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CALIFORNIA ENERGY COMMISSION

In the matter of:

)	
Business Meeting)	Docket No. 25-BUSMTG-01
_____)	

THURSDAY, APRIL 10, 2025

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

In-person at:

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

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Reported by:
 Martha Nelson

APPEARANCESCOMMISSIONERS

David Hochschild, Chair

Siva Gunda, Vice Chair

Andrew McAllister, Commissioner

Noemi Gallardo, Commissioner

Nancy Skinner, Commissioner

STAFF

Drew Bohan, Executive Director

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Pilar Magaña Fuels and Transportation Division Strategy,
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Elizabeth Butler, Contract and Grant Manager, Efficiency
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Research and Development Division

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Matt Fung, Energy Research and Development Division, Industry & Carbon Management Branch

Peter Chen, Energy Research and Development Division, Energy Systems & Transportation Branch

PUBLIC ADVISOR

Mona Badie

ALSO PRESENT

Daphne Hou, Deputy Director California Department of Water Resources, Statewide Energy Office

Molly Sterkel, California Public Utilities Commission

Cristy Sanada, California Independent System Operator

PUBLIC COMMENT

Rob Means, LoopWorks

Claire Zuma

Krystal Otworth, Leadership Council

Fernando Marquez Duarte, People's Collective for Environmental Justice

Joshua Simmons, Prosper Sustainably LLC

Adam Hatefi, Consultant for Generac Power Systems, and Ecobee

APPEARANCESPUBLIC COMMENT (cont'd)

Josh Harmon, PG&E

Andy Schwartz, Tesla

Cliff Staton, Renew Home

Kate Unger, California Solar and Storage Association

Meredith Roberts, Ecobee

Gabriela Olmedo, EnergyHub

Jay Friedland, Ecology Action

David Smith-Ferri, Dry Creek Rancheria Band of Pomo Indians

Jacqueline Ewens, ReJoule

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P R O C E E D I N G S

10:02 a.m.

THURSDAY, APRIL 10, 2025

(Whereupon an introduction video is played and not
transcribed.)

CHAIR HOCHSCHILD: Good morning, friends. I'm
David Hochschild, Chair of the California Energy
Commission. Today is April 10th. I call this meeting to
order.

Joining me are Vice Chair Gunda, Commissioner
McAllister, Commissioner Skinner, and Commissioner Gallardo
is joining us remotely today via Zoom.

Let's begin with the Pledge of Allegiance.

(The Pledge of Allegiance is recited in unison.)

COMMISSIONER MCALLISTER: Excuse me for taking
off -- my eye off it. There's a flag over there.

CHAIR HOCHSCHILD: Well, it's good to recognize
the flag of California.

So before we begin, Commissioner Gallardo, you
wanted to make a statement.

COMMISSIONER GALLARDO: Yes, thank you, Chair.

Buenos dias. Good morning, everyone. I am
participating remotely today. As required by the Bagley-
Keene Open Meeting Act, I can confirm that there is no one
18 years of age or older in the room with me today.

1 Thank you.

2 CHAIR HOCHSCHILD: Thank you.

3 Let's begin with public comment.

4 MS. BADIE: Thank you, Chair.

5 Good morning, everyone. My name is Mona Badie.

6 I'm with the California Energy Commission's Office of the
7 Public Advisor, Energy Equity, and Tribal Affairs. My
8 office is here to support public participation in CEC
9 business meetings and other proceedings.

10 There are several public comment periods on the
11 agenda today. And this first public comment period is an
12 open public comment period. It can be used to make
13 comments on any item on the agenda, including non-voting
14 items. Voting items will have a dedicated public comment
15 period. And we ask that if you are here to comment on a
16 voting item, that you reserve your comments for that
17 dedicated public comment period as much as possible.

18 With that, I would like to open this general
19 public comment period. We have several ways for you to let
20 us know you'd like to comment.

21 If you're in the room with us, we're asking folks
22 to use our QR Code. It's posted in the back. And if
23 that's not -- if you need assistance with that, we have
24 staff in the back that can support that. Also, if for
25 whatever reason we didn't catch your QR Code entry, you can

1 raise your hand. I will see you. I will call on you.

2 If you're joining by Zoom, you will press star
3 nine -- oh, excuse me. If you're joining by Zoom online,
4 you'll use the raise-hand feature on your screen. It looks
5 like an open palm. And if you're joining by phone, you'll
6 press star nine. That's the way to let us know you'd like
7 to comment.

8 And just giving that a moment. Alright, we don't
9 have anyone in the room, but we do have folks with raised
10 hands on Zoom.

11 So Rob Means, I'm going to open your line. We
12 are asking for comments to be two minutes or less. There
13 will be a timer on the screen.

14 MR. MEANS: Hi, I'm Rob Means with LoopWorks, the
15 company creating the Advanced Transit Project here in
16 Milpitas at the South end of San Francisco Bay.

