems in areas that are needed.

There’s a lot of other work going on that really supports resilience. I just wanted to mention a couple of things that are launching soon for your consideration when you’re thinking about what more could or should we do. Upcoming solicitations in storage are really going to be important. It’s a backbone of microgrid. It’s a backbone of anybody’s resilience. So we are pursuing new technologies that are non-lithium based, so that we’re not so dependent on one technology. That does have some challenges and we don’t want to be 100 percent dependent on a technology that may not be the best suited for all applications.

And we also want to send a signal that we’re interested in long-term long-duration storage of at least 10 hours or more, so looking for new technologies and price reductions in that area. We’re also putting out a solicitation for second-use batteries, so that they can be easily packaged and reused, assuming that they meet certain capacity requirements for second-use applications.

I mentioned the wild fire work. One other
microgrid area we’re exploring, we don’t know yet if it’s an area worthy of investment, but we want to look at the possibility of portable microgrids that could maybe roll in to areas where they’re needed, because you don’t always know where you’re going to need your backup energy systems.

So that’s just sort of a high flyover on some of the activities we have that are actively supporting resilience or coming soon. We couldn’t do that without researchers and communities that are willing to be the first demonstration sites. And so I really thank the communities and commercial partners that are demoing these technologies and providing lessons learned for everyone else. Thank you.

CHAIR HOCHSCHILD: Well thank you, Laurie. You know, in many ways I think the two offices we just heard from to me are actually symbolic of where we are with the challenges of climate change today, which is we simultaneously need to deal with its consequences and be prepared. And we need to keep working aggressively toward solutions. And there are these things where these two things overlap. The solar battery microgrids are both a solution and a response.

And let me just say it is imperative that we keep the electric grid reliable. I just -- we had a Germany-California symposium last week that I spoke at. And they
told me the grid in Germany, their average downtime annually is 12 minutes. It’s highly, highly reliable. When we have these events, it makes it more difficult to advance our other goals, electric vehicles and the rest of that.

So I’m really, really proud, Laurie, of you and your team and all the great work you’re doing with Vice Chair Scott to push R&D in these private projects.

Are there any questions or comments from Commissioners? I know we have a couple of public comments soon.

COMMISSIONER DOUGLAS: You know, I just had a brief comment, which is that I’m familiar with and really appreciate the good work that we just heard about. And we are building partners around the state through these research projects and through the work that we do.

I’d really love to see us continue to work on ways to take technologies that have been developed to help us meet our clean energy goals and deploy them as fast as we can in ways that are targeted to improve resilience, because I think that we have -- the technology is increasingly there.

And our research program continues to push the envelope and they continue to develop great ideas and tests and prove up really good concepts. But then sometimes
there’s a lag between getting a concept that you know works and getting it out to the places that most need it quickly. And so it would be great to talk about how we can do more of that.

COMMISSIONER MONAHAN: And just quickly, we’ve invested in school busses and with Vice Chair Scott’s foresight, those school buses have the possibility to give energy back to the grid and to be part of a resilient energy system. So I think it’s now we have to be able to develop the right framework to be able to capitalize on that. And I think that’s the work ahead for us and our investments on school buses.

CHAIR HOCHSCHILD: Great. Well, thank you. And let me just thank again Justin Cochran, my Emergency Advisor, who was in the airport about to take off for his vacation when the last power shutoff started to heat up California. He came back and spent four or five days in the Emergency Operations Center, so sorry to ruin your vacation, but thank you for all your service.

I do have two public comments on this item. Let’s hear first from Daniel Boatman from Grid Defender.

MR. BOATMAN: Good morning. Let me introduce myself. My name is Daniel Boatman and I represent a company that’s a fledgling, but innovative inventor. His name is Dennis Bell. He’s been working on a concept in his
brain for many years. He’s got over 33 patents to his name and this particular company came into existence six years ago called Grid Defender. It’s been the design and technology that he’s developed has been peer-reviewed by six different universities. And the engineering behind it is very sound.

The principle is quite simple. It’s applicable to either the existing grid or new construction within the grid. And it will help obviate potential fires and spark-type events that California has recently had extreme problems with.

The technology is such that we’re at the point where we’re looking for partners. And this was sort of the first public discussion of that company. And we’re looking for partners and people of interest that would want to work with us in developing a working prototype and demonstrate to the public and for the ultimate public long-range benefit.

The specifics of the design are incorporated in the website. And I don’t want to go into a long dissertation on how it works, but the essence of it is that the mechanical stresses on the lines can be calculated to disconnect the power. And then though the mechanical device that he has invented you can reconnect power in a quick manner. And that’s what will contribute to
resiliency in the existing grid.

Do you have any other questions or comments for me at this time? I’ll leave my card with the person at the front of you. Thank you.

CHAIR HOCHSCHILD: Thanks for coming.

Let’s hear next from Steve Uhler.

MR. UHLER: Thank you, Commissioners and Chair.

My name is Steve Uhler, U-H-L-E-R. There’s a couple of items there that I’d like you to think about as I’m speaking to you. I want to bring this within 10 miles of us something that’s sometimes it’s a pole top extension. (phonetic) It changes a single phase into a three-phase, sometimes known as the chicken wing.

And then there is a photo of a tree capturing a service line. And then the package has a globe. If you inflate the globe and you breathe on it, that’s where we live. That’s from Buckminster Fuller. That gives you an idea of the perspective.

I believe quality goes hand-in-hand with resiliency. Quality management systems will help improve even the need for some of these other systems. Perhaps some of you are familiar with 737 MAX, a situation where a company that produces aircraft decides to not produce redundancy in a control system. Well, we’re about the distance away from the installation of certain devices that
had removed the need for utilities to visit every service
connection once a month. So wherein that photo of that
service drop, if you were to age that, you would find out
that that happened within that period.

Need to be careful, need to take on some quality
management systems. Hopefully you remember some of my
comments that were hopefully relayed by the Public Advisor
that are related to quality management, such as Deming.
Deming is an individual who Japan gives an award for
quality. I’d like to know what the quality management
system is that the Commission uses to ensure that even your
own systems are managed on quality from noticing meetings
properly and cancelling notices when they’re required.

But in general it has to be ingrained to help
control the situation and actually be willing to say maybe
a mistake has been made. We need to return to a solution
that was used by the engineers their mind as they developed
the grid. And that’s to ensure that every service
connection gets visited in a routine that will prevent the
type of items that are dealt with in my photo.

And think about sharing that earth thing with
people, so they understand size. Thank you.

CHAIR HOCHSCHILD: Thank you, Mr. Uhler.

Okay. We do have one more comment, Bernadette
Del Chiaro from CalSSA.
MS. DEL CHIARO:  Good morning, Commissioners.
Bernadette Del Chiaro, Executive Director of the California Solar & Storage Association, lovely to be today to make a brief comment. I didn’t come here to speak to this agenda item. But I feel compelled to just mention that distributed solar and storage resources, whether they are microgridded or not, are a critical resource for resiliency for the State of California. Defined not only in terms of providing resiliency for consumers, be they schools or businesses or homeowners, but resiliency for the whole community as we aggregate and are able to rely on these resources, if we are able to deploy them at significant numbers. And we’re just getting started.

So we need to make sure that we’re not looking to critical supplies of petroleum as our most critical resiliency energy resource. We need to be looking to renewable energy resources for that. And again resiliency needs to be defined for the consumer as well as the grid.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Unless there’s any further public comment, comments from Commissioners we’ll move on to Item 4, Discussion of CEC Progress on the Joint Agency Report, Charting a Path to 100 Percent Clean Electricity Future, SB 100.
MS. WEEKS: Good morning Chair and Commissioners.

I’m Terra Weeks, Senior Advisor to Chair Hochschild and Project Manager for the SB 100 Joint Agency Report.

So we have now completed our three regional scoping workshops for the SB 100 Joint Agency Report. These were held in Fresno, Redding and Diamond Bar to engage the public and solicit initial feedback on the scope of the report.

Overall, I think the meetings went well and they were a good sign of stakeholder engagement. Across the three workshops we averaged about 40 people in the room and about 150 by WebEx. And each one had a significant amount of public comment.

Each workshop included presentations from local stakeholders to help frame some of the topics we’re hoping to get feedback on and presenters included Mayor Rey Leon, from the City of Huron, the California Environmental Justice Alliance, Port of Long Beach, Blue Lake Rancheria who spoke to the aforementioned microgrid, Redding Electric and five of the California balancing authorities, among others.

The comment period on the scoping workshops just closed yesterday, so we’re still reviewing them in detail. But some of the high-level messages that we’ve heard so far include a call for a diverse portfolio of resources as well
as a mix of in-state and regional resources;
recommendations that specific technologies be included such
as large hydros, small micro nuclear, hydrogen and
bioenergy resources; incorporating resilience planning and
addressing wild fire risk such as microgrids, interactions
with the power shutoff protocols and planning for
distributed versus centralized resources; the need to
continue to address reliability and the importance of
energy storage including long-term and seasonal storage and
the critical importance of affordability and energy equity
in implementing the policy.

A number of speakers also reiterated the need to
work with community-based organizations for effective
engagement.

So, looking ahead, we are hosting our next
workshop next Monday, November 18th, at the PUC in San
Francisco. And this will be an all day workshop focused on
technologies and implementation scenarios. So this is
where we’ll begin the discussion of eligibility under zero
carbon resources, which will be led by our colleagues at
CARB. And CEC staff will also present unplanned modeling
work for the report.

We’ll also have presentations on a number of
studies that provide directional insight into SB 100
planning modeling, including the PUC’s integrated resource
planning, E3’s decarbonization study that they completed for Calpine, LA-100 by LADWP and Pathway 2045 by SoCal Edison.

In the afternoon we’ll have panelists highlighting about a dozen technologies that fall under renewable generation, potential zero carbon generation and what we’re calling enabling technologies, so including energy storage and demand flexibility. And panelists will discuss technical characteristics, technological innovation and market trends heading out to 2045.

Following the workshop next week, we’ll have a little bit of a workshop break to incorporate scoping feedback into our planning and then resume workshops in the new year.

And lastly, I just wanted to take a minute to thank our staff for all their work hosting these scoping workshops and the kickoff workshops. It’s been a lot of travel and logistics to make this all happen. So I just wanted to acknowledge the team including Siva Gunda, Aleecia Gutierrez, Mark Koosstra, Liz Gill, Jim Bartridge and Le-Quyen Nguyen as well as our Public Advisor’s Office, Noemi Gallardo and Rosemary Avalos, who have been coordinating all of our public comment. And lastly, our IT team, who has been joining the road show with us. So that’s Raj Singh, Patty Pham, Jeremy Sherlock and Joseph
It really has been a team effort, including our colleagues at CARB and PUC, so I just wanted to take a second to thank them. And we’re really still just getting started. There’s a lot of work left to do. But it’s been a great team effort so far.

And now, open to discussion.

CHAIR HOCHSCHILD: Great, well thank you so much, Tara, for all your work and the rest of the team.

And the reality is we do get different public comment when we go to different parts of the state. We heard comments in Fresno and Diamond Bar and Redding and elsewhere that are different than you get here. And I think that that’s part of the process to go out and solicit. So I’m really proud of all your work.

Other comments from Commissioners? Yeah. Go ahead.

VICE CHAIR SCOTT: I just had one additional thought on that, which is sparked from yesterday we saw "We Are the Land," which was a documentary that was put together on one of the solar projects. And one of the things that the tribal members within that movie had said was that they really wish that they had been contacted earlier about this.

And so it’s not a super profound thought for you,
but I think we really want to make sure that we are reaching out to tribes, to low-income communities, disadvantaged communities, early and often to make sure that they have as much engagement as they would like in this space.

And I know that you all are working on that. But I just was really thinking about it yesterday after the movie.

COMMISSIONER DOUGLAS: Well, yeah. I missed some of your presentation. I had to step out to run to the bathroom. But I just -- I just was catching the end and Commissioner Scott’s comments. I absolutely agree. You know, we do outreach and we reach people who know how to reach us or know how to track what we’re doing, but the effort we make to go above and beyond that really pays dividends.

And so certainly in our SB 100 work and other work that we do, certainly as an example in the tribal program that we have -- we’ve gotten a lot more proactive about that outreach. And it makes a really big difference. And so thanks for all that work.

COMMISSIONER MCALLISTER: Yeah, so just briefly. I mean I’m always -- we travel a lot around the state and beyond. And it’s incredible what a big diverse tapestry of a state we are in. And I was able to go to the kick-off
here in Sacramento, but then also up to Redding. And the
Redding utility was a great host.

And I want to commend staff and organizers for
getting really quality panelists and for getting them --
just having a representation from an appropriate breadth of
perspective. Up there, you know, it’s rural. It’s POU.

I mean obviously we had President Batjer was up
there with us. And Genevieve Shiroma, the other PUC
Commissioner was there. But also the ARB, the Balancing
Authority of Northern California, local folks. We had Blue
Lake Rancheria was up there. So that particular event was
just very contextually appropriate for that place.

And I think we need to do more of that. We’ve
been doing that for the efficiency work, the Action Plan
for energy efficiency. Getting out is just invaluable.

And hearing what people had to say in such a huge a huge
diverse state with 40 million people, you know we’re going
to get it wrong in some place if we don’t listen to pretty
much every place. And so it’s hard to generalize. There’s
no one size that fits all.

So particularly with SB 100, so I really
appreciate all the effort. And keep it up. I think we
need to dedicate the appropriate amount of resources to
really getting out of the building and getting around the
state.
MS. WEEKS: Great. Thank you.

CHAIR HOCHSCHILD: Yeah. And obviously what we’re trying to do here is not just model the policy but model the process. And Tara and I were together in Los Angeles last week at our conference about 100 percent clean energy policies with 30 states represented. They’re looking very closely at every aspect of what we’re doing. And I feel really proud of how we’re proceeding.

So thank you, Tara, for all your ongoing great work.

Let’s move on to Item 5, Appliance Efficiency Regulations Rulemaking for General Service Lamps, Pat Saxton.

MR. SAXTON: Good morning Chair and Commissioners. My name is Patrick Saxton and I’m an electrical engineer in the Appliances Office in the Efficiency Division. I’m joined by Lisa DeCarlo an attorney with the Chief Counsel’s Office.

Today, I’m presenting proposed changes to the California Appliance Efficiency Regulations for General Service Lamps.

The first part of this agenda item is a Proposed Negative Declaration finding that there are not significant adverse effects on the environment from the proposed regulations. There is a 30-day public comment period for
the Negative Declaration. However no comments were received.

At the conclusion of this presentation staff will request approval of the Proposed Negative Declaration.

I’ll provide a short background on general service lamps. California has an existing standard requiring a minimum efficacy of 45 lumens per watt for general service lamps. But it has only been enforced on A-shaped lamps, essentially traditional light bulbs. This standard was adopted by the CEC in 2008 with a contingent effective date of January 1, 2018. The standard implemented and became effective when the United States Department of Energy, or DOE, failed to meet congressional directives on general service lamps. These actions were taken pursuant to California’s exceptions to preemption that are found in the United States Code.

The result of enforcing this standard, typically called the backstop standard, was removal of Halogen A-lamps from California’s market, leaving light emitting diode or LED lamps, and compact florescent lamps or CFLs.

The U.S. DOE published two final rules that established new and revised definitions related to general service lamps in the Federal Register on January 19th, 2017. And while the current definitions for general service lamps already incorporates the 2017 Federal Revised
Definitions, staff proposes here to memorialize them into the California Appliance Efficiency Regulations, as allowed by California’s exceptions to preemption for general service lamps in U.S. Code.

After staff released its notice of proposed action in this proceeding, DOE purported to withdraw its definitions. On November 4th, 2019 15 State Attorneys General, including California’s as well as Washington D.C. and the City of New York, filed a legal challenge to DOE’s purported withdrawal of its January 19th, 2017 expanded GSL definitions.

A separate legal challenge on the same issue was filed by the Natural Resources Defense Council, Sierra Club, Consumer Federation of America, Massachusetts Union of Public Housing Tenants, Environment America and the U.S. Public Interest Research Group.

The proposed regulations clarify the types of lamps to which the existing state backstop standard for general service lamps applies. The existing 45 lumens per watt standard, which is not being amended, cannot be met by incandescent or halogen lamps. The California market would be served by LED and CFL lamps which are readily available, provide equal service, are much higher efficiency resulting in large utility bill savings and they last much longer.

This is the definition for general service lamps.
The highlights are that it increases the number of base types meeting the state definition of general service lamps, expands the voltage range and increases the maximum lumens output or brightness. General service lamps include but are not limited to general service incandescent lamps, CFLs and LEDs.

Notably, several important lamp types are no longer exempt from the state definition of a general service lamp. These lamp types are either products with high sales volumes that are actually used in general lighting applications or represent substitute products that could be used in general lighting applications.

Discontinued exemptions for reflector lamps and certain lamp shapes such as candle shaped are particularly important.

Twenty-six lamp types continue to be exempt from the state definition of general service lamps. But these are truly specialty lamps. Examples are appliance lamps, black light lamps, bug lamps, colored lamps and 22 other types.

The proposed regulations also include clarification of the definition for general service incandescent lamps and supplemental definitions.

This chart shows the results of staff cost effectiveness analysis for replacing various lamp types.
with more efficient LEDs that are available on the market. Incremental prices for LED lamps are generally low and continue to come down. Staff used conservative assumptions meaning higher incremental prices. Four of these five lamp types have a simple payback period of less than one year. And the fifth type has a simple payback of about two years. The lifetime utility bill of electricity savings ranges from $50 to $90 per lamp.

This slide shows two scenarios estimating statewide savings from the market shift from low efficiency lamp types to high efficiency lamps. The scenario for low LED market saturation was developed for the 2018 staff report on general service lamps. The high LED market saturation was developed as part of a supplemental analysis based on comments received during the pre-rulemaking that the LED market share was higher than staff original assumptions.

There’s a large range of savings resulting from the full shift of the market to high efficiency lamps depending on the assumptions of current LED market saturation.

Industry has commented that they believe even the high LED saturations scenario overestimates statewide savings. Even if that is the case, it does not impact the technical feasibility or cost effectiveness of replacing
low efficiency lamps with high efficiency lamps.

Comments supporting the proposed regulations have been received from energy efficiency, environmental, ratepayer and consumer organizations and utilities that are shown on the screen here.

GE Lighting, LEDVANCE and the National Electrical Manufacturer’s Association have filed comments opposing the proposed regulations. Their comments suggest that the CEC should stop this proceeding, because DOE has withdrawn their definitions for general service lamps, because the market transition to LEDs is occurring quickly and in their opinion regulations are not necessary. And because DOE has stated, in DOE’s opinion, California’s exception to preemption are not available. Staff strongly disagrees with these comments.

Additionally an out of scope comment on portable luminaires was received.

Staff finds that the proposed regulations provide clarifications that are technically feasible and cost effective. And that California’s exceptions to preemption for general service lamps in U.S. Code Title 42, Section 6295(i)6(a) are operative and applicable.

Staff requests approval of the Negative Declaration and the proposed regulations. I’m available for any questions.
CHAIR HOCHSCHILD: Thank you, Pat.

Commissioner McAllister, did you want to?

COMMISSIONER McALLISTER: Do we have any public comment?

CHAIR HOCHSCHILD: Should we do the public comments on this, yeah sure. Thank you, Pat. Let’s do public comments starting with those in the room, Noah Horowitz, from NRDC.

MR. HOROWITZ: Good morning, Commissioners and staff. My name is Noah Horowitz. And I’m the Director of the Center for Energy Efficiency Standards at the Natural Resource Defense Council, NRDC.

I’m here today to express our strong support for the CEC proposal to update the state standards for general service lamps or every-day light bulbs, more commonly known. The update includes three essential components, the test method, the definition of scope and the minimum efficiency requirements. And we believe the CEC got it right in all three cases.

To be mindful of time, I’d like to make four key points. One, scope and definition really do matter. CEC’s current lighting regulations only cover the bulbs that go into roughly half of the sockets in existing homes in California. CEC’s proposal which mirrors the 2017 updated definition by DOE brings into scope key bulb types which
include three-way bulbs, candle and flame shaped bulbs in our chandeliers and sconces, reflector bulbs in our recessed cans and down lights and the round globe bulbs often in our bathroom fixtures.

In some cases these might be the only bulb used in the room and they’re not some sort of niche or specialty bulb as NEMA and its member often incorrectly allege.

Secondly, it’s critically important to phase out the remaining inefficient light bulbs in our homes. Incandescents and halogens consume four-to-six times more energy than the LED bulbs that replace them while giving off the same amount of light. Given the many millions of sockets in California homes that still contain an inefficient light bulb, adopting the 45 lumen per watt backstop for bulbs not yet covered by California standards will deliver massive energy and carbon savings to the state.

As a result of these new regulations virtually all bulbs in California will soon be efficient ones, resulting in annual energy savings as Pat has shown, between roughly 750 million and more than $2 billion per year.

In addition, millions of tons of greenhouse gas emissions and other pollutants will be prevented annually.

Three, we support CEC’s proposal to update the
test methods for measuring the energy use and light output 
of the GSLs including LED lamps, so as to align with the 
federal ones.

And four and finally, we urge the CEC to maintain 
the date of sale, effective date of January 1, 2020, which 
aligns with the backstop date contained in the 2007 Federal 
Energy Bill.

Unlike other state and federal appliance 
efficiency standards, which utilize the date of 
manufacturer or a date of import prohibition the backstop 
and ICE, (phonetic) or the Energy Independence and Security 
Act -- I didn’t make up that name -- uses a date of sale 
effective date. This means that retailers may not sell 
through their existing inventories of incandescents and 
halogens as of January 1st.

While January 1 is just around the corner, the 
lighting industry and retailers have known for years that 
these standards were coming and some have chosen at their 
potential peril to ignore or oppose them.

CHAIR HOCHSCHILD: If you could wrap up.

MR. HOROWITZ: Okay. The date of sale compliance 
mechanism also makes enforcement much faster and 
representatives of the CEC can simply look at the bulb and 
know whether or not it complies.

So in closing, we commend the CEC for moving
forward with its proposal and doing its part to ensure the
transition away from energy wasting light bulbs is
completed in California as soon as possible. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Mary Anderson, PG&E on behalf of
the California IOUs.

MS. ANDERSON: Good morning, it’s almost
afternoon. My name is Mary Anderson from PG&E speaking on
behalf of the California IOUs. I am pleased to be here to
urge the Energy Commission to adopt the expanded general
service lamp definition into Title 20, California Appliance
Efficiency Regulations.

The State of California has championed forward
looking lamp standards for over a decade, first through the
implementation of state GSIL standards and then through the
adoption of the 45 lumens per watt backstop for GSLs. Now
California seeks to complete the transition to a high
efficiency lamp type through alignment with DOE’s lawfully
expanded definition of GSLs.

By implementing these regulations on Jan 1, 2020,
along with the already effective backstop the Energy
Commission will ensure that Californians realize an
anticipated 1.4 quadrillion BTUs of energy savings through
2050. The California investor owned utilities urge the
Energy Commission to adopt these definitions and implement
them as planned to secure the front-loaded savings afforded by this rule making. Thank you.

CHAIR HOCHSCHILD: Thank you.

I think that’s everybody in the room. Let’s move on to the public comment on the phone starting with Mel Hall-Crawford, if I’m pronouncing that correctly, Consumer Federation of America.

MS. HALL-CRAWFORD: Yes, hi. Good morning, Chair and Commissioners. I hope you can hear me, I have a little bit of an echo.

My name is Mel Hall-Crawford. I am the Director of Energy Programs for the Consumer Federation of America. CFA is a federation of some 250 non-profit organizations working in the consumer interest through research, advocacy and education.

I am pleased to speak in support of the Commission’s adoption of the revised 2017 federal definitions for GSLs, general service lamps. Consumer Federation, the Consumer Federation of California, Consumer Action and Consumer Reports together submitted comments into the docket in favor of the Commission’s proposed action, so I will just highlight the points made.

Over the past decade, we have managed to increase the amount of light in our lives with declining electricity consumption and bills.
The proposed action by the CEC will further benefit California consumers and businesses. As previously point out, it is projected to save them between $736 million and $2.4 billion in annual savings after the existing stock turns over and there are also important benefits for the environment.

In addition, there are broader economic benefits when the commercial and industrial sectors save on lighting costs, consumers benefit through lower costs in goods and services.

We greatly appreciate the CEC’s leadership in energy efficiency. You serve as a beacon for the rest of the country. CFA urges you to adopt the 2017 federal definitions for GSILs and GSLs.

Thank you for this opportunity to speak.

CHAIR HOCHSCHILD: Thank you. You were fading in and out there, but I think we got about 80 percent of that.
Thank you.
Let’s move on to Christopher Granda, Appliance Standards Awareness Project.

MR. GRANDA: Yes, good morning. This is Chris Granda calling from the Appliance Standards Awareness Project. I am a Senior Researcher Advocate and staff member responsible for our lighting technologies.

The Appliance Standards Awareness Project
applauds California’s history of light bulb energy efficiency standards, and supports the CEC’s expansion of the definition of general service lamps as contained in the Negative Declaration. This expansion of California’s definition for general service lamps will make California regulations consistent with similar state standards in Vermont, Nevada, Washington State and Colorado. And with federal standards that are due to come into effect prohibiting the sales of non-compliant general service lamps starting January 1st, 2020.

The U.S. Department of Energy has issued a rule withdrawing the expansion of the federal definition, but we believe that this action was illegal and will be overturned in court pending the resolution of the lawsuits mentioned by Mr. Saxton in his presentation.

By expanding the California definition of general service lamps, and enforcing the standard under this broader scope, California will save significant amounts of electricity, save lightbulb users large amounts of money, reduce carbon emissions from electricity generation and mitigate the confusion and inconvenience that the Department of Energy’s recent actions have caused for manufacturers, retailers, and consumers of light bulbs.

The effect of the California Energy Commission’s proposed changes will be to accelerate the transition from
incandescent and other legacy light bulb technologies to light emitting diodes. We see only benefits to California consumers and the environment from this change.

