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BUSINESS MEETING BEFORE THE CALIFORNIA ENERGY COMMISSION

In the matter of:

Business Meeting) Docket No. 24-BUSMTG-01

WEDNESDAY, NOVEMBER 13, 2024

10:00 A.M. - 3:00 P.M.

In-person at:

CALIFORNIA NATURAL RESOURCES AGENCY BUILDING
FIRST FLOOR AUDITORIUM
715 P STREET
SACRAMENTA, CALIFORNIA 95814
(Wheelchair Accessible)

The California Energy Commission (CEC) aims to begin the business meeting promptly at the start time and the end time is an estimate based on the agenda proposed. The meeting may end sooner or later than the time indicated depending on various factors. Commissioners may attend remotely in accordance with Government Code section 11123.2(j).

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Reported by:

Martha Nelson

APPEARANCES

BOARD

David Hochschild, Chair

Siva Gunda, Vice Chair

Andrew McAllister, Commissioner

Noemi Gallardo, Commissioner

STAFF

Drew Bohan, Executive Director

Lisa DeCarlo, Acting Chief Counsel

Katerina Robinson, Chief of Staff, Chair Hochschild's Office

Sara Miles, Office of the Public Advisor, Energy Equity, and Tribal Affairs

Martine Schmidt-Poolman, Sustainability and Health Unit, Energy Research and Development Division

Katelynn Dinius, the Energy Research and Development Division

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Diana Maneta, Equitable Building Decarbonization Branch, Reliability, Renewable Energy and Decarbonization Incentives Division

Esther Odufuwa, Energy Commission Specialist I, Reliability, Fuels & Transportation Division

Adam Lokar, Commission Agreement Manager, Reliability,
Renewable Energy and Decarbonization Incentives Division
APPEARANCES

STAFF (cont'd)

Rhona Matthews, Commission Agreement Manager, Reliability, Renewable Energy and Decarbonization Incentives Division

Maninder Thind, Air Resources Engineer, Energy Resource and Development Branch

PUBLIC ADVISOR

Mona Badie

ALSO PRESENT

Mindy Graybill, Department of Water Resources

Cristy Sanada, California Independent System Operators

Michael Johnson, Berkeley Air Monitoring Group

PUBLIC COMMENT

Claire Zuma

Deric Wittenborn

Stephen Rosenblum, Climate Action California

Patrick Robinson, Hilmar Cheese Company

Ayn Craciun, Climate Action Campaign

Rocky Fernandez, Center for Sustainable Energy

Minh Le, County of Los Angeles

Nicola Steelnack, Leadership Counsel for Justice and Accountability

APPEARANCES

PUBLIC COMMENT (cont'd)

Edgar Barraza, Physicians for Social Responsibility, and Central California Asthma Collaborative

Fatima Abdul-Khabir, Greenlighting Institute

Jacqueline Ramirez, Building Decarbonization Coalition

Grace Hut, Strategic Actions for a Just Economy

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1 PROCEDINGS 2 10:01 a.m. WEDNESDAY, NOVEMBER 13, 2024 3 (Whereupon an introduction video is played and not 4 5 transcribed.) CHAIR HOCHSCHILD: Well, good morning and welcome 6 7 friends. I'm David Hochschild, Chair of the California Energy Commission. Today is November 13th. I call this 8 9 meeting to order. 10 Joining me are Commissioner McAllister, Commissioner Monahan, and Vice Chair Gunda is under the 11 12 weather today, but is joining us remotely. Commissioner 1.3 Gallardo is on travel for a work meeting. So we do have a 14 quorum. 15 Let's begin by standing for the Pledge of 16 Allegiance. 17 (The Pledge of Allegiance is recited in unison.) 18 CHAIR HOCHSCHILD: Oh yeah, sorry. And if we could invite the Vice Chair to make a statement. 19 VICE CHAIR GUNDA: Thank you, Chair. I just want 20 to confirm that there is no one 18 or older in the room 21 2.2 with me here. Thank you. 2.3 CHAIR HOCHSCHILD: All right, so we're going to 24 begin with a public comment, then move on to agency 25 announcements. The public comment we're taking at the

beginning of meetings for items that are not on the agenda.

So anyone who's here to comment on a specific item, hold

that comment until we get to that item.

Is there any public comment?

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MS. BADIE: Thank you, Chair.

The Commission welcomes public comment at its business meetings. And just a reminder, this is the open public comment period. If you are commenting on a specific agenda item, that's a voting item, we do ask that you reserve your comments for that dedicated public comment period.

So we'll, first, we'll go to folks in the room.

And we've got QR codes posted, and also Ryan at the Public Advisor's table, if you need assistance. And then if you're on Zoom, you can start raising your hand now.

You'll use the open-palm icon on your screen or star nine if joining by phone.

And so we've got a commenter in the room, Claire

Zuma. If you could please approach the podium to make your

comment? Please spell your name for the record as well.

And we're asking for comments to be two minutes or less.

There will be a timer on the screen. Sorry, Claire, can

you hold one moment? We have to turn the microphone on.

Thank you.

MS. ZUMA: Okay, good morning. Claire Zuma,

C-L-A-I-R-E, then Z-U-M-A. And I'm a member of the public, no special affiliation. I used to work for SMUD, but that's it.

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I have a comment that I just thought about that I'm sure that others have thought about, but maybe not as much in this crowd. And I know, you know, I could talk on a lot of things, but power imbalances and stuff like that may not be as appreciated, age.

So anyways, we all might hope for a really prosperous future where we all can buy a fancy electric car. And I might hope for that too. For many people, I don't know that it's going to be possible. And I also know there's a lot of personality differences that don't necessarily show up in this room. And I hope that those can be embraced as well.

I know people that have biked across the country for tourism reasons, and younger adventurous people do things that -- because of their income and their delight. And I hope that when they want to stop and charge, if they are in a position where they have an electric bicycle, and even I might end up in this position, I hope that I'm easily able to find a place to charge it.

If I were to like ride from Sacramento to Davis, you know, I would expect there's places, but I don't even know if that stuff exists. And I know that the car

1 infrastructure might be really different for EV charging. 2 It's not really like you expect to stop off of Highway 5 3 and charge your electric bicycle, but that could happen. 4 And it's not an unreal idea when you talk to some of the 5 bicycling crowd that are really into it. So I just wanted to make that mention kind of 6 7 food for thought to not ignore that crowd, that adventurous young without injury. 8 9 Thanks. 10 CHAIR HOCHSCHILD: Thank you. 11 MS. BADIE: Thank you. And I'm not seeing any 12 other comments in the room, so we're going to transition to 1.3 Zoom. Again, if you're on Zoom, you'll use a raise hand 14 for turn your screen or star nine of joining by phone. 15 And I'm not seeing any raised hands on Zoom, so 16 back to you, Chair. 17 CHAIR HOCHSCHILD: Okay, we'll get into some 18 agency announcements. 19 But first, I wanted to ask Commissioner 20 McAllister's Advisor, Houston, can you stand up? And let's 21 give him a round of applause. He just got married. 2.2 us that ring, Houston. Congratulations and have a 2.3 wonderful honeymoon. 2.4 I also wanted to just take a point of privilege 25 and thank my wonderful Chief of Staff, Kat Robinson, who'll be leaving us in a few weeks and has just been spectacular. The last few years that she has been here, she has brought heart and integrity and an incandescent intelligence and a deep sense of collaboration to the role. And I really feel has played an instrumental role in helping all of us at the Energy Commission meet our mission and really create the most productive period in our agency's 50 years.

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You came in, our budget increased about 8x. And we took on all these big new responsibilities, tons of new federal money. You helped get the Clean Transportation Program reauthorized, another billion dollars there.

You've been instrumental in supporting everything across all of our different programs and have been just wonderful as a colleague too. I just heard that from so many people at the Energy Commission. It's a super intense job and you came at the most intense time of that.

So you're something of an Energy Commission superhero to me. And I am eternally grateful and excited to work with you in your new capacity going back to the Senate.

But I just want to give the opportunity to my colleagues to share any other comments they'd like to make. Go ahead, Commissioner Monahan.

COMMISSIONER MONAHAN: Thanks, Chair. And I was going to chime in, even without your encouragement, because

I want to say, Kat was your Chief of Staff, is your Chief of Staff, but she really did support my office tremendously. And I was on speed dial for periods of time with the Clean Transportation Program reauthorization and just really like brought her best game to not just your office, but to our office and, I would say, the entire organization.

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So, Kat, you're going to be sorely missed. And really, I'm very grateful for all you've done to support me and my office, both professionally and personally, so thank you.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: So just going on briefly, Kat, it's been such a privilege really to work with you. And, you know, you have such a highly developed sense of sort of who needs to know what and how to put it to them and sort of how to translate between different personalities and people, and just doing that shuffle with diplomacy and just sort of just figuring out how to connect dots all the time.

And it's just, I know it's born of a lot of experience in the legislature and just part of, you know, part of your muscle memory a little bit, but it seems to really be an innate sort of emotional intelligence that you have. And I just really appreciate you bringing your whole

self to the job and your commitment because that's -- it just really shines through.

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So I'm looking forward to working with you in your new spot and just really you've added so much to the Energy Commission while you've been here, so I really appreciate it.

CHAIR HOCHSCHILD: Let's go to Vice Chair Gunda.

VICE CHAIR GUNDA: Thank you, Chair. I just want to reiterate what everybody said, but just want to call out Kat again, but we'll all miss you.

I think, you know, a couple of things that really set you apart from a lot of the colleagues that I got to work with, one, your incredible experience with the legislature. Given how much of our new responsibilities had to think about economy-wide implications, it was really, really helpful to, you know, have your experience and insight into how to work on these complex issues.

You know, the thing, again, that, you know, another thing that sets you apart is just your incredible enthusiasm and energy to just keep solving problems, just want to solve, you know, everything that you see in front of you.

So the same thing I will put the other way around. I really, really hope you are able to have a little bit of slowdown in your work. You know, it's kind

of weird to say that you'll be a little slowing down at the legislature versus CEC, but, you know, just, you know, you are an absolute star, have a heart of gold, and I wish you all the best to you and your family. And thank you for your service to the state in this role.

CHAIR HOCHSCHILD: Thank you.

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And, Kat, you're welcome, if you have any words you want to share, we welcome it.

MS. ROBINSON: You are all so kind with your words, so thank you very much. And I would just say, I feel so much privilege and honor to have worked with each of you. I do really feel like I worked so significantly with each of the Commissioners and got to know you as people.

And our Commissioners are really amazing people. They're just really amazing humans that all are trying to do the best for California that they can and help protect this state and this world from some scary climate realities in our future. And as a mom, I've got a four-year-old and a seven-year-old at home, and it has given me great comfort to be working toward this mission with each of you and just to see how much passion you all bring to the table and how much we support one another, too, because this is tough work and it can be draining work. And just knowing that I'm in the trenches with the likes of you all is very

inspiring.

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And I'm just going to be across the pond back, back in the legislature, and do hope to work with you all and continue to work with you.

And I also just want to really thank each of the directors and the leaders of our small offices, the heads of our organization.

Drew, it's been such a pleasure working with you and I've learned so much about organizational management from you and just how to be a caring and good manager to those that you work with.

And our directors are really special and it's been a pleasure to work with them and support them through the two years that I've been here. And just each staff person that I've interacted with at the Energy Commission, you've all been a joy and it's been such a pleasure working with all of you. And I see so many of you here today.

And the last thing I would just say is, I think what makes the CEC extra special is the kindness and the collegiality we all show each other. And it's really a great place to show up and work in sometimes tough circumstances. So keep being kind to each other and keep being there for each other and don't lose my cell phone number.

CHAIR HOCHSCHILD: Will you join me in giving a

round of applause to Kat?

(Applause)

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CHAIR HOCHSCHILD: Thank you.

So a few other announcements. This month,

November, is Native American Heritage Month. So thanks to
all of you who've participated in various events related to
that. I did go to the truth and healing session on Friday
and I'll share more about that at the end of the meeting.

Also, we just have celebrated Veterans Day and I want to thank all the veterans at CEC and elsewhere for their service. And we have a new veterans employee resource group that just started at CEC, so I'm glad to see that.

And we also have a new addition in our labor and workforce development. Sarah Miles, do you want to come up and introduce yourself and just say a few words? It would be great. You're welcome.

MS. MILES: Certainly. Thank you, Chairman and Commissioners. My name is Sarah Miles. I'm the new Labor and Workforce Development Advisor in the Public affairs -- Advisor's Office, excuse me. That's a lot of advisors happening there.

I'm really excited to be welcomed back to the Energy Commission. I actually started my career here as an intern in OGA before it was international affairs included,

but I was in the master's program at Sac State for international affairs, so the tie-in is there. And from that experience, I was able to move over into the state Senate and work for the then Chair of the Energy Committee, Christine Kehoe.

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After that, I just fell into workforce development, a passion of mine. I worked primarily at first with the community college system as a consultant, and then as a faculty coordinator at American River College here in Sacramento. I was also very, very lucky to be able to teach climate issues in the Geography Department at Sac State, as well, where I got my undergraduate degree. So there's a lot of tie-ins.

I have been spending the last five years up until now building from the ground up a high road training partnership with the largest private sector union in California. So we've launched from nothing to having a built out staff and really serving workers. And that's my passion. And I look forward to bring it back here to the Energy Commission. And I really feel incredibly welcomed to come back and to give where I was given from, so thank you very much.

CHAIR HOCHSCHILD: Well, wonderful to have you back. Yeah. Great.

MS. MILES: We won't say how long ago it was, but

we were very (indiscernible).

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CHAIR HOCHSCHILD: Well, welcome. Welcome back.

3 COMMISSIONER MCALLISTER: Just one quick comment.

I mean, just, you called out Christine Kehoe and I just --

she's really, I think, maybe a not heralded enough, a kind

6 of lion of our energy history and our clean energy

7 | transition, and was kind of a mentor, sort of visionary

8 | that I was fortunate to interact with back in San Diego.

9 And then her sort of mentee was, you know, former pro-tem

10 | Tony Atkins. And that whole ecosystem that the two of them

11 | created was just so positive. And it's just really lovely

12 to know that you're part of that. So, yeah, great.

CHAIR HOCHSCHILD: Yeah. Great.

So, look, I did want to acknowledge we had a really consequential election last week. And I wanted to ask everyone, you know, there's been a lot of stress and

17 anxiety, and I want to just ask everyone to really be kind

18 to one another, support your colleagues, your teammates.

19 You know, we're going to get through whatever the next four

years brings. We will absolutely work in good faith with

21 | the new administration, but we're going to continue on.