17 CEC's goal of reducing CO2 emissions could get a
18 big boost from personal rapid transit, PRT. It's
19 electrified transit that uses small cabs about the size of
20 a car's passenger cabin, small and, more importantly,
21 lightweight, because these cabs are running around on an
22 elevated dedicated track up there 16 feet in the air so the
23 semitrucks can pass underneath.

24 Imagine a network of these pod cars, like a bus
25 network, that serves many square miles with pod car stops

1 in most neighborhoods. For example, instead of spending
2 \$12 billion for the BART extension here in the South Bay
3 and getting four BART stations for it, we could spend even
4 less money to cover 100 square miles of the South Bay area
5 with pod car network providing nonstop service between all
6 800 stations on a 24/7 schedule.

7 That kind of an investment would make sense in
8 reducing our CO2 emissions because that would provide
9 service levels that are not only competitive, but likely to
10 beat cars as a service to get between stations, 800 of them
11 covering 100 square miles, all for less than the cost of
12 the BART extension that's being proposed now.

13 So I urge you to learn more about the PRT
14 technology and our particular project, which is a feeder
15 into the local BART transit hub here in Milpitas. And you
16 can learn more about that at milpitasprt.com.

17 Thank you for your time.

18 MS. BADIE: Thank you for your comment.

19 Next, we're going to hear from Claire Zuma.
20 Claire, I'm going to open your line. Again, we're just
21 asking for comments to be two minutes or less.

22 MS. ZUMA: Hi, my name is Claire Zuma,
23 C-L-A-I-R-E, then Z-U-M-A. My ethernet connection has
24 become unstable, so I've been standing back.

25 I have a couple of subjects. One is I put a

1 letter into the docket, the business docket regarding e-
2 bicycles and e-scooter electric infrastructure plugs.

3 And the other is thanking Commissioner McAllister
4 for last meeting's mention about being careful about the
5 outcomes for people during agenda item number 11 for
6 Ventura County regarding retrofits. I do think that that
7 can be an issue. A lot of these brands that are out there
8 are not exactly performing the same.

9 And the other thing is that I've listened to a
10 number of the archive things or kind of skimmed through
11 them and stopped and listened more lengthily to some of the
12 sections more than others, like during the Electrification
13 Summit and heard some things about the heat pumps and the
14 initiative to have, I think, is it 6 million or something
15 like that, heat pumps in California. I think that's very
16 doable.

17 And I've had a heat pump at my residence. I've
18 had, since I've moved here, in late 93, there's always been
19 a heat pump. I'm on my third one. All three of them have
20 had auxiliary heat or resistant heat or backup heat, which
21 comes on automatically usually. And I think that that's
22 something that needs to be looked at in the data, that when
23 you accumulate all that data to ask if the auxiliary heat
24 is there, because I know that that's something that's
25 considered to be less efficient. And my current smart

1 meter makes it look like I turn it on. You know, it will
2 go on automatically if it hasn't raised the heat, but it
3 will put an error message that makes it sound like I'm the
4 one that made the change, which is not happening.

5 So things like that are not obvious. I just
6 thought it should be mentioned. Thank you.

7 MS. BADIE: Thank you for your comment.

8 And those are all the raised hands for item 1.
9 Back to you, Chair.

10 CHAIR HOCHSCHILD: Okay. Thank you.

11 So I do want to recognize that Earth Day is this
12 month on April 22nd, and there will be some events that day
13 here at the CNRA headquarters. I shared that in an all-
14 staff email to recognize that.

15 Also today, we're seeking approval for over \$142
16 million of investments contributing to our state's economy.

17 And let me just say, it's been pretty
18 extraordinary two months. We're obviously going through
19 some pretty tumultuous times in our country. You know, our
20 economy lost \$11 trillion in value. And, you know, there's
21 a lot of uncertainty out there. And I think, you know, one
22 of the most important things for us to do as a state and as
23 an agency is be steady and really reject that in every way
24 that we can and continue to display the professionalism
25 that we have been displaying.

1 I really want to, again, just commend the staff
2 for all this terrific grant making we're going to be doing
3 today. I think it's just more important than ever that we
4 have a steady hand at the wheel. And California's role at
5 this moment has never been more important. So thank you
6 all for being a part of that.

7 With that, let me just go to other Commissioners.
8 Yeah, Commissioner McAllister, please.

9 COMMISSIONER MCALLISTER: Yeah. Thanks, Chair.

10 I just wanted to sort of relate it to what you
11 just said about sort of the need for California to engage.
12 I was able to go to China. I'm going to do this now rather
13 than in, you know, Commissioner announcements or
14 Commissioner news later.

15 I was able to go to China a couple of weeks ago,
16 a trip that was organized and sponsored by the California-
17 China Climate Institute based out of UC Berkeley. And a
18 small group went over, just five of us, spent a week doing
19 various things, a couple of events, one in Hong Kong, one
20 in Hainan, and then Beijing for a couple of days. We have
21 seven MOUs with various national and provincial entities,
22 governments, entities in China.