In addition to the savings in dollars, kilowatt hours and carbon, and reduction in other impacts, we anticipate no reduction and the availability of different lamp types to consumers.

California’s general service lamps standards came into effect smoothly in 2018, and since then we have seen many new kinds of LED light bulbs come to the market. And new manufacturers enter the market to serve consumer demand for these products as well.

Thank you for the opportunity to share these comments.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Daniel Buch from the Public Advocate’s Office.

MR. BUCH: Thank you for the opportunity to speak today. My name is Dan Buch and I’m the Supervisor of the Energy Customer Programs Team at the Public Advocates Office at the California Public Utilities Commission.

The Public Advocates Office strongly supports approval of this item, which will solidify California’s continuing leadership in Energy Efficiency and lock in a very significant stream of highly cost-effective energy
savings from lighting, reducing greenhouse gas emissions
and ensuring bill savings for customers. It is imperative
that California continue to lead the way in fighting
climate change.

If the federal government continues to abrogate
its duty to enforce cost-effective lighting standards that
protect the environment and save customers money, it is
necessary and appropriate that the State of California step
in to achieve these important goals.

California’s regulatory agencies and utilities
have been planning for this set of lighting standards for
many years, supporting the state’s energy and environmental
goals through a systematic effort to transform the lighting
market. Charting a path to broad, cost effective and
highly efficient lighting standards has been the planning
goal since the early 2000s. California ratepayers have
contributed hundreds of millions of dollars in subsidies
and programmatic efforts to spur market development,
quality improvements and price reductions.

And we have achieved those market transformation
goals. Highly efficient lighting is now widespread high
quality and inexpensive. The most recent CPUC goals and
potential studies show that there is little remaining space
for an incentive-led efficiency gains in lighting. And no
reason to continue incentivizing lighting measures that
consumers would largely adopt regardless of whether incentives are offered or not. And so it is appropriate for ratepayers to wind down their financial commitment and for compulsory standards to take over.

Based on the most recent potential end goals studies the CPUC now expects dramatic reductions in lighting incentives starting in 2020 and the Public Advocates Office strongly supports that direction. So as of January 1, 2020 the lighting products covered by this regulation will be included in a standard practice baseline in most applications. And investor owned utilities and other energy efficiency program administrators regulated by the CPUC will no longer offer incentives or subsidies. This is reflected in CPUC decisions, investor owned utility energy efficiency business plans and regulatory filings and CPUC and CEC energy savings and procurement planning forecasts.

This is the right policy. It safeguards ratepayers from paying for energy savings that would occur without subsidy. And it allows the CPUC to direct needed resources to transforming new markets and initiatives like building decarbonization. And importantly, CPUC policy sunsetting incentives for lighting is not legally dependent on standards approval. The Public Advocates Office anticipates that even if these standards were to face legal
challenge, the sunsetting of lighting incentives would continue to be CPUC policy. We do not anticipate nor would we support a resumption of ratepayer funding for lighting after January 1, 2020.

Thank you for the opportunity to speak at this meeting and your continued leadership in energy efficiency.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Laura Gildengorin. Thank you, let’s move on to Laura Gildengorin, California Association of Ratepayers for Energy Savings.

MS. GILDENGORIN: Thank you, Commissioners. My name’s Laura Gildengorin and I’m speaking on behalf of the California Association of Ratepayers for Energy Savings, commonly known as CARES. CARES is a nonprofit association of California ratepayers dedicated to affordable and sustainable energy, on a mission to create and maintain a healthy environment for all Californians.

CARES is participating in today’s meeting, because it wants to show its strong support of the CEC’s proposed action to expand the GSL definition to be coextensive with the Obama-era federal definition including the 45 lumens per watt efficacy standard and updating the relevant test procedures. What I will refer to as the CEC’s proposed action.

Ask California energy ratepayers, CARES members
have two main concerns. The first, preserving the
environment we all live in. And second, saving money on
their energy costs. The CEC’s proposed action addresses
both those concerns and makes tremendous improvements to
California energy policy. By our estimates, conserving up
to 13,600 gigawatt hours of and saving consumers an average
of $210 per household per year. Those are meaningful
savings that Californians simply don’t have the luxury of
giving up.

As Mr. Saxton mentioned, the CEC’s proposed
action is expressly provided for in the language of the
Energy Independence and Security Act of 2007 in
California’s preemption exceptions. And is undoubtedly
the next progressive step towards significant financial
relief and environmental protections.

For these reasons, and those stated in the CARES
comment letter, CARES fully supports the CEC’s proposed
action. Thank you for your time.

CHAIR HOCHSCHILD: Thank you.

I think that concludes public comment. Let’s
move on to Commissioner McAllister.

COMMISSIONER MCALLISTER: Okay. Thanks, Chair
Hochschild.

So thanks Pat for that presentation and all the
commenters for being here on the line today. I just have a
brief statement really. I certainly would echo the historical context mentioned by some of the commenters. I believe this item fits perfectly within California’s history along these lines as well as federal history, and our history collaboration with the federal government to promote efficient lighting.

Here, we are doing exactly what we have said we would do since essentially 2007, and certainly since 2017. This is a straight conformance item with the proper federal GSL definition. The backstop applies and anti-backsliding provisions also apply. Commission staff and Chief Counsel will continue to support the Attorney General’s Office in its efforts in the courts together with other state partners.

So in sum, this rulemaking clarifies the scope of our enforcement authority. It does not establish new or amended regulations. This merely clarifies the scope to which our existing 45 lumens per watt standard applies.

I commend the lighting industry to take note of that. I want to thank staff and then Counsel, certainly CCO’s Office, the Executive Office as well, for all of their leadership and collaboration on this. So I strongly support this item.

CHAIR HOCHSCHILD: Thanks. Any other comments from Commissioners?
Hearing none, is there a motion?

MS. HOUCK: Chairman? Just really quick before you vote, I noted that there is a typo in the agenda. That it should be Title 20, Section 1004, not 1007. The docket number is correct and all the backup material has the correct code, but I just want it to be clear for the record for the vote.

CHAIR HOCHSCHILD: Thank you for catching that, Darcie. So with that correction --

COMMISSIONER MCALLISTER: We have to do a Negative Declaration and then the motion itself, right?

MS. DECARLO: Yes, correct. In that order.

COMMISSIONER MCALLISTER: Okay. So I’ll move Item 5 Negative Declaration.

CHAIR HOCHSCHILD: Okay. Is there a second?

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.

COMMISSIONER MCALLISTER: I’ll move Item 5b.

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: Second by Vice Chair Scott.

All in favor say aye.

(Ayes.)
CHAIR HOCHSCHILD: All right, that motion passes unanimously. Thank you.

MR. SAXTON: Thank you.

CHAIR HOCHSCHILD: Thank you to the staff for all the work on that.

Let’s move on to Item 6, Sacramento Municipal Utility District Community Solar Program.

MR. PENNINGTON: Good morning, Commissioners. My name is Bill Pennington. I’m here today to present staff’s review of SMUD’s application to administer a CEC-approved community solar program for showing compliance with the 2019 Building Standards’ onsite PV requirements.

In 2008, in collaboration with the PUC and ARB, the Energy Commission launched a 10-year effort to require both high energy efficiency in solar in new homes by 2030. That effort culminated in 2018 with CEC adoption of the first Building Standards in the U.S. to do this. This accomplishment established an entirely new class of homes in the state. In one fell swoop, it cut in half the energy consumption of California new homes and simultaneously cut the carbon footprint in half. It also took the first steps to make these homes demand flexible.

Throughout the 10-year period the CEC IEPRs gave guidance regarding how to establish these new standards. The 2015 IEPR called for the creation of an option for...
builders to be able to use offsite solar instead of rooftop solar as a necessary feature of the entire standards.

In meeting this IEPR guidance it was recognized that rooftop solar had many important attributes that had given builders the ability to differentiate their product in the market. Many builders have incorporated rooftop solar in their homes in response to strong consumer demand for these attributes. That consumer demand will not disappear due to establishing an offsite solar option. It will be up to the marketplace to sort out, which is the better choice for any individual home.

The IEPR established a limited set of criteria that community solar should meet and it’s on the slide here. It must be administratively workable for building departments, the CEC and others involved. It must be cost effective. Being served by community solar cannot result in a home’s energy bills being higher than a regular utility customer’s energy bills.

The community solar resource must exist at the time the home was permitted. The building department must be able to verify the community solar during the same time period they are verifying the other features of the home. Community solar output that is assigned to the home must offset the energy use that would have occurred with the rooftop system. And the community solar output must be
dedicated uniquely to the new home. Double-counting cannot be allowed.

Establishing the compliance option for community solar, staff made sure to address these IEPR guidelines. Staff first evaluated several existing or hypothetical approaches for delivering offsite solar compared to the IEPR guidance. These approaches considered different potential administrators of a community solar program including utilities, builders, solar developers or local governments. None of the approaches that existed in California at that time, or that we thought about hypothetically, met all of the IEPR guidance.

Staff proposed setting performance criteria in the regulations that align with the IEPR guidance, enabling any entity to come forward with a community solar program that met the criteria to qualify for CEC approval. Staff wanted to set up the most flexible approach possible with the hope that someone would bring forward a community solar program that met the IEPR guidance.

Staff did not add any additional criteria that would limit that flexibility. There were no minimum or maximum requirements for how big the community solar resource had to be. There were no requirements regarding where the community solar resource had to be located. There was no requirement that the community solar resource
had to be new at the outset of the program. There was no requirements that the community solar resource had to provide any other attributes.

It might be good to recognize this is a performance standards option, and the sole metric for determining performance standards options that plays throughout the standards is energy use. And so basically the community solar needs to fundamentally match the energy use. There may be a whole bunch of other attributes in the world related to features that might be useful and productive, but those don’t play and the Commission doesn’t regulate them in general for performance standards compliance options.

So staff has reviewed the SMUD application against the requirements set in the regulations the qualifying for CEC approval. the following two slides I am going to show here walk through that review.

SMUD commits to meet all of the enforcement agency requirements making sure that the resources exists at the time of permit and avoiding unnecessary effort on the part of the building department.

SMUD commits to meeting the energy performance requirements demonstrating that the energy performance of the community solar resource meets or exceeds the performance of rooftop solar on each home.
SMUD commits to working with staff to properly model the community solar resource and compliance software. SMUD commits to meeting the dedicated energy savings requirement, making sure that the community solar output results in the correct energy savings being dedicated to the home. SMUD guarantees that the home’s energy bills will be reduced by more than the cost for the home to participate. This is not a premium program.

SMUD commits to meeting the durability requirements, ensuring that the community solar output will be dedicated to the home for 20 years.

SMUD will require the builder to record CCNRs that run with the land in the deed transferring title for each participating home. SMUD also requires the builder to provide disclosure to all perspective buyers regarding the 20-year obligation for their home.

SMUD commits to meeting the additionality requirement, ensuring that the community solar allocation to the home is in no way double counted. This requirement means that the community solar allocation cannot at the same time serve the home, and also be used for other purposes. The energy savings benefits cannot be simultaneously attributed to other homes or transferred away from the home. SMUD makes several commitments to ensure no double counting.
SMUD commits that the community solar allocation to the home will not be used for meeting RPS. SMUD will retire bundled recs on behalf of each home using separate WREGIS accounts to track the community solar shares. SMUD will obtain certification from the Center for Resource Solutions national greening program, which includes an annual independent audit to verify no double counting.

SMUD will retire carbon allowances on behalf of each home through ARB’s voluntary renewable energy program. Also, SMUD with all RPS rules, both in statute and in CEC regulations.

SMUD commits to meeting all of the accountability and record-keeping requirements, maintaining records, demonstrating compliance with the CEC’s requirements for a period of 20 years for each participating home. SMUD will provide access to anyone that the CEC approves to check that SMUD is complying with CEC requirements.

After a thorough review of the SMUD application, staff finds that it makes all of the CEC’s regulatory requirements. Both for CEC approval of their community solar program, and for approval of SMUD as the administrator to make sure that there is ongoing compliance with the requirements for a period of 20 years for each participating home.

Staff recommends approval of SMUD’s application.
That concludes my presentation and I would be glad to answer any questions.

CHAIR HOCHSCHILD: Thank you.

Why don’t we, unless there are immediate questions, turn to SMUD if you would like to make some opening comments, Tim?

MR. TUTT: Thank you, Chair, Commissioners.

I’d like to start off just by thanking the staff for working well with us over the last 18 months as we prepared this application. It was a pleasure to go through the back and forth with them and get the details of the application right to meet all the requirements.

I would like to say SMUD has a strong and long commitment to solar power. We have 210 megawatts of customer rooftop today and we expect that to grow to over 500 megawatts by 2030. In our integrated resource plan that we provided to the Energy Commission, we are expecting to add 1500 megawatts of utility-scale solar by 20140, with 1,000 megawatts of that locally.

And I would like to say that you may have heard that this is incompatible with the mandate. I don’t think that’s the case. The mandate adds solar, is triggered by the construction of a new low-rise family home or building. And that solar can be added either as rooftop or through an approved community solar option as staff has suggested. So
in either case, solar will be added to California’s amount of renewable generation, carbon reductions will occur.

We do have to have some resources that exist at the time the first house signs up for the program, otherwise we can’t serve the program. So we have existing resources as a bridge and as a backup in case one of our new resources that are being constructed, and were procured in part to serve these SolarShares applications or offerings that we have, has a problem and can’t generate. We have a backup in the portfolio of resources that we have.

Nevertheless, we are adding significant new resources to serve this program, 87 percent of our portfolio is local. Over half of it is new, under construction today. We expect additional new solar to be constructed and our service territory as the years go on, so that we continue to be able to supply this program with new solar.

We will be retiring recs as staff suggested in WREGIS, and we fully expect that all of the recs will likely be from new resources when we retire at them.

Thank you, and we urge your approval of the application.

CHAIR HOCHSCHILD: Great, thank you.

Let’s move on to public comment starting with Bob
MR. RAYMER: Thank you, Mr. Chairman, Commissioners. I’m Bob Raymer representing the California Building Industry Association. And for the sake of time, I’ve also been asked to testify on behalf of the Business Properties Association, the Building Owners and Managers Association and most importantly, the California Apartment Association who has a distinct interest in the community solar option.

The CEC’s adoption of a solar mandate for new homes and apartments represents the most significant change to our state Building Code in the history of our state Building Code. And I have been there for most of the history of the state Building Code.

Leading up to the adoption in May of 2018, the CEC had to balance several competing and urgent priorities, significantly reduce greenhouse gas reductions, emissions in new residential construction and do it in a way that does not derail California’s recovery from the worst housing crisis in the state’s history. At the end of the day you did it, recognizing that in a state the size of California one size does not fit all.

CEC worked with industry and other stakeholders to provide us with a full range of compliance options. In general terms, the CEC has allowed us three compliance
paths to meeting the solar mandate. Each of these three options has their pros and cons. The for sale (phonetic) option costs the most, but the home buyer gets 100 percent of the solar benefit. The lease option doesn’t impact the upfront costs, but then the buyer doesn’t get the full benefit of the solar. And in those cases where the builder needs to comply with the mandate without putting solar on the roof, there’s the community solar option.

Each of these three options are needed, and most importantly each of these three options significantly reduces the greenhouse gas emissions associated with a dwelling construction. And at the end of the day that is the single most important goal of the new solar mandate. And as the term applies, all three of these compliance paths are options that the builder can choose depending on their needs and market strategy.

The SMUD SolarShares Program, in our view, is a good example of one approach to providing community solar, but it’s certainly not the only approach. My industry strongly supports the SMUD SolarShares Program. This support should not be construed as the preferred method of providing community solar. It is simply a method of providing community solar, but we do support it. And at the present time it is the only community solar program being considered by the CEC.
We anticipate that many other private entities besides utility companies will be submitting requests for certification of their community solar program. For example, it is highly likely that developers will be partnering with third-party solar providers and local jurisdictions in the future establishment of community solar programs. And CBI hopes that happens much sooner than later.

California’s new solar mandate takes effect in January 2020, and the SMUD SolarShares Program is the only Community solar presently under consideration by the CEC at that point.

CBIA supports CEC certification of this program and we will strongly support certification other private entities who submit Community solar programs in the future.

And I would like to leave you with two thoughts, California will see approximately 10,000 fewer units, dwelling units built in 2019 than we did in 2018, so California’s housing crisis is with us for the long term. It’s unfortunate, but that is with us for the foreseeable future.

And lastly, thanks in large part to the recent public safety power shutoffs, the marketability of rooftop solar and battery storage is going to surge in the foreseeable future. I have been inundated with calls from
both the media and our own members about pairing these two
devices. So the for sale option paired with battery is
here to stay. I do not see community solar overtaking that
any time soon. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Bernadette Del Chiaro from the
California Solar & Storage Association to be followed by Ed
Smeloff from Vote Solar.

MS. DEL CHIARO: Commissioners, thank you again
for giving me the opportunity to present before you today.
Again, my name is Bernadette Del Chiaro. I’m the Executive
Director of the California Solar & Storage Association. We
are a 40-year-old business group, the largest and oldest
clean energy business group in California representing over
500 manufacturers and installers, building California’s
clean energy future roof by roof and farm by farm.

We’re here in strong opposition to the SMUD
proposal before you and ask you to vote no. There are
three main reasons for that. One is the SMUD proposal will
not necessarily bring new renewable energy online for the
State of California. According to SMUD’s own documents,
they have enough solar already installed in their projects
and ready to be allocated to cover all the anticipated new
construction in the SMUD territory, for I believe, about
seven years.
Secondly, SMUD right now owns and operates several natural gas power plants here in the region. Their local sources of energy that SMUD refers to are largely fossil fuel, many of them. And there are no plans according to their annual report and long-term planning to shutter those natural gas power plants even beyond the 2040 timeline, which they are presenting to the public to be achieving a 100 percent clean energy future for Sacramento.

I think you need to look closely under the hood at where SMUD is headed and watch the intention is behind this initiative. We as the solar industry have just come off of a six-month battle with SMUD over net metering and the future of rooftop solar. And the economics of rooftop solar in which SMUD staff have indicated that they see distributed generation behind-the-meter resources as direct conflict to SMUD’s future.

There’s a really big problem here and we think this proposal needs to be shut down. And that SMUD needs to go back to the drawing board. We think the Commission needs to greatly restrict the usability of this option in compliance with the Title 24 mandate.

I printed out, on the way here, SB 1. It was 13 years ago, reeling from the last electricity crisis that California’s Legislature in a bipartisan fashion, passed the Million Solar Roofs Initiative. That initiative has
the three main principles behind it. One, it had an exclusive focus on consumer-controlled behind-the-meter solar energy resources, exclusively. It put in motion, and directed this very body in 2006 to put in motion the very regulations you adopted last spring to build new construction with solar as the most logical, common Sense direction for California to go.

It’s how you make it more affordable. It’s how you make it accessible to the consumer. Just like your good work on Energy Efficiency Standards, if left to the marketplace you guys know a marketplace will not always respond in what’s the best interest of the consumer or the public or the environment.

The whole idea of a mandate is to make something standard. Community solar should not be considered a standard feature of new construction in place of behind-the-meter stresses owned or controlled by the consumer.

The third is a principal of SB 1, is the fact that we cannot trust our utilities to put in place the programs necessary to give consumers access to onsite renewable energy. That is implied by the fact that there is a whole section on municipal utilities needing to be mandated to comply with SB 1. If we could rely on our public utilities to do what’s best by their own consumers we would not need the Legislature to mandate them to do
these things.

I want to --

CHAIR HOCHSCHILD: If you could wrap up?

MS. DEL CHIARO: Sure. I want to point out just
one fact for you, we have about 1 million rooftop solar
systems in California out of about 17 million buildings.
That’s about 6 percent of California’s buildings have some
form of self-generation supply parrot that is a far cry
from the goals that we have put in place for ourselves here
in California even going back to 2006. We have a long way
to go.

And we felt that this proposal will undermine the
mandate by virtue of the fact that PG&E has to put in
support for it. The fact that the builders would like to
see this passed. We think that this will actually revert
us back to the previous market and harm the goals of this
initiative.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Ed Smeloff from Vote Solar to be
followed by Steve Campbell. If we could ask all the
speakers to please, we do have a number of speakers, to
stay within time.

Thanks, Ed, go ahead.

MR. SMELOFF: Good afternoon, Mr. Chairman and
Commissioners. I’m Ed Smeloff. I’m here speaking on
behalf of Vote Solar. I’m speaking against the issue that’s before you, the SMUD SolarShares Program.

But first, I wanted to start by commending SMUD. I think SMUD is doing a very good job of going out and procuring utility-scale solar. And we’re seeing this happen across the country where utility-scale solar now is lower cost than the existing sources of generation. And it enables utilities, we are seeing it throughout the Western United States, to retire to older coal and natural gas plants. And that’s a positive.

SMUD should be out there procuring even more earlier, because it’s enabling it to lower the cost of electricity for its ratepayers. We know this, because they’re able to use their utility-scale solar to lower the cost to new homeowners. But SMUD should be out there procuring enough to lower the costs for all of its electric consumers, not just new homeowners. Why can SMUD do this? Why can they shift the cost and only provide the benefits of lower costs to new homeowners?

They can do it for two reasons. One, they set rate for Sacramento, so they’re the ratemaking authority. And two, they have complete monopoly control of the distribution system. So the combination of those factors allow it to offer a small discount to new homeowners and not to offer it any discount from this lower-cost utility-
scale for the rest of its ratepayers. So SMUD is exercising its monopoly power as the distribution utility to favor its program that is before you.

So if you’re a home builder in Sacramento, do you really have a choice? Do you really have flexibility? Can you go out there and get any other community solar? No, you can’t, because SMUD will not allow you to wheel across its distribution system. SMUD does not have a program where it credits a community solar developer and allows them to offer that to new home builders. SMUD does not allow master metering, so that a site can be built on the same premises where new residential buildings are being built and allow that to be sub-metered to its customers. So there is no other option, SMUD is using its monopoly control of the electric distribution system to squeeze out and prevent other solar community options from being utilized in Sacramento.

So I wanted to leave one last thought, and that is I know you all understand very well that climate change is a phenomenon and it’s backed up by science. Still, I think in California there is still a lot of denial about the impact, the immediate impacts right now that we’re seeing from climate change. We’re seeing the driest falls in recent history, the last three years we’ve had dry Octobers and Novembers.
My point is you heard from Laurie ten Hope that we need to pay attention to resilience. There’s a lot of unexpected things that can happen in the future. We need to pre-position asset solar and storage, so that they can be used to protect communities and be involved in microgrids as we develop the control systems.

This program does nothing, nothing whatsoever to improve community resilience.

CHAIR HOCHSCHILD: Thank you.

MR. SMELOFF: I ask you that you tell SMUD to go back and work with the solar industry, homebuilders, and we can come up with something better.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Steve Campbell and Matt Brost. And we do have a lot of public comment, so I would just ask everyone to please keep to the three minutes. Thank you.

Go ahead.

MR. CAMPBELL: Hello, my name is Steve Campbell, a Policy and Business Development Policy Manager at Grid Alternatives, a mission-based nonprofit dedicated to bringing the benefits of the fast-moving clean energy economy to low-income and disadvantaged communities across California including customers of SMUD.

Thank you, Commissioners, for listening to Grid’s perspective on this important topic. Grid is concerned
with the level of bill reduction SolarShares subscribers would see under the SolarShares Program. SMUD explain in the proposal that, “Participants are not guaranteed to see net benefit, in each month that they participate, but are guaranteed to see net benefit of at least 5 kW in each year they participate.”

Grid worries that some SolarShares subscribers may actually experience a higher monthly energy bill, which erodes financial security and results in unpredictable and unstable energy costs. Furthermore, annual energy bill reductions based on $5 per kW per year or roughly $15 to $20 per year for a SolarShares subscriber, is significantly below what onsite solar customers, a grid customer or not, typically receives from onsite solar resources.

Grid’s customers experience meaningful monthly and annual energy bill reduction or Bill savings. For instance, as part of the Solar on Affordable Solar Homes, or SASH Program, each customer is guaranteed to, “Receive at least 50 percent of the savings as compared to the standard utility rates from the solar generating equipment. Grid’s customers frequently report annual energy burden reduction in the 70 to 90 percent range. This level of energy bill savings provides predictable and stable long-term energy costs directly helping to improve available customers’ economic resiliency. To adjust the
variable savings provided by SolarShares, Grid recommends creating a low-income customer carve-out and increased savings guarantee.

Grid notes that the SolarShares Program does not provide a differentiated benefit low-income customers and non-low-income customers. And as discussed would be providing savings far below what onsite solar can provide. To address this, Grid recommends that tenants of new affordable housing units be provided monthly energy bill savings equivalent to what onsite solar would provide.

At this time Grid recommends the SolarShares not be approved until low-income customers can be guaranteed to receive meaningful and stable long-term savings. Thank you.

CHAIR HOCHSCHILD: Great. Thank you.

Let’s move on to Matt Brost from SunPower, followed by Harold Thomas.

MR. BROST: Chair Hochschild, Commissioners, staff, my name is Matt Brost. I’m the Senior Director of Sales at SunPower Corporation’s New Homes Division.

In 2005, we opened a division to service homebuilders and in that time we’ve now, over the course until today, installed close to 50,000 homes with these home builders. A bit stretch of that period was the New Solar Home Partnership, where the state invested nearly $400 million in helping builders bridge the gap between the
code then, and the future code that we were all aiming
towards which was zero net energy homes in California.

We invested tens of millions of dollars as a
company and I’m sure other companies, like ours, also
invested tens of millions in people, training, workforce,
products, services, solutions, you name it the investments
have been huge.

Unfortunately, and then I would say these
investments have also driven the price down. So, we
started at $8 a watt, we were down to $3 a watt, roughly,
and so we have made excellent progress in that direction.

However, the option that we’re being presented here
with today, with the utility community solar seems to me
that all of those investments in some ways are for naught.
We could have done this probably ten years ago, if we were
looking to do that, but that’s not the direction that we
had been going.