22 Our resolve is unwavering. Our mission is necessary, both

23 for the state and the country, to build a clean energy

24 | future and to do that the right way.

And really, we're going to lean in and do

whatever's necessary to continue to move the ball forward. That's the role California has always played. And we will navigate whatever comes up. We'll navigate it together.

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So I want to just ask everyone to really be as supportive as you can to those who are experiencing anxiety about whatever the issues might be. It's really important to be supportive and be one team, one family here.

Having said that, a good way to come together would be our fifth anniversary Hall of Fame ceremony, which is coming up. That will be on December 4th, right here in Sacramento. It says December 4th. Okay. This says 4th. That's 5th? Which is it? 5th. Okay, show up on the right day. Sorry, don't listen to me. December 5th, and that'll be three o'clock here in the auditorium.

This year's honorees will include Gene Rodriguez with the U.S. Department of Energy as our Lifetime

Achievement winner, who's Advanced Energy Efficiency and
Low-Income Programs, Julia Zeitlin from Palo Alto, who's
our Youth Game Changer Award winner, Liz Perez from the
North Fork Rancheria of Mono Indians is our Tribal Energy
Champion.

And then we have three Clean Energy Champions,

Dr. Fan Dai from Berkeley, whose global leadership had

fostered a clean energy partnership between China and the

United States. Christine Viterelli-Busby from Arvin, who's

a grant-writing dynamo, transforming her rural town into a hub for clean energy. And Patricia Watts from Cerritos for her inspiring work to implement clean energy in Southern California communities. So we look forward to seeing you all then.

And then finally today, we are considering grants that total \$619 million, another big infusion into our state's economy.

Any other agency announcements from my colleagues before we get into the agenda? Yes. Oh, do you want to do yours now?

12 COMMISSIONER MCALLISTER: Yes.

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13 CHAIR HOCHSCHILD: Commissioner McAllister,
14 please.

make sure everybody's got on their radar the other event we're planning right now, or one other event we're planning right now, which is the Electrification Summit on March 11th and 12th. So just talk to -- well, definitely save the date. And just kudos and thanks to my Chief of Staff, Bryan Early, for running herd on all of that. It's a big, big thing to put together an agenda for two solid days of electrification talk. So that's going to be a huge amount of fun, like the last one was last October. So I'm just really looking forward to that.

And then I have a somewhat extended item that I wanted to present today, which is, you know, the Chair just talked about the election, you know, time marches on and we have to respond. And I wanted to just have a fairly detailed appreciation of the life of David Goldstein, who died on October 18th at his home with his family around him after a valiant struggle with cancer. And David, he's worthy of, I think, some contemplation today because his life was one of -- I can't imagine a life almost that has more impact than his had.

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And many of you may not know David or know of him, but he was one of the elite group of, you know, mostly reformed physicists that invented, in the early 1970s, the practice and discipline of energy efficiency. It really didn't exist before that. And the other two that are really in this triumvirate are Art Rosenfeld, who we all know and love, and who's sort of the emeritus, you know, founder of energy efficiency, and Amory Lovins, who's still at it. And those three really, I think, provide a division that all together helped propel this industry that we now, that now numbers in the tens of thousands and that it's really integrated into our economy in California and has saved the economy \$250 billion, you know, over the last 50 years.

So David was born -- I mean, his super skill

really was explaining complex topics in accessible language to anybody like legislators, policymakers, students, you know, family, friends. He had an incredible drive, patience, persistence.

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He was born in Cleveland and came West for his undergrad at UC Berkeley, and he stayed, became a Californian, went through his PhD at UC Berkeley in physics. And not too many years after that, he joined the Natural Resources Defense Council, where he was for 43 years. He just created the platform together with Ralph Cavanagh, the sort of partner on the legal side of it, just a platform for huge accomplishments in the energy sphere and really for California's leadership.

He was among the first to understand the power of codes and standards. A couple months ago, we adopted the 2025 Building Code, but that wouldn't really be in its form that it is today and have the power that it has and have the leadership potential that it has for California without David.

Standards for appliances and industry, he pursued them as he did all of his goals, relentlessly. David was instrumental in developing the first appliance standards for refrigerators in California, which gave rise to the iconic graphic that showed that after 1972, fridges reduced their energy consumption by three quarters, okay, and

reduced their price by two-thirds, this is in real dollars, while slightly increasing their volume and vastly improving their function and features, three-quarters energy savings, two thirds price decline and better product.

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And crucially, he led the institutionalization of appliance standards from California to the nation through the Department of Energy that now is where most of those reside. The Golden Carrot, the famous Golden Carrot Award was David's idea, right, that gave rise to this incredible competition to produce the most efficient refrigerator.

He was instrumental in improving building standards in China, India, Russia. He was awarded the 2002 MacArthur Foundation Genius Fellowship and the 1998 Leo Szilard Award for Physics in the Public Interest, the highest award for physicists.

He authored a seminal book, Saving Energy,
Growing Jobs, and Invisible Energy. I would definitely
recommend both of those to all of you.

He founded or co-founded some critical organizations in the efficiency space. RESENT, the Institute for Market Transformation, the Consortium for Energy Efficiency, and the New Buildings Institute, all still in existence, still thriving on both the infrastructure, you know, side that we use, we incorporate into, you know, statute and regulation. And then on the

advocacy side, enabling buildings to perform well and reduce their footprint and care for all the people that inhabit them.

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It's really hard to overstate David's positive impact on the world. Literally every person on the planet breathes cleaner air because of him.

But all these accomplishments pale in comparison to his personal impact on those around him. His signature kindness, inclusion, frequent smile, his focus on mentorship of his junior colleagues. His closest friends point out his numerous interests. Number one, absolutely, was his family. But also travel, photography, classical and rock and roll music, the arts, and his Judaism.

He met his wife, Julia, on public transit. The story goes that he decided to miss his stop so that he could keep talking to her. And then he never left her side and he just paid attention to his intuition. And then he shared the rest of his life with her. And they had kids and grandkids that were at the center of his universe.

We can all learn from David's legacy as beautifully expressed in his obituary, quote, "by performing innovative and creative work, listening with intention, loving fully, and developing further ways to reduce carbon emissions and repair the world."

So finally, I want to relate just a couple

stories that illustrate David's genius and his kindness in equal measure.

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First is from Carl Bloomstein over at UC
Berkeley, who was definitely part of that extended group
that invented energy efficiency back in the early days and
sort of made it a deal.

So quote, "One early morning at about 1:00 a.m. in 1976 in Art Rosenfeld's office, David sketched out the core idea for an end-use model of electricity demand. This led to a successful LBL proposal, which led in turn to the CEC's first end-use model and changed forever the way we think about forecasting electricity demand."

Very relevant for the Energy Commission, obviously.

The second is from Deborah Wang, who is a friend, a longtime friend, and whom I want to thank for stimulating an email chain that over the time after David's death has stimulated a beautiful sort of group appreciation and celebration of his life among his friends and colleagues.

So when interviewing Deborah for a position at NRDC 22 years ago, David, according to Deborah, quote, "Asked an interview question that has stuck with me throughout my career. He asked, what is the Venn diagram intersection between what the world needs, what you are passionate about, and your greatest strengths? A pretty

1 complicated interview question. If I were out of college 2 and somebody asked me that, I would be terrified, okay? 3 But of course, it stuck with me as the hardest interview 4 question, but also because it was so profoundly important. 5 I've rarely encountered anyone who has thought so precisely about how to focus their career and then pursued it with 6 7 such vigor and success." 8 So, you know, I could relate a lot of different 9 And, you know, I was fortunate to work with him 10 kind of periodically or sporadically over, you know, a big 11 chunk of my career, most recently at the ACEEE Conference 12 down in Sylmar (phonetic) in August. He was still at it. 1.3 He really never retired. He sort of, he'd nominally 14 retired, but he really never retired. 15 And he was famous for his walking speed when he was doing hikes. And so he would leave people in the dust 16 17 and solve problems and talk about energy. 18 Anyway, many here at the Energy Commission, 19 including myself, have been fortunate to work with and be 20 inspired by David for many, many decades. And we send heartfelt condolences to David's wife, Julia, their 21 2.2 children, Eliana and Abraham, and the entire Goldstein 2.3 family. Peace to all. 2.4 Thank you. 25 CHAIR HOCHSCHILD: Thank you so much,

1 Commissioner McAllister. 2 We'll turn now to item three, consent calendar. 3 MS. BADIE: Thank you, Chair. The Commission 4 welcomes public comment on item three at this time. If you 5 are in the room, you'll use the QR code or raise your hand. 6 And if you're on Zoom, you use the raise-hand feature or 7 star nine if joining by phone. And I'm not seeing anyone in the room, so I'm 8 9 going to transition over to Zoom. And again, this is for item three. 10 11 Deric Wittenborn, I'm going to open your line. 12 If you could please spell your name for the record? We're 13 asking for comments to be two minutes or less. There will 14 be a timer on the screen. 15 MR. WITTENBORN: Yeah, this is Derek Witterborn. 16 MS. BADIE: Yes. 17 MR. WITTENBORN: Yeah, my comment was basically 18 to be brought up during public comment period. And I just 19 wanted to get clarification if the community -- if 20 community choice aggregators are eligible to apply for 21 funding under the California Electric Vehicle Charge or 2.2 Reliability and Accessibility Accelerator Program? That's 2.3 the solicitation GFO-24-603. That was my question. 2.4 MS. BADIE: Thank you for your comment. I'll put 25 our Public Advisor email in the chat and you can send us

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    that question and then we can follow up with staff.
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              MR. WITTENBORN: Perfect, thank you.
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              MS. BADIE: All right, there are no further
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    raised hands for this item. Back to you, Chair.
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              CHAIR HOCHSCHILD: Okay, is there a motion on
    item three from Commissioner Monahan?
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              COMMISSIONER MONAHAN: I move to approve item
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    three.
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              CHAIR HOCHSCHILD: Is there a second,
    Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Second.
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              CHAIR HOCHSCHILD: All in favor say aye.
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              Commissioner Monahan?
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              COMMISSIONER MONAHAN:
                                     Aye.
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              CHAIR HOCHSCHILD: Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Aye.
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              CHAIR HOCHSCHILD: Vice Chair Gunda?
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              VICE CHAIR GUNDA: Aye.
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              CHAIR HOCHSCHILD: And I vote age as well.
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    three passes four-zero with Commissioner absent.
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              We'll turn out item four, Regents of University
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    of California, on behalf of the Davis Campus. Welcome to
2.3
    Martine Schmidt-Poolman.
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              MS. SCHMIDT-POOLMAN: Good morning. All right.
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    Good morning, Chair, Vice Chair, Commissioners online here.
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I'm Martine Schmidt-Poolman and I'm in the Sustainability and Health Unit of the Energy Research and Development Division. And Today, I'm requesting approval of a research grant agreement to advance precipitation enhancement in California.

Next slide, please.

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CHAIR HOCHSCHILD: If you can speak a little closer to the mic, that would be great. Thanks.

MS. SCHMIDT-POOLMAN: A little far? All right.

So the proposed agreement will benefit
Californians by advancing our understanding of the optimal
conditions and strategies for precipitation enhancement,
which will ultimately advance our hydropower augmentation.
The proposed research will foster cost-effective, robust
approaches to manage the anticipated needs for sustainable
hydropower in the context of a rapidly evolving energy
system and in changing climate. This is important as
California moves to 100 percent zero-carbon energy because
hydropower is a zero-carbon fast ramping resource.

Next slide, please.

All right, so the purpose of the grant funding opportunity is to fund applied research to advance the scientific basis for California's hydropower generation through precipitation enhancement.

Now, precipitation enhancement is commonly known

as cloud seeding. And since the early 1950s, winter orographic cloud seeding has been practiced in California. This is the introduction of ice nucleating particles known as glaciogenic particles into an orographic cloud causing water vapor to freeze onto the particles and then to enhance precipitation, which could be rain or snow in a targeted region. So orographic clouds are formed when moist air is forced by winds to rise over mountain ranges, causing the air to cool and condense into water droplets. And that's a common phenomenon in California.

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So the research will advance the scientific basis for the operational practice of glaciogenic seeding of orographic clouds and will demonstrate how cloud seeding operations can be improved by applying the proposed scientific approach.

Next slide, please. Great.

So the research proposed will explore the optimal conditions for that orographic cloud seeding in California by modeling the physical processes required to stimulate glaciogenic seeding from the dispersal of the seeding agent and ice nucleation through all the phases that lead to the springtime runoff into hydroelectric reservoirs.

So the regents of the University of California, on behalf of the Davis, campus will bring to bear state-of-the-art modeling tools which will include a cloud seeding

model, a hydrological model and snow melt model, and complement these by new and existing observations.

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So by combining new process-informed

Observation -- observational analysis, sorry, with the

utilization of these modeling tools, the research team will

be able to simulate the impacts of seeding all the way from

that precipitation phase to the melt and runoff phase. And

by doing that, they'll provide us with an enhanced

understanding to improve the cloud seeding efficacy,

including under which conditions and at what locations in

California, cloud seeding would be most effective to

augment snowpack and runoff.

They will provide us with additional observations and model-based guidance for new ways on how to evaluate cloud seeding impacts, including improved understanding of the role of background aerosols in cloud condensation nuclei concentrations.

And the team will provide estimates of how precipitation enhancement and the increase in snowfall actually translate into an increase in snow melt runoff and then into hydrological production.