23 And the transformation of China in the last 10
24 years in terms of being sort of a bit of a laggard and, you
25 know, learning from California to now where really they've

1 become a global leader. I mean, their emissions are still
2 quite high in terms of, you know, the use of coal, et
3 cetera. But their advances on renewables and electric
4 vehicles and just infrastructure generally to support the
5 clean energy economy and manufacturing, the equipment of
6 the clean energy economy, is just mind blowing.

7 And so two things really.

8 One, (indiscernible) a person and to an agency
9 over there that we were working with, they are so
10 appreciative of the fact that California is still in,
11 right, that we are a solid partner, we have not wavered.
12 And that I think gives reassurance that sort of this is
13 still a global phenomenon that matters and that the U.S. is
14 present. And I think anybody who's trying to, you know,
15 shift the world economy towards clean energy and clean
16 alternatives across the board understands the importance of
17 California and the engagement of a large economy like ours.

18 And as the U.S., as a national government steps
19 back, we're getting caught. I mean, our phones, I think
20 all of us are ringing off the hook trying to -- looking for
21 a reassurance that the world is not totally upside down.
22 And so the fact that we're able to provide that reassurance
23 is -- I think puts us in a great position to lead even
24 more.

25 And sort of the flip side of that is that one of

1 the events that I presented at or talked at was the WOW
2 Forum, which is sort of the Asian Davos (phonetic), and
3 it's basically like a high, you know, the high rollers
4 across Asia common. It was China open for business. I
5 mean, there were people from Latin America, from Africa,
6 from across Asia, and all of the world. And as the U.S.
7 sort of steps back and takes itself out of the equation,
8 there's really an open playing field for China to establish
9 these relationships and be building infrastructure all over
10 the world.

11 The risk for China right now is that their
12 economy has overcapacity for manufacturing and they don't
13 have anywhere to send their goods. And so the standard of
14 living has continued to go up over the last few decades.
15 And it now is kind of at the point where it's not clear how
16 that continues to happen because their economy doesn't have
17 any -- you know, they're kind of reaching the ceiling of
18 growth and they have overcapacity because they can produce
19 things incredibly well, smart, cheap, fast. They are going
20 to eat our lunch. And so it was really open playing field
21 for them at exactly the wrong moment, I think, to be
22 competitive as a country.

23 And so California really does have a key, again,
24 a key role to kind of try to help demonstrate how much of a
25 mistake it is to withdraw from engagement with China. So,

1 you know, I'm not trying to minimize the issues around
2 freight and IP and all those issues that we do need to deal
3 with, but I think engagement, it seems clear that
4 engagement is better than retrenchment.

5 So anyway, all this maybe seems obvious, but to
6 see it firsthand and sort of understand the scale of the
7 infrastructure development, manufacturing capacity,
8 diversity, say in the EV fleet, you know, fleets,
9 companies, manufacturing capabilities, adoption at the
10 provincial level across the country, to see it firsthand
11 was just really eye-opening. And so it reinforced this
12 idea that really engagement and collaboration is really the
13 best option for California and for the U.S. And so
14 hopefully we can get back to that as a nation.

15 CHAIR HOCHSCHILD: Thank you so much for that.

16 Any other agency announcements?

17 Commissioner Gallardo?

18 COMMISSIONER GALLARDO: Yeah, I do, thank you.

19 So hello everyone again. I just want to do a quick
20 acknowledgement about today being Dolores Huerta Day. She,
21 along with Cesar Chavez and others, made significant
22 sacrifices to ensure labor rights for all workers and did,
23 in particular, significant work for farmworkers. So I just
24 wanted to acknowledge that. My parents worked in
25 agriculture, so they benefited from all of the things that

1 Dolores Huerta and others did.

2 And I also just want to give a thank you to the
3 workers out there in the fields. I was out in Imperial
4 Valley yesterday and saw workers in the fields and it was
5 over 90 degrees. So they're doing really tough jobs to get
6 food on the table for us and wanted to acknowledge that, so
7 thank you.

8 CHAIR HOCHSCHILD: Thank you so much.

9 With that, we'll turn to the consent calendar,
10 item 3.

11 Is there any public comment on item 3?

12 MS. BADIE: Thank you, Chair. The Commission
13 welcomes public comment on item 3 at this time. This is
14 the consent calendar. If you're joining us in the room,
15 please use the QR Code or raise your hand. And if you're
16 on Zoom, you'll use the raise-hand feature on your screen
17 or star nine if joining by phone.

18 And I'm not seeing any raised hands for this
19 item. Sorry, one raised hand. Let me call someone on Zoom
20 identified as Leadership Council, ECV. I'm going to open
21 your line. It's helpful if you would want to share your
22 name and spell your name for the record. And we're asking
23 for comments to be two minutes or less.