I’ve participated in California Energy Commission
meetings for the last 15 years and during that time
community solar was really never mentioned only until the
2019 standards, where it was very loosely defined as we
were putting together the standards. And in examples that
staff used was most commonly where builders might like to
use adjacent parcels, or undevelopable land that they may
want to do a program like this with. It was not really
iterated in the way that we’re talking about today.

I also feel that, and having worked with builders, we talk about that this is a choice. Unfortunately, builders are making the choice on behalf of homebuyers who don’t have that choice later. And when they’re making this choice, they’re foregoing the ability to participate in solar, take advantage of tax credits, take advantage of much more significant bill reductions, resiliency through adding storage to their systems, and coupling those together.

So, you know, not only for the industry, but also for the customer I think we really have to reconsider what community solar means.

And I will just conclude on -- I’m obviously looking for a no vote here but, at a minimum, taking a minute to not vote on this and defining what community solar really means, I feel that this is extremely precedent setting in the decisions that you’ll make today, and not just here, but with respect to other things happening in California. And I believe we should first sort that out and then move forward with what community solar projects would meet this really important code.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Harold Thomas, to be followed by Don Osborn.

MR. THOMAS: Thank you. I’m a retired attorney. I
live on Portola Way in Sacramento. I’m a ratepayer and a solar owner.

Perhaps my problem is with your guidance, the IEPR guidance, to particular items. One that there is no location restriction. So, really, what we’re doing -- I would ask, why should I, as a ratepayer, be financing commercial solar in Nevada, or Wyoming, and perhaps Bakersfield, and perhaps destroying Kit Fox habitat, or destroying Desert Tortoise in the desert. Or destroying, or certainly -- really, not knowing where the quality and quantity of that commercial solar is, and it’s coming out of my pocket, and my neighbors. And this is inappropriate. The no-location restriction is too open-ended. That needs to be changed.

Secondly, the correct size for offsetting energy use by residents. I went to a meeting put on by SMUD, Monday night, and to really understand -- this is complicated stuff to understand what is this proposal about. I learned that 65 percent of the energy that will be produced by the new home will be covered by this program. Not 100 percent.

So, if we’re going to meet these standards, we’re now restricting each, on an average basis 65 percent of each home will be covered in this new program. Why is this not 90 percent or 100 percent? Why have you accepted 65
SMUD’s point was, well, that’s the minimum. Title 22 allows me to do this as a minimum. And my response was why are we -- how are we going to meet these climate goals if you’re just going at 65 percent?

So, I think we need to go back to the drawing board for a redo. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s hear from Don Osbourne, from Spectrum Energy, followed by Lee Miller.

MR. OSBOURNE: Hi. I’m Don Osbourne, President of Spectrum Energy. I ask you not to give approval to SMUD’s proposal today.

I am a SMUD customer and I ran the SMUD solar programs in SMUD’s heydays of the ’90s and early 2000s, when SMUD was the undisputed leader in the commercialization of PV, especially distributed, so-called rooftop PV.

So, I treasure the groundbreaking work we did at SMUD back then. I applaud SMUD’s continued development of utility scale PV. But I’m concerned over SMUD’s dismissal of distributed PV. Both are desperately needed.

I am concerned that our own SMUD may undo much of the good work of the Commission by crippling the solar mandate before it even gets started. SMUD’s proposed program should fail to earn your support for many reasons.
SMUD’s arguments in favor of SolarShares are all technicalities.

Last year, California told the world it was requiring rooftop solar on new homes. This is how the world understands it, for good reason. It would be an embarrassment to the state and a setback for clean energy if you let this through on technicalities.

For multi-family housing, rather than being an option to help renters access solar, it becomes, di facto, the only path to the SMUD’s lack of virtual net metering that all the IOUs have to have. In practice, it will do almost nothing to help renters cut through electricity bills. Under SMUD’s rules, even alternative community solar projects would be ruled out.

SolarShares provides no significant savings to either developer or tenants. This does not pass the laugh test. This is clearly not the goal of the solar mandate.

Onsite, customer-owned solar can significantly provide greater savings, while also providing a range of distributed benefits. These savings, both for solar customers and all customers at large can be further enhanced by solar plus storage. However, due to SMUD’s onsite solar sizing limitations, customers locked into SolarShares commitments would effectively be prevented from onsite solar-plus-storage systems for 20 years.
Most importantly, approval by the CEC for SMUD’s SolarShares program, as it’s proposed, would gut the new mandate and that would quickly spread to other POUs, who are watching closely. It may even spread to IOUs. No coincidence that PG&E just sent in a letter of support for SolarShares.

SMUD should not be allowed to undermine the solar on new homes mandate before it even gets started. I strongly urge you to use your discretion to either reject SMUD’s ill-conceived SolarShares program or at least send it back to SMUD for further rework, and encourage them to work with the community to craft a better plan in line with the goals of the CEC Solar Mandate, including urging the adoption of VNEM for multi-family housing so there is customer choice. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Lee Miller, followed by Rick Codina.

MS. MILLER: My name is Lee Miller. I’m a rooftop solar customer and I live in South Sacramento. My request to the Commission is to reject SMUD’s SolarShares proposal.

The problems that I personally have with the SMUD proposal is it limits choices. The new home buyer finds their perfect home, in a school district and a neighborhood that they want to live in. It’s their Barbie dream house. The builder is in the SolarShares program, the customer
wants to buy their own panels. They can’t and they have to find another house.

Customer choice, I don’t think so.

SMUD says that they are supplying those homes with energy from SMUD’s solar farms. The farms would be built — these farms would be built anyways. SMUD states, at the meeting, 350 SAC last Monday, that they would not be able to supply all the energy to their SolarShares customers with those farms. SolarShares doesn’t even come close to the rooftop solar benefits of the customer. SolarShares is $15 to $20 a year.

My husband and I are both retired, on fixed incomes. We purchased our house almost two years ago. With the solar system prices coming down, we were finally able to afford rooftop solar and folded the investment into our mortgage. Our household savings is approximately $1,800 a year. On our SMUD bill, in our Elk Grove home, our SMUD bill averaged about $200 a month. Our bill with our new home currently runs us about $55 a month.

SMUD’s latest plan is just as bad as the proposal last spring to crush users with a new monthly fee, which was scrapped after public outcry.

The SolarShares proposal is nothing more than a leasing program by a monopoly. SMUD reaps all the benefits and customers get little in return. To call this a
Community SolarShares program is deceptive and a scam.

The California Energy Commission has the power to deny SMUD’s proposal, but will you? It makes sense that you do since you are the officials who created the Solar Homes Program to begin with, and it’s your job to approve programs to support the spirit of the solar mandate. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Rick Codina, followed by Christopher Worley.

MR. CODINA: Thank you, Commissioners. My name is Rick Codina and I volunteer with 350 Sacramento, working in particular with electricity issues as they affect climate change.

I retired with more than 34 years in the utility and energy industry, starting at Lawrence Berkeley Lab in the ’70s. Most of my utility experience is with SMUD, where I focused on resource planning and rate design.

First, let me say that the proposed Neighborhood SolarShares is an elegant solution, but only to a very narrow problem where the building site cannot host enough solar production to meet Title 24 requirements. My fear is that this option, if approved in its present form, would be an encouragement for builders to avoid onsite generation, even where rooftops or other suitable sites are available.

And why not? Neighborhood SolarShares allows the
builder to avoid the upfront cost requirement for the PV installations, while transferring the burden of payment to the occupants over the next 20 years. Yes, the program, utilizing VNEM at SMUD’s chosen PV farm, will match Title 24’s allocated load allocation and the customer will receive the RECs, which assures them of their solar participation.

But I see several issues with this approach, in instances where PV otherwise can be installed on the site. First, the customer may see very little remuneration. The illustrative bill example, for example, shows a hefty charge. They may only get $20 for a 4 kW system, equivalent to less than a Starbucks’s coffee every month.

Secondly, the arrangement, this is the opportunity for true distributed benefits, lowering loads on the transformers and saving on line losses from remote generation sources.

Thirdly, the program would not encourage using onsite PV production for a storage facility, which could be used to help offset electrification at multi-family developments, or demand shift including electric, or electric car charging, thermal storage for heat pump water heaters, or centralized heat pump boiler systems.

My final point addresses the long-term contribution of distributed PV production. In our testimony to SMUD, on
their IRP, we have heard repeatedly the utility cannot go beyond their regulatory baseline because they’re going to run out of land to place PV inside the territory. Yet, they’re turning their back on available space on customer property, which can make a substantive contribution to SMUD’s SP 100 goals, without displacing the land it has designated on its solar farms.

So, finally, I would say that SMUD’s Neighborhood SolarShares proposal, which would utilize VNEM, should be set up as another alternative so that builders can use that VNEM for PV installations at their building sites. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Christopher Worley, to be followed by MC Rich.

MR. WORLEY: Good afternoon. My name is Christopher Worley. I’m Vivant Solar’s Director of Rate Design. Vivant Solar is one of the nation’s largest residential rooftop installers, operating in 23 states and the District of Columbia. We have installed and served thousands of customers in California since 2012.

Vivant Solar has new home construction commitments in SMUD’s service territory. Homeowners can choose to role the cost of a system into their mortgage, but we expect many will choose the power purchase agreements. The PPA we will offer will provide an estimated levelized value of $57...
per watt per year, assuming a 2 percent escalation of utility rates. Investing in onsite solar makes owning a home more affordable by lowering the total cost of homeownership.

The proposed SolarShares program does not provide equivalent benefits to customers, to the grid, or to the environments. The estimates $5 per watt per year customer benefit is over ten times smaller than what a homeowner could receive by installing rooftop solar.

Installing thousands of rooftop solar systems avoids and defers transmission investments and thousands of smart inverters provides local voltage and frequency supports. And thousands of behind-the-meter energy storage systems shift load and reduce peak demand. And these investments make California’s grid more resilient.

In contrast, SolarShares relies on utility scale solar with a single point of failure transmission line. And serving the same customers would mean SMUD is over investing in generation and transmission to offset line loss.

SolarShares looks like a utility monopoly trying to offer an inferior service to undermine a competitive market.

Many of Vivant Solar’s competitors are here in the room. If Vivant Solar doesn’t provide great savings at a
reasonable cost, we lose business to Sunrun, to Tesla, to SunPower and others. Our customers benefit because companies like ours figure out ways to drive down costs and increase customer satisfaction. SolarShares prevents the installation of solar and storage by eroding the value of installing onsite solar and storage, and locks homes into the program for 20 years. And that’s going to harm homebuyers 10 or 15 years down the road.

    If the SolarShares program is approved, then solar sellers, like Vivant Solar, will compete with a public agency that uses ratepayer funds to offer an inferior service, which undermines a competitive market and undermines the New Home Standard.

    Vivant Solar urges you all to vote against this SolarShares program. Thank you.

    CHAIR HOCHSCHILD: Thank you. Let’s move on to MC Rich, followed by Mark Abrams, from Solar Edge.

    MR. RICH: Thank you. Last I checked, I was Al C. Rich.

    Anyway, I’m the president and founder of ACR Solar. We’re a manufacturer out in Carmichael. I have 40 years of solar experience. And I just wanted to say that from a standpoint of equivalency economics for a homeowner, SMUD’s SolarShares program is a lot more expensive than rooftop solar. And the homeowner, for all practical purposes,
forfeits the option to have storage backup added in the future, which would dramatically increase both the value to the customer and to the grid at large.

The spirit of the hard fought for Solar Mandate is defeated and society loses yet another vital energy resiliency opportunity to have pollution reducing PV panels and power producing storage on thousands of new residential homes.

This power and storage costs SMUD, the builder, and the homeowner nothing. For an average 4.2 kilowatt builder solar system, I understand SMUD’s SolarShares program is guaranteed to save the homeowner $20 per year, which equates to $400 over 20 years. With no government rebates or energy efficient mortgage benefits, volume builders can install 20-year performance guaranteed PV systems at low cost.

For example, for a 4.2 kilowatt builder installed system would cost probably around $8,000. Wrapped into a 30-year mortgage, the average cost of 4.2 kilowatt system is about $528 and produces a $739 yearly solar savings. So, minus the $528 dollar yearly mortgage cost, the homeowner is $211 ahead year one.

This savings grows as SMUD’s per kilowatt hour increases over time. In 20 years, at a 4 percent annual increase in SMUD’s kilowatt hour rates, the average would
grow to over $550 per year for the average annual savings of about $385. Times 20 years is $7,700.

Compare this to SMUD’s $400. No equivalency.

Thus, under the most conservative of rooftop solar estimates, rooftop solar costs the builder and the homeowner nothing, and will save over $7,700 in 20 years, as opposed to the SolarShares’ $400.

Conclusion. It is clear that there is no equivalency as rooftop solar costs far less than SMUD’s SolarShares program by providing a much greater, every growing income to the homeowner, as well as other, very important homeowner and societal benefits.

SolarShares and community solar should only be used in the case where shading or others issues prevent the use of high value solar, rooftop solar.

Thank you for the opportunity to speak. And please reject the SMUD’s SolarShares proposal as it stands. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Stacy Kalstrom. Sorry, Mark Abrams, first, and then Stacy Kalstrom, if I’m pronouncing that right. Yeah.

MR. ABRAMS: Thank you very much. My name is Mark Abrams and I’m with a company called Solar Edge, and we are the world’s largest manufacturer of smart inverters for residential. And I’m here to talk about one of the biggest
benefits that only distributed solar systems can bring which is, in fact, the ability to improve the grid right where the issues are.

So, one of the challenges with this proposal is utility plants are great, they’re very valuable. Community solar is great, it has a big role. But in the world of grid services, this is hyper local. This can be the ability to provide power in blackouts. This can be the ability to do simple things, like voltage and frequency regulation. You simply can’t do this with a plant located tens or even hundreds of miles away.

So, I think what we’re missing here is a huge opportunity to help improve and stabilize the grid, if we don’t actually allow these systems to be built in the communities where they’re needed. And this program obviously shifts that production elsewhere.

The benefits don’t end with local voltage and frequency and avoids the further construction of peaker plants, or allows reduced use of them through being able to do more localized control when there are grid issues.

It also brings, as was mentioned earlier, reduced dependence on transmission and distribution. Less investment is required because, in fact, that built is being done there in the community.

I think community solar is great. I think when we
think about the word community, we think about down the street, the center of our town. And I think the definition, as mentioned by some of my colleagues here, should be reexamined as to what does community solar mean. In the world of solar, we always thought about this as a plant nearby, and then you can get these grid services benefits.

But if the community solar plant is across state lines, if it’s 400 or 500 miles down in Southern California, or 300 miles away, it’s not going to bring the same benefit.

So, I’d just like to articulate, from a technology standpoint, one last point which is grid services are available today. This is technology we have working here in the United States and all around the world. This is not super, you know, complicated things to do. It’s improving. It’s getting better all the time. When you put batteries on top of it, it’s amazing the kinds of things that can be done in terms of providing local resiliency.

So, I think, when we think about community, we really want to think about does this really benefit the community specifically and locally, as opposed to the centralized, further away plant. And try to maybe -- I think the idea of redefining community and how it was meant to work within the mandate would probably benefit everybody
in this room, because there are probably places where it would be a great fit instead of rooftop on every single home. But it should be well-defined, clear and provide the same benefits, and not just the language that we heard from the SMUD folks earlier today.

Anyway, thank you very much.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Stacy Kalstrom, to be followed by Ed Murray from Aztec Solar.

MS. GALLARDO: Stacy Kalstrom had to leave and asked me, Noemi Gallardo, the Public Advisor, to read her comments.

Please reject SMUD’s SolarShares proposal. I’m shocked about SMUD’s SolarShares proposal. In 1998 or ’99 we got our first solar panels in a program sponsored by SMUD. They were all about everyone getting panels. We live close to the SMUD facility and they brought numerous foreign dignitaries to our house so they could watch our meter spin backwards.

Now, what seems to be backwards is this SolarShares program. It takes away consumer choice and also would gut the California Housing Mandate that would put solar on all new homes. California needs to lead the way and we were doing that but, now, SMUD wants to change all of that.

We recently replaced our 20-year-old system.
SolarShares will disincentivize people from going solar. That is just wrong.

CHAIR HOCHSCHILD: Thanks. Let’s move on to Ed Murray, to be followed by Steve Berlin.

MR. MURRAY: Thank you. Hello, Commissioner Hochschild and the rest of the Commissioners. Thanks for having us here today.

My name is Ed Murray. I’m the President of Aztec Solar in Rancho Cordova. And we are a company that installs residential and commercial solar systems, not only electric systems, but swimming pool and hot water systems.

I am also the President of the California Solar and Storage Association, a 500-member company based in Sacramento, but covering California.

I’ve been in the solar industry since 1978. I started when I was five years old.

(Laughter)

MR. MURRAY: I’ve seen SMUD as a leader in the greening of not only Sacramento, but the leader for the utilities and the rest of the country, if not the world. This is a treacherous path that SMUD is treading. We need all forms of renewables if we are to save this planet.

What SMUD is doing is not a Trojan horse, but a full assault on the mission we must undertake. If you believe that SMUD is doing the right thing, then they have
accomplished their goals. Appearing to be a green utility but, really, engaging in underhanded tactics to avoid distributed generation.

This will not only affect the California goals of 100 percent renewables, but will also give utilities a way out of the wonderful mandate that we all high-fived last year, in this same room.

I have had a lifelong career in renewables and have always been concerned that the utilities would someday own the sun. If you allow this to happen, the utilities will win, not only in Sacramento, but perhaps the rest of the country. As California goes, so does the rest of the country.

I urge a no vote on this. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Steve Berlin, to be followed by Ben Davis.

MR. BERLIN: Good afternoon. I’m Steve Berlin. I own a home up in Antelope and I buy power from SMUD.

I’m here today because I’m concerned that we, as a community, and you as our representatives, do the right thing. A number of years ago I paid for solar to go on my rooftop because that was the right thing to do, for a lot of reasons that I don’t think I need to go into.

I know this is a complicated issue and I probably don’t understand it all. But in my mind, there’s a couple
of ways to go with solar. We can build giant solar farms, and get the power, and send them over transmission lines to the homes.

But as your own staff said to you, when you were talking about Agenda Item 3, the fires and loss of lives were caused by transmission lines. Is that really the best way for us, as a community, to go?

I’m concerned that a better way, the best way for us to go is rooftop solar with battery backup. It speaks to the issues of reliability. And I just urge you to do what the people of California want, which is rooftop solar, not giant solar farms. Please, do the right thing.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Ben Davis, followed by Joe Cain.

MR. DAVIS: Good, probably afternoon now. My name is Ben Davis. I’m a policy associate with the California Solar and Storage Association. The same organization as Bernadette and Ed.

When I was preparing my comments, I was listing out all of the issues with the SolarShares program and I counted 15. Thank you, Noemi. But I am only going to touch upon one of them, maybe two, if I have the time.

One of the benefits of the mandate is that it makes homes more affordable. This is a graph here of the average annual benefits of solar. This graph here are the benefits
of onsite solar. I took numbers from the Energy Commission’s website on the net benefits.

On the benefit side you have lower electricity bills. On the cost side, you have the upfront cost of the system and the higher mortgage payments. But on average, it’s going to be $335 a year.

The benefits of the SolarShares program is $5 per kilowatt per year, which equates out -- I was a little generous, I assumed a bigger system than average, but it equates out to $15 or $20 per year.

The problem with that is that, number one, it makes homes less affordable. But number two, it is in direct violation of the criteria set by the Commission.

Criteria number 3, for a proposal to be approved, for a community solar program to be approved to meet the New Home Solar Mandate, are energy savings benefits. And both the criteria and the compliance manual state that the benefits of onsite solar -- sorry, of community solar, need to be equivalent to the benefits of onsite solar.

I’ll read you one excerpt: Administrators of a proposed community shared solar system must ensure that the system provides equivalent benefits to the residential building expected to occur if the solar had been installed on the building site.

So, that is from the compliance manual and there’s
similar language actually in the standards, in the
criteria, Criteria Number 3 itself.

SMUD staff have -- sorry, the Energy Commission
staff have interpreted this criteria to mean you need at
least some benefits. The benefits need to be greater than
zero. But I think we should read the criteria as it reads,
which is equivalent benefits.

And the last point that I’ll try to make real quick
is that if the SolarShares program is approved, it will be
the end of the New Home Solar Mandate. Today, 28 percent
of new homes receive solar and builders today have the
option of installing -- they have the option.

If the SolarShares program is approved, once again
they will have that option. And we should expect maybe a
little more because of the power shutoffs. But if the
vision is solar on every new roof, this is not that vision.
This is the opposite.

Thank you. And I apologize for going over.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Joe
Cain, to be followed by Sheridan Pauker.

MR. CAIN: Hello, Joe Cain with the Solar Energy
Industries Association.

I’m going to dig right in on some of the technical
requirements. And I think of modeling. You know, I’m a
former energy consultant, used to prepare these reports a
really long time ago, decades ago.

But if we go into that CBECC-Res software or we go into any other compliance software, what we’re going to go into is the solar part and, then, the option battery compliance credit. And so, in Joint Appendix JA-12, JA-12 provides the qualification requirements for battery storage to meet the requirements of battery storage compliance credit available in the performance standards in combination with an onsite photovoltaic system.

So, the first point is if builders choose to -- if you approve SolarShares, which we wish you won’t, builders -- and builders choose that option, they no longer have any option for compliance credit under the standards in the performance approach. Therefore, they’re giving up cost optimization of the overall building itself.

Second, I want to point to the next sentence in JA-12: The primary function of the battery storage system is daily cycling for the purpose of load shifting, maximized solar self-utilization, and grid harmonization. That’s also what you’re giving up.

And so, as you -- if you approve this, and more builders choose to do that offsite solar, and we support community solar but not this program, they no longer have that option to take compliance credit for batteries. Fewer batteries will be installed. We won’t enjoy the economies
of scale as rapidly as we wish.

And also, from CEC presentations, some of the materials that we’ve seen, when staff helped us in our presentations as speakers, as panelists, we saw slides about the invisible home. We’ve got the duck curve we’ve heard about a lot. We have a CEC slide that shows when you combine solar and storage onsite that the battery charges, when the peak production is more than -- when the power production is more than you need, it discharges during peak periods. And to the grid, that home can appear invisible. That goes away if builders choose -- if you approve this and builders choose that option, that goes away. And that goes away for consumers.

I recently, over the summer, became a SMUD customer myself. I’m getting an acute awareness of time of use rates. And one thing I will say is that you’re taking away that energy independence that consumers enjoy. I’m assuming that if SolarShares is approved and SMUD supplies the power, they will still be subjected to the same time of use rates. They will still have the same pain points about when they can or cannot do things in their own homes.

And I think that another big concern, of course, is that this is precedent setting. And we know that Association of Municipal Utilities supports, we know that PG&E supports --
CHAIR HOCHSCHILD: If you could wrap up, sir, thank you.

MR. CAIN: Oh, I’m sorry. I started my time real late. I’ll stop there. Thank you very much.

CHAIR HOCHSCHILD: Thank you. Just, for folks in the audience, we have at this rate about another hour and 15 minutes of public comments, if we go at this rate. What I would ask of people, who are speaking from here forward, if you have a new point to make, that’s really great. Otherwise, it’s just helpful to state your position, your organization, and that way we can get through and get to the discussion.

Go ahead, Sheridan Pauker.

MS. PAUKER: Hi Chair Hochschild and Commissioners. I’m Sheridan Pauker, a partner at Keyes & Fox, speaking on behalf of CALSSA. I have three points to make.

First, the Commission has clear and unambiguous authority under your regulations to reject this application. And we respectfully urge you to exercise your discretion to do so.

Second, this application doesn’t satisfy Title 24, Part 1, Section 1-115(a)(3) because it doesn’t provide equivalent benefits to the subscribers as they would receive from onsite solar.

Third, this application doesn’t satisfy Section 10-
115 as a whole because it doesn’t satisfy the plain meaning of community.

So, in three separate sentences in Section 10-115, your regulations confirm your discretion. You have explicit authority under the terms of 10-115(b) to reject the application if you determine it to be inconsistent with the requirements of Section 10-115 as a whole.

Second, the application is required to demonstrate, to your satisfaction, that each of the requirements specified in Section 10-115(a) 1 through 6 will be met.

Third, Section 10-115(c) provides that you are only required to approve the application if it demonstrates to your satisfaction that these are met.

SMUD bears the burden of proof to demonstrate that the application meets the requirements. And, of course, as you know, you’re free to accept or reject staff level recommendations.

Ultimately, it’s the Commission itself that is responsible for interpreting and applying its own recommendations, this bold, new mandate in Title 24, and to set the precedent for how it will be applied going forward across California.

Here, you, the Commissioners, should reject this application because it does not satisfy all of the requirements of Section 10-115. As was just explained, for
10-115(a)(3) it doesn’t provide equivalent benefits.

Thirty-five dollars a month for onsite solar is based on the CEC’s own data, compared to a total of approximately $20 a year for what subscribers would receive in energy savings benefits under SMUD’s program.

Second, while the Commission didn’t define community solar in its regulations, in the one instance in which the California Legislature did indicate the meaning of community renewables, which was in Public Utilities Code Section 2833(p), it was to facilitate development of eligible renewable resource projects located close to the source of demand.

CEC’s sister agency, the CPUC, interpreted the meaning of community in that section for purposes of expressions of interest in enhanced community renewables projects as customers within the same municipal or county, or within 10 miles of the customer’s address, and affirmed that this past September as a core feature of the program.

CHAIR HOCHSCHILD: With all due respect, I’m going to just have to cut people off at the time, because everyone’s running over.

MS. PAUKER: Absolutely, yeah.

CHAIR HOCHSCHILD: So, let’s move on to the next speaker.

MS. PAUKER: So, we urge you to reject this
CHAIR HOCHSCHILD: Thank you.

MS. PAUKER: -- because it doesn’t satisfy the plain meaning of community. Thank you.

CHAIR HOCHSCHILD: Going forward, can we really ask people to the greatest degree to be brief.

Julia Cantor, from CALSSA, to be followed by Alexander McDonough from Sunrun. Go ahead.