So additionally, to fine tune and disseminate the game knowledge and the guidance regarding how to optimize cloud seeding operations, the research team will partner with local stakeholders to co-create the scientific

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research and to ensure that it meets societal needs and
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 2
    especially in the precipitation enhancement, electricity,
 3
    and water sectors. They will also build capacity for
 4
    broader participation in the field of cloud seeding
 5
    research.
              Next slide, please.
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              So with this, staff recommends the Commission to
    approve EPC-24027 with UC Davis for almost two-and-a-half
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9
    million dollar grant and to adopt staff's determination
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    that this project is exempt from CEQA. And staff,
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    including myself, are available for any questions that you
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    have.
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              This concludes my presentation. Thank you.
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              CHAIR HOCHSCHILD: Thank you so much.
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              Any Commissioner discussion or --
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              MS. BADIE: Oh, sorry, can we do public comment
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    first?
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              CHAIR HOCHSCHILD: Oh, sorry, that's my mistake.
    Public comment.
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              MS. BADIE:
                           Thank you.
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              CHAIR HOCHSCHILD: I apologize.
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              MS. BADIE: The Commission welcomes public
23
    comment on item four at this time. If you're in the room
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    with us, you'll just raise your hand or use the QR code.
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    And if you're on Zoom, you'll use the raise-hand feature on
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1 your screen or star nine if joining by phone. And I'm just 2 giving a quick check and I'm not seeing any raised hands for this item. 3 4 Back to you, Chair. 5 COMMISSIONER MONAHAN: Martine, can I just ask a question? So cloud seeding, so this is where there are 6 7 pre-existing clouds and you're seeding to increase the precipitation from already formed clouds, is that right, so 8 9 that it would be very much like -- I'm trying to figure out 10 like, wouldn't this be -- could this be a disperse thing or 11 would it evaluate how much of this water will actually fall 12 in California? 1.3 MS. SCHMIDT-POOLMAN: Well, we're measuring how 14 you could plan where to disperse so that it would fall in 15 certain areas, so --16 COMMISSIONER MONAHAN: Ah, near reservoirs to be 17 able to enhance? 18 MS. SCHMIDT-POOLMAN: -- or near watersheds --19 COMMISSIONER MONAHAN: Yeah. 20 MS. SCHMIDT-POOLMAN: -- or areas of interest. 21 So because, of course, you can't just cloud seed anywhere, 2.2 and so it's really trying to pinpoint how would this work 2.3 optimally for purposes of that generation. 2.4 COMMISSIONER MONAHAN: Great. Thank you. 25 COMMISSIONER MCALLISTER: So thanks very much for the presentation. I enjoyed the briefing and I think I got my questions answered in the briefing.

But, you know, it sort of reminded me that there's so many, you know, links in that chain. We get water from sort of the clouds all the way down into a reservoir and through a turbine or wherever it's going. And so, you know, the more we can know about that process, I think the better, so I'm very supportive of this.

And so I'll move.

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CHAIR HOCHSCHILD: Oh, no, the Vice Chair.

COMMISSIONER MCALLISTER: Oh. Oh. oh, sorry.

VICE CHAIR GUNDA: Thank you, Chair.

Thank you, Martine, for the presentation. Just a quick question, you know, followed by a couple of comments here.

In terms of the research, obviously, you know, having more hydropower would be extremely beneficial given the intermittency of the grid that we're going to have moving forward and any firm generation would be great. But just wanted to understand, what are the non-energy impacts of, you know, cloud seeding? You know, are they -- I mean, do we -- is that something that is well established? Is that something that we'll be studying as a part of this?

MS. SCHMIDT-POOLMAN: Yeah, there's a lot of

potential non-energy benefits, I think, if you just look at

what happens when it falls and where that goes. Not all of 1 2 that falls under the purview of this research. But through 3 use of a number of the models, we can gain some insight. 4 And so we have, of course, as we always do, we point our 5 researchers to focus very much on the energy side. At the same time, as they've indicated with some of their 6 7 outreach, there will be more than just that. And we'll have to also explore what areas we think are really 8 9 important that they uncover or know about already. 10 VICE CHAIR GUNDA: Just to follow up, I mean, are 11 there downsides, Martine, that are established now, risks, 12 down sides? 1.3 MS. SCHMIDT-POOLMAN: Yeah. The science versus 14 what you read on Google is sometimes a little dispersed, 15 but I think that happens all the time. And so the downsides, I mean, cloud seeding has been around in 16 17 California for 50 years or over, I think, since the '50s, 18 so 70 years, so there's a lot of research there. And I 19 think the nice thing about this modeling with that, it would show us potentials. And so we could examine flows 20 21 without it actually flowing and to make the determination 2.2 whether that's okay and meets our societal needs as well. 2.3 VICE CHAIR GUNDA: Thanks, Martine. 2.4 CHAIR HOCHSCHILD: Thank you. VICE CHAIR GUNDA: Back to you, Chair. 25

1	CHAIR HOCHSCHILD: Vice Chair Gundu, would you be
2	willing to move item four unless there's further
3	discussions?
4	VICE CHAIR GUNDA: Yes. Yeah, move item four.
5	CHAIR HOCHSCHILD: Is there a second for
6	Commissioner McAllister?
7	COMMISSIONER MCALLISTER: Second.
8	CHAIR HOCHSCHILD: All in favor, say aye.
9	Vice Chair Gunda?
10	VICE CHAIR GUNDA: Aye.
11	CHAIR HOCHSCHILD: Commissioner McAllister?
12	COMMISSIONER MCALLISTER: Aye.
13	CHAIR HOCHSCHILD: Commissioner Monahan?
14	COMMISSIONER MONAHAN: Aye.
15	CHAIR HOCHSCHILD: And I vote aye as well. Item
16	four passes four to zero. Thank you.
17	We'll turn now to item five, Grid-Supportive
18	Transportation Electrification. Welcome to Katelynn
19	Dinius.
20	MS. DINIUS: Good morning, Chair and
21	Commissioners. My name is Katelynn Diniz and I work on the
22	Transportation Team in the Energy Research and Development
23	Division. Today, I'm presenting the first round of awards
24	from the EPIC solicitation, Grid-Supportive Transportation
25	Electrification.

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As California's transportation sector transitions to plug-in electric vehicles, charging demand on the electricity grid is expected to grow. The California Public Utilities Commission forecasts that without measures to reduce costs and manage load, substantial investments in distribution grid upgrades will be needed to meet this increasing demand.

This EPIC-funded solicitation included three focus areas, manage charging in response to local grid conditions, improving the efficiency and scalability of high-power charging, and enabling flexible siting of charging stations. All three areas share common goals to maximize the use of existing electrical infrastructure, minimize the need for panel and grid upgrades, accelerate energization projects, and reduce rate payer costs.

Today, I will propose awards for two projects under Group 1 and two projects under group two. The remaining projects will be presented at a future business meeting.

Next slide.

There are many potential benefits to utilizing existing electrical infrastructure, including faster installation and energization of chargers, cost savings from avoided upgrades, and reduced energy losses. For this

solicitation, it was especially important that the demonstrations implement replicable charging solutions in under-resourced communities facing grid capacity constraints, with the goal of increasing equitable access to clean energy resources.

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The first project led by NeoCharge Incorporated will develop software designed to manage residential electric vehicle charging loads and will demonstrate at 200 homes across California.

This smart load management software integrates with the sensor installed on the home's electrical panel and utility data to dynamically adjust charging based on real-time grid conditions, consumer preferences, and available panel capacity. The integration with the sensor ensures that the homes stay within 80 percent of their panel capacity, complying with electrical standards and avoiding costly upgrades. As a result, homeowners can save up to \$3,500 per installation by mitigating the need for upgrades.

The project is also partnering with Grid

Alternatives, a nonprofit focused on renewable energy

access in under-resourced communities. The demonstration

will prioritize these communities and provide workforce

development opportunities.

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The second project led by Intertie will develop and demonstrate a novel microgrid technology that integrates solar energy storage and a bidirectional power converter to supply one megawatt of charging power to fast chargers at a gas station along Highway 5 in Fresno County. Compared to conventional charging, Intertie solution reduces the required grid capacity for installing fast chargers by 85 percent.

The system will be managed by Intertie energy management software, which will continuously monitor the grid and disconnect the system during an outage. These modifications will help mitigate the need for utility upgrades, improve grid efficiency, and enable the deployment of DC fast chargers that are both powerful and cost-effective enough to keep up with EV adoption rates.

Next slide.

The third project led by RockeTruck will develop and demonstrate an innovative power conversion architecture for charging electric drayage trucks at a cargo transfer facility serving the Ports of Long Beach and Los Angeles. The demonstration focus on electric drag trucks is critical as rapid electrification of medium and heavy-duty trucks is expected over the next decade.

The system will charge up to 100 electric trucks

per day, utilizing a solid-state transformer to convert grid power to usable power for the site. The project's power conversion architecture offers several key advantages, a smaller site footprint, increased efficiency, and streamlined integration with distributed energy resources. Additionally, the system will improve reliability and reduce maintenance costs by eliminating complex power conversions at each charger. Next slide.

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The final project led by GoPowerEV will develop an automated load management system to control electric vehicle charging and prevent grid equipment overload. The system will be demonstrated at four multi-unit dwellings facing capacity constraints in Ontario, Redwood City, and South San Francisco.

The system uses an on-premises controller that monitors charging loads, allowing or restricting charging based on local electrical equipment limits. If grid conditions change and loads become unsafe, the system performs rapid load reductions to restore safety.

A key innovation of the system is its integration with a distribution transformer monitor, which utilities already use to monitor transformer health. These DTMs provide real-time measurements and alerts to help prevent overloading. This approach defers the need for costly distribution upgrades, reducing energization timelines by

1 up to 16 months. 2 Next slide. Staff recommends adoption of staff's 3 4 determination that these projects are exempt from CEQA and 5 approval of these grant awards. I'm available for any questions as are representatives from each project team. 6 7 Thank you. And that concludes my presentation. Thank you. 8 9 CHAIR HOCHSCHILD: Thank you. 10 Is there any public comment on item five? 11 MS. BADIE: Thank you, Chair. 12 The Commission welcomes public comment on item five at this time. If you're in the room, you'll use the 13 QR code or raise your hand this time. And if you're 14 15 joining by Zoom, you'll use the raise-hand feature on your screen or star nine if joining by phone. 16 17 And I'm not seeing anyone in the room, so I'm 18 going to transition over to Zoom. 19 Stephen Rosenblum, I'm going to open your line. 20 If you could please spell your name for the record? 21 asking for comments to be two minutes or less. There will 2.2 be a timer on the screen. 2.3 MR. ROSENBLUM: Yeah, my name is Stephen Rosenblum, R-O-S-E-N-B-L-U-M. I am a member of Climate 24 2.5 Action California. I'd like to commend the Commission for

this really interesting set of pilot programs that will try and expand or make better use of our existing grid.

I think one thing that should be considered very soon is to use bidirectional charging of vehicles. I think that's something that would be a huge step in the right direction of maximizing the use of the grid so that when there's excess power, it can be stored in the vehicles, and then when there's a need for power, it can be taken back out of the vehicles in the same way that these programs control the charging of the vehicles, depending on how heavily their local site is loaded and how heavy the grid demand is versus grid capacity.

Thank you again.

MS. BADIE: Thank you.

That concludes public comment for this item.

16 Back to you, Chair.

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CHAIR HOCHSCHILD: Let's go to Commissioner discussions, starting with Commissioner Monahan.

COMMISSIONER MONAHAN: Katelynn, I wonder if you can -- I know you were involved with Redwood's responsive, easy charging products with the dynamic signals.

MS. DINTUS: Yes.

COMMISSIONER MONAHAN: Can you talk about how grid supportive transportation electrification intersects with Redwood's and the distinction?

MS. DINIUS: The Redwood's project was really focused on responding to dynamic rates, which a lot of our projects for Group 1, we try to incorporate that into their management software. Our solicitation was really focused on monitoring like panel or distribution equipment to make sure that there's no overloading and prevent upgrades, so definitely compatible with responding to dynamic rates, just adding on that element.

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COMMISSIONER MONAHAN: Thank you. And I just want to commend you and the team for just this thoughtful set of targeted challenges that you're trying to overcome through this solicitation. And I thought it was really creative and that you're really like targeting key roadblocks to be able to scale up. So I just, I really am excited about these projects and excited to see them come to fruition.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Okay, thanks so much for the presentation.

Yeah, this is so compatible with just all of the suite of things we're doing around load flexibility and making sure that, you know, buildings and vehicles and everything that we're electrifying industry, we'll hear a little bit later about INDIGO, they can be part of the solution for managing the grid, you know, 100 percent free

grid.

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And, you know, load flexibility is something there. There are a lot of interesting things going on. And just sort of to Commissioner Monahan's comment, the distribution system by its nature, you know, the grid edge is very diverse. And so we have to find ways to systematize how we manage loads actively to improve load factors, to, you know, improve reliability, to manage costs. And I think this goes right to that managing costs, and all of it really but managing costs and making sure that we can, that the utilities can manage, can stage their upgrades to the distribution grid in a way that takes care of affordability for the next couple of decades.

And so really, I think this -- I love this solicitation. It's super compatible with Redwood's, totally agree. And we just really commend the whole team for thoughtfulness and engagement with all the stakeholders and kind of pushing the envelope just enough where we get good proposals and good responses to the solicitations, but also really inspirational. This is just a big example of that, so super supportive. And again, really, as Commissioner Monahan is, really interested in the results. Looking forward to it.

CHAIR HOCHSCHILD: Vice Chair?

VICE CHAIR GUNDA: Thank you, Chair.

I also want to just say my thanks, Katelynn, to you. Really good presentation, you know, overall kind of figuring out, you know, these kind of projects that are ultimately helpful in good, supportive transportation electrification and, you know, moving forward with the most affordable and efficient way of electrifying at a distribution level is awesome. And I just kind of wanted to maybe ask, you know, a question again. We can take it offline if you're not ready to discuss that.

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You know, in terms of the scale, I'm kind of going off from what Commissioner McAllister said, we have this demand flexibility goal, right, so about 7,000 megawatts goal. One of our hopes, I think, you know, with a project like this is, one, it reduces the distribution upgrades required, but also has these indirect benefits of, you know, hopefully faster electrification, right, so you're not having to delay, but also on the supply side. You know, if we have better managed load, hopefully we don't have to build as much on the supply side.

Could you kind of give a scale of the opportunity here? So, for example, one of the CPUC's study, you know, kind of laid out some dollar amounts, about \$50 billion, I believe, of unmanaged distribution upgrades. Do we have a sense of the scale of opportunity here? Are we talking about, you know, a billion of the \$50 billion? You know,

1 are talking about \$10 billion? You know, any ideas of just 2 general levels of scale with these kinds of successes that we could have? 3 4 MS. DINIUS: We wouldn't be able to give you a 5 figure in terms of like scale of distribution grid-saving costs right now. What's cool about our demonstrations is 6 7 they're a large group of them. So one of the projects is in 200 sites. So we're getting a good amount of data 8 9 collection to where I think we can start to estimate that 10 during the projects. 11 VICE CHAIR GUNDA: That's great. Katelynn, just 12 encourage us, I mean, are we having IOU partners on this? 13 Any LSE partners with these projects? 14 MS. DINIUS: Sorry, can you repeat that? 15 VICE CHAIR GUNDA: Any IOU partners or load 16 serving entities partners on these projects? 17 MS. DINIUS: Yeah, definitely. For our Group 1 18 projects, they're partnering with utilities, especially if 19 they're going to be installing monitors on their 20 transformer equipment. VICE CHAIR GUNDA: Great. Look forward to the 21 2.2 data that we collect and continue to move forward these 23 kinds of projects, so thank you again, Katelynn. Much 24 appreciated. 25 COMMISSIONER MONAHAN: Can I --

CHAIR HOCHSCHILD: Yes, Commissioner Monahan.