24 MS. OTWORTH: Hi, good afternoon. My name is
25 Krystal Otworth spelled K-R-Y-S-T-A-L, last name

1 O-T-W-O-R-T-H. And I am commenting on subitem E, the Power
2 Environmental Energy Research Institute item. And, yeah,
3 so I'm here today. I am with Leadership Council. I'm a
4 senior policy advocate, and we are a social and
5 environmental justice organization that works alongside
6 residents of the Eastern Coachella Valley.

7 I'm here today with concerns about the \$4 million
8 grant for experimental mineral extraction technology.

9 Salton Sea communities have spent decades watching
10 innovative projects promise jobs and other community
11 benefits only to deliver more pollution and broken
12 promises. And so now they're being asked to test that this
13 unproven technology will be different with no real evidence
14 and no meaningful protections. And so if the CEC is
15 determined to move this forward with public funds, then at
16 a minimum, we urge that it includes -- the scope of work
17 include provisions that put community interest first.

18 And so for example, one of the things that we
19 urge for is comprehensive monitoring and data transparency.
20 So this includes a full disclosure of freshwater sources
21 and consumption rates, detailed reporting on all waste
22 outputs, including the types, quantities, and disposal
23 methods, continuous air emissions monitoring with health
24 risk assessments, analysis of brine re-injection impacts on
25 the Salton Sea ecosystem.

1 And then second, independent verification and
2 oversight so that all industry claims regarding efficiency,
3 safety, and environmental impact must be validated by a
4 neutral publicly-accountable entity, not just self-reported
5 by the grant recipient, as well as complete lab results,
6 pilot data, and any deviations from expected outcomes that
7 must be publicly accessible through the Lithium Valley
8 docket.

9 And then lastly, meaningful public accountability
10 so that all, for example, all critical project review
11 meeting materials, quarterly reports, and Advisory Group
12 recommendations be made publicly accessible and posted in
13 the Lithium Valley docket as well.

14 And then lastly, automatic shutdown triggers if
15 monitoring shows danger to public health. While this
16 technology may offer potential advancements, it cannot come
17 at the expense of environmental health and community
18 wellbeing.

19 And with that, I thank you for your
20 consideration.

21 CHAIR HOCHSCHILD: Thank you.

22 MS. BADIE: Thank you very much for your comment.

23 And next we are going to hear from Fernando
24 Marquez Duarte. I'm going to open your line and I'm just
25 repeating the request for comments to be two minutes or

1 less. There will be a timer on the screen.

2 MR. DUARTE: Hello, everyone. Can you hear me
3 okay?

4 MS. BADIE: Yes.

5 MR. DUARTE: So my name is Fernando Marquez
6 Duarte. I'm with the People's Collective for Environmental
7 Justice. And I just want to make echo of what Krystal just
8 said before on the same item.

9 CHAIR HOCHSCHILD: Fernando, it's a little bit
10 difficult to hear you. Can you try speaking up just a
11 little so we can hear you?

12 MR. DUARTE: Can you hear me better now?

13 CHAIR HOCHSCHILD: That's a little better. Thank
14 you.

15 MR. DUARTE: Yeah, so again, my name is Fernando
16 Marquez Duarte. I'm with the People's Collective for
17 Environmental Justice. And I just want to make -- echo of
18 what Krystal said before on the same item.

19 The Lithium Valley, it's a very concerning
20 project. It has serious negative implications for water
21 availability for the people of the communities of Southern
22 Coachella Valley and Northern Imperial Valley, which are
23 already overburdened with water scarcity. And there is
24 also concerns with the potential negative impacts, not only
25 environmental, but social impacts.

1 So like expediting this process without, you
2 know, a proper EIR review and considerations and consulting
3 the population there, I don't think that should be
4 approved.

5 So yeah, that's basically my comment, and thank
6 you.

7 MS. BADIE: Thank you for your comment.

8 And that is all the raised hands for this item.
9 Back to you, Chair.

10 CHAIR HOCHSCHILD: Okay. Thank you. Why don't
11 we have, Mona, if you could get their contact information,
12 we'll have the EPIC Team follow up directly on those
13 requests. Thank you for raising that.

14 The only thing I wanted to highlight in the
15 consent calendar, which I think is really significant,
16 we're doing about \$16 million for electric vehicle charging
17 infrastructure for the City of Long Beach, City of San
18 Francisco, Contra Costa County, and San Mateo County.
19 Really important investments to continue to drive
20 electrification in the transportation space.

21 As you all know, we recently hit a big milestone.
22 We now have almost 50 percent more EV charging
23 infrastructure, EV charging plugs than gasoline nozzles in
24 the state of California, and we need to keep that momentum
25 going. Some of this will be supported in municipal fleets.

1 I do want to highlight how significant that is for local
2 and for state government vehicles to model how to do this
3 well. And really at this point where we are, the vehicles
4 are on the market, the pricing is there, the quality, the
5 range, the gating item is the charging infrastructure. And
6 so this is a really terrific set of projects, so I just
7 wanted to lift that up.