MS. CANTOR: Good afternoon. My name is Julia Cantor. I’m an attorney with Keyes & Fox and I’m also speaking on behalf of CALSSA.

Commissioners, we urge you to exercise your clear discretion to determine that the requirements of Section 10-115 are not satisfied by SMUD’s application because this program cannot qualify as community shared solar.

Although, neither the Public Resources Code, nor the language of Title 24 itself define community shared solar, we can borrow from the principles of construction employed by the California Supreme Court by examining the language of the regulation, giving the words their usual and ordinary meaning, and finding that the plain meaning of the language should govern here.

In the absence of controlling definitions, courts often look to dictionary definitions to interpret language. Black’s Law Dictionary defines community as a neighborhood,
vicinity, or locality.

Merriam Webster defines it as a unified body of individuals, such as the people with common interests living in a particular area.

Dictionary.com similarly defines it as a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage.

The SMUD’s SolarShares program cannot satisfy Section 10-115 because it cannot qualify as a community solar project. The 65-megawatt, Great Valley Solar Resource proposed to supply Sacramento customers is located over 135 miles from the closest boundary of SMUD’s service territory, and does not serve customers in a particular neighborhood, vicinity, or locality. It does not solely provide energy savings and economic benefits to the SMUD customers living within SMUD territory, or those who reside in a particular area or share local government.

To interpret the plain meaning of community shared solar or battery storage system, under Title 24, the Commission should also look to the expertise of nonprofits and advocacy organizations actively working every day to ensure community solar programs provide true benefits to communities and consumers, such as Vote Solar and the Coalition for Community Solar Access.
Among such experts, there’s a general understanding that the concept of community solar is defined as local solar facilities, the benefits of which are shared and include generate of local jobs, other local economic benefits, and environmental and public health benefits to the local community of subscribers.

The SMUD proposal cannot satisfy Section 10-115 because the utilization of a 60-megawatt project located over 160 miles from where we sit today, in a totally separate part of the state cannot satisfy the plain meaning of community solar. This resource is not local and it will not provide local jobs, local economic benefits, or environmental benefits to the customers who will participate.

This application doesn’t meet the requirements of Section 10 --

CHAIR HOCHSCHILD: Thank you. We’re going to have to move on.

MS. CANTOR: Thank you for the opportunity.

CHAIR HOCHSCHILD: Yeah, thank you. Let’s move on to Alexander McDonough, from Sunrun, followed by Susannah Churchill from Vote Solar.

Again, if you have a new point to make, that’s great. But if you can brief, if possible, that would be great as well.
MR. MCDONOUGH: Thank you, Commissioners. I’m Alex McDonough, Vice President of Public Policy at Sunrun. Sunrun has innovated and grown to over 250,000 customers thanks to California’s forward looking policies. Today, one in four Californians, who we serve, choose to add a battery to their solar systems. That number is going to go up.

SMUD’s proposal to comply with Title 24 by using far away, large-scale projects that already exist, completely undermines CEC’s new standards. It’s like allowing builders to satisfy disability access laws by making a charitable contribution to an organization that installs accessible equipment on buildings in another county or state. It’s a good thing to do. We would not argue with that. But it doesn’t deliver the protections the law requires.

CEC, similarly, had direct consumer benefits in mind when it adopted new home solar requirements. Commissioner McAllister stated, in the CEC’s press release that: The buildings that Californians buy and live in will operate very efficiently while generating their own clean energy. They will cost less to operate, have healthy indoor air, and provide a platform for smart technologies that will propel the state even further down the road to a low emissions future.
That will not happen if SMUD’s proposal is adopted. There’s no argument SMUD can offer that its proposal provides the same benefits to a home as an onsite solar and battery system.

Worst of all, SMUD’s proposal may prevent homebuyers from adding solar and storage for 20 years. If a developer chooses SMUD’s solution today, it becomes much more expensive for the homebuyer to add solar paired storage tomorrow.

SMUD has also asserted that the solar requirements add costs for builders and consumers. And this is false. Throughout California, solar providers are paying builders for access to roofs if they opt into third-party leases or power purchase agreements. And, generally, customers benefit from greater annual savings with rooftop solar than through SMUD’s SolarShares program.

We, and others in the industry, have invested significant time and resources working with housing developers across the state to offer new homebuyers cost effective and valuable solar options this January.

Please do not vote to undo this work to make California communities more resilient. Thank you for your time.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Susannah Churchill from Vote Solar, to be followed by
Rachel Bird, from Borrego Solar.

MS. CHURCHILL: Thank you, Commissioners. My name is Susannah Churchill. I’m California Director with Vote Solar. We’re a nonprofit advocacy organization working to make solar more accessible and affordable in states across the country.

I’m here to urge you to reject SMUD’s application. This is a moment where you can and must use your discretion, provided by the law, to reject a proposal that doesn’t meet the spirit of community solar under the policy that you worked so hard to craft.

The decision that you make today, of course is going to be crucial because it will set precedent if you allow builders in SMUD territory to essentially take a large-scale solar project that provides only a small customer savings, and call that community solar for the purpose of the New Home Solar Mandate, then many other utilities are going to seek the same treatment. And builders will seek to use that option because it’s cheapest and easiest for them.

Instead of serving Californians with local solar and storage that will give them real bill savings, as well as providing avoided costs for all customers, the CEC will simply drive more large-scale solar development. And large-scale solar cannot provide the avoided transmission

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and distribution savings to all customers, nor the grid services that others have mentioned, like voltage support and life extension of distribution equipment, which local solar and storage can.

Of course, we need all kinds of solar to combat the climate crisis. But it’s clear that building more large-scale solar and providing customers with only a tiny bill savings is not what you had in mind when you created this policy.

And if I can just speak from the heart for a moment here, you know, because you’re California policymakers, you really have the opportunity to change the world. And, you know, making change requires both having the vision and then having the determination to follow through and make that vision a reality.

And you’ve really taken the first step here. You’ve created this vision that is inspiring people all over the world of a near future California, where people just have rooftop solar built into their homes. They don’t even have to think about it and, yet, they get to benefit from the self-sufficiency from the additional grid resiliency, from all the benefits. Whether you’re rich or poor, you get that built into your home. I think that many ordinary people think that’s exactly what we should be doing.
But in order to make that vision more than just a mirage here, you are being called to defend it with determination and to reject this proposal which is essentially profit driven, and going to prevent that vision from becoming real.

So, I really encourage you to stay true to your vision here and take the time to do this right. So, thank you for the opportunity to speak.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Rachel Bird, to be followed by Ray Tretheway.

MS. BIRD: Hi, I’m Rachel Bird with Borrego Solar. And I’m here on behalf of the community solar industry. We, likewise, urge you guys to vote against SMUD’s application.

I’m going to read a short letter from our CEC, Mike Hall.

Commissioners, I urge you not to approve SMUD’s application for CEC approval of its SolarShares program as a compliance option for the 2020 Building Energy Efficiency Standards.

CHAIR HOCHSCHILD: Excuse me. Is this the same letter that went into the docket?

MS. BIRD: It might have, yes.

CHAIR HOCHSCHILD: I don’t think we need to hear that, if it’s been submitted. Thank you.
MS. BIRD: All right, that’s fine.

CHAIR HOCHSCHILD: But any other comments you have.

MS. BIRD: I have my own comments as well. So, on behalf of the community solar industry, I just wanted to say we’ve talked a lot about what rooftop solar can do and it’s such an important prong in California’s fight against climate change. But community solar’s an important prong, too. And SolarShares doesn’t represent community solar.

We think of community solar as providing real additionality, new resources to meet every new kilowatt of residential demand. We think of it as providing a customer benefit commensurate with that offered by rooftop solar. We think of it as distribution connected, which was contemplated in the CEC’s FAQ that accompanied the Building Code. And we think of it as community scale, usually no more than a few megawatts.

Many of the leading programs across the country cap projects around 1 to 5 megawatts, ensuring that these are community scale, community-based systems, offering benefits to ratepayers and to their participants.

Thank you for leading the way with this Building Code. It sets a call for good community solar throughout our state. But, unfortunately, SMUD’s SolarShares application would undermine that vision and lower the bar for community solar in California. Thank you.
CHAIR HOCHSCHILD: Thank you. Let’s move on to Ray Tretheway, to be followed by Todd Farhat.

MS. GALLARDO: Ray Tretheway had to leave and asked Noemi Gallardo, the Public Advisor, to read his comments:

The Sacramento Tree Foundation supports Agenda Item Number 6. The option for offsite solar panels promotes the development of shade trees in residential neighborhoods, while still ensuring the community reaps the benefits of clean, renewable energy from photovoltaic systems.

Shade trees and solar panels are both proven energy conservation measures that should be complementary, not conflicting options.

New residential communities rarely have established tree canopies. For those homes, sunlight is abundant. Young trees and newly installed solar panels are not competing for sunshine. Twenty years from now, though, they might. That places homeowners in a difficult position.

To reap the benefits of rooftop solar, mature trees could not fully shade the home and would have to be severely pruned back or, worse, removed. To reap the benefits of shade, the homeowner would not be able to use rooftop solar to its full potential. The homeowner, it seems, would have to choose solar or shade, but not both.
It does not have to be that way and we should not wait 20 years to try to solve this problem. Allowing developers to position solar offsite encourages homeowners to plant and cultivate shade trees now, so that one day those mature trees will help cool their homes and neighborhoods naturally, and reduce their dependence on electricity during peak summer hours.

The benefits of shade trees, of course, extend beyond the individual homeowner. When properly sited, planted, and cared for neighborhood tree canopy promotes public health, carbon sequestration, and clean air while combating the adverse effects of projected increase in hotter days, urban heat islands, and heat waves.

CHAIR HOCHSCHILD: All right, thank you. Let’s move on to Todd Farhat, to be followed by Stacy Reineccius.

MR. FARHAT: Hi, my name is Todd Farhat. I’m with the SunStreet Energy Group. Okay, thank you. First, I would like to thank the Commission for allowing public participation to address this crucial issue.

I would also like to thank the Commission for their leadership in the New Solar Home Program. And the CPUC for the Self-Generation Incentive program, both of which have spurred significant investments for local energy solutions.

My comments today and my hope is that the Commission’s collective momentum towards a resilient grid
will be preserved by today’s vote.

SunStreet is a wholly owned subsidiary of Lennar. Lennar is the state’s largest homebuilder. We, at SunStreet, only offer residential solar to new home construction. Our program was designed for builders’ new compliance option. It adds no upfront costs to the new home, which is vital in terms of new home affordability.

SunStreet and Lennar both oppose SMUD’s overly broad proposal. We oppose it because we believe it slows down the innovation necessary to meet California’s long-term climate and energy goals. We also oppose it because we believe it exploits what was supposed to be an exception to the mandate, specific circumstance.

As the 2019 Energy Code was being crafted, builders lobbied the Commission for an alternative to the onsite renewable compliance. In a very specific circumstance, we lobbied for offsite community solar to meet the energy needs of multi-family units. And in doing so, we also lobbied for broad regulations to be written to maximize the Commission’s discretion when approving an application.

Today, SunStreet asks the Commission to maximize its discretion and interpret its own regulation in a way that will preserve the solar industry’s working definition of community solar. No statute requires the Commission to provide an offsite compliance option. And no statute
defines community solar. It is up to the Commission to determine their meaning and application.

Although California lacks the statutory definition of community solar, the solar industry’s long-standing definition has a few criterias I would like to share.

First, community solar must be physically located near the community it serves. Second, community solar should be sized to reflect the energy needs of the community it serves.

And last --

CHAIR HOCHSCHILD: Sorry, sir. With respect, we have a lot of evidence on that, so I’ll stop you there. But, thank you.

MR. FARHAT: Thank you.

CHAIR HOCHSCHILD: Let’s move on to --

MR. FARHAT: Thanks for your time.

CHAIR HOCHSCHILD: Thank you. Stacy Reineccius, to be followed by Lauren Cullum.

MR. REINECCIUS: Hello, Stacy Reineccius. I’m CEO and founder of Powertree Services. We develop and manufacture technology and provide services for multi-family property owners and developers.

I’m going to agree with many, many of the comments previously made. And I want to address one other component, which is that in my conversations with several
of you, with other Commissioners, with folks at GO-Biz and throughout the Commission and the Commission staff, one of the points that’s always been driven home is that we don’t have enough capital being brought to bear on this problem of GHG reduction and fighting climate change.

And the New Solar Home Mandate, particularly in the impact upon multi-family is a great mobilizer of capital. And by disincenting the investment by property developers, such as Lennar, which you’ve just heard, and others, you are raising a barrier, and enabling a lesser development and fewer options for addressing all of these problems. Not just for solar, but also for electric vehicle charging, for resiliency, and for the safety and health of the communities in which this is all being done.

I urge a no vote on this and a reconsideration of and clarification of the definition of community solar.

CHAIR HOCHSCHILD: Let’s move on to Lauren Cullum, to be followed by Julia Randolph.

MS. CULLUM: Good afternoon, Commissioners, thank you for the opportunity to comment today.

I’m Lauren Cullum with Sierra Club California, representing 13 local chapters in California and half a million members and supporters in the state.

We believe SMUD’s proposal is unacceptable and goes against the intentions of Title 24 regulations and the New
Solar Mandate. And, therefore, are requesting that the
Energy Commission reject this proposal.

I was happy to hear earlier today about the CEC’s
energy resiliency efforts. We need this. We need that.
We need more resilience. We need to be building a more
resilient California. And this means helping homes and
communities become more independent of the grid. To do
this, we need to be encouraging more onsite solar and true
local community solar, not utility scale solar farms
located tens to hundreds of miles outside of the community.
This is especially important considering the wildfires,
power shutoffs, and general instability of California’s
grid.

SMUD’s proposal is inconsistent with the state’s
goals to expand local renewable energy and building more
resilient homes and communities. Approving this proposal
will set a bad precedent in California, which will result
in blocking the development of onsite solar and local
community solar at a time when our state needs it.

You have the ability to reject this proposal right
now and we urge you to please do so. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to
Julia Randolph, to be followed by Gauyal Sahbaa, which the
Public Advisor will read. Thank you.

MS. RANDOLPH: Hi, Julia Randolph on behalf of the
Coalition for Clean Air. I appreciate the opportunity to speak and I’ll try to make this quick.

We are in opposition of SMUD’s proposal. Sacramento City has the fifth worse smog in the country, according the American Lung Association, so we aren’t meeting state or federal air quality standards. We need any and all help that we can get. And more solar will reduce the burning of fossil fuels. And SMUD’s proposal won’t add new solar in the Sacramento community.

It also defeats the intent of the mandate by not basing all of the projects in the Sacramento community, therefore not providing true community solar. Which as I stated earlier, the Sacramento community desperately needs.

We urge the Energy Commission to reject SMUD’s proposal to avoid the solar mandate. Thank you.


MS. AVALOS: Rosemary Avalos for the Public Advisor’s Office, reading for Gauyal Sahbaa.

Dear CEC Commissioners, as a family physician and 31-year resident of Sacramento, and a climate activist, I ask you to reject SMUD’s application.

Yeah, that’s it.

CHAIR HOCHSCHILD: Okay, thank you. Christina Marshall, Community Members, to be followed by Rick Umoff.
MS. MARSHALL: Good morning, Commissioners and board.

With the support of the CEC and our State Legislators, the Title 24 Energy Building Codes were revised to include rooftop solar in all new construction, a way to further lower greenhouse gases and make it more affordable for homeowners to take advantage of all the benefits of solar, and lower their global footprint. A win-win.

Today, SMUD is asking you to approve the SolarShares program, which exploits a loophole in the Title 24 Building Code. SolarShares, as written, would enable property developers to avoid installing rooftop solar on new construction and tie new homeowners into leasing their electricity from SMUD for 20 years.

While their neighbors, who purchased homes with solar or installed rooftop solar and a battery storage, across the street, would enjoy the full monetary and reliability benefits of rooftop solar and battery storage for 20 years.

Now, in the scope of things, 20 years does not look like much. But think where we were in the year 2000, pre-9/11. Think of the strides, technologically, we have made from call-in internet to access, call-in internet access to cell phones.
Our municipal utility, SMUD, appears to be working to stop customers, especially new customers from adding rooftop solar and storage, thereby cutting dependence -- thereby, threatening SMUD’s monopoly.

We know that we all need to do our part to lower greenhouse gases. It’s apparent, the changes that additional CO2 in our atmosphere is having worldwide.

Today is the day we change. Today is the day we ask the California Energy Commission to deny SMUD’s SolarShares program as written.

This is a good idea, skewed to benefit developers and SMUD and avoid the full implementation of Title 24 to conserve energy.

We need you to ensure that rooftop solar and storage are part of the big picture, developing microgrids of sustainable power throughout the Sacramento region. For that reason, it is the obligation of the CEC to send SMUD back to the drawing board, include a more equitable SolarShares program for consumers.

As a promoter of affordable housing and establishing a fair, equitable path for all SMUD customers to take advantage of a path to clean energy, Charles Warren would have approved.

This is a true step towards establishing resiliency. We do not have 20 years to spare.
CHAIR HOCHSCHILD: Thank you, ma’am.

Unfortunately, I’m going to have to stop you there.

Let’s move on to Rick Umoff, to be followed by Dan Jacobson.

MR. UMOFF: Thank you, Commissioners. My name is Rick Umoff. I’m the California Director at the Solar Energy Industries Association. We are the national association for the solar industry, representing about 1,000 companies, 260,000 employees, including utility scale, community solar, and distributed solar. We are supportive of utility scale, we are supportive of community solar, but we are not supportive of this application. We think it’s not consistent with the code and we ask the Commission to use its discretion to take some time to prefect guidelines for this portion of the code. And to not approve this application today.

Thank you very much.

CHAIR HOCHSCHILD: Thank you. Is Dan here? Yeah, go ahead, Dan. To be followed by Dave Shelby.

MR. JACOBSON: Thank you very much. My name is Dan Jacobson with Environment California. I just want to make three really quick points here.

The first, I think we’ve heard it a lot this afternoon, and this morning, is talking about how this is critical for reducing the amount of GHG pollution that
we’re putting in. We’ve all seen the ARB’s report. The best place in our economy, where our GHGs are going down is in energy. This, including the RPS, including energy efficiency, is responsible for it.

Two, now things get a lot harder. If we’re going to meet that 100 percent goal, we’re going to have to not only electrify everything, including our cars and our buildings, but we’re going to have to approve projects like offshore wind, geothermal, storage, all of that.

I would say that the only way that we’re going to be able to do that is we have to be able to muster another kind of power, one that has not been talked about today, but that’s political power.

The reason that we’ve been able to do all of the work that we’ve been able to do is not only because we have some of the smartest people in the room, and thank you to the staff for that and for the Commission, but also because in California we have that political power.

If you ask where does that political power come from, I would argue that it comes from the fact that when people put up solar panels, they become big advocates for clean energy. When they buy an electric car, they become big advocates for clean energy. Not only do they do it, but when their neighbors see it, they all of the sudden think, wait a second, I can do this.
This goal of hitting 100 percent becomes a lot more real, a lot more doable when you see your own neighbor doing it. When you see your own neighbors, and your schools, and people putting up the kind of clean energy that we need.

So, adopting a program like this, to me doesn’t make sense, because you take away from that critical political power that we’re going to need when we have to do these significantly harder things that are going to be put in front of us over the next couple of months and the next couple of years.

I would urge you to send us back to the drawing board. Let us work this out. Because we’re going to need the people of California behind us in order to meet the goals that science says we have to. Thank you very much.

CHAIR HOCHSCHILD: Thank you. Now, let’s move on to Dave Shelby, to be followed by Megan Shumway.

MR. SHELBY: Hi. My name’s Dave Shelby and I thank you for the opportunity. I want to thank SMUD. It’s a good utility, it’s been lower cost and very reliable.

But about three years ago we put solar up on our roof. And we wanted to do it for clean energy. We were retiring and we wanted to keep our electric rates at a pretty stable rate. And we have saved a lot. I mean, by putting the solar up, we probably save 1,800, 2,000 a year.
And it’s almost near zero, other than a connection fee to SMUD.

Twenty dollars a month -- or, twenty dollars a year really doesn’t compete to the rooftop solar.

When batteries come down, I’d like to put battery into the house, also, to put more self-reliance on ourselves and our own home.

So, at this time, I’d like you to reject this appraisal, or what they want to do, and have them go back and maybe look at something that’s more local. I can see it in an apartment building, or something like that, where it might be used, but individual persons it kind of takes away their choices. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Megan Shumway, to be followed by Steve Uhler.

MS. SHUMWAY: Hello, I’m Megan Shumway. I’m a retired nurse and homeowner with rooftop solar. I want you to reject this proposal for a variety of reasons. It’s not protective of the consumer. The consumer can’t make decisions about battery storage. They can’t make decisions about adding more panels. And they can’t take control of their own energy.

And it seems like it’s a slippery slope of the energy companies stealing the sunshine off our roofs. And I want the consumer protected in this regard.
We’ve lost our protections of our mineral rights under our homes. They can frack underneath us. They can take oil or coal, and with all the dangers that that presents for our home, and we have little recourse with that.

And I don’t want to see the sunshine on my roof going down that same path. We are in an energy crisis and we need to have solar on every roof. And I think we should be promoting any program that gets the consumers to do that because it’s a needed thing at this time in our history.

Thanks.

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

MR. UHLER: My name’s Steve Uhler. I actually wanted to comment on your deliberations. But my point would be it appears that there’s going to be some rules that have to be written, since the Commission who handles tracking renewable energy credits, do not currently have any rule that deals with retiring on behalf of any body, other than a utility.

And I’ve been looking for an answer to why there’s -- related to the rulemaking, you’re required to comply with the APA, unless you have -- unless the statute expressly exempts. There are exemptions related to the computer software, but they’re where the funds go
exemption. There is no express exemption.

So, there’s some rulemaking that has to be done here before. As a former SolarShare customer, I’m hoping to learn what SolarShare is. But I seriously want to hear you deliberate over whether or not you’d be in violation of Title 1, Chapter 2 of the California Code of Regulations, which prohibits underground regulation.

I believe you are overlooking the situation that any time you write a rule, and particularly in this case, you’re going to be the enforcement agency for how these RECs are tracked, you have to follow the APA.

Being that, I guess I can take it that you read all of my comments, then you already know I’ve already quoted the states in the Health and Safety Code that require you to follow the APA for the building standard.

So, whichever way you go, we’re going to learn whether or not the Chapter 2 unit will be asking you questions, which is the Office of Administrative Law. So, you need to carefully consider that and consider whether or not you should even -- you should table this item until you find out more about whether or not you’ll be violating the law as far as creating regulations.

So, that’s my basic point. It’s a point of law. You should carefully consider it. I want to hear you talk about it in your deliberations because I actually wanted to
speak about whether or not you did. Staff hasn’t answered that. They’ve definitely pointed to that there’s some rules that have to be made.

So, whether or not SMUD is going to make a separate account for each home, which may be costly, we need to know what those rules are. We have no idea what these rules will be and folks are supposed to comment on this.

So, table this agenda item until you find out about that. Thank you.

CHAIR HOCHSCHILD: Thank you. Is there anyone else in the room wishing to make a comment? Okay, let’s go to the phone, starting with Jeff Parr. He’s off?

Is Dan Gluesenkamp, from the California Native Plant Society on the line?

UNIDENTIFIED SPEAKER: I know he’s coming.

CHAIR HOCHSCHILD: Should we go to another caller?

Okay, let’s move on to another caller. John Patterson?

Okay, let’s move on to David Rosenfeld, from the Solar Rights Alliance.

MR. ROSENFELD: Hello. Can you hear me okay?

CHAIR HOCHSCHILD: Yeah. Go ahead, sir.

MR. ROSENFELD: Very good. Thank you, Commissioners, for letting me provide testimony. I’m David Rosenfeld, Solar Rights Alliance.

If SMUD’s proposal goes through, the effect will be
as follows: Most new homes built in the Sacramento region will not have rooftop solar and storage on it. SMUD’s proposal is designed precisely to incentivize builders to choose SolarShares, not rooftop solar and storage.

Yes, consumer demand for solar is strong, as your staff notes. But SMUD’s proposal will short circuit that demand. If SMUD’s proposal goes through, thousands of homeowners and renters will lose the change to save hundreds of dollars a year, keep their power on during outages, and contribute to the energy resilience of the community.

It is inconceivable that anyone could argue that SMUD’s proposal offers anything close to the benefit of true rooftop solar. You’ve seen the numbers. I won’t repeat them. I do hope they give you significant pause.

But it gets worse. SMUD has conveniently omitted the fact that under SolarShares homeowners will have a very difficult time adding solar and storage later on, and that’s because of SMUD’s existing restrictions on adding solar capacity.

So, all this talk about increasing choice is, honestly, it’s Orwellian. And that SMUD would propose such a program doesn’t surprise those of us that have been close attention to SMUD recently. Their staff and many of their board members have made numerous unsubstantiated or false
claims about rooftop solar and distributed generation, and have attempted recently to adopt policies that would have utterly devastated the rooftop solar market and ruin the existing customer investments.

That they’re now trying to use their monopoly power to keep solar off of new construction is consistent with their recent behavior.

But we do expect better from the California Energy Commission. The world understands California’s Solar Homes Mandate as an initiative to put rooftop solar and storage on new homes. Rightfully so, the Solar Homes Mandates has inspired and captivated people around the world to follow California’s action. All of this is now in danger of unraveling.

So, please, don’t squander the opportunity before you. Please reject SMUD’s proposal and send them back to the drawing board. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Dan Gluesenkamp, from the California Native Plant Society.

MR. GLUESENKAMP: I agree with the comments that other people have made because it sounds like everyone’s making a lot of good points for why this is a bad proposal. I do want to say that we do have industrial scale solar in great abundance. We have tried it. We’ll be continuing to do it. It has significant environmental...
issues. It can cause tremendous impacts to biological
diversity, natural communities, trees and vegetation.
We’re working that out. But in the mean time we, as a
state, have decided that we want to try and invest in
distributed as well, and see if that can resolve some of
those problems.