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COMMISSIONER MONAHAN: -- sort of tie in what Vice Chair Gundu was saying with what Commissioner McAllister was saying, especially for Category 1, which is avoiding customer electrical service upgrades?

I'm assuming that technology is transferable beyond just transportation, that this could be a way for homes, even if you are not using an electric vehicle but you want to get an electric appliance, that this same technology could be transferable. Is that the case or is this very specific to transportation electrification?

MS. DINIUS: I believe that it could be transferable. One of our projects, NeoCharge, looks beyond EV charging loads. So that's definitely something that I believe they would consider.

COMMISSIONER MONAHAN: Thanks.

area that this is really relevant. I mean, I like the DC to DC, like focusing on DC sort of as much as possible to integrate renewables and batteries and everything with the chargers themselves so you don't have to do a lot of switching back and forth between AC and DC. And that saves, you know, that can save a lot of energy just in efficiencies right there. That piece of it seems like it would be transferable. And there's other work going on in

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    buildings with DC and even grids, building for loads, you
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    know, other than EVs. So hopefully we can get some of
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    those dots. Interesting. Thanks.
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              CHAIR HOCHSCHILD: Is there a motion on item five
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    from Commissioner Monahan?
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              COMMISSIONER MONAHAN: I move to approve item
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    five.
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              CHAIR HOCHSCHILD: Is there a second from
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    Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Second.
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              CHAIR HOCHSCHILD: All in favor say aye.
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              Commissioner Monahan?
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              COMMISSIONER MONAHAN:
                                     Aye.
              CHAIR HOCHSCHILD: Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Aye.
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              CHAIR HOCHSCHILD: Vice Chair Gunda?
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              VICE CHAIR GUNDA: Aye.
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              CHAIR HOCHSCHILD: And I vote age as well.
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    five passes four to zero. Thank you so much.
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              We'll turn now to item six, Deployment of
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    Decarbonization Technologies and Strategies for California
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    Industrial Facilities.
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              MS. DE LA TORRE: Good morning, Vice Chair, Chair
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    and Commissioners. My name is Paty De La Torre and I work
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    in the Energy Research and Development Division. Today,
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I'll be presenting three recommended awards for from the first round of the INDIGO Program solicitation for the deployment of decarbonization technologies and strategies for California industrial facilities.

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The solicitation is funded by the Industrial Decarbonization and Improvements to Grid Operations Program, or INDIGO, established by AB 209 to fund decarbonization projects at existing industrial facilities to reduce emission of greenhouse gases, provide benefits to the electric grid and achieve the state's clean energy goals. This grant funding opportunity targeted deployment-ready technologies at a minimum technology readiness level of eight that promote electrification and have the potential for cross-cutting impact on other industrial facilities.

The three projects awarded under the solicitation represent a total of \$20.5 million NCEC funds with \$23.2 million in match funds.

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Projects will increase electrification of industrial equipment, reduce grid energy usage, decrease use of fossil fuels, reduce air pollution, energy costs and water usage while helping meet California's decarbonization goals for industry.

California's industrial sector provides domestic and global economic benefits by providing jobs and manufacturing a wide range of goods, including food and beverage, minerals, cement and glass. In many cases, these facilities have high process heat and other energy requirements that rely on fossil fuel combustion, which is a major source of GHG emissions and criteria air pollutants at burden neighboring communities.

The recommended projects will provide measurable progress towards more efficient and cleaner energy usage at industrial facilities and benefit priority populations.

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The first project with Searles Valley Minerals will reduce the coal and gas usage of their utility-scale boilers by converting coal-powered steam turbines to electric motors. The motors will be equipped with variable frequency drives for optimal energy efficiency and the new system will be supported by 2.4 megawatts of solar energy generation and a battery energy storage system.

This approach will reduce the electric load required to electrify the boiler fans and provide grid stability during peak periods. The project expects to reduce facility emissions by over 100,000 metric tons of CO2 per year, reduce nitrogen oxide emissions by 800 tons per year, and reduce water usage by 100 million gallons per

year.

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The minerals at Searles Valley include soda ash and borates, which are essential in the manufacturing of glass used in solar panels, lithium carbonate in batteries, and sodium carbonate that scrubs flue gas of sulfur.

Reducing reliance on coal provides air quality and water security improvements to Trona and will demonstrate effective steam turbine decarbonization, which can benefit existing users of fossil-powered turbines, such as pulp, paper and chemical manufacturing.

Next slide, please.

The second project with Renewable Technology

Developments, Inc. will eliminate 250,000 therms per year

of fossil gas usage at an industrial laundry facility by

replacing packet boilers with a steam-generating heat pump.

This process heat electrification will be coupled with

(indiscernible) of plant upgrades and supported with 100

kilowatts of solar energy generation.

The project expects to reduce its emissions by 1,200 metric tons of CO2 per year, reduce nitrogen oxide emissions by over two tons per year, and reduce water usage by 14 million gallons per year.

Abundant low-grade waste heat sources at the laundry facility, and upgrades such as water lines and sidearm heat exchangers, will enable the steam-generating

heat pump to operate with high efficiency and supply heat to dryers and ironers. Effective demonstration of this approach can impact adoption of electrically powered alternatives to gas-fired boilers used in small to medium industrial settings.

The laundries workforce and neighboring communities of Patterson will benefit from cooler ambient air in the facility, improved air quality, and water savings.

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The third project with Hilmar Cheese Company will electrify their lactose milk solid concentration process by implementing high-pressure reverse osmosis and an industrial heat pump for product temperature control. The new approach will use variable frequency drives and advanced motors and controls to maximize energy efficiency, and the system overall will reduce both fossil gas and grid electricity usage at the facility.

The project expects to reduce its emissions by 1,600 metric tons of CO2 per year, reduce nitrogen oxide emissions by over two tons per year and reduce water usage by 7 million gallons per year.

High-pressure reverse osmosis uses polymeric membranes to concentrate lactose permeate from 5 percent to 30 percent, separating the lactose from minerals and water

without thermal energy. This, along with electrification of temperature control with a heat pump, represents the state of the art for decarbonized liquid concentration systems, which can impact over 100 other dairy processing facilities in California and other industries, including wastewater treatment and other food processors.

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Staff recommends approval of these three grant agreements and adoption of staff's determination that these projects are exempt from CEQA.

I'm happy to take any questions. Thank you.

CHAIR HOCHSCHILD: Thanks so much, Paty.

Let's go to public comment on item six.

MS. BADIE: Thank you. The Commission welcomes public comment on item six at this time. If you're in the room with us, you use the QR code or raise your hand. And if you're on Zoom, please use the raise hand feature on your screen or press star nine.

And we do not have anyone in the room, so I'm going to transition over to Zoom.

Patrick Robinson, I'm going to open your line.

If you could please spell your name for the record? We're asking for comments to be two minutes or less, and there will be a timer on the screen.

MR. ROBINSON: Hello. My name is Patrick

Robinson, R-O-B-I-N-S-O-N. I'm the Senior Manager, Environmental and Sustainability, for Hilmar Cheese Company, located in Merced County.

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Improving lives together, this is Hilmar Cheese Company's purpose. Hilmar is committed to responsible dairy production and improving the communities we serve. We are determined to be leaders in the dairy and farming effort to reach greenhouse gas neutrality and use our expertise to create innovative solutions that contribute to ensuring a sustainable future.

Enabling decarbonization of the dairy industry at scale is important to protect critical and affordable nutrition for future generations in California and the world. Programs like INDIGO make it possible to develop and deploy innovative technologies at scale to reduce greenhouse gases generated by California's \$20 billion dairy economy. These new technologies are necessary to electrify processes that have used fossil fuels while enhancing electrical grid reliability. Combined, this makes significant advances in energy efficiency.

Hilmar has a proven record of delivering on our commitments with programs like INDIGO. We take our leadership responsibility within our industry very seriously. Hilmar and the dairy industry thank you for the opportunity to implement pioneering solutions that will

help decarbonize the dairy industry in California.

I want to thank Tara Schuelke for leading the effort for Hilmar Cheese Company. And we want to thank all the people within industry and the Commission, all our stakeholders that have collaborated on this project.

Together, we improve lives.

Thank you.

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MS. BADIE: Thank you.

Next, we'll hear from Stephen Rosenblum.

Stephen, I'm going to open your line. And we're asking for comments to be two minutes or less.

MR. ROSENBLUM: Stephen Rosenblum again,

13 R-O-S-E-N-B-L-U-M.

I'd like to commend the Commission and the staff on this really excellent program to reduce fossil fuel and carbon emissions from industry. I think the sector they're attacking in this program is really important.

As we try to move to an all-electric economy, it's really critical that we provide pathways to industries that require modest process temperature, such as the ones described in these proposals, with well-tested and well-qualified methods of conversion of their facilities from burning fossil fuels or burning carbon of any kind, actually, and to use actual electricity that comes from renewable sources, which we hope will be the case with the

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    California grid going forward, that as we transition to
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    wind and solar and batteries that fossil fuels like natural
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    gas will not be burned anymore to produce electricity, and
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    that when these sectors have viable paths to
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    electrification of their process heat, the process will
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              Thank you. I appreciate the opportunity to
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    comment again.
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              MR. VENTURA:
                             Thank you.
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              That concludes public comment for this item.
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    Back to you chair.
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              CHAIR HOCHSCHILD: All right, let's go to
    Commissioner discussion.
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              Commissioner Monahan?
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              COMMISSIONER MONAHAN: Well, first, I want to
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    just commend the team, and I want to start with Virginia
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    Lew who I think is here, but she's really been like a
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    leader for a long time in this space, has educated me
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    extensively about this, and Commissioner McAllister, as
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    well, and just want to acknowledge her role in all of this.
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    And this is a long time coming. It's been guite a process,
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    I think, to get to the finish line on this first
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    solicitation. There's more to come.
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              And I want to just commend the companies that
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    applied for this and, you know, starting with Searles
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Valley Minerals, which I think is a really interesting case of moving from coal to the trifecta of clean energy, solar, storage, plus electrification. And, you know, really it is quite a -- just emblematic of the kind of the change that we're trying to move towards, which is away from the most polluting fossil fuels to fuels that are going to be fully zero-emission, at least on the electrification, side in the future. And it's a risky thing for companies to make this shift. And we're trying to incentivize heat pumps, so great to see that as part of the solution set.

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And yeah, just excited to move forward on these and commend the team for their diligence in pulling this together.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Great. Definitely

would just reinforce those comments. Thanks, Paty, for the

great presentation. Really appreciate it and enjoy the

briefing and got my kind of technical questions answered.

But just to highlight, you know, large industrial-scale heat pumps, high temperature heat pumps, we need a lot of innovation there and we need to get the temperatures up and the efficiencies up as we do that. And these projects really, the, you know, B and C, the Renewables Technology Developments Inc., and then Hilmar Cheese, really appreciate those applications.

And Mr. Robinson, I just really appreciate your comments and your commitment, Hilmar's commitment. The dairy industry is such an integral part of our economy and there are huge heat needs. And, you know, the use of heat is critical throughout much production across the dairy industry, and so we're just really excited to look for more and more applications for heat pumps and just shuttling heat around rather than producing it from scratch is just a fundamental part of the solution. And so heat pumps are going to help us do that and we really appreciate your leadership and partnership in doing so.

And then on Searles, I just really appreciate the

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And then on Searles, I just really appreciate the retirement of steam powered vans. Seems like it's time to do that. And I really appreciate your, you know, commitment to reducing your footprint and trying to ramp down the use of coal and really looking for electric solutions to what is a pretty difficult sector to electrify. So really appreciate your commitment as well.

So thanks and very supportive.

CHAIR HOCHSCHILD: Well, thunderous agreement to all of those comments, so thunderous that we'll move right to a vote.

So Commissioner Monahan, would you be willing to move the item?

COMMISSIONER MONAHAN: I move to approve item

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    six.
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              CHAIR HOCHSCHILD: Is there a second from
    Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Second.
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              CHAIR HOCHSCHILD: All in favor, say aye.
              Commissioner Monahan?
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              COMMISSIONER MONAHAN:
              CHAIR HOCHSCHILD: Commissioner McAllister?
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              COMMISSIONER MCALLISTER: Aye.
              CHAIR HOCHSCHILD: Vice Chair Gunda?
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              VICE CHAIR GUNDA: Aye.
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              CHAIR HOCHSCHILD: And I vote age as well.
                                                           Item
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    six passes four to zero.
              Thank you, Paty.
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              We'll turn now to item seven, Local Government
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    Building Decarbonization Challenge.
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              MS. HUYNH: Good morning, Chair, Vice Chair and
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    Commissioners. My name is Lien Huynh and I am the Grant
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    Analyst for the Efficiency Division. Today, I will be
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    presenting item seven. This is a request to approve grant
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    agreements with two local government awardees, County of
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    Nevada and Town of Truckee. These are the first two of
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    four total grant agreements awarded under the Local
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    Government Building Decarbonization Challenge, also known
    as GFO-23-403.
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The purpose of Local Government Building

Decarbonization Challenge was to fund planning grants for

local governments not eligible to receive direct federal

energy efficiency and conservation block grant funding,

abbreviated as EECBG, from the United States Department of

Energy. This solicitation also prioritize rural low-income

and disadvantaged communities, what the CEC is now

referring to as justice communities.

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Eligible project activities for this solicitation included supporting climate planning with a buildings component, decarbonization planning, and improving municipal operations to support building decarbonization and decarbonization education. They also included supporting workforce development and creating or updating local codes, ordinances, and volunteer decarbonization measures.

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Grants awarded under this solicitation will provide the following benefits to Californians: supporting local government planning; reduced carbon emissions and energy use; improved energy efficiency; and increased community investment in local workforce development.

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The first project proposed for award is with the County of Nevada. Through this agreement, the CEC will award federal EECBG funding totaling \$700,000. The match funds for this agreement totals \$40,000. The project will focus on three core tasks, developing an educational campaign for zero-emission vehicles, designing zero-emission vehicle charging infrastructure at 16 county and community partner facilities, and adjusting county agency permitting processes, codes and statutes.

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The second project proposed for award is with the Town of Truckee. Through this grant agreement, the CEC will award federal EECBG funding totaling \$700,000. The match funds for this agreement totals \$110,000. The project will focus on four core tasks, which include the development of an Energy Resilience Plan, Municipal Building Decarbonization Plan, Municipal Electric Vehicle Charging Infrastructure Plan, and Building Decarbonization Program.

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Staff recommends approval of both grant agreements and adoptions of staff recommendation that these projects are exempt from CEQA.

Thank you for your consideration. I'm available for questions.