8 Are there any other comments on the consent
9 agenda?

10 Oh yeah, Commissioner Gallardo, please.

11 COMMISSIONER GALLARDO: Thank you, Chair.

12 So related to item 3E and the comments we
13 received from both Fernando and Krystal, thank you, Chair,
14 for asking our Public Advisor to ensure that they get
15 connected to the staff that handles EPIC grant funding,
16 specifically this one, to address questions.

17 I wanted to note that one of the things I heard
18 from Krystal specifically is posting information about this
19 grant in the Lithium Valley proceeding docket. So as the
20 Lead Commissioner for the Lithium Valley Vision proceeding,
21 I want to let you know that we could definitely do that.
22 So I didn't capture all of the other things that you
23 listed. There were good questions and comments and
24 suggestions, but that one I can commit to right now. So I
25 wanted to just inform her of that.

1 CHAIR HOCHSCHILD: Thank you.

2 Vice Chair?

3 VICE CHAIR GUNDA: Chair, thank you.

4 I just wanted to associate myself with what
5 Commissioner Gallardo said. I think the recognition of the
6 comments that were made to support both the data
7 transparency and some of the agreements we have on
8 community benefits. I think given that Commissioner
9 Gallardo is already working on those elements, Commissioner
10 Gallardo, I support your recognition of that and also
11 taking up in the proceeding that you have, so thank you.

12 CHAIR HOCHSCHILD: Thank you.

13 Unless there's other comments, I would entertain
14 a motion from Commissioner McAllister on item 3.

15 COMMISSIONER MCALLISTER: Move item 3.

16 CHAIR HOCHSCHILD: Is there a second from the
17 Vice Chair?

18 VICE CHAIR GUNDA: Approval, item 3.

19 CHAIR HOCHSCHILD: All in favor, say aye.

20 Commissioner McAllister?

21 COMMISSIONER MCALLISTER: Aye.

22 CHAIR HOCHSCHILD: Vice Chair Gunda?

23 VICE CHAIR GUNDA: Aye.

24 CHAIR HOCHSCHILD: Commissioner Skinner?

25 COMMISSIONER SKINNER: Aye.

1 CHAIR HOCHSCHILD: Commissioner Gallardo?

2 COMMISSIONER GALLARDO: Aye.

3 CHAIR HOCHSCHILD: And I vote aye as well. Item
4 3 passes unanimously.

5 We'll turn now to item 4, an information item
6 from Department of Water Resources quarterly update on the
7 Strategic Reliability Reserve.

8 MS. HOU: Alright. Good morning, Chair,
9 Commissioners. Thank you for having me. My name is
10 Delphine Hou. I'm the Deputy Director for the Statewide
11 Energy Office at the Department of Water Resources. I'm
12 here to provide an update on the Electricity Supply
13 Strategic Reliability Reserve Program.

14 Next slide, please.

15 Assembly Bill 205 created the State's Strategic
16 Reliability Reserve. And of the three parts of the
17 Reserve, the CEC oversees two focused on demand response
18 and distributed resources, whereas DWR's program is focused
19 on grid connected resources. The Electricity Supply
20 Strategic Reliability Reserve Program, or ESSRRP, acts as
21 an insurance policy and safeguards the statewide electric
22 grid during extreme and combined events, such as heat
23 events, wildfires, droughts, and other weather issues
24 driven by climate change. The program also supports
25 California's transition to a clean energy future.

1 Next slide, please.

2 Per AB 205, DWR is required to provide regular
3 updates at an Energy Commission meeting for investments
4 made and under consideration.

5 Moreover, the legislation requires the attendance
6 of the Public Utilities Commission and the California
7 Independent System Operator. I believe both
8 representatives had confirmed their attendance. I may not
9 be seeing them on the Zoom, but that doesn't mean -- they
10 are there. Okay, thank you so much for confirming. So
11 thank you both for their participation today.

12 Today is the 11th update presented to the Energy
13 Commission. I know that's very exciting. And we expect
14 the next update to occur in the third quarter of 2025.

15 Next slide, please.

16 So here we have five distinct types of projects
17 under the program.

18 First is the extension of the operating life of
19 existing generation resources planned for retirement.

20 Second is new temporary power generators of five
21 megawatts or more.

22 The third is generation facilities using clean
23 zero-emission fuel technology.

24 The fourth is new energy storage systems at a
25 minimum of 20 megawatts and two hours of discharge.

1 And the fifth is the reimbursement of electrical
2 corporations imports that were procured above market costs
3 and in excess of their required authorized procurements.

4 Next slide, please.

5 So we've seen this slide before and nothing has
6 changed from the last update in April. As you can see,
7 we've been evolving the Reserve. And for summer 2025, we
8 have a little over 3,000 megawatts available, and that
9 includes emergency and temporary resources able to respond
10 to the CAISO and to other major California balancing
11 authorities.