Of course, none of that matters. What really
matters is that you need to make this decision based on
performance, you know, the cost of the electricity.

And I want to make a point that it doesn’t really
matter how cheap the electricity is, if you’re not getting
it. And that’s a problem with the industrial scale energy
development, you need large transmission corridors, which
are prone to failure, prone to wildfire, and really not as
reliable as the resilient distributed systems that this was
supposed to promote.

Secondly, by promoting those distributed systems we
achieve an economy of scale that’s going to bring down the
price of that electricity, not just for the new homes that
are built, but for other people who are retrofitting with
the new, and improved, and more efficient distributed
systems.

And so, when you’re making the decision based on
performance, I ask that you give this project a little
chance to work. It really hasn’t run at all and it’s far
too early to give up on it. I would say that, you know, there’s a lot of uncertainties here and a lot of risk in scrapping this -- in voting in favor of SMUD’s proposal and scrapping it there’s a lot of risk and a lot of uncertainty.

The only thing that’s certain is that you’ll be destroying a good program and you’ll get a lot of bad headlines due to that. And so, I really ask that you reject it.

And then, you know, finally, it sounds like there’s a lot of people speaking from Sacramento. And I want to speak as a ratepayer for SDG&E in Northern San Diego County. It’s very important to us down there. Wildfires have a new meaning down in San Diego County, where we have transmission corridors going through incredibly flammable zones.

And if you scrap this program at the behest of SMUD, those of us all around the state will be suffering from it. They’re not all represented on this phone call, but we will be wishing that you hadn’t.

So, I please ask that you pay attention to the risk and the uncertainty of this, and scrap it, and give the program a little more time to work out and see how it prevails.

CHAIR HOCHSCHILD: Well, thank you. That concludes
public comment. Thanks to everyone on the phone and in the
room for sharing their comments.

Let’s turn to staff, now, if you’d like to respond
to any of the points that were particularly germane.

MR. PENNINGTON: This is Bill Pennington. So, one
of the areas here that is under debate is related to do the
standards require equivalent benefits with rooftop solar.
And they don’t in the way that commenters are saying.

One basis for this concern is a reference to the
residential compliance manual that has no regulatory effect
and is informational, only. So, you know, it’s not a
regulation in and of itself.

But reading what it says, the section that has been
referred to, only a few of the words in the sentence there
is being referred to. And instead, a longer reading, the
section is about demonstrating the several criteria that
are specified in 10-115 of the standards. And those
criteria is what this document is trying to describe.

And you have to achieve equivalent benefits based
on those criteria. And the benefits that are addressed in
10-115 that have to be equivalent are energy performance,
durability is an attempt to be equivalent, and equivalent
in reductions in energy consumption. Those are the only
things in 10-115 that’s called out that needs to match up
with rooftop solar.
So, it’s misconstruing this, unfortunately, this compliance manual to say that all of the other benefits that rooftop solar could bring that this compliance option, by statute, has to be based in energy terms has to deliver all of these other attributes.

So, it would be lovely if we could do that, but that’s not what the requirement’s about at all.

MR. CHALMERS: Hi, this is Matt Chalmers with the Chief Counsel’s Office. I’d like to add a little clarification to the 10-115(a)(3). There were some legal arguments that were invoked about these benefits. I’d just like to note that this section is dedicated building energy savings benefits. The benefits that we’re speaking to are energy.

If we look down to 3(a), (b), and (c), these are spelled out. And immediately underneath it I read, and quote: "The reduction in the building’s energy bill resulting from (a), (b) or (c) above shall be greater than the added cost of the building, resulting in the building’s share in the community shared solar or battery system. So, this section addresses that. And we understand that we’re in compliance with this section for this application.

CHAIR HOCHSCHILD: Okay, thank you.

Just, SMUD, any other points you wanted to make, from anything we heard, before we turn it over to
Commissioner McAllister? Did you want to --

COMMISSIONER MCALLISTER: Oh, just keep on staff.

I saw you fiercely taking notes. I mean, there were a number of assertions made during the course of the comments and I just want to make sure that where you believe that those were not correct, that you have a chance to say so.

MR. MEYER: Okay, this is Christopher Meyer, I’m Manager of the Building Standards Office.

Just to be very clear that this is an option. The staff was, you know, very adamant throughout the rulemaking that we were advocates of rooftop solar. We thought it was important enough that that is the standard. This is an alternative to that.

And what I mean alternative, rooftop solar has to be an option in SMUD’s territory. It has to be a cost effective option for the community solar to exist. If anything happens to that cost effectiveness, any future changes in energy metering in SMUD’s territory, the Energy Commission has 10109(k) as an option to remove the PV requirement, which ultimately would invalidate the community solar program that SMUD is here to get approval for.

So, basically, by coming here with this community solar program SMUD is, in essence, committing to making sure that they have a cost effective rooftop PV option for
all of their customers. If that goes away as a cost effective option, there is no community solar program under this.

So, that’s one of the things as far as when people talk about the market also, you know, being an option when staff has spoken with a lot of the people who have made comments here today, and we’ve emphasized the fact that this is a market choice.

And one of the things that the staff is going to be working on is getting the information out there so that customers understand the values between a rooftop system and a community system, and now the different ones have options.

This was an alternative that, as Bill mentioned, in the IEPR we were directed to put as an alternative in there. And we will get the information out there so people can make the right choice.

COMMISSIONER MCALLISTER: So, can I -- I want to just follow up on that. So, you know, a lot of comments have been made about, you know, benefits of rooftop that really, up to now, have not been part of our brief in the narrower Building Code discussion, and I appreciate that. There’s a broad solar market out there. There’s a demand for certain characteristics. Resilience, obviously, is on the -- everybody’s radar screen, now, in a way that it
hasn’t been incorporated into the Building Code directly.
And so, maybe we can have that conversation in the next
round, in the update, and how to value that resilience and
for purposes, you know, in energy and energy cost kind of
terms, like the Building Code requires. We have not done
that and that has not been part of our brief.

The immediate concern that I have right now is
really ask, trying to understand the customer’s experience.
Will that -- who is committing? Say, in a production build
environment, who is committing to one option or the other?

And maybe this is a perhaps speculative question
for the builders, certainly for staff, and certainly for
SMUD. Is a customer, showing up to buy the home, having
already had this decision made for them?

MR. MEYER: I can talk to this very briefly and
then I’ll hand this over to SMUD. That is definitely a
question that staff has had and I noticed a lot of the
commenters have the same issue. So, that’s why the
education is going to be important.

We see this as a potential market differentiator
for different builders. There are some builders that are
vertically integrated, that have PV as part of their
package. Them getting the message out in the value
proposition to homeowners, who are making that initial
decision to purchase a home of saying, our house has all of
these benefits. And we’ve heard people talking about the economic benefits under net energy metering to a customer who owns their PV system are much different than someone who has a community solar.

So, yes, the decision is the builder’s decision and the person who comes in and purchases decides between a house with PV and the house with community solar. That is a decision that comes in after the builder’s already decided to buy it.

But what we’re trying to make sure is that the homeowner has the information, so when they make that decision do they want to go under a contract with a builder who’s done community solar, or do they want to go into a contract with a builder who’s providing a rooftop system.

We want them to understand the value propositions there, so that the customer is getting the value from our regulations that they expect.

MR. TUTT: So, in terms of who’s committing, this is Tim Tutt from SMUD. When a builder signs an agreement with us to participate in neighborhood solar shares, they are committing that they will meet the compliance with the standards using our program. And they will include codes, covenants and restrictions in their development so that those homes are committed to participating in the program for 20 years. As Chris said, we’re going to be providing...
full information to prospective homebuyers to have them understand what their commitment is. Then, they have the choice of being in that particular development or looking for another development which isn’t participating, potentially, in our program.

The 20-year requirement is there essentially to meet the durability requirement in the standards. If you put on a rooftop system, the expectation is that it will be there on the roof for 20 years. It’s not a guarantee. I mean, somebody could tear it off if they wanted to.

But the Commission certainly didn’t want a community solar option in which somebody, a builder could sign up participants and then have those participants decide not to continue with the program. Then, there’s no solar.

Right now, what we’re doing is providing equivalent or better solar to the rooftop with our community solar option. And it has the same benefit, if not greater, to the environment and to GHG reductions as a rooftop choice by consumers.

COMMISSIONER MCALLISTER: Thanks. I guess, Bob, did you want to -- Mr. Raymer, did you want to comment on that in terms of just I’m curious about what the builders, how the builders see this. And if they are in a situation where they have to commit all of the homes in a production
build to one model or another before they’ve even met a prospective buyer.

MR. RAYMER: This is Bob Raymer with CBI. The answer is it depends. And, quite frankly, as I mentioned before, given what’s happened in PG&E’s territory, there’s an enormous demand for onsite, rooftop solar with battery backup. That’s going to increase significantly.

I don’t see any type of a surge by production, single-family homebuilders to the SMUD program. It’s possible that can change. But from what I’ve been hearing at the last two meetings that we’ve had, our quarterly get-togethers, that doesn’t seem to be the case.

At the same time, there does seem to be a large degree of attractiveness on multi-family builders, particularly those during a construction within the urban Sacramento areas. The infill projects and the mixed use projects, that seems to be where the SMUD program is going to find its niche. And largely because it’s so difficult to gain adequate roof space under -- basically, you’ve got three dwelling units under the same piece of roof. And it’s very difficult to comply with the CEC standards.

Fortunately, they give you offramps. But the builders aren’t necessarily looking for the offramps, they want to comply with the regs. This provides that option.

I think we’ll just agree to disagree that an
approval of the SMUD program is going to create a tidal
wave to that. I don’t see that happening at all and that’s
just my best understanding of where our builders are
thinking right now. Thank you.

COMMISSIONER McALLISTER: So, let’s see, I think
maybe just a process order. I have some questions that I
want to get resolved. I guess I’m going to continue asking
a few questions. I’ve got two more that I want to --

CHAIR HOCHSCHILD: Okay, just to be clear --

COMMISSIONER McALLISTER: Yeah.

CHAIR HOCHSCHILD: -- we’re going to finish this
item and vote it out, and then take a lunch break, and then
come back and finish the other items. I have to go to
another speaking engagement, so Vice Chair Scott will take
over after this item, yeah.

COMMISSIONER McALLISTER: Okay.

COMMISSIONER MONAHAN: Commissioner, may I?

COMMISSIONER McALLISTER: So, I guess I’m trying to
kind of get my questions answered and then perhaps we can
open it back up for other people. I don’t know. What’s
that?

Yeah, okay. So, I want to -- so, we already -- you
know, we sent SMUD back to the drawing board a number of
times. This was on the meeting, you know, several months
in a row perspective and it got pulled because we were
asking SMUD to keep sharpening its pencil.

And, you know, it took several iterations for it to even get to this point to be considered on a Business Meeting. And it had to be additional, which it is. I think, you know, some folks have said they don’t believe it is, but it is. I believe it is.

And, you know, RPS still has to be complied with, without whatever capacity gets dedicated to this.

And it had to provide locked in benefits to the customer relative to -- I think what Bill said, relative to the standard non-solar tariff, essentially. Okay. Up to now premium -- and I’m going to talk a little bit, but I still have a couple of questions that I want to get resolved.

Up to now, you know, premium -- or, SolarShares programs across the state have been premium. They’ve been, you know, opt in, voluntary, customers have paid more for a 100 percent solar 100 percent renewables project and so -- or product. So, this, actually, makes it cheaper than the standard residential rate and, you know, I think that’s progress.

You know, that’s something that the IOUs, for example, have not been willing to do. And there are, you know, constraints about who can wheel over the distribution grid and those are real constraints. Those aren’t anything
that we’re going to resolve here at the Energy Commission, at least not in the near term.

So, you know, in that respect I think the proposal meets the intent of the cost effectiveness requirements of the standards. Now, is it equivalent to rooftop? No, it is not. And I think we all pretty much can agree on that.

Now, and I want to acknowledge staff, you know, working with SMUD and all stakeholders to get to their sharp pencils and figure out how to get a proposal in front of us at the Business Meeting.

So, let’s see, and I’m actually really happy to see all the turnout. I mean, the comments have been illuminating. And I think there’s, obviously, a lot of passionately held and very informed positions across the industry. And you all know my history in the solar industry. You know, we could go down many, many rabbit holes and, you know, and many of us in the room have installed lots of solar systems with their own two hands, including myself. And probably, most of us live in solar homes, and many of us have EVs, and we’re living where California is and needs to go.

So, I just want to manifest, you know, some sympathy with that position.

You know, many points have been made arguing passionately for this solar future, certainly for rooftop.
And I think that’s all for the good. Many of them are not
gereman to the conversation with Title 24 Building
Efficiency Standards. And so, I think we need to be
disciplined to figure out which ones are.

Nobody’s scrapping -- certainly, if we vote this
in, nobody’s scrapping the rooftop requirement. It’s still
there. And I think we can certainly commit to monitoring
how the marketplace is evolving, if we think there’s gaming
going on. If we don’t think the accounting is being done
properly. If we can, you know, be able to put those
mechanisms in place to hold SMUD accountable if, indeed, we
vote this out.

So, I have two other lines of questioning that I
want to get resolved. One is, one of the commenters said
that batteries cannot -- would no longer be able to be
used. And I’m going to throw demand responsiveness in
there. You know, one of the intents -- absolutely, you
know, decarbonization is our overarching goal right now.
It’s not necessarily to promote an individual technology
over all others. Okay. And so, decarbonization, we have
to keep that frame. That’s something that is just ever
more clear in our policy environment.

Load flexibility and demand responsiveness is key
to getting decarbonization done. And one of the intents of
the Building Code update absolutely has been to promote
those technologies, smart, grid resilience technologies
like storage, like demand responsiveness.

So, I would be very concerned if we thought that
batteries and, you know, behind-the-meter flexibility would
be negatively impacted by adoption of this. So, if staff
could address that?

MR. PENNINGTON: Okay. So, JA-12 has a requirement
in it that -- for there to be compliance credit for battery
storage, that you have to have onsite solar in conjunction
with that battery storage. And that requirement evolved
from a lot of interaction with the utilities about whether
grid-charged batteries were appropriate or not.

And the consensus of that, although there was some
difference of opinion among the utilities, the consensus
was that, no, we didn’t want to have grid charged batteries
and provide that credit.

So, you know, JA-12 is an intent to provide
compliance credits for batteries, but the fundamental
requirement is for rooftop solar. And so, JA-12’s kind of
an appendix to that.

So, basically, JA-12 says, no, you have to -- you
can’t get battery storage credit, compliance credit unless
you have a rooftop solar.

COMMISSIONER MCALLISTER: And SMUD’s proposal
doesn’t have any clause or any condition for behind-the-
meter batteries within the commitment to community solar capacity?

MR. PENNINGTON: Yeah, correct. We didn’t see that SolarShares was qualifying as rooftop solar and, so, it was not meeting the JA-12 expectation.

COMMISSIONER MCALLISTER: Okay, I got that. So, as a renewables enhancing, decarbonization strategy, which I think community solar is, or however we define community solar and that’s the third thing I want to talk about that

--

MR. PENNINGTON: There’s a caveat here. Let me add to that, if I may.

COMMISSIONER MCALLISTER: Okay.

MR. PENNINGTON: Sorry for interrupting you.

So, the community solar also has the option for community batteries. So, it could be community storage in combination with community solar is a possible outcome that is clearly, explicitly allowed. So, if there was battery storage in conjunction with the community solar storage, then we could figure out what that was worth in TDV terms, and that could be credited.

COMMISSIONER MCALLISTER: Is there, today?

MR. PENNINGTON: No.

COMMISSIONER MCALLISTER: Okay. Okay, thanks. Let’s see, and then -- well, I guess I have two
more questions, really. This is important, right, so we
want to get right. Yeah, go ahead.

MR. TUTT: If I may, I just wanted to point out
that the SMUD Neighborhood SolarShares program in no way
prohibits consumers from adding batteries to their homes.
We understand that they don’t get a compliance credit, the
builder wouldn’t. But the consumer can add a battery
later. It’s not prohibited in any way by our program.

COMMISSIONER McAllister: Yeah. I mean, I guess, I
think a lot of the comments have been, I think, confusing.
You know, we’re talking as if we’re prohibiting something,
right? But we’re talking about minimum standards here.
Right? So, the consumers are free to do a lot of things.
And what we’re talking about doing is what we’re going to
make everybody do. And so, I think that distinction, so,
certainly, that’s great. You’ll interconnect a battery.
But I think in terms of the compliance credit that would
have otherwise been available to a customer, but wouldn’t
be because they want this other option, that might be a
concern.

So, Bernadette really wants to say something, and
I’m going to let you do it.

MS. Del Chiara: Thank you, Commissioner, so much.
I know you want to get this right. The customer would be
prohibited, under SMUD’s proposal to add onsite solar after
the fact, except, unless they can prove their load
increased according to the calculations done from the get
go, and then they size their system only to the delta of
that increased load. That’s a pretty severe restriction
for the customer.

COMMISSIONER MCALLISTER: Yeah.

MS. DEL CHIARO: The second is the investment tax
credit is only if you add solar. So, the customer is free
to add storage, but they’re not going to get the economics
that they need to make that purchase.

COMMISSIONER MCALLISTER: So, yeah, we’ve been
talking about batteries. So, I wasn’t asking about
incremental storage but — I mean, incremental solar, just
about the storage piece.

MS. DEL CHIARO: No, but you were wondering about
the consumer experience earlier, and I really appreciate
you asking that question. I think when the consumer steps
onto a building site that is a partner with SMUD, I don’t
think they’re going to fully understand that this green
program that they are buying into is actually going to tie
their hands from being able to be self-sufficient, and have
their own onsite energy system. In the future, for the
next 20 years.

COMMISSIONER MCALLISTER: Okay, thanks for that.

So, let’s see, so I appreciate all the different comments.
But I just want to make sure we’re getting, we’re talking about what is the scope within Title 24. And, you know, we’re not trying to control the whole world here, we’re trying to control the building, the Title 24 new construction.

So, I want to talk about this definition of community solar. And there were some legal arguments made. And I guess, maybe I’m going to look to Matt and to the Chief Counsel’s Office to talk about whether that local government does land use. You know, we don’t do land use at the Energy Commission. And so, I want to tread really carefully here. But I also, I do very well vividly remember the conversation we had about the original Title 24, and I want to make sure that the spirit of that, which I think meant different things to different people. I mean, I think a lot of the recollections that people have manifested aren’t necessarily in alignment with my recollection about, you know, exactly the intent was. And I think, you know, I have a pretty good idea what the intent was.

But the community moniker has been problematic for years. I mean, Lois Wolk tried to get a community solar build done. She had lots of different stakeholders. Many of you were probably involved in that. And that process, over several legislative sessions, did not figure out what
community really was, as far as I know. But it was a
difficult topic.

And finding cost effectiveness was also very
difficult for that conversation. So, anyway, with that,
Matt?

MR. CHALMERS: Sure. So, to speak to that, I want
to just reiterate the set of points that Bill made at the
outset of this item, which is that we are looking at the
plain text of 10-115 here. And to the extent that the
plain text of 10-115 doesn’t specify a size requirement,
doesn’t specify a location requirement -- and you’ll note,
if we get into -- I don’t want to get too deep into the
weeds here because I know we’re over time. But there are
places where this speaks to renewable systems, it speaks to
battery storage systems. It’s important to understand that
the text of 115, as I’m reading and as all the attorneys
that I’ve worked with on this read it, this is designed to
be flexible language. That’s intentional.

So, to the extent that we’re reading something into
the text that isn’t there, I would be more concerned about
that. This is flexible language.

Does that answer your question?

COMMISSIONER MCALLISTER: Well, I guess the flip
side of that would be do we have the authority to define
community in a way that is more restrictive than that?
MR. CHALMERS: Absolutely. In an intervening code cycle, in the 2022 code cycle we go through, take that through the APA process and the CBSC process. I don’t see any reason we couldn’t.

COMMISSIONER MCALLISTER: So, that would have to be in amendment to the rulemaking, itself, or a new --

MR. CHALMERS: That’s my understanding. Now, I will note that, as has been pointed out, the Commission does have broad discretion in how the Commission wishes to vote today. But to the extent that we want to then go back in and further define and refine the definition of community, that’s something that should occur in an intervening or 2022 code cycle.

COMMISSIONER MCALLISTER: Okay, thanks. So, talking about the -- going back to the batteries, just to make sure we have it crystal clear, there is no pathway for getting compliance credit for behind-the-meter battery under the community solar scenario. Is that a true statement?

MR. SHIRAKH: Mazi Shirakh, CEC staff. The way JA-12 is currently written, the battery must be coupled with an onsite PV system. There’s another path if the battery is also located at the community resource, where the farm is. That can also get the credit.

But I want to take a moment to describe what this
credit is. When you couple a PV system with a battery storage system, there’s a large credit in EDR terms. But most of that is only used if a local community adopts a REACH code that requires a lower EDR score than Part 6. You know, there’s a tier 1 or a tier 2.

So, most of that EDR score is only used to lower the EDR score towards those targets. A small portion of that EDR target, about roughly 30 percent, 25 percent, can be used, may be used to do tradeoffs against building envelope features.

So, a battery storage system that’s installed, that cannot claim that credit, will forego those benefits, lowering the EDR score towards the ZNE target or doing that tradeoff.

There is no language that prohibits the homes from installing the PV system -- or, I’m sorry, the battery storage system. They can be installed. It’s just they won’t enjoy those benefits.

COMMISSIONER MCALLISTER: Okay. So, there’s no compliance credit for a behind-the-meter battery with no solar on the roof. Okay.

MR. PENNINGTON: So, a consequence of that, I would say, is that the builder that is considering doing battery storage in conjunction with the PV system in order to provide a better product and a, you know, current thinking
product, will have an advantage to stick with rooftop solar because they’ll get a little bit of compliance credit that they could use against the tough measures that they are resisting related to the building envelope.

COMMISSIONER MCALLISTER: Okay.

MR. PENNINGTON: If they go community solar, they lose that.

COMMISSIONER MCALLISTER: Okay. And so, I want to point out one other thing. I’m sorry to keep the microphone here longer than probably everybody’s got patience for, and everybody’s hungry because it’s almost 2 o’clock, but this is really important.

So, and I want to also just point out that I did not take meetings with stakeholders over the last month on this issue because -- and I didn’t take them with anybody, okay, because I wanted to have this conversation right here and talk through some of these issues in public. Okay, that’s what our process is supposed to do.

There’s a lot of detail here. And so, I think it’s really important to get right the signals to the marketplace that we need to have the buildings that can respond to our reliability needs, our grid reliability needs, and certainly a nod to resilience. You know, given the fire seasons we’ve had over the last few years, even though that hasn’t been front and center in the development...
of the Code itself. Okay, I want to be clear about that. But, you know, again, this is not -- so, I know that I’ve got lots of high fives. Everybody talked about that, when we got the regulations through and the Building Standards Commission approved them. But the goal is decarbonization, right. It’s not to support one particular sliver of the solar industry. We need it all, okay. And I believe this is additional and I believe that rooftop solar can compete perfectly well with the other options that are out there. The benefits are there and the marketplace is supporting that.

And we’ve actually heard some of the solar companies, that are in this room, in the last few days say how robust they thought the market is going to be just on the natural because of all the resilience upside.

Okay, so the sky is not going to fall either way. And I think, sort of some of the comments to that effect I think are a little bit ill advised.

I have one other question for SMUD directly. What is your position and possible future employment of virtual -- of VNEM?

MR. LINS: Hi. Steve Lins from SMUD. We have a robust outreach process right now to look at all things, net energy metering 2.0. We will be considering our rate structure, VNEM. And as we finish that process, which is
going to take us about 12 to 18 months, at the end of that process we’ll have an informed position.

We’ve got technical groups and stakeholder groups involved in this process. We’re doing benefit of solar studies, as well. But right now, we’ve done a pilot in the past and that pilot’s closed, but we’re trying to look at the next generation and we’re not going to be able to do that until it’s informed by this kind of stakeholder process that we’ve just started, which is a 12 to 18 month process.

COMMISSIONER MCALLISTER: So, the IOUs, at the behest of the PUC, have virtual net meeting and are able to do that attribution. Are you -- you think it’s likely that you’re going to end up there?

MR. LINS: At this point, we just don’t know. We’ve got a robust process. It’s hard to say how it’s going to turn out. We’re not sure what the benefit of solar studies are going to look like. And we’re not sure what our net energy metering rate structure’s going to look like, so I think at this point we just don’t know.

COMMISSIONER MCALLISTER: Yeah, sorry, I don’t like to monopolize, but I do like to get answers.

So, let’s see, let me just take a moment to make sure I’ve gotten through all my notes here. Yeah, why don’t --
CHAIR HOCHSCHILD: Let’s move on to other Commissioners.

COMMISSIONER MCALLISTER: And I’ll come back if I need to, yeah.

VICE CHAIR SCOTT: Yeah, sure. I’m not sure that I have a question, per se, but I did have some thoughts as we’ve listened to the dialogue. I also have not taken any meetings with stakeholders, but I have read everything that came through on the docket.

And for me, I think it’s a little bit problematic the way that this is set up. I understand and I support the need for flexibility, right, we’ve got to make sure we’ve got our multi-family homes and buildings. We need to make sure low income communities and communities that are defined under CalEnviroScreen as disadvantaged are included as we’re making this transition, right. And so, the flexibility that we weaved in makes a lot of sense to me and I’m glad that we have it there.

I’m worried about the broadness that I see within the proposal. It seems to me that potentially every house that’s in SMUD territory could be built and use the SolarShares program, and not have solar or storage on it, the way that I read the proposal that’s here before me. And the broadness of that is what’s concerning to me. Because then, I do think that we are missing some of the
options that we would want to have in place as we make this transition to a carbon neutral energy system.

And, again, kind of making sure that it’s equitable, that we’re including everybody, that we can bring everyone along is really important. And so, I worry that we might, because it’s so broad, be tilting too far to the SolarShares direction versus kind of where do we want homes that do have solar and storage versus communities that have the SolarShares program.