1 CHAIR HOCHSCHILD: Thanks so much. 2 CHAIR HOCHSCHILD: Let's go to public comment. 3 MS. BADIE: Thank you, Chair. 4 The Commission now welcomes public comment on 5 item seven. If you're in the room with us, we're asking folks to use the QR code or raise their hand. And if 6 7 you're on Zoom, use the raise hand feature on your screen. It looks like an open palm or star nine if joining by 8 9 phone. And I'm just giving that a moment. 10 And I'm not seeing any hands in the room or on 11 Zoom, so back to you, Chair. 12 CHAIR HOCHSCHILD: All right, let's go to Commissioner discussion, starting with Commissioner 13 14 McAllister. 15 COMMISSIONER MCALLISTER: Well, Lien, thanks so 16 much for the presentation. As you know, I love this 17 program. And just a reminder for everybody, we started the 18 Local Government Challenge back in the ARRA days, back when 19 we had reflows from the Obama period of sort of the Obama version of the IRA as we have it now. And as the lending 20 21 resources came back into the Commission, as local 2.2 governments and entities paid back their loans that we'd 23 made with those resources, we started to sort of filter 24 those back into local governments. 25 And really, local governments, counties and

cities across the state just really do not have, especially the small ones, they just don't have the resources to do the kind of climate planning that's necessary to figure out where they can innovate. And all the local governments can innovate, but they need resources and they need some ability to take the time and invest in figuring that out.

And so each local government kind of has to start where they are. And I think we see that in these two grants. Nevada County really appreciate, you know, the educational component and the focus on transportation. And then Truckee has been an innovator in this space for a long time and I'm really happy to support what they're doing.

So it's great to have some refreshing, some new funds, you know, refresh the sort of the bank account there with some EECBG funds, and really appreciate your working through the proposal process and vetting everything and getting this to us in a meeting, so very supportive of both of these projects.

CHAIR HOCHSCHILD: Unless there's further discussion, I welcome a motion from --

COMMISSIONER MCALLISTER: Great.

CHAIR HOCHSCHILD: -- Commissioner McAllister.

COMMISSIONER MCALLISTER: I move item seven.

CHAIR HOCHSCHILD: Is there a second from

Commissioner Monahan?

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1	COMMISSIONER MONAHAN: I second.
2	CHAIR HOCHSCHILD: All in favor say aye.
3	Commissioner McAllister?
4	COMMISSIONER MCALLISTER: Aye.
5	CHAIR HOCHSCHILD: Commissioner Monahan?
6	COMMISSIONER MONAHAN: Aye.
7	CHAIR HOCHSCHILD: Vice Chair Gunda?
8	VICE CHAIR GUNDA: Aye.
9	CHAIR HOCHSCHILD: And I vote aye as well. Item
10	seven passes four to zero. Thank you so much.
11	MS. HUYNH: Thank you.
12	CHAIR HOCHSCHILD: We'll turn now to item eight,
13	Equitable Building Decarbonization Program Direct Install.
14	Welcome, Diana Mineta, to present.
15	MS. MANETA: Thank you and good morning Chair,
16	Vice Chair and Commissioners. My name is Diana Mineta. I
17	am in the Equitable Building Decarbonization Branch of the
18	Reliability, Renewable Energy and Decarbonization
19	Incentives Division. And today, I'll be presenting three
20	grant agreements for regional administrators for the
21	Equitable Building Decarbonization Direct Install Program.
22	Next slide, please.
23	The CEC was directed by Assembly Bill 209 in 2022
24	to create the Equitable Building Decarbonization Program,
25	including a Direct Install Program to provide

decarbonization upgrades at minimal or no cost for low- to moderate-income households with a preference for under-resourced communities and for homes owned by California Native American tribes, tribal organizations and tribal members.

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Building decarbonization means reducing or eliminating greenhouse gas emissions from buildings through strategies such as replacing gas appliances with efficient electric appliances and making buildings more energy efficient. In addition to reducing greenhouse gas emissions, these upgrades can also make buildings safer, more comfortable, and more affordable to heat and cool.

The Equitable Building Decarbonization Program will have numerous benefits to Californians. It will reduce greenhouse gas emissions from existing buildings, thereby helping to avoid the worst impacts of climate change and contributing to California's goal of carbon neutrality by 2045.

It will advance energy equity by directing benefits to low-income households, under-resourced communities and tribal communities.

It will also improve resiliency to extreme heat, air quality and energy affordability, support grid reliability and support the creation of local, good-quality jobs in participating communities.

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The Equitable Building Decarbonization Program is needed because there are significant challenges to decarbonizing buildings. These include the cost of the upgrades, split incentives between landlords and renters, workforce availability and infrastructure constraints, particularly electrical capacity in buildings.

These challenges are especially acute in lowincome, disadvantaged and tribal communities, the very
communities that are most in need of building upgrades as
they often bear the highest energy burdens and have
suffered the most from historical environmental injustices,
economic disparities, and the current climate crisis. The
Equitable Building Decarbonization Direct Install Program
is designed intentionally to address these challenges by
providing decarbonization upgrades to low-income households
in under-resourced communities.

Next slide, please.

The state initially allocated \$922 million to the Equitable Building Decarbonization Program. As a result of last year's state budget deficit, the funding for this program was reduced to \$525 million and the primary funding source shifted from the General Fund to the Greenhouse Gas Reduction Fund. The total budget will be divided into three subprograms.

The bulk of the funds, about \$413 million, will support the Statewide Direct Install Program, which is the focus of the grant agreements I'm presenting today. To mitigate the impact of the state budget reduction, the CEC plans to supplement these funds with an additional \$154 million from the Federal Inflation Reduction Act Home Efficiency Rebates Program, also known as HOMES, for a total Statewide Direct Install Program budget of about \$567 million. The federal funding is contingent upon the U.S. Department of Energy's approval of the CEC's HOMES Program application.

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The second subprogram is the \$30 million Tribal Direct Install Program. The CEC recently conducted Tribal Roundtables and is currently developing the guidelines for this program. Tribal members will also be eligible to participate in the Statewide Direct Install Program in addition to the Tribal Direct Install Program.

The third subprogram is the \$30 million Statewide
Incentive Program, which is being implemented through
GoGreen Financing, administered by the California
Alternative Energy and Advanced Transportation Financing
Authority, which is housed in the State Treasurer's Office.
The GoGreen Financing Program leverages private capital to
expand access to decarbonization upgrades to more
California households, providing low-interest unsecured

financing through credit unions throughout the state. The Equitable Building Decarbonization funds allow this successful program to expand beyond customers of investorowned utilities to customers of publicly-owned utilities as well.

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The Statewide Direct Install Program has been designed through a collaborative public process, and CEC staff are grateful to the hundreds of individuals and organizations who have provided input that has shaped the design of the program. We held numerous public workshops during the development of the program guidelines, including regional workshops throughout the state that were planned collaboratively with local stakeholders and included translation and interpretation services.

In addition, CEC staff continue to meet regularly with environmental justice groups and other stakeholders to provide an active venue to discuss program development and implementation.

Following the adoption of the guidelines in October of last year, the CEC conducted a competitive solicitation to select three regional administrators.

While the solicitation was under development, the January State Budget Proposal was released, and we learned of the likelihood of budget cuts to the program.

To mitigate the impact of the likely cuts, the CEC developed the plan to braid Federal Homes Program funding into the Statewide Direct Install Program. So the solicitation was developed to include Federal Homes Program requirements as well as state requirements.

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We're here today to recommend the approval of grant agreements with the three regional administrators selected through that competitive solicitation. Following the approval of these grant agreements, we're excited for the program to launch and begin retrofitting homes in the spring.

The initial launch will be in what we're calling rapid start communities, which will involve partnerships with existing Direct install programs in each region to allow retrofits to begin as quickly as possible while the full program ramps up.

Moving forward, we'll continue to invite stakeholder input through the formation of an advisory group, which will be formed in the coming weeks and begin meeting in early 2025.

Next slide, please.

Before presenting the proposed grant agreements,

I'll give a brief overview of the design of the Statewide

Direct Install Program according to the program guidelines.

The program will serve low-income households

located in under-resourced communities. Low-income households are defined as households earning up to 80 percent of the area median income. Participating households may be single-family homes, multifamily buildings, or manufactured or mobile homes. They may be owner-occupied or rented, and the program includes protections against rent increases and eviction for tenants in participating buildings. The program is limited to existing buildings, not new construction.

Under-resourced communities include disadvantaged communities, as defined by CalEnviroScreen 4.0, and low-income census tracts. Overall, 59 percent of Californians live in under-resourced communities. Though the funding for this program is significant, it's far from enough to serve every under-resourced community in the state. Therefore, the initial phase of the program will serve specific communities, called initial community focus areas.

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Initial community focus areas will be identified based on several criteria, including the presence of local organizations with which the regional administrator can partner for effective outreach and engagement in the community, communities in which households are most likely to experience utility bill savings as a result of decarbonization, communities particularly vulnerable to

extreme heat, high fire risk, and high levels of ambient air pollution, communities underserved by existing decarbonization and weatherization programs, and communities with high energy burdens.

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The solicitation for regional administrators required applicants to recommend initial community focus areas based on these criteria. Initial community focus areas in each region will be finalized once the grant agreements with the regional administrators are in place.

In addition, within initial community focus areas, the program will use household-level utility meter data to identify homes that are the best candidates for decarbonization, including those most likely to experience savings on their energy bills as a result of decarbonization upgrades, as well as those most in need of such upgrades, for example, homes in hot regions that lack cooling. This will be accomplished through an existing contract the CEC has with Recurve Analytics to develop a screening dashboard for the Equitable Building Decarbonization Program, building on an existing screening tool developed for the California Public Utility Commission's Tech Clean California Program.

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Participating households will receive decarbonization upgrades at no cost to the building owner

or occupant. Measures that are eligible to be funded through the program are listed on this slide. They include heat pumps, heat pump water heaters, other efficient electric appliances, weatherization upgrades, electrical wiring and panel upgrades, and remediation and safety improvements.

Not every household that participates in the program will receive every measure on this list. Some measures will be more appropriate for certain homes than others based on climate zone, building type, and other factors. At a minimum, each household served will receive a heat pump for space heating and cooling or a heat pump water heater or both. In addition, at the conclusion of the retrofit, at least two of the following four end uses in the home must be electric, space heating, water heating, cooking, and clothes drying.

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The program will be administered by three regional administrators serving Northern, Central, and Southern California. Funds are allocated among the three regions according to the population of under-resourced communities in each region, which comes to 23 percent to the Northern Region, 19 percent to the Central Region, and 58 percent to the Southern Region.

Next slide, please.

As I mentioned, we conducted a competitive solicitation to select the three regional administrators. The proposed awardees are the Association for Energy Affordability for the Northern Region, the Center for Sustainable Energy for the Central Region, and the County of Los Angeles for the Southern Region.

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All three proposed awardees have assembled teams consisting of community-based organizations and other partners. The solicitation encouraged applicants to assemble broad-based teams for effective implementation of the program tailored to the needs of each region. On the following slides, you'll hear more about the unique approach developed by each proposed awardee.

The table on this slide shows the total state and federal funds that we propose to award to each regional administrator to implement the program. Note again that the federal funding is contingent upon the U.S. Department of Energy's approval of the CEC's HOMES program application. The program is expected to retrofit about 20,000 homes across the three regions of the state.

I'd now like to introduce Esther Odufuwa, the Commission Agreement Manager for the Northern Region, to share a little more information about the proposed agreement with the Association for Energy Affordability.

MS. ODUFUWA: Thank you, Diana, for the

1 introduction.

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Good morning, Chair, Vice Chair, and Commissioners. My name is Esther Odufuwa, and I'll be presenting the proposed award for the Northern Region.

Next slide, please.

If this agreement is approved, the Association for Energy Affordability, AEA, will serve as the Northern Region program administrator.

In partnership with AEA, who will be leading multifamily-focused activities in this region, is a network of subcontractors and vendors that will support these efforts and bring specialized expertise. This includes The Ortiz Group, who will be leading efforts on single-family activities. Other subcontractors include Frontier Energy, California Housing Partnership Corporation, Podia, Asian Pacific Environmental Network, GRID Alternatives, Rising Sun, and Vermont Energy Investment Corporation. Together, they'll provide essential capabilities ranging from community engagement to direct project implementation.

AEA has identified and established relationships with a network of community-based organizations.

Specifically, Odia (phonetic) and APEN will serve as coleads in community outreach, recruiting, and training additional community-based organizations to support local outreach and intake activities.

1 Lastly, on the bottom right are the key partners. 2 These partners are crucial in providing resources, 3 technical support, and valuable community insights, which 4 will enable them to deliver meaningful impacts across the 5 Northern Region. Thank you for your consideration. I will now 6 7 pass it on to my colleague, Adam Lokar, the Commission Agreement Manager for the Central Region. 8 9 MR. LOKAR: Great. Thank you, Esther. 10 Next slide, please. 11 Good morning, Chair, Vice Chair, and 12 Commissioners. My name is Adam Lokar, and I am the 1.3 Commission Agreement Manager for the Central Region. The Center for Sustainability -- the Center for 14 15 Sustainable Energy is the proposed awardee for the Central 16 Region. The Center for Sustainable Energy brings 17 experience administering energy programs in California, and 18 if this agreement is approved, will oversee the entire 19 project team shown here to ensure successful 20 implementation. 21 Joining the Central Region team, we have Franklin 2.2 Energy, who will play a critical role leading the direct 2.3 install efforts and overseeing installation vendors for all 24 housing types, community-based organizations, including 25 Self-Help Enterprises and the Fresno Economic Opportunities

1 Commission, who will lead outreach efforts by supporting 2 the creation of culturally appropriate marketing materials, 3 and by making contact with prospective program participants, Earth Advantage, who will provide technical 4 5 assistance and develop quality assurance and quality control policies and procedures, and Peninsula Clean 6 7 Energy, who will serve as the rapid start community partner, helping roll out the equitable building 8 9 decarbonization program in the Central Region through the 10 existing Peninsula Clean Energy Home Energy Upgrade 11 Program. 12 Rounding out the rest of the team, there are a 13 number of other organizations, companies, key partners 14 shown here that bring their own expertise and products to 15 support with implementing the equitable building 16 decarbonization program in the Central Region. 17 With that, I'll hand it over to Rhona Matthews, 18 the Commission Agreement Manager for the Southern Region. 19 MS. MATTHEWS: Thank you for the introduction, 20 Adam. 21 Good morning, Chair, Vice Chair, and 2.2 Commissioners. My name is Rhona Matthews, and I am the 2.3 Commission Agreement Manager for the Southern Region. The proposed awardee for the Southern Region is 2.4 25 the County of Los Angeles. Los Angeles County works

collaboratively to develop a team consisting of community-based organizations, community choice aggregators, regional energy networks, local government councils, tribal organizations, and implementation experts that have been actively engaged in residential decarbonization efforts over the past several years. Los Angeles County will be implementing a broad regional approach, which I'll provide more details on in the next slide.