12 It's important to note that the resources
13 operating under the ESSRRP are at a default off except when
14 called upon for extreme events and required for maintenance
15 and testing. For short-start units, they respond
16 automatically to energy emergency alert watches and higher.
17 And the major California balancing authorities and for the
18 long start units, they respond to CAISO operator direction.

19 Currently, DWR doesn't have any new resources
20 under contract but we remain open to opportunities. As you
21 are all aware, and from the comments earlier on the dais,
22 it's been a challenging environment with tariffs and all
23 the global challenges but we remain open to opportunities.
24 But at the same time, we do want to make sure that we are
25 prioritizing investments that do not compete with

1 facilities already planned for by load serving entities.
2 We want to be very careful of that to not drive up prices
3 for them by inadvertently competing against them. So we
4 remain very aware of that.

5 In conclusion, I would like to thank and
6 acknowledge the considerable coordination with the Energy
7 Commission, as well as the California Public Utilities
8 Commission and the California Independent System Operator,
9 in developing and maintaining the state's Strategic
10 Reliability Reserve.

11 And this concludes my presentation. Thank you.

12 CHAIR HOCHSCHILD: Thank you.

13 Did either Molly or Cristy want to make any
14 comments?

15 MS. STERKEL: No, but we're happy to be here.

16 CHAIR HOCHSCHILD: Thank you, Molly.

17 Cristy, anything from your side?

18 MS. SANADA: Nope, nothing from me.

19 CHAIR HOCHSCHILD: Okay.

20 MS. SANADA: Thank you, Delphine.

21 CHAIR HOCHSCHILD: Thank you.

22 Vice Chair, over to you.

23 VICE CHAIR GUNDA: Yeah. Thank you, Chair.

24 Again, I just want to begin by acknowledging a
25 sincere gratitude of the work that DWR does.

1 Thank you, Director Hou, for being here on a
2 regular cadence to help inform on the importance of the
3 Strategic Reserve, and also the recognition of both PUC and
4 CAISO here to just really reiterate and uplift that this is
5 a joint effort, that we're all in this together. And this
6 recommendation for the Strategic Reserve was a joint agency
7 recommendation.

8 I wanted to just reflect on 2024. We had
9 extremely high temperatures. It was another record year.
10 But given, you know, the successes on multiple fronts, one,
11 I would just start by saying the interagency coordination
12 on planning for the summer with support from the
13 administration and other state agencies, including the four
14 of us, has been tremendous in getting us ready for those
15 summers and having a streamlined plan.

16 We also had an enormous success in the amount of
17 build we had over the last couple of years. 2023 and 2024
18 have been record years of how much we added to the grid in
19 California. And, you know, by far a big thanks to CPUC's
20 leadership on the procurement of clean resources.

21 Just as a data point in 2023, California added
22 about 7,000 megawatts. And that's essentially all of what
23 was added across 11 states and provinces in the West. So
24 California has been doing a tremendous job in adding new
25 resources, including storage that was critical for those

1 net peak times. So with that --

2 CHAIR HOCHSCHILD: So is that, again, that's 7
3 gigs for the entire West?

4 VICE CHAIR GUNDA: Yeah.

5 CHAIR HOCHSCHILD: And we added what percentage
6 of that?

7 VICE CHAIR GUNDA: 7,000.

8 CHAIR HOCHSCHILD: So that's basically, we're the
9 only ones in the West to adding capacity?

10 VICE CHAIR GUNDA: Yeah.

11 CHAIR HOCHSCHILD: That's extraordinary.

12 VICE CHAIR GUNDA: So it's been like that. And
13 so having enough real success in California, there is a lot
14 of integrated resource plannings across the West that call
15 for more megawatts, but, you know, no other states haven't
16 had a lot of success in adding that.

17 CHAIR HOCHSCHILD: Is that, by the way, the
18 single biggest year we've had in terms of capacity
19 additions? Because I don't recall another year where we've
20 had 7 gigs.

21 VICE CHAIR GUNDA: Yeah. So last year would be
22 the highest.

23 CHAIR HOCHSCHILD: Highest ever.

24 VICE CHAIR GUNDA: And then it's back to back
25 about 7 gigs roughly.

1 CHAIR HOCHSCHILD: Yeah.

2 VICE CHAIR GUNDA: And when we think about PUs,
3 just the CAISO --

4 CHAIR HOCHSCHILD: Yeah.

5 VICE CHAIR GUNDA: -- last year was the record,
6 but as a state, if you look at all the additions, both
7 years were essentially the same.

8 CHAIR HOCHSCHILD: Okay. And we're still a total
9 of about 27 gigs since --

10 VICE CHAIR GUNDA: Yeah.

11 CHAIR HOCHSCHILD: -- since Newsom took office?,
12 roughly?

13 VICE CHAIR GUNDA: Yeah. And then about 100,000
14 megawatts today in California.

15 CHAIR HOCHSCHILD: Great.

16 VICE CHAIR GUNDA: And then we're going to
17 continue to add more. And I welcome Molly to add any
18 comments there, not in small part for the work she does.