And I think about it a lot, too, it comes back to kind of like the affordable housing question, reliable energy question, the emissions reductions that we’re looking for, and the energy savings in order to get to carbon neutral, as Commissioner McAllister has said.

So, you know, I think that the other thing that I was thinking about, which is not sort of just the broadness of the way that the current proposal is, was within Bill’s presentations on slide 5 and 6, I think, it’s going to be an immense administrative burden to have hundreds or thousands of homes where we need clear accountability, where we’re trying to show monthly savings and get that information back to those homeowners, and over multiple decades. Like, I just can’t quite wrap my brain around what that looks like to actually make sure.

And that’s really important, right, we want to
demonstrate the compliance in this space. Because again, it all ties back to moving our state towards the clean energy standards and towards the carbon neutral.

So, these are the things that I’m kind of thinking about, struggling with as we talk this through right here on the dais, but I wanted to put that out there while Commissioner McAllister was gathering the rest of his questions and thoughts.

COMMISSIONER MCALLISTER: Thanks.

VICE CHAIR SCOTT: Yeah.

CHAIR HOCHSCHILD: You had more questions?

COMMISSIONER MCALLISTER: Yes.

MR. PENNINGTON: Is it possible for me to react to Commissioner Scott’s --

CHAIR HOCHSCHILD: Yeah, go ahead, sir. Yeah.

MR. PENNINGTON: So, it is a huge burden to administer these programs correctly. That’s completely on the applicant to do and they have to commit to doing it. And there’s an accountability requirement in here that says any stakeholder has the right to object to what’s going on. And the Commission can, you know, address that.

So, we don’t see the Commission, you know, on an ongoing basis doing all the tracking. SMUD has committed to do a huge amount of tracking. Thank God there are WREGIS tools that enable that to be done reasonably. And
maybe a good part of solar’s already going through that kind of a tracking system.

In addition, SMUD has committed to providing annual reports to the Commission on what is the progress of the shares that they are allocated to specific homes. So, yeah, I would agree that this is hard. And this actually might discourage a wide, you know, swath of a lot of utilities taking this on. A lot of smaller POUs might really not have the ability to take this on, whereas a big one maybe does have the ability to do, you know, this larger accounting thing.

So, this actually might be a discouragement towards this alternative just kind of exploding and taking over the whole market. Because this is definitely a big lift.

MR. HAMZAWI: Can I add a little bit to that, if that’s okay?

CHAIR HOCHSCHILD: Yeah, go ahead.

MR. HAMZAWI: Sorry, Ed Hamzawi with SMUD, Director of Advanced Energy Solutions.

Yeah, we -- I mean, you’re right, it’s a major process to track these and we do that, currently, with any of our other renewable energy programs. We have the accounting systems and reporting systems set up for our RPS, for our voluntary renewable energy programs, our Greenergy programs. And so, this is another tranche to add
to that whole process that we’re prepared to do, and have committed to do that in our obligation.

COMMISSIONER MCALLISTER: Okay.

CHAIR HOCHSCHILD: Other Commissioners?

Commissioner Douglas, anything?

COMMISSIONER DOUGLAS: Yeah, I’m still -- I’m thinking about it. You know, I’ve reviewed the materials in the docket. I also did not take meetings on it. I think we could have taken meetings all week on it, for many weeks, but I thought it was better to hear from people and in public, at the meeting.

CHAIR HOCHSCHILD: Go ahead, Commissioner Monahan.

COMMISSIONER MONAHAN: Yeah. Well, I’m the newest Commissioner and I wasn’t involved in developing the original language in the regulations, so this has been really informative. And I was, too, looking forward to this discussion to learn from all of you the history of how the language got developed.

And the fact that there was no specific definition for community, the fact that the energy -- the savings, the definition was so narrow that a $20 per year benefit, that’s not equivalent to the $300 per year benefit that we estimated at the Commission, is troubling to me that the language isn’t more specific. Because it does -- it does feel like, you know, the level of opposition that we’ve
heard from all the groups here.

And I just want to say thanks to everybody for coming, and waiting, and participating in this process. I’ve been on the other side and I know how hard it is to wait and want to give your comments. So, thank you all for participating. This process has been really helpful to hear all the different comments.

And I’m curious from SMUD, to hear from SMUD more about why the $20 per year, and this question around -- that Vice Chair Scott raised around how do we make sure that everybody benefits from this transition to clean energy? It’s worrisome to me to hear that it’s the multi-family dwellings that are probably going to capitalize on this. They’re the ones that actually could use the savings in terms of reduced rent for the folks that are in those buildings, and that’s deeply concerning to me. So, I just would love to hear your response to that.

COMMISSIONER DOUGLAS: I think -- you know, Commissioner Monahan, I think SMUD should answer that question. I did want to say, just from the perspective of, you know, because I led a session of the Building Standards Update, and then when Commissioner McAllister started, he took on efficiency and led the next update. And so, you know, I am pretty steeped in the history of the updates of the Building Standards getting us towards the zero net
energy goals, and the rooftop solar mandate.

You know, and I will say that, you know, the debate at the time when we were considering the standards update, and the requirement for solar on new homes was, you know, not so much framed as how do we maximize the benefit for every consumer and every new home, although we certainly want to, and it’s certainly their desire. You know, the desire of everyone who buys a house to maximize their benefit however they define that.

But it was cost effectiveness. It was ensuring that as we move forward and adopted this requirement, we were going to meet our cost effectiveness requirements. And I think we demonstrated pretty convincingly that the standard rooftop solar option would do that.

And we provided an incentive in there. Commissioner McAllister can speak much better about this than I can, by the way. But we provided an incentive for solar with storage because we believed that that was a value proposition that was tremendous, but that did not, on its face, meet our cost effectiveness requirement such that we could actually make it mandatory.

And the community solar option was an important opportunity or alternative in that debate to ensure, you know, not necessarily that using that option would get you as much of a decrease on your electricity bills as you
would get in a large house, with a swimming pool and, you
know, all sorts of opportunities to save electricity,
right. But that it would be cost effective. That for the
consumer, going into that house, it would save them money,
not cost them money.

And I think, you know, I think it’s -- I think some
of the disconnect we’re hearing in this debate is that
difference in outlook from this requirement originating,
and our desire to meet our energy goals, but the cost
effectiveness framework. You know, is this at least plus?
Is this a plus for the consumer? Can we demonstrate that
this is a plus for people who are buying their house,
whether it’s in a multi-family unit or a single-family
unit?

So, that’s some of the context from my perspective.
I’m also interested in SMUD’s response to your question.

MR. TUTT: So, as Commissioner McAllister pointed
out, this is not a premium program. Our customers that
participate don’t have to pay to be part of it. We
actually provide them with a monetary benefit for
participation.

And our executives approved this level of monetary
benefit as, you know, a way to make sure that we could meet
the net benefit criteria, but not necessarily charge our
other customers, who aren’t participating, with more and
more of a significant cost to them because we’re providing that benefit to these participating customers.

Also, point out that this is a guaranteed benefit for 20 years. And, in comparison to the estimated benefit of the -- that is used for the cost effectiveness in the Energy Commission’s analysis, we don’t know for sure that that benefit will persist over time for all of the customers that have rooftop solar.

Just to use a personal anecdote, I, earlier this year, was doing a project for work and used some of my Green Button data from PG&E, and realized that my inverter had not been working for three months. And so, I wasn’t getting that benefit. And those GHG reductions weren’t occurring because my system failed. And even though I am an energy nerd, I didn’t monitor it well enough to realize that.

Something similar happened to a neighbor of mine. Her inverter failed and she didn’t realize it for 9 months until she got the $400 true-up bill from PG&E. And she’s a little, old lady living on fixed income. She came to me, complaining about her PG&E bill.

So, those benefits aren’t guaranteed. We do expect our customers that do include rooftop solar will generally see benefits, and that’s fine. But our benefits are guaranteed.

CHAIR HOCHSCHILD: Well, I guess where I am with
it, just to step back, you know, as an agency we are absolutely committed to getting to a hundred percent clean energy future. That is our focus on everything we’re doing. It’s our focus with our codes. It’s our focus with our R&D. It’s our focus with our enforcement. It’s our focus with our clean transportation program.

And there’s a second part of that to come which is, actually, the electrification of almost everything. That’s where I believe we need to go. In transportation, we’re adding 20,000 electric vehicles a month to roads in California. We’re at 655,000, now. You know, we’re seeing this transition with all-electric construction, even conversion of rail, like the Caltrans line, from diesel to electric.

We’re going to need a lot more solar, a lot more clean electricity going forward, and that includes rooftop solar, it includes community solar, it includes utility scale solar, and it includes a whole bunch of new resources like we hope, for example offshore wind. So, this is, you know, the direction we’re going.

My concern with this proposal, honestly, had to do with the value the customer’s getting. I do feel that is low. You know, having said that, I feel this is kind of on us because we didn’t specify, you know, with great specificity what the community solar project actually looks
I do think it’s important that there do be a community solar option. And we have built into, in addition to that, other common sense offramps including, you know, if the home is shaded, or if it’s north facing, and so forth.

But to, you know, remember the context there, there was enormous blow back, by the way, when we did the solar—in fact, the Legislature, this year, voted to undue the solar requirement in areas, you know, that were affected by the fire. Which is not a decision, by the way, I agree with. Actually, that’s actually where you want the resilience. And, you know, when we adopt these codes, we only can adopt it, we only can adopt it if it saves the customer money. We actually don’t ever adopt an energy code that doesn’t save the customer money. And that, I felt that point really got lost in the discussion at the Legislature, but that is the context.

And so, you know, from my perspective, flexibility is an important feature and community solar is an important feature of that flexibility. But, you know, having said that I do -- that’s my reaction to the -- I mean, I do think the value is low.

And so, I mean, Commissioner McAllister, you’re lead on this item so --
COMMISSIONER MCALLISTER: Yeah.

CHAIR HOCHSCHILD: -- is there a recommendation you want to make?

COMMISSIONER MCALLISTER: Yes, so I want to thank the positive engagement on everybody’s part, really great. And I would reiterate that we did get a lot of blow back from the requirement. I mean, not just from, you know, the usual suspects, all from the media, but on one extreme of the media. But, you know, within the Legislature it sparked a big discussion about, you know, how flexible this ought to be going forward. And they reacted as the Chair said.

So, I also wanted to point out that, you know, there actually is some information for us to discern what the minimum expected customer benefit is. We also, in the code, we created an opt out, which we have a proposal now, it’s not on this Business Meeting, but it will be on a future Business Meeting sometime, from a public utility district that says that the solar, rooftop solar is not cost effective in their territory. And so, we’re having to evaluate that to see whether our statewide average assessment, you know, really applies in that particular area of the state, in that particular service territory.

And so, you know, they’re arguing that rooftop solar is not cost effective for their customers given that...
they have federally subsidized rates or they have, you know, historically low rates that will likely continue in the future. And so, we’re having to say, look, if it costs the customer more, then absolutely we would be giving them an exception to the rooftop mandate.

And so, implicitly, then, the minimum customer benefit, you know, at a reasonably granular level I would hope, would be zero. And this is more than zero. So, obviously, SMUD has cost effective opportunities for solar right now.

And, you know, my intent all along here was to not be the current from for the NEM, for the net energy metering debate, but it looks like it’s sort of evolved into that.

You know, net energy metering is a separate topic and it’s very complex, and it’s fraught. And so, that’s the implicit, you know, benefit that the customer -- that is the actual benefit that the customer is getting, depending on what NEM is in a particular service territory. So, in this case SMUD.

So, did you want to say something else or?

COMMISSIONER MONAHAN: Well, I have a question.

COMMISSIONER MCALLISTER: Yeah, absolutely.

COMMISSIONER MONAHAN: And I think it’s actually for you, Commissioner McAllister.
COMMISSIONER MCALLISTER: Uh-oh.

COMMISSIONER MONAHAN: Or perhaps us, as well. But I’m kind of fixated on this issue that multi-family dwellings --

COMMISSIONER MCALLISTER: Yeah.

COMMISSIONER MONAHAN: -- and it’s a problem, right, because the owner of a multi-family dwelling doesn’t necessarily have an incentive to pass on the savings.

COMMISSIONER MCALLISTER: That’s right.

COMMISSIONER MONAHAN: You know, to spend more for a mortgage so that the utility bill of the people in the building will go down. I mean, that’s a big problem.

And it seems that this -- by using this, you know, cost effectiveness as our criteria, we could exacerbate that. Or, maybe not exacerbate, but we’re not helping it.

COMMISSIONER MCALLISTER: We’re not helping as much, yeah.

COMMISSIONER MONAHAN: And the question is, I mean, can we -- is this a place where we should be engaging the Disadvantaged Communities Advisory Group? Should we be really mining this around how can we make sure that our regulations support benefits accruing to everyone, and especially folks living in apartment buildings that are often low income.

COMMISSIONER MCALLISTER: So, staff feel free to
comment. I guess, you know, again, I think Title 24, you know, Building Energy Efficiency Standards are a place where we have authority to do certain things, but in a lot of places it’s going to be silent.

I would imagine, for example, on that point it’s probably silent and maybe legal can back me up on that.

MR. CHALMERS: So, I’m not aware of any particular provisions in the 2019 edition of our Building Code where we specifically drill into disadvantaged communities.

COMMISSIONER McALLISTER: Yeah, I think where I would say that’s a valid conversation is in the presentation from SMUD, of whoever’s applying for the community solar option in the future, talking about how to apply virtual net metering, how to have options that in this non-rooftop option, or whatever the options the utility’s going to offer, how they can make sure the benefits accrue to different populations in a way that looks like a program that stakeholders would support, and that we would approve.

So, yeah, so I just have two more points. So, you know, I have to say I’ve been in this industry for 30 years almost, in the solar industry from the early -- dating from the early 1990s, when solar was a lot more expensive and, really, there wasn’t any grid-connected solar in the U.S. And we’ve come a long way. And we’ve gotten huge cost
reductions, huge technology developments. We have, you know, power electronics that are -- just we could only imagine we were off in the middle of nowhere, in Altiplano, Bolivia, in my case, installing solar back in the day. You know, we have actual, really quality equipment that lasts. And that’s, really, I think kudos to everybody in this room and beyond, in the solar industry. It’s amazing, really, the opportunities that we have.

I’m skeptical that a proposal such as this is going to completely undermine the rooftop solar argument. And I don’t think the sky is going to fall with a community solar option. But, you know, I think we’re also in a position to see how things go forward and see if that happens. And then, how the various subsectors, you know, segments of the solar marketplace evolve.

I have two concerns, really, and I’ve talked about both of them. I have two concerns that are going to, I think, need further discussion. One is, certainly, if we’re endangering grid flexibility, that is a -- decarbonization depends on grid flexibility. And if we’re undermining, in any way, new construction’s ability to have technologies onsite that encourage good behavior by that particular building on the grid, then that’s a problem for me. And it’s certainly the intent of the standards was to encourage that to happen, in at least a voluntary way.
As Commissioner Douglas said, we couldn’t find behind-the-meter batteries to be cost effective, but we could encourage them and we think that that’s actually going to happen in 2020 and beyond.

And then, the second, you know, I’m not sure there’s a solution and I’m not sure we have to solve this problem. And I think we have considerable discretion, which we need to use wisely. But this definition of community, I think we need to consider, perhaps, putting in place some limits on what that actually means and where these attributable sites are going to be.

I don’t have a problem with it being a preexisting site because I know that’s going to get made up over in some RPS compliant future facility, and I think that’s just accounting and that’s no problem.

But I do think that there was a spirit discussion, when we were working on the rulemaking that, you know, community solar meant a lot of different things to a lot of different people, but that probably it wasn’t, you know, utility scale in the desert. It probably wasn’t near, maybe infill, something like that.

So, I think maybe we end up in the same place we are now. I’m not going to prejudge that discussion. But those are the two issues that I think need further discussion.

And I’m going to propose that we pull this item for
this meeting, and that we sharpen up our pencils a little bit and come back with an offering that is slightly modified. Certainly, that give the kinds of guarantees that I’m talking about on the flexibility front. And then, see if we can do a little bit better and be more precise on the community solar definition.

CHAIR HOCHSCHILD: Okay.

MR. HAMZAWI: Commissioner McAllister -- oh, sorry, excuse me.

CHAIR HOCHSCHILD: Yeah, go ahead.

MR. HAMZAWI: I just want to point out that we had discussions on this with staff and debated about what resources we would include in our application. And with the exception of one system, the rest of all of our systems are inside our county. So, I think we have really met the spirit and intent of it in our building systems that are in our service territory.

COMMISSIONER MCALLISTER: I very much appreciate that. And I agree with you. I think that as a precedent, I think probably we need to have that conversation to make it more explicit. And so, not to impugn the work that was done already on this.

MR. TUTT: And, Commissioner McAllister, if I may, I’d also like to point out that many of our resources that we’ve allocated to the portfolio here are relatively small
resources. Our feed-in tariff projects are not one big, 100-megawatt facility located somewhere. They’re spread out through our service territory. And I think the smallest one is just 400 kW. There are several that are 1 megawatt facilities. There are several that are, you know, 2 megawatt facilities or 3. And I think the largest sort of single facility in that program is a 5 megawatt. Some of them are close together but, certainly, we have some smaller facilities included in the program.

Those resources, obviously, have been existing for a long time, so we’re hoping to move to new resources. And our new resource in Natomas provides grid voltage support, and is 13 megawatts. It’s not a huge utility scale system.

Thank you.

COMMISSIONER MCALLISTER: Yeah, and thanks a lot. And in discussions going forward, I would just really, strongly recommend that folks get out of their own kind of comfort zone a little bit, and figure out what -- look at the State of California’s goals more broadly, maybe, than your particular day job, and try to figure out what really makes sense and what’s the right thing to do. Because I think there was a lot of sort of litigation position here today, in people’s comments. But let’s roll up our sleeves and be looking for solutions that really let all the flowers bloom, and not just the ones in any one particular
 parcel.

CHAIR HOCHSCHILD: Okay, colleagues, if that’s amenable to everybody, we’ll table this item and you’ll bring it back when you’re ready.

With that, we are going to take a break for lunch.

Item 6 took 2 hours and 45 minutes.

COMMISSIONER DOUGLAS: We should vote on that.

If I could, let me just ask the Chief Counsel, should we vote on that?

MS. HOUCK: Once you make a motion to table --

CHAIR HOCHSCHILD: Okay, why don’t you make a motion to that effect?

COMMISSIONER MCALLISTER: Okay. I make a motion to pull Item 6.

CHAIR HOCHSCHILD: Okay, is there a second?

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: All in favor say aye.

(Ayes)

CHAIR HOCHSCHILD: All right, that passes unanimously.

Let’s reconvene at 2:45. I have to go and then Commissioner Scott will take it over.

(Off the record at 2:18 p.m.)

(On the record at 2:52 p.m.)

VICE CHAIR SCOTT: Welcome back, everybody. We are
now on Item Number 7, the Load Management Rulemaking,
Docket Number 19-OIR-01.

Karen, please go ahead.

MS. HERTER: It’s my first time. Thank you.

Good afternoon, Commissioners. My name is Karen Herter and I’m an Energy Commission Specialist 3 in the Efficiency Division.

I’m here today to propose an order instituting rulemaking to update the existing regulations for the Energy Commission’s load management standards authorized under the Warren-Alquist Act. Last year Senate Bill 100 committed the state of California to a carbon free electricity supply by 2045. Reaching this goal will require the replacement of fossil fuel generation with clean energy resources.

Solar technologies are expected to comprise the largest share of future carbon free energy supplies in California. Because the availability is limited by sunrise, sunset, and cloud cover, a high concentration of solar resources will exacerbate the challenge of balancing the grid in real time.

Given the inflexibility of this energy supply, economic principals would advocate improving the efficiency of future electricity markets by increasing flexibility in the demand side. Recent state legislation including
Assembly Bill 3232 and Senate Bill 49 has called on the Energy Commission to consider opportunities and create new regulations to do just that. The CEC originally 1982 load management standards increased demand flexibility by compelling the creation of residential load control programs, marginal cost pricing, and large commercial and industrial time of use rates.

As a result, California customers in all sectors have been providing basic load shifting and demand response resources for decades. During that time, however, technologies and markets have evolved dramatically and the need for more advanced demand flexibility has become increasingly evident. This order would direct CEC staff to work with the public, stakeholders, and sister agencies to consider amending the existing load management regulations with the goal of increasing statewide demand flexibility and leading the state to a 100 percent clean energy future.

Thank you for your time, and I’m happy to take any questions.

VICE CHAIR SCOTT: Thank you. I have one public comment here in the room. Mr. Steve Uhler, please. Perhaps he’s not here in the room.

The Public Advisor has just noted that he did not leave comments for her to read.

Do I have any public comments on the phone? All
right. With that, comment on Item 7 is closed.

Let us turn to Commissioner comments, please.

COMMISSIONER MCALLISTER: Hey, thank you. So this is the item I was referring to earlier when we were talking about Charlie Warren and his legacy. And the load management standards parts of the Warren-Alquist Act are just amazingly prescient and they could have been written maybe not quite yesterday but maybe, you know, six months ago or something. But they are as relevant now as they ever were. And our authority in this area is clear and the conversation that we’re going to have that’s laid out in this item is in broad strokes and will soon be enjoined by a more detailed document is essential for us to get where we need to go.

And so, you know, I said earlier in the previous item that load flexibility is essential for decarbonization and this is where a lot of that rubber hits the road in a conversation about load management. So I’m really excited to be bringing this -- that staff has brought this forward and thank Karen for all her hard work on it and both up to now and this past week to come. And it’s going to be a really good, useful I think, very productive positive discussion for California. It’s going to take us in the direction we need to go and marshaling all the technology and know-how that we have in this state. So I’m very
excited to support this item.

COMMISSIONER DOUGLAS: So I’ll just say in addition that we have talked from time to time about dusting off this authority and bringing it forward and it always seemed important and now it seems essential. And so I’m really glad you’re taking this on.

COMMISSIONER MCALLISTER: Great. Thanks a lot. And welcome back, Karen, who’s our Lead on this who worked at the Commission with our resident help the last time we were working on load management standards and Jackie Pfannenstiel. So it’s I think really time to engage on this again, so.

COMMISSIONER MONAHAN: Can I just say one quick thing which is that this dovetails nicely, too, with the vehicle grid integration work that the Fuels and Transportation Division will be publishing next year.

COMMISSIONER MCALLISTER: Great.

COMMISSIONER MONAHAN: And it’s an opportunity to leverage -- make sure that as we’re electrifying transportation, we’re doing it in a way that supports the grid.

COMMISSIONER MCALLISTER: Absolutely. It’s all of that is related in flexibility.

So I move Item 7.

COMMISSIONER DOUGLAS: Second.
VICE CHAIR SCOTT: All right, all those in favor?

(Ayes.)

VICE CHAIR SCOTT: With that, the motion carries 4-0.

Now we’ll move on to Item Number 8, Variable Capacity Heat Pump (VCHP) Performance Compliance Option.

Jeff, please.

MR. MILLER: Good afternoon, Commissioners. My name is Jeff Miller. I’m a Mechanical Engineer in the Building Standards Office. I’m here to ask for your approval of Variable Capacity Heat Pump performance compliance option.

Compliance with the California Energy Code may utilize a computer model approved by the Energy Commission to simulate the energy use of a building based on user inputs that describe the properties of the building which includes the operational efficiency of heating and cooling systems contained in the building.

Modeling of the operational efficiency of new technologies may be approved and incorporated into the compliance software by use of a compliance option. Variable Capacity Heat Pumps, also referred to as mini-splits and VCHP systems, are an emerging heating and cooling technology in California and the rest of North America even though they are common in many other parts of
the world. VCHPs do not currently receive performance credit within the Energy Commission’s compliance modeling software due to uncertainty regarding their installed performance. To address VCHP manufacturers’ request for a performance credit for VCHP systems, VCHPs have been studied in the Central Valley Research Homes Project also known as CVRH, a multiyear effort to test residential energy efficiency measures and technologies in four unoccupied, highly instrumented homes of different vintages in Stockton, California.

The data generated by this study was used to develop VCHP compliance credit. Staff’s proposal would add this credit into the Title 24 Performance Compliance Software. Staff presented the proposal and accompanying software at a public workshop on February 15th, 2019. Commission staff then prepared a report that clarifies eligibility requirements and provides support materials such as new compliance documents and field verification procedures that will be necessary for implementing the proposed compliance option. The report was made available for public comment and staff received detailed comments from 23 stakeholders.

Staff has reviewed all stakeholders comments posted to the docket and has responded to all comments received prior to November 5th, 2019. Staff finds that the proposed
compliance option is justified by the CVRH research. Staff therefore requests your approval to incorporate these VCHP algorithms into the residential performance compliance software known as CBECC-Res for use for demonstrating compliance with the residential performance standards. Staff also requests that field verification procedures detailed in the staff report be approved as well.

Thank you, and I’m available to answer any questions you may have.

VICE CHAIR SCOTT: Thank you. I have a public comment from Steve Uhler, please.

MR. UHLER: Thank you, Commissioners, I’m Steve Uhler. In looking at the methods that were used to arrive at this, I’m not finding very much science.

Also, I’m noting that there are words in there that look like rules that are being written. And just like I said for the like SMUD stuff, the health and safety code requires you to follow the APA. Algorithms are rules. Now I was unable to find a rule that was gone through the APA that you would be allowing them to put into the software.

Again, this is Chapter 2 related stuff not actually having a NOPA. And if you look on the card, there’s expressed terms, ET, all of those ISOR and all that other stuff, I have no idea of what this construction will be but this seems is proposing things like having to hang
thermostats on the wall on a system that has been cleverly
designed to not need that. It also seems to not take into
account efficiencies that could be resilience oriented such
as the ability to actually directly use DC because by
nature inverter-based systems can take in DC.

I think you should consider tabling this or
definitely not going forward on this until these rules are
made related to this. If you’ve read what I’ve put in the
docket, Berkeley seems to think these devices are very,
very efficient. I agree with that very much. The ability
to tune itself in real time to what’s necessary will do
things like minimize restart loads as opposed to a single
speed air conditioning system.