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If this agreement is approved, Los Angeles County will provide strategic direction, and ICF will oversee program implementation. Community energy partners are local government organizations active in delivering energy and decarbonization services to communities.

Lastly, community outreach partners are liaisons into communities with the trust and recognition to support program participants.

The organization chart highlights the diverse range of community-based organizations, stakeholders, and partners involved in the EBD Program showcasing, one, the depth of collaboration among different organizations to ensure outreach to initial community focus areas and, two, that program participants receive the best possible support.

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The outreach approach is centered around

community-based organizations who are best positioned to provide culturally appropriate outreach, education, and support. Community-based organizations will be conducting outreach in nine sub-regional teams across six counties.

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the state.

Below the sub-regional teams on the table are the community energy and outreach partners that will be conducting outreach and education to initial community The sub-regional teams include South and focus areas. North San Diego, Orange County, Los Angeles Ports and South Bay, Los Angeles San Gabriel and San Fernando Valley, Los Angeles Gateway Cities, Inland Empire San Bernardino and Riverside, and Imperial County.

I'll now pass it back to Diana Mineta for staff recommendations.

Thank you, Rhona, Esther, and Adam. Commissioners, as you can see, the three proposed awardees have each assembled a strong and diverse team of partners to support meaningful community engagement and successful program implementation in the three regions of

Next slide, please.

MS. MANETA:

At this point, I'd like to recommend that the Commission approve the three grant agreements with the Association for Energy Affordability, the Center for Sustainable Energy and the County of Los Angeles and adopt 1 staff's determination that this action is exempt from CEQA.

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Thank you, Commissioners. We'd be happy to answer any questions. And representatives of the three proposed awardees are also present and available for questions.

CHAIR HOCHSCHILD: Thank you all for that really comprehensive presentation.

Let's go to public comment on item eight.

MS. BADIE: Thank you, Chair.

The Commission now welcomes public comment on item eight. If you're in the room, you can raise your hand or use the QR code. And if you're joining by Zoom, you'll use the raise hand feature on your screen, it looks like an open palm, or star nine if joining us by phone.

So I'm going to start with folks that use the QR code that are in the room.

Ayn Craciun, If you could please approach the podium? And if you could please spell your name before making your comment? We're asking for comments to be two minutes or less and there will be a timer on your screen. Thank you.

MS. CRACIUN: Thank you. My name is Ayn, A-Y-N, last name Craciun, C-R-A-C-I-U-N. I'm the Orange County Policy Director with Climate Action Campaign. Climate Action Campaign is a nonprofit organization based in

Southern California with a simple mission to create a zerocarbon future through effective and equitable policy action.

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I'm here to voice our support for the Equitable
Building Decarbonization Program, which is sorely needed in
Southern California. Our team is excited to work with the
County of Los Angeles as part of the coalition they have
built to deliver decarbonization for households across
Southern California, particularly in the areas where we
will be working, San Diego and Orange counties.

I want to underscore the importance of those counties, the fifth and sixth most populous counties in the United States, which includes some of the most impoverished areas in the state where implementation of this program will bring major benefits to thousands of families in the communities which are impacted by climate change.

We look forward in particular to conducting outreach to local contractors, which is sorely needed, as was underscored in recent research from the Clean Tech California Program. There's a lack of contractors in our area and engagement with potential participants to drive direct household level action. By doing this, we will protect our most vulnerable communities and set them up for future success by supporting the development of a local electrification workforce.

So thank you so much for your leadership on this program.

MS. BADIE: Thank you.

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Next, we're going to hear from Rocky Fernandez.

Rocky, if you'd like to approach the podium? And again, just please spell your name for the record before you begin. We're asking for comments to be two minutes or less.

MR. FERNANDEZ: Thank you. Rocky Fernandez,
R-O-C-K-Y F-E-R-N-A-N-D-E-Z. I'm the Director of
Government Affairs for the Center for Sustainable Energy.

We want to thank the Commission for working with us on this program. And we're in strong support of item 8A, as well as B and C. But we look forward to making sure that a program like this is going to reach a lot of communities that haven't been able to access a lot of the amazing technologies that exist out there that make homes more comfortable, that lower energy bills, and lower pollution in some of the most important areas to reduce it in.

As a data-led organization, with the simple mission of decarbonize, we look forward to coming back to you in the coming months and years to give you progress on the things that are working, sometimes the things that aren't working, and how we can maximize the effectiveness

of this program and reach the most families possible.

I'd like to point out that in the room we have

Junsu (phonetic), my colleague from CSE, who will be Senior

Project Manager, as well as Gina Melekh from Franklin

Energy. We and our entire team look forward to working

with you on this program, and we'll see you soon.

Thank you.

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MS. BADIE: Thank you.

Next, we're going to hear from Minh Le. And if you'd like to approach the podium, just a reminder to please spell your name for the record. Thank you so much.

MR. LE: Minh Lee, M-I-N-H L-E. My name is Minh. I represent the County of Los Angeles. Good morning, Commissioners.

I want to thank each of you and your dedicated staff at the CEC for selecting the County of Los Angeles to administer the EBD Direct Install Program for the Southern Region. We are honored that you have entrusted L.A. County and our coalition of more than 50 partners to lead this transformative initiative.

This groundbreaking program is a crucial step towards reducing carbon emissions and empowering our most vulnerable communities. It sets a precedent for future Direct Install Programs both statewide and nationwide. In particular, it upends the historical theory of change where

1 incentives are provided to early adopters who tend to be 2 more affluent. And that drives the creation of a market and economies of scale. EBD turns that upside down and 3 4 starts with communities that need these resources the most. 5 We are incredibly grateful and proud to play a role in bringing CEC's bold vision to life. 6 7 We are dedicated to building trust within the communities that we serve and delivering on that trust 8 9 throughout the participant journey. Working closely with 10 our CBO partners, we will ensure that the EBD Direct 11 Install upgrades are installed efficiently and effectively. 12 The EBD Direct Install Program will drive the 13 creation of new jobs, helping to prepare the local 14 workforce for the clean energy transition. We look forward 15 to coordinating with local workforce investment boards to 16 recruit and support skilled workers throughout our local 17 communities. 18 We are grateful for the opportunity to contribute 19 to this important work and are committed to leading 20 California towards a clean energy future. Thank you. 2.1 MS. BADIE: Thank you. 2.2 Are there any other comments in the room? Τf 23 not, I'm going to transition over to Zoom. 2.4 First, we'll hear from Stephen Rosenblum. 25 Stephen, I'm going to open your line. We're asking for

comments to be two minutes or less and there will be a timer on the screen.

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MR. ROSENBLUM: Hi, my name is Stephen Rosenblum, S-T-E-P-H-E-N R-O-S-E-N-B-L-U-M. Thanks again for the opportunity to speak.

I'd like to commend the Commissioners and the staff for this really outstanding effort to provide electrification opportunities to underserved communities. I think we need to be sure that they are brought along in the conversion of our economy to electricity. And the fact that these awards bring together such a huge group of disparate community groups to make the process work, I think is a side benefit of this award program, which is really outstanding.

One of the issues I think that's really going to raise its head during this process is the question of whether the panels, electrical panel service in many of these older homes in these communities, are going to be able to handle the load. And I hope that this will lead to innovative activities such as circuit splitting, which allows a panel, which is an anomaly insufficient to carry the load, to be able to do so without requiring expensive panel upgrades and time-consuming applications to electrical distribution systems to get these panel upgrades approved.

Also, I think the fact that heat pumps are being proposed as one of the solutions for these communities is really absolutely necessary in light of global warming, where as we're already seeing in California, we're having extended periods of really deadly high temperatures. And if people can retreat to their homes for cooling, life-saving cooling, I think that will really help people cope with climate change a little better.

Thank you again for the opportunity to speak.

MS. BADIE: Thank you.

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Next, we're going to hear from Nicola Steelnack.

I'm going to open your line. If you could please spell

your name for the record? We're asking for comments to be

two minutes or less.

MS. STEELNACK: Good morning, Nicola Steelnack, that's N-I-C-O-L-A S-T-E-E-L-N-A-C-K. Thank you so much for the opportunity to comment this morning. I'm here on behalf of Leadership Counsel for Justice and Accountability. We work in the Central Valley and the Eastern Coachella Valley.

We are in strong support of the Equitable
Building Decarbonization Program and the multiple benefits
that it offers to climate and lower-income Californians,
especially through the Direct Install Program. We applaud
the CEC's continued commitment to this critical program and

the steps taken today to begin implementation and look forward to working with the CEC on continued 3 implementation.

Thank you so much.

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MS. BADIE: Thank you.

Next, we're going to hear from Edgar Barraza. Edgar, I'm going to open your line. We're asking for comments to be two minutes or less. Edgar, if you could please unmute on your end and begin?

MR. BARRAZA: My name is Edgar Barraza and it's spelled E-D-G-A-R, last name is Barraza, B-A-R-R-A-Z-A. I'm here on behalf of Physicians for Social Responsibility and the Central California Asthma Collaborative, and I'd like to voice our support to the CEC for finalizing the Equitable Building Decarbonization Program and for selecting the chosen implementers.

As an environmental justice advocate, I would also like to thank Commissioner McAllister and all of the CEC staff who developed the program for meaningfully engaging in environmental justice communities, for including our priorities and concerns into the program, and for going above and beyond in addressing the unintended consequences of building decarbonization to ensure the program serves the most vulnerable and protects them as well.

This program has the potential to start rectifying the decades of historical wrongs of disinvestments in our communities, and I'm extremely grateful for the energy, housing, climate, and public health benefits to reach our communities.

Thank you.

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MS. BADIE: Thank you.

Next, we're going to hear from Fatima Abdul-Khabir. I'm going to open your line. If you could please state and spell your name for the record? We're asking for comments to be two minutes or less.

MS. ABDUL-KHABIR: Good morning. My name is Fatima Abdul-Khabir, first name F-A-T-I-M-A, last name A-B-D-U-L hyphen K-H-A-B-I-R. I'm representing the Greenlighting Institute.

First, I just wanted to recognize Commissioner McAllister's leadership on the EBD Program, as well as the significant work the CEC staff has done coordinating this program with advocates. Like Edgar stated, we do truly uphold this process over the past couple of years as a best practice for state agencies working with communities and organizations and collaboratively designing programs for communities.

We strongly feel that the program guidelines and the awarded program administrators have set this program up

for success as far as delivering decarbonization benefits to households that need it the most. We do strongly applaud the CEC's decision to focus on low-income priority households to enable a whole home retrofit approach inclusive of home remediation repairs and to include tenant protections among other elements.

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We also recognize that in a program like this, working directly in priority communities, we need to stay on top of making sure that the benefits are actually being received by folks that need them and that no harm is being done, you know, whether that's increased bills or undue displacement.

So I'm going to end today really just by reiterating the need for the CEC to have a robust and constant evaluation and feedback process on, you know, how program implementation is going, especially, you know, with equity metrics and evaluations kind of falling short at the federal level nowadays.

And particularly for the EBD Program, the CEC can support evaluating if there's a need to find more concrete authorities to enforce tenant protections and ensure that program participants can remain in their new healthy homes.

Thank you again for taking the time to hear comments.

MS. BADIE: Thank you.

Next, we're going to hear from Jacqueline. Jacqueline, I'm going to open your line. If you could please state and spell your name for the record? asking for comments to be two minutes or less. MS. RAMIREZ: Thank you. Good morning. My name is Jacqueline Ramirez, J-A-C-Q-U-E-L-I-N-E R-A-M-I-R-E-Z. I'm here on behalf of the Building Decarbonization Coalition calling in to support the grant agreements for the Equitable Building Decarb program. In order for California to meet its goals of 3 million primary (phonetic) ready homes and 6 million heat pumps by 2030, it is essential to prioritize support for low-income households. And that is exactly what the EBD Program does by providing families with funding to cover upfront costs. This innovative program is critical to

I want to thank the CEC staff for all their work on the program and their thoughtful engagement with stakeholders. We look forward to the opportunity to continue supporting this program and staff.

Thank you.

achieving an equitable transition.

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MS. BADIE: Thank you.

Next, we're going to hear from Grace Hut. Grace, I'm going to open your line. If you could please state and spell your name for the record? We're asking for comments

to be two minutes or less.

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MS. HUT: Hi, good morning. My name is Grace
Hutt, G-R-A-C-E H-U-T, and I am here on behalf of Strategic
Actions for a Just Economy. SAGE is a community-based
organization in Los Angeles with a focus on tenants' rights
and housing justice.

And I want to express my strong support for the EBD Program, which creates a critical pathway for providing wholistic home retrofits to low income Californians while protecting them from displacement. Unlike other decarbonization programs, which prevent low income households from accessing retrofits, the EBD Program promises to improve health, comfort and energy efficiency for communities that are most impacted by environmental injustices.

We applaud the CEC for its commitment to this program and for its collaboration with community-based organizations and encourage the Commissioners to move forward today with selecting regional administrators for the EBD Program. These administrators, buoyed by the expertise of community-based organizations, will be central to ensuring that the EBD Program lives up to its promise of delivering equity in the building decarbonization process. And as an organization, SAGE remains deeply committed to the equitable implementation of the program, particularly

developing a sound approach to enforcing the tenant protections established in the program.

So thank you all so much and we look forward to continued collaboration.

MS. BADIE: Thank you.

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I'm not seeing any further raised hands, so back to you, Chair.

CHAIR HOCHSCHILD: Thank you so much.

Let's go to Commissioner discussions, starting with Commissioner McAllister.

COMMISSIONER MCALLISTER: All right. Well, thank you, Chair. And thanks for all the commenters. I really appreciate it.

This is actually a huge day. I have been looking forward to this. I'm looking across, we got staff in the audience that have been working overnight, over many nights for many, many months on this. And that sort, that sweat, I think, really comes from a place of trying to do the right thing, trying to implement with justice as an organizing principle, as we sort of started to really transition the CEC to do back in the SB 350 days and really trying to incorporate that into our DNA. And I think this is a huge step in that direction. And I particularly want to just thank all the advocates that chimed in as well.

But I do have a few comments here. And first

off, I always want to start with thanking staff. This has been just a massive lift and with a few twists and turns along the way, but fundamentally, we've always approached this as a team focused on really trying to do what, Minh, you said, I really appreciate your being here, which is starting with where the most need is and using a program investment in those communities to build markets and scale up from there.