19 Molly, do you want to add anything there?

20 MS. STERKEL: I would just, yeah, just amplify
21 your remarks that, yeah, 2022 was the highest year on
22 record, broken by 2023. And then again, 2024 was yet,
23 again, the third record-breaking year for clean energy, new
24 infrastructure built in California, which is an
25 extraordinary achievement that represents an extraordinary

1 effort of many agencies across the board, and many
2 developers, LSEs, all the agencies.

3 Thank you.

4 VICE CHAIR GUNDA: Thank you, Molly.

5 And I also just wanted to specifically, you know,
6 give thanks to CAISO in two fronts, one kind of having that
7 summer playbook and leadership in having a summer playbook
8 on how to navigate through extremes, but also the
9 tremendous job that CAISO has been able to do in
10 integrating storage into the grid operations, which has
11 been critical for our success.

12 So a lot of good points to be proud of as a team,
13 but also recognizing that last year, we were very close a
14 few days. You know, it's good that it's not in the news.
15 It's good that we didn't have a Flex Alert. But there were
16 staff across the agencies that were working really hard
17 last year through several phases to make sure we don't have
18 an interruption. And, you know, a big part, thanks to
19 having the Strategic Reserve and that ability to lean on it
20 if needed. So thanks again, Director Hou, for your work
21 and your leadership and to the entire DWR team.

22 I want to make sure that we have our May workshop
23 coming up, the Joint Agency Workshop. This time around, we
24 are going to discuss all fuels. We're going to discuss
25 electricity, natural gas, and petroleum outlook through the

1 summer. Looking forward to the discussion and
2 participation from the agencies. A

3 And I also want to give a shout out to both
4 President Reynolds, but also President Mainzer for their
5 leadership.

6 And thank you, Chair, for your work on leading
7 our agency in this work as well. Thank you.

8 CHAIR HOCHSCHILD: Any other comments?

9 Commissioner Skinner, please.

10 COMMISSIONER SKINNER: Thank you, Chair. And
11 thank you for the presentation.

12 I voted to establish the Strategic Reliability
13 Reserve as a Senator. And of course, when you take such an
14 action as a legislator, you don't know really how -- it's a
15 great plan, or at least you hope that it is, but you don't
16 know really how it's going to operate. So now in this
17 role, I am learning much more about how it is operating and
18 what we have -- what benefits it's providing. And I just
19 wanted to add a few -- my appreciation and expression of
20 the value of it.

21 In the recent weeks since I've been appointed, of
22 course, I've been spending a good amount of time getting
23 briefed by all of our different divisions on such programs.
24 And I recently had, I've had at least two very in-depth
25 briefings around the strategic energy -- the Strategic

1 Reliability Reserve.

2 And I think what's important to note, and it's
3 been referenced to a degree, but that we, I suppose, we
4 have historically always thought of that we -- that the
5 grid is going to be most stressed during this limited
6 number of hours in any given year, which we defined as
7 peak, which have tended to be on the say hottest days. And
8 we're now experiencing that, number one, we can have these
9 high-heat days at times that are even unexpected. And that
10 additionally, because of a variety of reasons, we -- our --
11 the differentiation between summer and winter is really
12 changing, so that we could have high demand on days that,
13 say, three years ago we wouldn't have predicted.

14 And so the benefit of something like -- well, the
15 benefit of all of our reliability planning that we're doing
16 is that we are being smarter about not just trying to add
17 generation for this narrow period of time, but rather
18 thinking about what is a set of resources that we can use
19 anytime, that we can deploy anytime that we have this,
20 where can we face an additional demand on the system?

21 And so to me, the benefit, of course, of our
22 invest in the infrastructure was in the demand-side
23 resources and, of course, new generation, but the other
24 two, especially, they're very cost-effective ways to meet
25 this, regardless of the time we may experience some either

1 unexpected or extreme demands on the grid. And it's
2 already been proven out, which has been discussed so far.

3 So it's very exciting. And of course, some of
4 the resources that we've added are 24/7, the new -- not new
5 generation but extension of generation are 24/7. So that's
6 a benefit too. But I think this, for those of us who've
7 been concerned about potential outages or undue strain on
8 the grid that could, you know, add to our rate pressures,
9 this investment and this program has been really, really
10 wise and has helped minimize those.

11 So just wanted to add my two cents and my thanks.

12 MS. HOU: And, yeah, absolutely. And thank you,
13 Commissioner Skinner, and for your time as Senator Skinner
14 for all your excellent work. And then we really appreciate
15 your support. Thank you.

16 CHAIR HOCHSCHILD: Vice Chair?

17 VICE CHAIR GUNDA: Yeah. I just, to pick my
18 points, I wanted to just also touch on one thing as well.

19 Thank you, former Senator and Commissioner
20 Skinner. You know, there were tough hearings in the
21 legislature to make sure that you all pressured tested the
22 need for this.