I find that you have no justification in allowing
them to write algorithms from rules that haven’t gone
through the APA. Do you understanding what the
requirements of the APA are and the Health and Safety Code
in following that? Are the Commissioners familiar with the
APA? This is an item you’ll be taking action on.

And Bagley-Keene would -- I would like for the
record if you don’t respond that you didn’t respond. It
would -- yes or no, do you understand the APA?

COMMISSIONER MCALLISTER: This is a comment period,
so please finish up your comment.

MR. UHLER: But within the Bagley-Keene, if
somebody requests to know whether or not or if you do not answer a question, and you should know and you withhold that information, you’ll be in violation. And it’s -- look for the word "misdemeanor" within the code.

VICE CHAIR SCOTT: So you at time. I would like to ask for our Public Advisor and perhaps our Chief Counsel to follow up with you offline.

Do I have any other public comment in the room?

Excuse me, public comment on the phone?

Okay. With that, our comment on Item 8 is closed.

Let me turn to Commissioner discussion.

COMMISSIONER MCALLISTER: Thanks for that item, appreciate that, Jeff.

Let’s see, maybe I guess you or Peter just very briefly, I know we’ve been at this a long time today, a little bit of context for this item in terms of all the comment that was received. Obviously positively predisposed, we’ve gotten a lot of activity in the docket on this and I just want to sort of maybe give that a little flavor to people.

MR. STRAIT: Would you prefer that I handle that or would you like to?

MR. MILLER: If you would like to, Peter, I’m okay with that.

MR. STRAIT: Certainly. So the comments that we
got for the most part were asking that we go farther. So the Central Valley Research Home results were actually a little bit of a surprise to us. We were expecting to see that the performance of these systems would track more closely with their rated values and it didn’t which is the reason why the credit being proposed is a flat credit that is guaranteed to be applicable in 90 percent of cases.

Most of the stakeholders would have preferred a larger credit that did track with that performance. They also had some requests, one which was interesting was related to the thermostat on the wall requirement. That requirement exists because that’s required of all other systems installed under code, but we could certainly in the future look at whether that is a requirement that should remain applied to these systems. So we didn’t want to change that requirement as a part of this proceeding since this is just about the software algorithms and when it awards credit for the efficiency these have.

COMMISSIONER MCALLISTER: So there was kind of a short fuse on this to get something up, right?

MR. STRAIT: Yes, exactly. So there was a lot of consensus that this is a good first step. And as long as we remain committed to continuing to work with stakeholders in the future compliance options and future rulemakings, they said this first step is good, we want better and we
want best but they are support of it for now.

We did have one commentary that was kind of against that, they did not want this at all. And they took an everything in the kitchen sink approach to why we should not do this item today. The alternative to not doing this would simply be to ignore the efficiency of these systems do bring and not award any credit to them whatsoever.

Staff did respond extensively to those comments on the record. We didn’t find there was anything in there that was persuasive that would change Staff’s recommendation or change the basic credit being proposed today.

COMMISSIONER MCALLISTER: Okay. Great. So thanks. I guess just with that August rejoinder, we’re still going to be working on this, we’re going to get better and we just --

MR. STRAIT: Absolutely.

COMMISSIONER MCALLISTER: -- not perfect yet but we’re going to try to get more close to perfect going forward in future generations.

MR. STRAIT: Yeah. This is all an iterative process, this is one iteration of our software modeling and we plan to continue to work with stakeholders to improve it further.

COMMISSIONER MCALLISTER: Great. Thanks a lot.
Jeff?

MR. MILLER: So I should add, this technology really deserves a do method of test which is what we have in development. Canadian standards is working on that but we don’t have one available to rate these systems properly. So what we put in place with this compliance option provides a credit that we believe is defensible based on the research we’ve done. And so, it’s --

MR. STRAIT: Yeah. That’s actually a good way to characterize it. This is in a certain sense a bridge measure, a way in the development of the standard that will track more closely with the performance.

COMMISSIONER MCALLISTER: Okay. Yeah. I mean, this is a very good technology to include buildings going forward and I just want to make sure we’re being as aggressive as we can be and still be responsible for the science.

So, anyway, thanks for your presentation. I’m support of this item. And I will move Item 8 -- no, is that it? No, sorry, yes, 8. Sorry, move Item 8.

COMMISSIONER MONAHAN: I’ll second that.

VICE CHAIR SCOTT: All right. All those in favor.

(Ayes.)

VICE CHAIR SCOTT: With that, the motion carries 4-0.
Next we will move on to Item 9, the Energy Conservation Assistance Act (ECAA) Rulemaking, Docket Number 18-OIR-02.

Hally, please.

MS. CAHSSAI: Good afternoon, Commissioners. My name is Hally Cahssai. I’m with the Efficiency Division. And with me is Cory Irish from the Chief Counsel’s Office.

I’m here today to request adoption of resolution to repeal the Energy Conservation Assistance Act or ECAA regulations which are outdated and no longer relevant to administrating the ECAA program.

The ECAA program is a low interest and no interest loan program administered by the Energy Commission to provide loans to local government and public schools to fund energy efficiency and renewable energy projects. The program has been in existence for 30 years and has funded 882 projects. Currently there are $165 million used for implementation for these projects and the funds are being repaid.

The program has resulted in local governments and public schools savings over $45 million in annual energy costs and a reduction of over 125,000 metric tons of CO2 per year. The program has also had a very successful repayment history with zero loan defaults and 100 percent of borrowed funds repaid.
The ECAA program was established in 1979 and ECAA regulations were adopted in 1983. Since 1979, the ECAA statutes has been revised and updated numerous times as the ECAA program as evolved. Most recently, Senate Bill 110 in 2017 made further changes to the way the ECAA program is implemented. However, the 1983 ECAA regulations have never been revised and have not kept up with changes in statute.

Each section of the current regulations have now become either out of date, no longer relevant, or unnecessary for the administration of the program. Therefore, staff is proposing to repeal the ECAA regulations and use statutory authority and guidance to implement the program. Repealing the ECAA regulations will not affect how the ECAA program is currently implemented, nor will impact the time or resources needed to apply for a loan.

In addition, in compliance with the Administrative Procedures Act, staff held a 45-day comment period followed by public hearing. There were no comments received during the 45-day comment period. During the public hearing, we had one individual ask if the loans would be available for local governments and schools and we were able to confirm that the program will continue as it has been as that information was part of the staff’s presentation during the public hearing.
Staff has considered the application of the California Environmental Quality Act, or CEQA, to the proposed repeal and concluded that proposed repeal is exempt from CEQA because the proposed repeal will not affect how the ECAA program is implemented and therefore, it can be seen with certainty that there is no possibility the proposed repeal will have a significant effect on the environment.

Staff requests that the Commission adopt the resolution to repeal the outdated ECAA regulations which as stated previously will not impact how the program is run or nor the time or resources needed to apply for a loan.

Cory and I are available to answer any questions you may have. Thank you.

VICE CHAIR SCOTT: Thank you. Let me see if I have any public comment in the room. All right. How about any public comment on the phone?

Okay. With that, we’ll close public comment on Item 9. Let me turn to Commissioner discussion.

COMMISSIONER MCALLISTER: Yes. This is pretty straightforward. You know, old rules that don’t really need to be there and it’s really just a good government thing. And, you know, even -- even the agencies that you might expect to be like what? They’re repealing rules?
It’s kind of been a big nothing burger.

So the ECAA program is so well run and has its own guidelines that really staff follow and we see that every meeting when we get stuff in front of us from -- through that program. So it’s really self-sufficient on its own without these rules, without these regs. So very appropriate to clean things up and get rid of them.

So if there are no other comments, I’ll move Item 9.

COMMISSIONER MONAHAN: Second.

VICE CHAIR SCOTT: All right. All those in favor.

(Ayes.)

VICE CHAIR SCOTT: With that, the motion carries 4-0.

We will now move on to Item Number 10 which is -- oops, Determination of Consistency of Integrated Resource Plans, IRP, with SB 350.

That’s going to be Paul.

MR. DEAVER: Good afternoon, Commissioners. My name is Paul Deaver. I am the Program Manager for Publicly Owned Utility Integrated Resource Plans or POU IRPs.

Today I’m going to present reviews of POU -- for four POU IRPs and for those adopting executive record of determinations found in each IRP consistent with requirements of Senate Bill 350, specifically Public
Utilities Code, Section 9621. I’ll refer to this as SB 350 throughout the presentation.

The four public utilities are Burbank Water and Power, Imperial Irrigation District, Redding Electric Utility, and Roseville Electric Utility. A brief outline of my talk today. First I’m going to give an update, a status update on POU IRP filings. I’m going to give a very quick review on the requirements for POU IRPs under SB 350, and I’ll provide a review and summary of each POU and their IRP filing. Towards the end of the presentation, I’m going to request the Energy Commission adopt the determinations finding each IRP consistent with the requirements of SB 350.

To date, all 16 POUs that are required to file IRPs have done so. Six executive record of determinations have been adopted and staff expects to present POU IRPs in December and one in early 2020.

First thing I’m going to provide a review of the POU IRP requirements under SB 350. You’ve all seen this before, it’s a review I’ll go through quickly. The 16 largest POUs must adopt an IRP by January 1st of 2019 and submit it to the Energy Commission along with supporting information reporting tables. The Energy Commission reviews the IRPs and determinations if they’re consistent with SB 350.
For the requirements, POUs have a few mandates they must meet. First are the California Air Resource Board establish greenhouse gas reduction targets by 2030. Also the POUs must ensure procurement of at least 50 percent of renewable energy by 2030. Senate Bill 100 which became law January 1st of this year requires a 60 percent RPS rather than the 50 percent. This was after many of the POUs submitted their IRPs to the Energy Commission thus Energy Commission be revealing for a 50 percent RPS.

Besides these two mandates, POUs also must address and plan for procurement for preferred resources. Although the Energy Commission is reviewing for 50 percent RPS, almost half of the POUs that submitted IRPs plan for 60 percent or more RPS by 2030.

I’ll start out with Burbank Water and Power or Burbank. I believe we have a representative from Burbank participating via WebEx today. Burbank is the 13th largest POU in California. They are not for profit electric and water utility in Los Angeles County. Burbank serves primarily residential and commercial customers. They have very little heavy industrial load. Because of this, they have a relatively peaky demand and they have ramping challenges. Their annual peak demand is around 300 megawatts.

Burbank submitted its IRP to the Energy Commission
in April of this year. Energy Commission staff reviewed
the IRP filing and the materials with it and determined
that it does meet the requirements of SB 350.

Burbank’s annual energy demand is around 1,000
gigawatt hours of before cast the demand to remain
relatively fat over the panning period. We found that
their energy demand forecast is comparable to the Energy
Commission’s mid and low demand forecast. We do see that
their demand forecast is closer to the Energy Commission’s
low forecast, to the low energy forecast. This is likely
because of energy efficiency programs pushing demand down.

Some of Burbank’s current resources. Currently
they have coal, nuclear, natural gas as well as large and
small hydroelectric. For the renewables, they have solar
wind, biomass, and geothermal resources. Currently coal
and natural gas make up the majorities of Burbank’s
resource mix.

So Burbank stops receiving coal energy in 2025 and
they exit from their intermountain power plant contractor
IPP by 2027. To replace some of the energy and capacity
from the IPP contract the utility plans to replace that
with renewable energy and storage to integrate the
renewables. The renewables include primarily wind and
solar.

For their RP -- IRP requirements for their GHG
targets, Burbank plans to reduce its greenhouse gas emissions down to 73,000 metric tons by 2030. This is under CARB’s target. To meet these targets -- to meet this target, Burbank plans to exit from its coal -- from coal energy and from the IPP contract, it reduces output from its natural gas plants or natural gas resources and it procures additional renewable resources to make up for it.

For the RPS requirements, Burbank plans to exceed the 50 percent RPS requirement and by 2030, they intend to have over 70 percent of their retail sales met by renewable energy. Burbank plans to procure solar energy and wind to meet its IRP requirement. They also plan on procuring various storage resources to help integrate the renewables.

For the rest of their current renewables such as small hydro geothermal and biomass, those remain relatively constant over the panning period.

Some highlights from staff’s review for Burbank. I’ll talk a little bit about energy efficiency. Burbank plans to expand its energy -- its current energy efficiency programs. Some of these programs include residential AC tune-ups and replacement, residential time of use rates which will go into effect by 2020. Home management reports to help change behavior and also direct equipment installs for energy efficient appliances.

Once again, from staff’s review of the IRP, the
reporting cables and supporting information, we found that Burbank’s IRP meets all the requirements of Senate Bill 350.

Next up is Imperial Irrigation District or Imperial. I believe we were supposed to have a representative from Imperial attending in person today. Oh, we do. Thank you.

Imperial is the third largest POU in California and the fourth largest balancing authority in California. They’re a vertically integrated city owned not for profit electric and water utility in Imperial County. They are primarily residential customers, that’s their base. They constitute over 80 percent of their total customers. Although commercial and industrial consume almost 40 percent of their total load.

Their annual peak demands around 1,000 megawatts. Imperial submitted their IRP to the Energy Commission in April of 2019. Energy Commission staff reviewed the IRP and supporting information and found that it did meet the requirements of SB 350.

Imperial’s current demand is almost 4,000 gigawatt hours. They do project a small increase in demand over the panning period, about a 1 percent increase per year. We also found that their demand increase is comparable and similar to the Energy Commission’s mid demand forecast.
For Imperial’s current resource mix, primarily consists of natural gas units. Most of these were built in the 1970s. They also have large hydroelectric nuclear and renewable resources. For the renewables they have primarily solar and biomass right now as well as geothermal and small hydro. Most of Imperial’s renewable resources are contracts except for one small hydro plant and one solar resource.

For Imperial’s -- for meeting their GHG targets, Imperial projects they’ll reach or get their GHG emissions down to 899,000 electric tons aby 2030. This is under CARB’s targets. In order to meet these targets, Imperial plans a reduced output from its natural gas resources as well as procuring additional renewal resources.

For their RPS requirements, Imperial plans to meet a 50 percent RPS by 2030. In the near term, they procure some geothermal and solar resources around 2019/2020 for some near term leads. They also procure storage in 2021 to help integrate their renewables. And towards the end of their panning period, they plan on procuring some generic renewables which have no specific location or technology. These can include solar, wind, biomass, or geothermal.

For Imperial’s procurement plan, they looked at different levels of potential base load and intermittent RPS resources. Currently, Imperial has mostly base load RPS
resources and they found that most cost effective for their strategy to procure more intermittent than base load to add diversity to their resource portfolio.

As I mentioned early, they plan on adding renewables by 2020 for air term needs as well as storage. And although Imperial maintains it natural gas capacity for liability reasons, they do reduce the output from their natural gas lead over the panning period.

A few highlights from staff’s review. I’ll talk a little bit about energy storage. In 2016, Imperial installed a battery energy storage system. This is to help mitigate solar overage generation. And based on their experience with this recent resource, Imperial did find it cost effective to procure another battery storage system by 2021.

Imperial is also considering pump storage as a candidate resource as pump storage can provide both key capacity and ancillary services.

A little bit about electric vehicle electrification. So to understand electric grid impacts, Imperial studied different charging habits for light duty electric vehicles. They’re also considering time of use rate for electric vehicle charging and mitigates solar over generation. Along with light duty electric vehicles, the utility also studied medium and heavy duty electric
vehicles. Some of these include public transit buses, school buses, airport shuttles as well as freight trucks. They studied the medium and heavy duty vehicles to get a better understanding of grid impact from charging these types of vehicles.

From staff’s review of the IRP, supporting information, and the reporting tables, we found that their IRP does meet the requirements of SB 350.

Next up is the Redding Electric Utility or Redding. First I want to recognize Julio Gutierrez for his efforts in reviewing the IRP. He is the staff lead for Redding’s IRP. I believe we have representatives from Redding attending in person today.

Redding is the 16th largest POU in California. They’re a vertically integrated city owned not for profit electric and water utility Shasta County. Most of Redding’s customers are residential, over 80 percent. The rest are commercial, industrial, and other. Redding does have a wide variation and elevation in the service territory. Because of this, they do experience wide variations in their load. Their peak demand was right around 230 megawatts.

For submitting to the Energy Commission, they submitted their IRP in April of this year. The Energy Commission staff reviewed their IRP filings, supporting
information and found that it did meet the requirements of SB 350.

For their demand forecast, in 2019, they had just under 800 gigawatt hours. That’s their forecast. This grows very slightly. They have a small, very small growth rate over the panning period. And staff did find that their demand forecast was similar and comparable to the Energy Commission’s mid demand forecast.

A little bit about their current resource mix. Currently, Redding has both large and small hydroelectric, wind, and natural gas in some spot market purchases. Large hydroelectric and small market purchases make up the bulk of Redding’s resource mix currently. And for renewables, Redding currently has mostly wind with some small hydroelectric resources.

For meeting the IRP requirements for the GHG targets, Redding does project that it will reduce its GHG emissions down to 64,000 metric tons by 2030. This is under CARB’s range, it’s actually towards the low end. To meet this target, Redding plans to transition away from the spot market and to procure additional renewable resources to meet load.

For the RPS requirement, Redding starts procuring solar resources by 2021 and by 2030, they intend to reach an RPS of 54 percent. Although this pasts the panning
period by 2034, Redding does plan to enter into a wind
contract to procure more wind.

For the procurement plan, Redding actually examined
a number of scenarios and each scenario consisted of a mix
of both solar and wind resources in Arizona, Oregon, and
Northern California. For their long-term planning
strategy, it wants to minimize reliance on the spot market
and keep costs low by adding diversity to their portfolio.

As I mentioned before, they start procuring new renewable
energy by 2021.

I want to highlight from their IRP a little bit of
disadvantaged communities. Redding actually did not find
any areas in their service territory designated as
disadvantaged communities but they do recognize that there
are many areas that are low income. Redding currently
offers a big selection of residential and commercial energy
efficiency programs to its customers, including customers
in low income areas. Some of these programs include
weatherization install, shade tree planting, as well as
rebates for energy efficiency equipment.

Based on staff’s review, reviewing the IRP and the
reporting tables as well as additional supporting
information, staff finds that the IRP meets all the
requirements under SB 350.

Lastly is the Roseville Electric Utility or
Roseville. First I want to acknowledge Robert Kennedy, the staff lead for Roseville IRP for his efforts in reviewing the IRP and working on the staff paper. I believe we have a representative from Roseville attending today in person.

Roseville is the ninth largest POU in California. They’re locally owned, not for profit, and they reside in Placer County.

Roseville serves almost 60,000 residential and commercial customers and its peak demand is around 350 megawatts. Roseville submitted their IRP to the Energy Commission in April of this year. Staff reviewed the IRP and supporting information and found that it did meet the requirements of SB 350.

For Roseville’s demand forecast, they actually show a small decrease in their demand between 2019 and 2030. This is due primarily to increase distributed solar energy efficiency programs and net zero energy homes beginning in 2020. Staff found that Roseville’s demand for cast is comparable to the Energy Commission’s mid demand forecast.

Roseville’s current resource mix. So their current portfolio consists of mostly spot market purchases, natural gas, and large hydroelectric resources. Roseville does have a number of renewable contracts including wind, geothermal, and mixed renewable contracts that will have a variety of renewable resources within those.
For Roseville’s GHG targets, they plan to get down to 160,000 metric tons by 2030. This is towards the low end of CARB’s range. To meet this target, Roseville plans to transition away from the spot market and procure additional renewable resources. Roseville also plans to reduce output from its natural gas mass from 2019 and 2030. For Roseville’s RPS requirements, they do plan for a 50 percent RPS. And in 2025, the majority of the renewable contracts will end and around 2025, they start to procure additional wind and solar contracts. Any shortfalls meeting the RPS requirements will be met with either RPS market purchases or bank for renewable energy credits. A little bit about energy efficiency in Roseville’s IRP. They do have programs for energy efficiency and demand response. Some of their programs include lighting retrofits, smart thermostats, and other behavioral programs. And currently, most of Roseville’s efficiency savings come from improved lighting technologies. And by 2030, Roseville plans to have more than 150 gigawatt hours of cumulative energy efficiency savings. So based on staff’s review of the IRP, the reporting tables, and additional supporting information, staff finds that Roseville’s IRP meets all the requirements of SB 350.
Today, I’m requesting the Energy Commission adopt the executive record of determinations finding each of the following POU IRPs consistent with requirements of SB 350. The POUs are Burbank Water and Power, Imperial Irrigation District, Redding Electric Utility, and Roseville Electric Utility.

I’m happy to answer any questions you have.

VICE CHAIR SCOTT: All right. Thank you very much.

I think you mentioned that we have a representative from Burbank Water and Power on the WebEx, do you know if he or she wanted to say anything?

MR. DEAVER: They didn’t mention it.

VICE CHAIR SCOTT: Okay. And then we have representatives from Imperial, city of Redding and city of Roseville here in the audience. Did you want to say anything or -- okay. They’re all -- they’re all waving at me.

All right. So let’s now turn to public comment, please. And I have Steve Uhler.

Thank you all for being here, by the way.

MR. UHLER: Thank you, Commissioners. I’m Steve Uhler.

I’m (indiscernible) with the fact of not having adopted rules for RPS from 2020 on. Particular 39913(B), the requirement for long-term contract 65 percent, more
than ten years and how that would affect these plans.
You might recall I petitioned to get a hearing --
to have a hearing for RPS which then you said well you
already have a rulemaking. But it seemed stalled again.
It was stalled for more than two years. I think it would
be important to put some emphasis on this. Even though
this is SB 350, would these people be making different
plans. I know in reference to this long-term contract,
POUs can deduct any community solar options from their
retail. But once they deduct that, those credits can’t be
used for compliance for RPS. Decisions of making
communities solar is inhibited by not having these rules
that these plans cover this time period for.

So I would wish that we finish up the RPS. It also
affects SMUD’s community solar, whether it’s used on
rooftop -- or in place of rooftop, it’s something that the
public really needs to know about as far as whether or not
their utility can meet the requirements.
I’m not sure if you’re familiar with the state of -
or the docket for long-term requirements or whether or
not if you don’t meet your 65 percent, none of your credits
count or some other means. But in any case, you should
take this into consideration of the validity of these, even
though they may meet these rules that these folks are
working without certainty. Thank you.
VICE CHAIR SCOTT: Thank you. Do I have any other public comment in the room? How about public comment on the phone? Okay. Seeing none, public comment is closed.

Let me now turn to on Item 10, let me now turn to Commissioner discussion.

COMMISSIONER MCALLISTER: I have too many items on this meeting, I think.

So would just thank the team, you know, Paul, just for leading the charge on this and Mark Koostra, and Julio, and Robert and just all the individual staff who’ve taken on these IRPs. And it’s very gratifying to have -- well, probably more so for you and the team than it is for me to have all of these through the pipeline now in the first -- first go around of full IRPs. So it’s quite an accomplishment.

And I want to thank the four public owned utilities that we have here, Burbank and Redding, and IID, and Roseville, for all your yeo peoples, I guess yeomen, yeo persons’ work putting these plans together because it really represents a lot of thought and a lot of critical thinking and a lot of obviously planning but in a very pragmatic grounded way. And you’re all a bit different and we’ve had, you know, the specifics of each ones are, you know, contextual to that place. But in general, I think everyone’s done just a terrific job of getting these things
to us and then iterating with staff to make sure we understand them and can give them the green light.

On -- I do have one request and not for right now but just for going forward. It would be good to get the statewide view and maybe we could get an informational item on incorporating an IOU IRPs and kind of getting a whole statewide view of what the IRP enterprise has resulted in. Because I think we’re going to be blown away, I’m quite impressed overall because, you know, the stories that are emerging from the different places and each POU and just sort of all the choices that they’re making proactively to reach our climate goals I think are really major and impressive.

So -- but I guess also just wanted to thank Aleecia and Siva and the Division staff that’s overseeing this effort. So really good stuff. So thanks a lot, I support this item.

VICE CHAIR SCOTT: Great. Can I get a motion for Item 10?

COMMISSIONER MCALLISTER: Okay. I will move Item 10.

COMMISSIONER MONAHAN: I second.

VICE CHAIR SCOTT: All right. All those in favor.

(Ayes.)

VICE CHAIR SCOTT: The motion carries 4-0. Thank
you very much.

MR. DEAVER: Thank you.

VICE CHAIR SCOTT: Next we’ll move on to Item 11, the minutes. Can I get a motion?

We have a public comment on Item 11. Steve Uhler, please.

MR. UHLER: Yes. Under your regulations 1105, it states that the minutes -- and there’s a comma, should be including the texts of the resolutions. But your minutes don’t include the text of the resolutions. Now the way it’s wording, it might not be clear. It’s -- when you sign that as (indiscernible) is the same thing as signing all the resolutions. But beyond that, notwithstanding any of this, 1208 requires that in order to be considered records for the proceeding and the meetings are a proceeding because you have a definition saying proceedings include all meetings, I can’t find any of these resolutions in the docket.

So I would ask that you hold on approving these if you agree that the resolution should be in there per 1105(A). And also at least see everything is put in to the docket forever -- going way back because I have been asked one of your attorneys Jared Babula is this passed? Because as an example, you’ve got an ACM manual that is published on the website that still it has a disclaimer saying it’s
not approved by you. And that affects what the public can
look at and say well, there’s a rule that has not been
approved by the Commission yet.

So in any case, I would say don’t approve these
minutes and request that the staff install the resolutions
that were adopted and do that for the back minutes.

Thank you.

VICE CHAIR SCOTT: Let me turn to our chief counsel
to ask if -- how the -- are our minutes appropriate for us
to consider today?

COMMISSIONER DOUGLAS: And I’ll just say that as
our Chief Counsel looks for the right page just to buy her
a minute to find it, I did have a conversation with her
yesterday about this question so I’m confident that she --
she will find the provision she is looking for.

(Whereupon Mr. Uhler approaches the Chief Counsel
to show her where to look.)

MR. BABULA: I might be able to assist on this.