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And that really is a different program model than historically we've used in the state. And it's meaningful, I think, in a way that it's helping to meet a lot of different needs, not just to sort of get equipment out there and see how it goes, but really make sure that the human element, the economic development element, the justice, the air quality, the sort of all of those elements are rolled up integrally.

And Diana, I just want to thank you. Your sort of fearless leadership on this has been amazing. You can hear it already in the stakeholders that you've been working with. But a big team behind you. So leadership in the division, Deana, Jen, really thank Jennifer Nelson, Deana Carrillo, thanks a lot for your leadership at the division level. Susan Mills, Halle Kasai (phonetic), my God, I don't see -- I haven't picked out everybody. I see Halle there, but there's Susan, there she is. And Katie

Webster, Rhona Matthews, Adam, thanks very much for your part of the presentation. Esther, as well, for you. really appreciate your efforts. Prince Addison (phonetic), Hugo Martinez, Margaret Phipps, Matthew Omogo, Miriam Jaffe Block on the HOMES part has just been incredible. Jacob Wahlgren, also on HOMES and sort of the financing expertise that he brings, and Andrea Hoppe. So really appreciate all of you. On CCO, Christina Evola, thanks Christina, I saw you earlier. Oh, there you are there. Thanks. Eric Lazarus, Eric Codug (phonetic), and Chad Punch, really appreciate all of you. From Contracts, Grants and Loans, Marissa Sutton, Cynthia Rodriguez, and Laura Williams, thanks Laura, I really appreciate you. And our Budget and Accounting Office, the, you know, requirements of a program like this at the state level and particularly one that's grafted, that's got some federal funds grafted into it, satisfying all of those

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23 details.
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you really understand how complicated until you actually

lighthearted laughing here to that comment. But, you know,

program needs is incredibly complicated. And I don't think

have to do it. And our team is just so on top of all those

that's a commitment going forward to really administer this program that does put all the right, you know, pieces of data in the right boxes and really tracks many, many elements of this program going forward. And so we have to have our eyes wide open working with the administrators to help that happen.

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And then on the scoring, so some of the team,

I've mentioned already, but also, Yu Hou and Ken Rider in
the Chair's Office, really appreciate Ken's input and just
sort of guidance along the way as well.

And then, as well as my office, Bryan Early, also, has been really helping to guide, and Houston and Maggie as well in my office.

So really a lot, big team behind this. I think I particularly heard this in some of the comments, I'm particularly proud of the process that we've used to get where we are. The team really invested and really leaned into listening. Those workshops across the state were foundational to hear what people had to say. And the advocates and just all the local experts in their communities stepped forward and helped us inform the sort of information gathering, the listening phase, and that's reflected in the guidelines.

I think a while back, you know, we -- some -- not quite a year ago, maybe we adopted the guidelines before

going into the RFP process. And I think that was also a milestone because they projected the kind of new approach that we're taking to try to really be accountable here.

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And I'm also really proud of the solicitation process. You know, this really does incorporate. You saw in the graphics with all the local organizations, it really put the CBO engagement and the linkages with actual communities at the center of the RFP process. And we've got proposals that actually did that. And so I just want to commend the applicants and the awardees that we'll -- administrators that we'll vote on here in a little bit.

A couple other elements of the program, just looking forward, we're going to do a lot of learning in this program. So the data elements that Diana mentioned are -- you know, we're going to use the sort of unprecedented amount of consumption data and other data we have from the communities, from the individual properties, actually, to be able to anticipate some of the impacts and some of the needs of those properties and work with the administrators and local contractors, local governments, partners to operationalize that on the ground, you know, actually touching buildings and talking with residents.

So that's something that really has never been done to this level in a program and so -- but we really need to do that and we can do it in order to be good

stewards of these public funds to really make sure that they go where they're most needed and where they're less likely to cause any sort of unintended consequences. And so I think that's really important sort of on the front end.

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But that same work is going to really pay off on the back end when we sort of see what happens and we're able to really pay attention almost in real time or at least, you know, in pretty near-term time to see where we might need to change things and where the guidelines might need an update and sort of what's happening on the ground.

And so we're really going to depend on our administrators and just the partnership with them and the CBOs and everybody involved in each region to make sure that our ears are really pressed to the ground and that we're really able to see what's going on and adjust because this is going to be over the next -- this is the foundation for a couple of decades of market transformation. I mean, this is a huge, big step in that direction.

But we have to get scale. So we're asking these programs to do a lot; right? \$600 million or so, you know, not quite, sounds like a lot of money, but we need well over two orders of magnitude more than that to touch the buildings that need to be touched in the next couple of decades. And so a lot of that's going to have to be

private capital and so we have those bridges. So these programs are setting the stage for that.

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And I think I did want to highlight the collaboration with the PUC. You know, the Energy Commission funded many of these methodologies of how to really get into granular analysis to support building electrification and decarbonization, load flexibility. We invested in that, now like a decade plus ago, more than a decade ago, really, and those methodologies are now in the public domain and being applied in the tech program. And we're going to take those methodologies and really apply them here in the EBD and HOMES.

And so I'm super excited about that. I think that's another place that California is really doing the world a big favor in figuring this out and sort of taking the arrows and figuring out all the complexities and really putting that into a box that others can use. So really, really excited about that.

So we're going to have a lot of challenges in these programs, okay? And that's why I'm particularly happy with the way this program opportunity turned out and the administrators that we have been selected. And I think, you know, and the many dozens of partners, you know, the majority of the money is going down to Southern California with L.A. County as the primary administrator.

And you saw the many dozens of partners they have on the ground. That's really quite an amazing proposal. So thank you for that, you know, Minh in your team.

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And in Northern California, AEA is going to -- I think, they have incredibly deep experience in all this and they bring a ton to the table. I think, you know, the sort of oversight group that we're going to put together I think is really going to help knit together lessons across the whole state.

And then the Central Region, CSE obviously brings a lot to it and their partners. Franklin, you know, you have a ton of experience as well.

So really hoping that everybody can sort of lean in and get in the same boat and start rowing and sharing, you know, successes and failures and challenges and worries and just the whole gamut of the experience.

So I think, let's see, so Esther and Adam and Rhona, just really appreciate your stepping up. These contracts are not going to be simple to administer. So as CAMs, you really have a lot of responsibility, so thanks for being up for that challenge.

And then finally, I want to -- you know, we are in difficult budget times and I want to just recognize the legislature and the governor's office and our budget folks, Damien and the whole team, for making sure that this

1 remained a priority and really is able to become a 2 structure, hopefully, that will be with us for a long time 3 that we can build on going forward and really build markets across the whole state and get to the scale that we need. 4 5 So just really, really proud of everyone and thanks a lot. And I don't have any questions. I've been kind 6 7 of up in your business all this whole time, so thanks for letting me do that. But, you know, this is important. 8 9 think it's a really landmark program for California and is 10 a place where the success of many of our -- of the most --11 some of the most public facing efforts funded by the IRA 12 are going to reside. 1.3 And so really, there's a lot riding on the 14 success and both for the Commission, but really more than 15 that for the state, so I really appreciate the team that we've got. You're just fantastic, so lots of optimism. 16 17 And I'll wrap it up there. Thank you. 18 CHAIR HOCHSCHILD: Great. Thank you, Commissioner. 19 20 Let's go to, yeah, Commissioner Monahan. 21 COMMISSIONER MONAHAN: Well, I love these, the 2.2 set of administrators and the way that you guys have 23 tailored this program to really, you know, listen to 24 communities and focus on the, you know, families that 25 really need it. And I think it's one of these like feel1 good programs.

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So I thank Commissioner McAllister for his leadership and the full -- I mean, all the folks that Commissioner McAllister referenced to thank. It's just, it's really heartening when we feel like our funds are going to support families in need and to help reduce their electricity load, help increase the cleanliness in terms of inside their indoor air quality potentially, and just it's really inspiring. So thank you for this moment of inspiration today.

CHAIR HOCHSCHILD: Let's go to Vice Chair Gunda.

VICE CHAIR GUNDA: Thank you, Chair. I think both Commissioner McAllister and Commissioner Monahan really summed up the comments, but I do want to just add my appreciation too.

First, you know, really good presentation by Diana. And thanks, Diana, for your leadership, you know, on this really landmark, you know, effort, as Commissioner McAllister mentioned.

I also want to, you know, second what

Commissioner Monahan said in terms of Commissioner

McAllister's, you know, leadership, you know, his diligence and his, you know, dedication. And I really continue to reiterate his method of just sticking to a really good process and, you know, the outcomes flow from that, you

1 know, well articulated but really well engaged process. So 2 just want to say thanks to Commissioner McAllister.

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I don't want to repeat all the staff. I was taking notes here. But I do want to say thanks to, you know, again, Diana and the CAMs that are going to work on this, but at the Division level, leadership, both Deana and Jen.

And also just want to commend our Public

Advocates [sic] Office, Mona, and all that they have been

bringing to our processes, you know, under Commissioner

Gallardo's leadership to really make sure our programs are,

you know, more responsive to the needs of California. And,

you know, when we hear community voices like we just heard

today, you know, it's just such a heartwarming place to be

in when, you know, the people that we are here to serve

feel like we are doing a good job reflecting their

priorities.

So overall, again, to Commissioner Monahan's point, wonderful day. Thank you all. And Commissioner McAllister, congratulations to you and the entire team. Looking forward to supporting the item.

CHAIR HOCHSCHILD: Okay. Well, thank you for those comments.

Let me first just thank the team. This is a big day. It's not often we approve a half a billion dollars in

one go here. And this is a down payment on much more to come.

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You began today, Commissioner McAllister, with a tribute to David Goldstein for being one of the godfathers of energy efficiency. I think someday people will look back at this moment, and you and your role here building decarbonization to the next level and bringing it mainstream.

And really, at the end of the day, it's about making people's lives better and the health impacts we've seen of, you know, inside homes can improve if we move beyond fossil fuels. And so I am, for many, many reasons, really excited to support this.

And I just want to say, you know, that wonderful African proverb, "If you want to go quickly, go alone. If you want to go far, go together." And so it's great to be going together with these three wonderful organizations, Center for Sustainable Energy, Association for Energy Affordability in the County of Los Angeles. Really looking forward to the progress ahead.

And with that, I would invite Commissioner McAllister to make a motion on item eight.

COMMISSIONER MCALLISTER: I'm very happy to make a motion for Item 8.

CHAIR HOCHSCHILD: Is there a second from

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    Commissioner Monahan?
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              COMMISSIONER MONAHAN: I second.
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              CHAIR HOCHSCHILD: All in favor, say aye.
              Commissioner McAllister?
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              COMMISSIONER MCALLISTER:
              CHAIR HOCHSCHILD: Commissioner Monahan?
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              COMMISSIONER MONAHAN: Aye.
              CHAIR HOCHSCHILD: Vice Chair Gunda?
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              VICE CHAIR GUNDA: Aye.
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              CHAIR HOCHSCHILD: And I vote age as well.
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    Congratulations. That's a big one.
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              You know, if it's okay, Maninder, I think we'll
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    take you after lunch, I want to because I have, I believe,
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    a hard stop at 12:15. So I want to do a couple quick items
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    if we could.
              If we could go to item 11, Executive Director's
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    Report.
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              EXECUTIVE DIRECTOR BOHAN: Thank you, Chair.
    I'll be brief.
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              Proposition 4, you're all aware, is a $10 billion
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    bond to invest in climate, water, wildlife, and
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    environmental issues. It passed last week with nearly 60
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    percent of the vote. So the public really expressed their
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    interest in doing this.
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              The legislature still needs to appropriate funds
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for Prop 4, and the proposition gives them discretion to do so and how to do so.

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However, what I wanted to share with you is what amount of money the Energy Commission is eligible for and what we will actually get based on what the legislature does is not known. But just the numbers are for transmission, for clean energy, \$325 million. For long-duration energy storage or our Demand Side Grid Program or DEBA Program for virtual power plants, a whole suite of things, there's \$50 million assigned. For offshore wind development, \$475 million. And finally, for wildlife protection through the advancement of non-combustion biofuels is another \$50 million.

Add those together, you get \$900 million. Again, it's not certain that these funds will be directed to the CEC. Some are specifically earmarked for the CEC. Others, the legislature has granted authority.

CHAIR HOCHSCHILD: Sorry, all together it was \$900 million?

20 EXECUTIVE DIRECTOR BOHAN: \$900 million.

CHAIR HOCHSCHILD: \$900 million. Okay.

EXECUTIVE DIRECTOR BOHAN: Yeah. And some of them are directed to the Energy Commission. Some of them, the legislature has discretion to grant to one agency or another, it could be us, it could be somebody else.

We are, you know, in this uncertain phase, but staff are kind of working through what role we might play in each of these areas and trying to get a little ahead of it should the funds come to us. Thank you. CHAIR HOCHSCHILD: Great. Thank you, Drew. Super helpful. Let's turn to item 12, Public Advisors Report. Thank you, Chair. I just wanted to MS. BADIE: announce that the CEC-CPUC Disadvantaged Communities Advisory Group, also called DACAG, will have a meeting this Friday at 1:00 p.m. It'll be conducted via Webex, and also at the in-person location in San Francisco. And among the agenda items, CPUC will be presenting on its societal cost test for resource procurement. DACAG will also discuss the Governor's Executive Order N-524 regarding affordability of customer energy bills. And they will also be discussing goals and options for providing broad awareness of their revised new DACAG equity framework. That's all I have to report. Thank you. CHAIR HOCHSCHILD: Okay. Thank you. Let's turn

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MS. DECARLO: Thank you. For my report, I propose that the Commission go into closed session as specified in agenda item 13C to deliberate on a decision to

to item 13, Chief Counsel's Report.

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    be reached in the three application for certification
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    proceedings listed. I expect it to be about 45 minutes.
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    And we've got the Lake Tahoe Room reserved for that.
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              CHAIR HOCHSCHILD: Thank you. So let's do this.
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    Why don't we recess for closed session and lunch and then
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    reconvene at 1:15 to take up items nine and ten, which are
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    the last remaining ones. Sound good? So back here at
    1:15. Thanks.
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          (Off the record at 12:11 p.m.)
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          (On the record at 1:17 p.m.)
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              CHAIR HOCHSCHILD: Thank you and welcome back.
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    There is nothing to report from our closed session.
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              So with that, we will resume with the agenda and
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    pick up where we left off which was item nine, Quantifying
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    Exposures to Indoor Air Pollutants in Multifamily Homes
    that Cook with Gas or Alternatives.
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              And I welcome Maninder to present.
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              MR. THIND: Good afternoon, Chair, Vice Chair --
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              CHAIR HOCHSCHILD: I'm sorry, the Vice Chair is
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    not joining for this, so it's just us. Yeah, thanks.
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              MR. THIND: -- yeah, and Commissioners.
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    Maninder Thind, an Air Resources Engineer in the
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    Sustainability and Health Unit of Energy Research and
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    Development Division. Today, I'm requesting approval of
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    two research agreements intended to quantify and
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characterize residents' exposure to indoor air pollutants generated from kitchen stoves including gas, electric, and induction in multifamily homes.

This solicitation is focused on multifamily homes because these multifamily housing, such as apartments, tend to be smaller with higher occupant densities and are often occupied by low-income residents, thus are associated with higher pollutant concentrations, occupant exposures, and environmental justice issues.

While previously funded research by Gas R&D Program has supported development of new building energy efficiency standards that improve human health protections in new homes through ventilation requirements, the issue of vulnerable populations' exposure to air pollutants in existing homes requires further exploration to support appropriate interventions.

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So there are two awardees, Lawrence Berkeley
National Laboratory and Berkeley Air Monitoring Group.
With \$4 million CEC funding and more than \$2.2 million
match commitment combined for two agreements, this research
will benefit Californians by providing pollutant exposure
data and analysis needed to improve indoor air quality in
homes, support multifamily residential building
electrification, inform the ventilation standards in

multifamily homes in the next iterations of building energy efficiency standards and their direct equity benefits as 80 percent of the field measurement sites will be located in justice communities. And one of the projects that I'll talk about in the next slides includes direct kitchen electrification interventions in the homes of these communities.

Next slide, please.

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All right, so the proposed Lawrence Berkeley
National Laboratory study will quantify air pollutant
concentrations and exposures in apartments with low-income
and disadvantaged households that cook frequently with gas,
conventional electric and induction technologies, and homes
with varying qualities of kitchen ventilation. Exposure
data will be collected for health-damaging pollutants
including fine particulate matter, nitrogen dioxide, carbon
monoxide, ultra-fine particles, and volatile organic
compounds.

Actual measurements will take place in a meaningful sample of 140 homes proposed to be located in Bakersfield, Fresno and San Francisco Bay Area. The study will include surveys of cooking and ventilation practices among a large sample of 500 households in justice communities that will provide additional important context about the frequency of hazardous exposures and potentially

also enable targeting of interventions to households and buildings with the greatest need.

The pictures on this slide on the right-hand side show examples of different sensors including air quality sensors and temperature sensors that will be employed in the study and are currently being used in the CEC-funded Cooking Electrification and Ventilation Improvements for Children's Asthma study.

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The second proposed study is with Berkeley Air Monitoring Group. Berkeley Air's project will strategically leverage Ava Community Energy's gas-to-induction stove intervention to quantify and characterize residents' exposure to indoor air pollutants generated from gas and induction stoves in multifamily homes. The study will apply a rigorous stepped wedge study design with a large sample size of 300 homes with repeated measurements of adults, children and kitchens, which will provide more than 1,200 samples. Sample sites are proposed to be located in Alameda and San Joaquin counties.

The project will evaluate exposures for each participant to pollutants such as PM2.5, nitrogen dioxide, carbon monoxide, black carbon, and PM2.5 elemental composition and benzene, toluene, ethylbenzene and xylene, collectively called BTEX compounds, in a subsample of

1 homes. So finally, the project will create a user-2 3 friendly interactive dashboard to visualize exposure 4 results tailored to the user's needs. 5 Next slide. So staff recommends approval of these agreements 6 7 and adoption of staff's determination that this project is exempt from CEQA. Staff, including myself, are available 8 9 for any questions. 10 This concludes the presentation and thank you for 11 your consideration. 12 And also, I want to mention that we have the PIs 13 of Berkeley Air Monitoring Group, Michael and Dana, in 14 person present here, so very happy to have them here. And 15 also Brett Singer is joining virtually for his PI of Lawrence Berkeley National Lab. 16 17 Thank you. 18 CHAIR HOCHSCHILD: Thank you. 19 Let's go to public comment on item nine. 20 MS. BADIE: Thank you, Chair. 21 If you'd like to comment on item nine, please 2.2 raise your hand if you're joining us in the room. And if

you're on Zoom, you'll use the raise-hand feature on your

screen or star nine if you're joining by phone. That will

let us know you'd like to comment. And I'm just giving

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1 that a moment.

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I'm not seeing any comments for this item, so back to you, Chair.

CHAIR HOCHSCHILD: All right. Let's go to Commissioner discussion, starting with Commissioner McAllister.

COMMISSIONER MCALLISTER: Well, great. And we invite the principals to say anything they want to say if you'd like to, but no requirement, obviously.

But, Maninder, thanks a lot for the presentation just now and the briefing. I think there's a huge need to sort of get more knowledgeable about indoor air quality, and in particular linked to gas, and just how our programs and interventions can be best tailored to solve what we know are pretty pervasive air quality challenges, particularly multifamily and tight quarters and low-ventilation type of residents or units. So it's a public health issue that we really need to dig into and help solve.

So I'm very supportive of these items. And also just point out there, as we talked about, there is great opportunity to link up with the programs that we just approved earlier today. And, you know, I don't want to necessarily weigh programs down with more sort of process and sort of, you know, create any more chaos than is

already going to happen on site in these projects because they're going to be relatively complex projects, some of them. But I think there will be opportunities to do it in a streamlined way and really take advantage of those investments to get better data and really help tailor those programs to biggest impact on the air quality side as well, so really excited about that opportunity.

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But no further comments. Thanks a lot.

know, I'm very interested in the different impacts on different income levels. Because obviously in smaller units, there's less airspace and so you have the same pollution, you know, contained in a smaller area. A lot of times the vent hoods are quite loud or they're really cheap, such that people don't even opt to use the hood if they have one, or they're recessed so that they're not as well built.

So I'd be very interested in kind of a little bit more granular exploration by income level on health as we do this. But overall, really happy to see this focus and, you know, look forward to learning whatever we can from this research, so thank you, Maninder.

And I don't know, is there any comments you want to add to my point?

MR. THIND: Right. Yeah, I think those are some

excellent points. While this effort won't explicitly look at health endpoints by different, you know, income levels, it will dive more into concentrations and exposures. But we have more research and pipeline that you will see in which we will look at the health endpoints evaluated with different the levels of income of all sorts.

CHAIR HOCHSCHILD: Yeah.

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COMMISSIONER MCALLISTER: I just want to also point out, just California has incredible expertise in this area. And it's just really great to be leading and pushing envelope on this. I mean, we have UC Berkeley and the Air Resources Board itself and just so much. And then our staff, you know, in the R&D Division, just so much. Our team on air quality is just top notch.

So really excited to build on that legacy of air quality research in general because, you know, California is kind of where that started in a lot of ways back when we were dealing with the in the '60s and '70s, when we were dealing with the pollution we had then. So just really think we have all the tools we need in the toolbox.

So really optimistic about this. Thanks for bringing it forward.

MR. THIND: And --

COMMISSIONER MCALLISTER: And, yeah, go ahead.

MR. THIND: -- just adding to that point there,

our existing EPIC-funded works, the BTEX study, Children's Health study is looking at asthma and health endpoints.

COMMISSIONER MCALLISTER: Yeah. Yeah.

CHAIR HOCHSCHILD: Yeah.

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COMMISSIONER MCALLISTER: Yeah.

MR. THIND: It's wrapping gas stoves with electric stoves. LBNL is leading it, it's leading that work.

and speak if you want. But I think the, you know, one thing I think we need to try to figure out a way to build is a big bridge into the health care industry itself so that, you know, if I'm one of the big health care providers or insurers, you know, or, you know, Medi-Cal or I mean, it's there's a lot of money at stake here.

And anything that can be done to reduce the cost of, say, emergency visits due to asthma by kids, you know, and just as communities say, or anywhere, that if we could show that linkage in a rigorous way, then, you know, that could be an intervention that a health care provider might want to pay for, like switch out to an induction cooktop or something. And, you know, working that out and sort of creating a case for that with a rigorous body of work seems like it's something that we should be aiming for.

So please go ahead.

MR. JOHNSON: Thank you. Michael Johnson, the Technical Director from Berkeley Air Monitoring Group, and that has been an interest. I'm a PI for this project, along with a co-PI, Ajay Pillarisetti, who's at UC Berkeley.

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But one of the things that you're mentioning about looking at the health effects, something that's really unique about the Electrification Program that we're studying from Ava Energy, Ava Community Energy, is that it's specifically targeted for households where somebody has an underlying health condition. So in order to qualify it for being in that program, you have to have somebody in the house that has a respiratory condition or some other condition, as well as they're trying to prioritize homes that are lower income as well. So it's a really, I think, uniquely and smartly targeted program.

The other thing that is exciting is we have additional funding from the Department of Housing and Urban Development for which we will be doing longitudinal health surveys. So even though CEC isn't directly funding the information to get that health feedback, we are actually going to be able to measure that at least with surveys. So there are some additional components of the study that, again, we're leveraging.

COMMISSIONER MCALLISTER: That's great. Is that

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    part of the match funding, the $2 million of match funding
    that's listed there?
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              MR. JOHNSON: No, we didn't have the funding when
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    we put in the proposal, so we couldn't list it then.
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    found out later.
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              COMMISSIONER MCALLISTER:
                                         Oh, great.
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              MR. JOHNSON: So, you know, that's a situation
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    where everybody wins, yeah.
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              COMMISSIONER MCALLISTER: Fantastic. Well,
    thanks a lot.
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              CHAIR HOCHSCHILD: All right.
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              COMMISSIONER MCALLISTER: All right.
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              CHAIR HOCHSCHILD: Unless there's any other
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    discussion, Commissioner McAllister, would you be willing
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    to make a motion on item nine?
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              COMMISSIONER MCALLISTER: I move item nine.
              CHAIR HOCHSCHILD: Is there a second from
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    Commissioner Monahan?
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              COMMISSIONER MONAHAN: I second.
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              CHAIR HOCHSCHILD: All in favor say aye.
              Commissioner McAllister?
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              COMMISSIONER MCALLISTER:
                                         Aye.
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              CHAIR HOCHSCHILD: Commissioner Monahan?
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              COMMISSIONER MONAHAN: Aye.
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              CHAIR HOCHSCHILD: And I vote age as well.
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1 nine passes unanimously. Let's turn now to -- thank you, 2 Maninder.

Let's go now to item 10, Lead Commissioner and Presiding Member Reports.

Commissioner Monahan?

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COMMISSIONER MONAHAN: Well, last month I was speaking at -- I was the keynote for an airport electrification conference in L.A. And there was a lot of interest by various airports on how to move to mostly electrification wherever they can on the ground support equipment side and on the drop-off of passengers. But there was also a lot of interest in the ports collaborative that we, the Energy Commission, leads that I helped convene. And they're interested in doing something similar, I think, from the airport side about what more they can do.

So it was an interesting conversation and I think a bridge to what the Chair will talk about with Joe B. (phonetic) and an event that his team convened.

And I also want to say, last month I was at a number of different China-related events, one of which was China-U.S. Green Energy Summit at Stanford. Steven Chiu (phonetic) was involved in this. John Kerry was a keynote speaker. And there was a lot of trepidation at this

2.5 conference about the election, the national election.

And I just want to comment, like Governor Newsom's leadership on the global stage when it comes to clean energy and the fact that he's kind of told all the agencies through MOUs to engage on this I think gives me just a lot of just pride that we're in a state that really takes climate change from a global perspective seriously. No matter who's in the White House, we're resolute in that. And Governor Newsom has kind of given us that charge. So the folks in the room were really excited about that, especially the folks coming from China. And I think that's an opportunity for us to continue as a state, this global leadership. And I'm just going to stop there. CHAIR HOCHSCHILD: Commission McAllister? COMMISSIONER MCALLISTER: I think I'll keep it really short. And just, you know, congrats again to Houston for getting married, really on his new marriage, so all the luck. And again, just the RREDI Division, the whole team for the Equitable Building Decarb Program just, you know, knocked it out of the park. A lot of work ahead of

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progress.

us. I think we're pretty sanguine about the challenges,

but also really optimistic about being able to really make

And then that's not the only IRA funding that's coming down the pike through, you know, the Efficiency Division and RREDI Division. The HERA grants, you know, we rolled those out a couple weeks ago for multifamily for rebates for electrical appliances and other measures in multifamily. The single-family version of that that will focus mainly on HVAC, that we'll be rolling out soon. So look for an announcement quite soon on that.

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But we're really excited to be moving all these programs forward after a lot of preparation and effort on the part of staff, so thanks.

CHAIR HOCHSCHILD: All right. I just had two events I wanted to share about. One was a meeting we had in L.A. with Chair Randolph from the Air Resources Board and a number of officials from L.A. around the Olympics. So California's going to be hosting the Olympics in 2028. We want to make that the greenest Olympics in history. And I had a roundtable with all the local and state and city leaders around that just beginning to plan. There's also, I think, a World Cup game in '26 there. So I guess we're hosting some events up in Northern California as well.

But I think it's a great chance to kind of elevate clean energy, climate solutions and green practices with these global events. So that conversation has gotten going. I think philanthropy will play an important role

trying to make all the expectations of air emission for that event.

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The other thing I just want to share about, I spent all day Friday with Commissioner Gallardo at the California Truth and Healing Mission. This is with all the Native American tribes. And it was held here in Sacramento, not far from where we are now, maybe 10, 15 minutes away on the river under an oak tree where Governor Newsom had given the first apology from the governor to the tribes. And it was a full day. Very, very powerful, incredibly poignant testimony.

And we stayed the whole day. There were six of us. Sierra Graves, our tribal advisor, organized our participation. And, you know, it was just incredibly, incredibly powerful, but just really an affirmation of the work we're doing to engage and support tribes on these tribal energy sovereignty projects, which is now over \$100 million and more on the way.

So very honored to be able to participate in that. My first time going to one of those. There were tribes from all over the state who came.

So thanks to Sierra, and especially thanks to Christina, the Governor's Tribal Advisor, who was organizing that. That was the final sort of tribal truth and healing ceremony.

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And I think with that, we are adjourned. Thanks,
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    everybody.
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                  (The meeting adjourned at 1:36 p.m.)
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CERTIFICATE OF REPORTER

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

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 2nd day of December, 2024.

MARTHA L. NELSON, CERT**367

Martha L. Nelson

CERTIFICATE OF TRANSCRIBER

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.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

MARTHA L. NELSON, CERT**367

December 2, 2024