This is Jared Babula, Senior Staff Counsel.

I just want to add the way the minutes are done is
we identify the -- how the vote was done and then all the
resolutions are on the webpage in the business meeting
webpage and they’re available. And so the actual results
of the resolution is included in the meetings. So that’s
the way we’ve been doing it for years.
COMMISSIONER DOUGLAS: That’s right. And the minutes reflect the action taken. So the resolution passed, was it not?

MS. HOUCK: And then I think that meets the requirements of it being evidence of it since they are posted on there. And I’m going to apologize because it’s a little different than what I’ve been used to in the past, but it is sufficient, particularly since they are posted with the minutes and the minutes reflect the vote.

VICE CHAIR SCOTT: All right. So given that, can I get a motion of Item 11, please?

COMMISSIONER MCALLISTER: Move Item 11.

COMMISSIONER DOUGLAS: Second.

VICE CHAIR SCOTT: All those in favor?

(Ayes.)

VICE CHAIR SCOTT: The motion carries 4-0.

Next is lead Commissioner and Presiding Member Reports. So we’ll start with Commissioner Monahan.

COMMISSIONER MONAHAN: Well, I’m happy to report that my confirmation process has begun. I’ve got the list of questions from the Senate Rules Committee and I’ve prepared the responses. Submitted it yesterday with a lot of help from Jana Romero and Ben De Alba and Catherine, my administrative assistant because there was a lot of last-minute shenanigans on the computer, and letterhead. But I
did submit it, yes. So that’s exciting for me.

And I also just wanted to let you all know that I testified recently at the Air Resources Board. They were reviewing their package of transportation related incentive programs. And I commented that we’ve been collaborating pretty closely and trying to figure out what are the appropriate lanes considering there’s a lot of overlap in how we do our investments.

So we think this conversation was started with Vice Chair Scott, continued it around our focus more on the fuels and grid side. They’re focused more on the vehicle side, although there will be some overlap. I think school buses are a good example where we’re investing in the V to G aspects. We’re investing in electric school buses and the V to G aspects that brings it right to the grid. So I still there’s some overlaps but we’re trying to be a little more deliberative in that. And also even in our solicitations and our funding, we’re trying to think through how do we support each other. And this is new, I would say.

I hope that’s fair, Vice Chair Scott. In terms of like really trying to be just, you know, even as they are funding vehicles, how do we make sure we are funding the right level of support for the infrastructure or fuel side to support their vehicles investments. So that’s an
ongoing discussion, shall I say.

One little -- two quick things as we’re trying to figure out map out, we had these big transportation analytical products that are coming up next year. Vehicle to grid road map and also some charging needs to meet our 5 million e-vehicle by 2030 and the IEPR which has been a focus on transportation next year. And we’re trying to figure out how to make all these pieces dovetail. Because it’s possible that IEPER could be the place for everything kind of comes together in this happy way. But we’ll release products strategically through the year to support that.

And the last thing I want to say is we’re in the process of trying to get an executive fellow. I don’t know if we will because there’s some magic that happens that I’m not, but we did interview twelve different fellows which has been, yeah, it’s been quite a wonderful experience to meet all of these interesting young people who are super excited to work on clean energy. So good crop of folks for the future in our field.

COMMISSIONER MCALLISTER: That’s great. So I will brief. I’ve talked way too much already today. But I guess just a few highlights. I really enjoyed the Redding SB 100 workshop. I think it was really great and as I said before thanks to Terra and staff for putting that together.
and lining up great speakers.

Then Fritz and I actually went down with a bunch of staff to look at the cluster of dairy digesters down around Fresno -- or around Bakersfield, rather, sorry. And there’s some really impressive stuff going on.

We funded several of those but the marketplace is kind of working and they’re finding ways to get it done and install lot of hardware, a lot of huge tarps over these huge pools of liquid bovine waste. And they are getting a lot of gas and they’re working out ways to get it cleaned up and into the grid, into the gas grid.

And then there’s some legacy PPAs that use it to generate electricity. And it’s working. It’s pretty impressive. So I was -- a lot of good technology and obviously the LCFS kind of makes it all possible, because that’s kind of where the money is these days. But wherever that gas needs to go it’s there and there’s quite a bit of it. So I was very impressed.

I had breakfast, and had a chance to talk at some length with the Chairman of the Board of the National Rural Electric Cooperative Association, which is those of you who know me, know that I worked for the Rural Electrical Co-op movement for about ten years and mostly internationally. But Curtis Wynn is the General Manager of the Roanoke Electric Cooperative on the East Coast, but is also
Chairman of the Board of NRCA. And it’s interesting, I just mention it because, you know, the cooperative model is in the news these days as a potential alternative to some of the business models for the electric sector that are currently predominating in California.

And it, you know, coming up with the CCAs and, you know, the great munis (phonetic) we have in the state. And then also kind of the cousin of the munis, which is the co-ops, which we just have three small bits in the state and not that many users. But I think we need to hear from them more as to what they may bring. They have access to cheap capital. It’s backed by the federal government.

And they actually do own stuff. You know, they own poles and wires and they administer all aspects. There are about more than 800 rural electric co-ops in the U.S. And they have about ten percent of the customers of the U.S. and they own thirty percent of the distribution network of the U.S. I mean, it’s millions of miles. And so, you know, they are ultimately directly accountable to their customer owners. And so it’s a pretty interesting conversation to have. Who knows where it goes, but I think that model of sort of how to do things responsible to your customers and your community, I think, really is the theme we’ve been talking about today. So I wanted to bring that up.
And then finally I spent a couple of days down in Southern California, first the meeting with DWP and then later with Edison, just to talk about fire resilience and kind of get up to speed on what’s happening in their world. Procurement, RPS, you know, SB 100, the fire issues obviously are just front and center for all of them.

And interestingly, as the POUps get off of the Interamerican Power -- Intermountain Power, they’re looking at options. And, you know, doing pump hydro in the Hoover Dam is one of those options. Looking at how we can take advantage of all of the transmission infrastructure and some of the geological formations out at near Intermountain to store hydrogen, for example, put solar and store hydrogen. There’s a lot of big thinking going on about how to take advantage of these resources. So I was really impressed with the level of creativity there.

And then with Edison as well, a lot, just a mass of uptake of EVs and we got a tour, Bryan and I went down and got a tour of their emergency operations center which is quite impressive. How they respond to fire and all the weather capability that they’re building. Well not weather capability, they can’t affect the weather. But, you know, meteorological capability. So but it was kind of good to talk through some of these long-term planning issues with them and see what they’re thinking.
And then last Friday, I spoke at I think it was the 11th Climate and Energy Loss Symposium down at the University of San Diego, which as you guys know they named after Lesley a couple of years ago. So it was a really beautiful event and very timely all about fire and resilience and in the legal aspects of all these issues we’ve been talking about today, that I’ve just been talking about. So that was very gratifying to be down there, both at the personal and the professional level. So, that’s it for me.

COMMISSIONER DOUGLAS: All right. I’ve been doing a fair amount of speaking. So but let’s see, back in mid-October, I spoke at the ACORE Grid Forum in San Francisco and that was a nice opportunity to talk about state energy policies and renewable energy policies.

The next week, I had a chance to tour a NOAA research boat which was docked in San Francisco. And we stayed in dock and we were glad we stayed in dock, because there was the typhoon off of Japan that had caused very high swell on the sea and they’d actually come into port a little bit early because of it. And but it was fascinating for me to get a chance to really see what these research ships are like and the equipment, the little autonomous mini subs that go down and take pictures and the, you know, data and analytics that the incredible volume of data that
comes back and needs to be sorted and analyzed.

And some of the AI capabilities that they’re developing and there was even a connection there with one of our EPIC funded projects actually and which does a very similar thing and works through, I was happy to learn, a similar and coordinated set of research, not a duplicative one. But it was fascinating. It was absolutely fascinating to see this and there’s so much we don’t know about the oceans.

And as we think about not only offshore wind and the potential but also frankly the dramatic and kind of frightening changes that are occurring in our world’s oceans and the impacts that we’ll have on people around the world in the environment globally. You know, seeing this ship and understanding what these people do and the level of commitment and expertise they bring to that job. And the many ways it benefits us in the state that I don’t think I really fully have a feel for it before. So that was a really great opportunity.

Let’s see here, I’ll just skip ahead a bit. I had an opportunity to go to the Climate Change Research Symposium in early November. And that was run by OPR and the Strategic Growth Council and it was a really nice forum where -- which brought together and state officials, but really a lot of local and non-profit and community groups.
to talk about climate change research and what they thought was important and how you make a difference at a community level. And the state participants were engaged but we were also more in listening mode and so I thought that was really well done.

The next day, we had -- well the Governor hosted the first ever California Tribal Nations Conference which was modeled on an event that has been done for, you know, a very long time, in Washington D.C. by the federal government and where the President meets with tribal leadership around the country. And this is the first time we’ve done that at a state level.

So the Governor, you know, spoke at the opening of this and many tribes participated and they participated at the government level, typically elected council members were there. I had an opportunity to speak on a panel about community development and I had a chance to talk about some of the microgrid projects that tribes have done and the impacts of some of those. The really great benefits some of those have brought as well as some of our work with the tribal energy conference that we’ve done and then so on. And so that was -- that was a really nice event.

It ended in the evening with a short, well I shouldn’t say short, but a small reception at the Crocker Art Museum. And there’s a very nice exhibit there actually...
featuring native American art. One of the artists whose art is exhibited there and spoke at the event and I recommend it to all of you while it’s there. Head on over to the Crocker, it’s really nice.

And yesterday we were honored to have a visit by Amelia Flores who’s the Tribal Council Member from the Colorado River Indian tribes. She came here to, in particular, participate in showing a documentary about the tribal perspective and large renewable energy projects. And we showed that with staff.

And we also had an opportunity to have some informal meetings and bring in our tribal liaisons. Our tribal liaison, our assistant liaisons, and we invited participants from other agencies as well, to have a dialogue with her. And it was a very nice visit. And a really good opportunity, I think, for our staff, because it’s one thing for me or for some of our tribal-focused staff to go out and do visits, but to be able to bring the perspective of tribal leaders here to the Energy Commission and make some of that dialogue and conversation more broadly available is a really great opportunity. And Commissioner Scott participated in the video showing and the conversation that followed. It was a really nice thing to be able to do.

So that’s my report.
VICE CHAIR SCOTT: Great. And then from me, I might just have a high-level response for you on the transportation work and working closely with the Air Resources Board and making sure our work is not duplicative.

I think we have worked very hard for many years to make sure that the works is not duplicative. I do think the Energy Commission has a strong role to play on the vehicle side. And what makes me say that, we have a couple of things with our research program, with research in both the clean transportation program, helped catalyze the invention of the low knocks natural gas engine, right, which is a very, especially when you combine it with renewable natural gas, is very close to near zero in a space where we previously didn’t have those options. So that kind of thing comes out of the transportation work that the Energy Commission does.

As you noted, all the vehicle grid integration work with school buses, how electrified transportation fits with the grid. I think that fits right in with the Energy Commission and our strengths and then being able to have some vehicles out in that space so we can kind of look at and see what’s going on there, I think is really important. And that’s also got a research component that overlaps as well.
And then I think a little bit about the Ports Collaborative that we have where we were really able to effectuate getting some equipment pretty quickly out onto the ports of San Diego, Long Beach, and L.A. We are also working with Hueneme, Stockton, and Oakland. Not as many projects there, but it’s just a nice opportunity to both get some of the charging equipment, the vehicles. But also we were working across the Energy Commission together, so one of the ports could qualify for ECCA and swap out lights, for example.

We’re looking at microgrids for resilience at the ports. So that’s broader than vehicles, but I do think the Commission has a strong role to play on transportation on the vehicle side. So those are just my two cents for what’s worth in that space. But I’m really glad that we’re having those conversations with Air Resources Board because, as you know to get that -- to get to where we’re trying to go on transportation and the timeline that we’re going, we need no dollars duplicating any effort anywhere. And more dollars than we have in any of those pots, right? So that’s fantastic. I think that’s really great.

So a couple of highlights from me, I want to note that we’ve launched our Empower Innovation website and I’m going to read to you from the slide quite quickly: Empower Innovation strives to accelerate your clean tech journey.
with easy access to funding opportunities from the Energy Commission and other funding providers, curated resources and events, and connections to people and organizations.

And so it’s basically having folks be able to find a partner and have some resources and tools in the energy innovation space. So check out empowerinnovation.net. It’s a great place to sign up if you’ve got a great idea or you’re somebody who would love to test out a great idea. It’s kind of little bit of a matchmaking cite, but we’re excited to have that launched and up and running.

I’ve had a chance to do a few visits. We’re doing a little bit of an Energy Innovation tour to highlight the great work that the EPIC research program is bringing to the state of California. We had a chance to visit West Biofuels which is just down the road here and one of the things that they’re working on is how do you take some of the tree waste and almond holes and those types of things and turn it into biofuels. So it’s really interesting to have a chance to visit there, see what they’re working on. And this is a research project, right, so thinking about how do you scale that up from, you know, hundreds of gallons to some place where, you know, hundreds of thousands of gallons.

I was able to go to the U.S. DOE Storage and
Financing Summit which was fantastic. This obviously was focused on energy storage. One of the things that I got to highlight in my presentation there you heard Laurie ten Hope mention earlier in the business meeting. And that’s really that we want to broaden the types of storage that we’re looking at so we’re looking at different types of chemistries within the batteries. Looking at longer-term storage, right, so we need something that’s eight hours, ten hours, multiple days of storage, so long-term storage.

And we’re also looking at ruggedizing the storage, right, so that if it’s in a place and, you know, God forbid, a fire goes by or an earthquake happens or something like that, that storage is still going to be up and running.

So those are some of the things that we’re looking at within our research department and it was great to hear from the financing side what they’re interested in financing. And I think they appreciated hearing from us the types of things that we’re looking to push forward into not just California, but, you know, once California has demonstrated it, then these are technologies that can be used really anywhere where folks are looking to get to a hundred percent clean energy standard.

I had a chance to go to the Emerging Technologies Coordinating Council Summit. It was right here in
Sacramento and I was on a panel where we talked about national trends in energy and energy efficiency. So I was with Steve Chalk, who is the VP of Strategic Marketing Innovations, but he used to be the head of DOE’s vehicle program. Myself, there was Katie Sloane from SCE who was talking a lot about building electrification in e-mobility. And then Sharon Tomkins, Strategic Engagement from So-Cal Gas.

So we had quite a good conversation about how do we start getting towards that hundred percent clean energy standard with a lot of different viewpoints, you know, national, statewide, and then utility perspectives both from electric utility and also a gas utility. So I enjoyed the opportunity to do that and highlight some of the research again that our research division is doing in that space.

The Integrated Energy Policy Report Draft is out, so please take a look for that. We welcome your comments. We look forward to them. That was a lift, so I’m delighted that that’s out there for comment. I think it’s well done. It’s got really interesting trends that are, you know, new trends that are taking place in California energy. So it’s, you know, it’s worth the read. It’s long, but it’s worth the read. It’s great.

And then, last, but certainly not least, I want
to welcome Miina Holloway, who is my new Administrative Assistant. I’m so delighted to have her on board. This is week two or is it week three, so she’s really quite new. I’m delighted to have her here and so hopefully you’ll have a chance to stop by or shoot her an email and introduce yourself. And I warmly welcome her to the Commission.

So with that, I see that we have one public comment on the Lead Commissioner and Presiding Member reports from Steve Uhler.

MR. UHLER: Thank you, Commissioners. I’m Steve Uhler. Recently read of an intern who is interested in one day running the Cal ISO. I’d like you to think about finding interns who would be interested in doing away with the need for balancing authorities injecting different ideas. Unfortunately I missed the load thing. I was going to talk a bit on things that would help get rid of the Cal ISO and handle balancing.

I’m very much interested in biofuels. If I had a good biofuel, and if I had a good internal combustion engine that would drive a generator and I could take the waste heat and heat my house, I could drive my carbon footprint even lower. Currently my carbon footprint is zero for electricity and I’m in Sacramento County. That’s pretty hard to do here with only renewables en banc, or solar, and it’s only about 3 percent. So yeah, I do not
draw any power off the grid.

I’d like to be able to enable some features to balance stuff, but there are some barriers, some equipment barriers I’d like to see corrected as far as that’s concerned.

Another area that I wish you would look into is a quality management system. I’m really concerned that I am told things by staff that turn out to later not be true. I’ve come here and/or I’ve turned in written comment that didn’t get read by the Public Advisor. That’s a prior official Public Advisor. The Interim Public Advisor also didn’t read my comments.

My comments, I had agenda items to comment against. So I put in a petition requesting, because my statements are not in the transcript. Apparently it can’t get beyond staff. Staff somehow have jurisdiction to limit what your regulations say. I want to know why my comments didn’t get in.

I’m actually rolling -- you’ll see that I’m going to talk on every agenda item coming. And I would like to do this in this in this one shot here. There needs to be something done about a situation of people believing the website is an official document. It’s not an official document. The APA needs to be observed. When you notice a meeting, when you notice a meeting for formal rulemaking,
the Bagley-Keene (indiscernible) you can actually adjourned this meeting for a moment, have that hearing and restart the meeting.

So until they actually do that properly, it looks like I need to prepare for that.

VICE CHAIR SCOTT: So let me you, sir --

MR. UHLER: I’ll stop there and then I’ll wait for the next one.

VICE CHAIR SCOTT: Okay. So next is our Executive Director Report, please.

MR. BOHAN: Thank you. Just two quick items first. The day after last months’ business meeting, Secretary Crowfoot hosted a speaker’s series event over at the Natural Resources Agency building and the 200 plus person auditorium was pretty well packed. And he gave a really nice overview of his goals in the administration. And was barraged, I would say, with questions and we would probably considerably still be there if he would have entertained them for long enough. So people -- our staff were really engaged. I was really pleased to see it.

Second, I just wanted to report on mandatory training. We’re doing very well approaching a hundred percent. Thanks.

VICE CHAIR SCOTT: Thank you.

I now have public comment from Steve Uhler on the
Executive Director’s Report.

MR. UHLER: Continuation on the Executive Director.

There’s been a couple of times where I’ve turned in information about -- I know your website’s in transition, but some of the techniques that are being used are totally inappropriate to a public website. You are putting into production dead links that I report. And they say oh well, now you have to type ww2. Well, no. That link is on your website. I don’t know where that link goes. I don’t know this ww2 thing. That needs to be tightened up.

And, again, the website is not an official document. Your --

VICE CHAIR SCOTT: Can you please make sure your comments are relevant to the Executive Director’s Report?

MR. UHLER: Yes, the Executive Director apparently handles your website. Yeah, because that’s -- I got a comment from somebody telling me oh we have 50,000 pages. And we’re going to get to removing notices telling people this room is double booked and apparently triple booked from --

VICE CHAIR SCOTT: Mr. Uhler --

MR. UHLER: -- from a little sign that was put out there.

MS. HOUCK: When -- the public comments should be directed to the comments that Mr. Bohan, as the Executive
Director, made during his report. Not just generally about the Commission, so it should be on topic for the item on the agenda.

MR. UHLER: While, on topic, then I would like to say that he should publish what he’s going to talk about, so I can more concisely deal with it. I’m making a recommendation related to the Executive Director. I’m making the recommendation of what the Director should be doing. From the public’s point of view what is the priority.

VICE CHAIR SCOTT: So I think on that item that can be in Item 15 for public comment. As our Chief Counsel has mentioned for Item 13, it’s relevant to what the Executive Director reported. Would you like to wait for Item 15? Or do you have a comment specific to what he reported?

MR. UHLER: Specific to what he reported.

VICE CHAIR SCOTT: Yes, please. That’s --

MR. UHLER: I would like to make a comment that he needs to focus on things that directly affect the public, the website. The fact that notices are left and the public is left to believe that they should continue work in order to be able to comment on other meetings that have been noticed that have not been cancelled.

Thank you.

VICE CHAIR SCOTT: All right. Now we are on to
Item Number 14, the Public Advisor’s Report, please.

MS. AVALOS: There is no update for the Public Advisor.

VICE CHAIR SCOTT: All right. Thank you.

Mr. Uhler, I see you have a comment on the Public Advisor’s Report, please.

MR. UHLER: Directly because the Public Advisor’s not making any comments about what I directly asked the Public Advisor to do. One, ensure that items report are made for the record 1208.8. So that’s not being done.

I’ve asked the Public Advisor to find out why my --

COMMISSIONER DOUGLAS: Mr. Uhler, you’re -- a Public Advisor didn’t have a report.

MR. UHLER: It didn’t and that’s so now I’m commenting, it’s --

COMMISSIONER DOUGLAS: All right, and so when you, when we get to public comment --

MR. UHLER: I’m saying that I would like the Public Advisor to come up and explain why --

COMMISSIONER DOUGLAS: The Public Advisor, I think, has been talking to you. But I think it would be very helpful for the Public Advisor to continue talking to you and if you continue to have --

MR. UHLER: Okay, I just want to make the Commissioners aware --
COMMISSIONER DOUGLAS: Thank you.

MR. UHLER: -- that you should be reading the
docket of the Public Advisor and what I’m asking about it.
And I would like you to reply to what I’ve asked the Public
Advisor.

COMMISSIONER MCALLISTER: Sir, all of your comments
that you want to make about the Public Advisor in general,
about the Executive Director in general, need to go in the
public comments section, which is your chance under Item
16. Otherwise you haven’t -- so you can’t comment on
something that wasn’t said. So --

MR. UHLER: Okay. So --

COMMISSIONER MCALLISTER: We’ll get to Item 16 --

MR. UHLER: Not 16, it’s 15.

COMMISSIONER MCALLISTER: We’ll get to Item 16 and
that’s the public comment item.

MS. HOUCK: It is --

VICE CHAIR SCOTT: It’s Item 15.

MS. HOUCK: -- Item 15.

COMMISSIONER MCALLISTER: It is 15. Oh, I’m sorry.

VICE CHAIR SCOTT: So let’s --

COMMISSIONER MCALLISTER: So past the Public
Advisor, so 16 is actual public comment.

VICE CHAIR SCOTT: So let’s now turn to Item 15
which is public comment. Mr. Uhler, please go ahead.
MR. UHLER: Okay. The Bagley-Keene allows the public to comment about the agenda items. Agenda items like your Lead Commissioner Reports and stuff where you do not publish. I see reading from a document. You don’t publish this, so the public has no idea what you’re going to talk about. But it’s some very important stuff that should be commented on.

The Executive Director, no idea. So I’m going to sign up for that and then I’ll find out oh or the Public Advisor decides to not comment on the subjects that I’ve been put on this business meeting docket, the Public Advisor is not talking about. So what happens with these written comments? What happens with them?

I heard some talk of not speaking to what was written for SMUD’s agenda item, because it was already in the written. I didn’t -- you guys didn’t deliberate over my comments related to a video. I’d like to know if any of you saw the video and SMUD’s notion of about how they structure their rates and costs, which have a very large impact on cost effectiveness related to that project.

But I’m looking, I’m putting time in to put this stuff in writing in a docket that I’m told is for the business meeting. And I am expecting to hear replies on that, replies on that. And that’s what I’m here now for.

So I’m going to take it that you don’t know what
I’ve asked the Public Advisor. You don’t know about me asking about why is it, like I say, you do not cancel the meetings appropriately. These are formal rulemaking meetings that need to be canceled appropriately, which wastes the public’s time.

So and I also would like to know is there a quality management program here such as ISO 9000 or something based on Deming principles or something, because I’m seeing situations where efficiencies here are pretty low. In a room that’s named for efficiency, you have some really low efficiencies on being able to display information. I’m still waiting for information from your attorney here on where is the document for the ACM manual that doesn’t have a disclaimer that says it’s not approved. I can’t find it in a docket anywhere. Although he says there’s a resolution. I can’t find that resolution anywhere without having to ask him.

These are efficiency issues that can be dealt with. I’m a technologist who worked in manufacturing engineering. There is a lot of efficiency that could be improved. You would be working with better information. You would know further out. You would know a lot more exactly what would go on. So yeah, I ask that you consider that.

And I also, speaking on the Chief Counsel --

VICE CHAIR SCOTT: And we also have -- I’m sorry,
your time’s up.

We have a public comment from Paul Kangas.

MS. AVALOS: Yes. This is Rosemary with the Public Advisor’s Office commenting for Mr. Kangas.

"I speak for rooftop solar in opposition to giant corporate solar farms. The best way to stop the climate emergency is to build millions of fourplex homes each with 100 percent solar panels and require PG&E to pay 49 cents kilowatts to solar homes that sell solar on the grid. Replace burned single family homes with fourplex solar homes like in Paradise, California, to expand the amount of new solar housing and pass SB 50.

"Decentralize a solar energy generation that will give homeowners control over energy generation. This will lower the cost of housing since the income from the 100-plus panel roofs will generate money to help pay the mortgage. This will lower mortgages just like the cost of cell phones keep dropping, Mores Law, by using more good solar payment policies, AI, and advanced technologies. Do not build giant corporate solar farms.

"We solar homeowners don’t want to pay corporations for solar. Worse we lose 50 percent of the energy generated if it is transmitted over 50 miles on the grid. YouTube at Paul8Kangas. Thank you for your consideration."

VICE CHAIR SCOTT: Thank you. I don’t think I have
any other public comment in the room. Do I have public
comment on the phone?

Okay. Let’s go on to Item 16, the Chief Counsel’s
Report.

MS. HOUCK: I have no report at this time.

VICE CHAIR SCOTT: All right. With that then our
meeting is adjourned.

Thank you, everyone.

(The Business Meeting adjourned at 4:16 p.m.)

--oOo--
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 said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of November, 2019.

[Signature]

PETER PETTY
CER**D-493
Notary Public
TRANSCRIBER'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 said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of November, 2019.

_________________  
Myra Severtson  
Certified Transcriber  
AAERT No. CET**D-852
TRANSCRIBER'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 said witnesses were transcribed by me, a certified transcriber.

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 15th day of November, 2019.

Jill Jacoby
Certified Transcriber
AAERT No. CERT**D-633