23 I want to recognize as a part of this is we do
24 have 3,000 megawatts of once-through cooling power plants.
25 And, you know, it was tough for us to agree to move forward

1 on that, even though there are some local impacts and, you
2 know, definitely a lot of requests from the local
3 communities and upliftment of their continued exposure to
4 emissions and such.

5 So I just want to, again, thank the stakeholders
6 who worked with us during the once-through cooling
7 extension and recognize the need for them, and also
8 recognize that they are through 2026.

9 And, Director Hou, if you want to just talk
10 about, you know, the current authorization you have as a
11 close, that will be helpful.

12 CHAIR HOCHSCHILD: Commissioner McAllister?

13 COMMISSIONER MCALLISTER: Go ahead.

14 CHAIR HOCHSCHILD: Oh, sorry, (indiscernible).

15 MS. HOU: Not a problem. So the Strategic
16 Reserve, or at least the DWR portion of it, was always
17 meant to be a temporary emergency-based program, and so it
18 was opportunistic from the recommendation of the energy
19 entities, Energy Commission, Public Utilities Commission,
20 and the California ISO in their reliability assessment to
21 make the recommendation to the State Water Resources
22 Control Board to enable contracting from DWR for,
23 specifically, for the once-through cooling resources
24 through 2026. And actually that's, in our current
25 portfolio, that's the contracts that kind of fall off

1 first. And we have some other smaller generators and
2 contracts that will go a little bit beyond that.

3 But again, the timeframe is about 2030, 2031,
4 when at least the DWR grid-connected, you know, portion is
5 starting to sunset. And definitely, the other two parts of
6 the Strategic Reliability Reserve, looking at demand
7 response, looking at distributed resources, such as like
8 community storage, I mean, those are definitely, you know,
9 from where they started in the hectic days of 2022 have
10 certainly ramped up and really start to bear fruit.

11 So we're excited to be able to work with the CEC.
12 But I think in totality, just as Commissioner Skinner had
13 said, this is a complete package. So we were trying to put
14 all of these different tools on the table to get all of
15 these toolboxes. And some of them are kind of a moment in
16 time, and as we help transition into the energy future, and
17 maybe some of them are more durable.

18 So I think, you know, it was a wise decision to
19 be able to get all the tools in the toolkit, but also the
20 way the Reserve is structured is that, again, the resources
21 are a default off. We've seen all the emissions go down.
22 We've seen them only ramp up, for all the resources, only
23 ramp up when needed. And otherwise we're really trying to
24 balance those impacts. And again, to be able to have that
25 funded through the General Fund also reduces some of that

1 rate pressure impact on rate payers.

2 CHAIR HOCHSCHILD: Thanks a lot. So you sort of
3 stole my thunder of my comment, but I think it bears
4 reiterating.

5 I think the overall narrative here is a really
6 powerful one. And this all-government kind of integrated
7 cross-agency approach where we're developing all the tools
8 for the toolbox, it's something it's hard to convey to the
9 public; right? Where the news is very scattershot and I
10 think it's, you know, a complex topic and, you know,
11 electricity in particular and, you know, people just aren't
12 really prepared to kind of dig into that issue. And so I
13 think it's incumbent upon us to keep hammering away at that
14 narrative. And when we explain it in lay terms, I think
15 people get it. But it's just something we have to keep
16 doing proactively.

17 I really appreciate, you know, essentially the
18 arc of the story that you just told in very concise terms
19 where, you know, we're really trying to innovate and
20 digitize and, you know, work on the load side and load
21 flexibility and demand response and all that. You know,
22 we're doing the workshop on May 22nd on load shift, load
23 flexibility. And then all the way up to sort of the
24 Western markets discussion potentially is also helping with
25 that.

1 So I think, you know, anyway, we can have -- take
2 advantage of opportunities to work through, you know, the
3 news media and just kind of really have a cogent story
4 that's in lay terms is something we all need to, I think,
5 keep plugging away at. Because we're doing so much and it
6 all adds up to really improving reliability, maintaining
7 the push to decarbonization and also putting downward
8 pressure on rates however we can. So we can do all three
9 of those things. And I think we are doing them. The
10 timeframe is like in this sort of messy middle five to
11 eight years kind of thing. And so it's hard to keep track
12 of if you're not focused on this, like we are all the time.

13 So anyway, I really appreciate all of your
14 efforts. Totally agree that this was a measure we had to
15 take. It is and should be temporary, but it's absolutely
16 essential to get us over the hump to a better place. And
17 we're going to land, I think, in a sustainable, lower cost
18 and very reliable place. But we need to sort of keep doing
19 that and appreciate your really providing that really
20 central pole in the tent, you know, to sort of keep things
21 moving along, so thanks a lot.

22 CHAIR HOCHSCHILD: Well, Delphine, thank you
23 again. You're here so much, you're part of the CEC family.
24 We practically need to get you a CEC ID badge here. So
25 thanks as always for your terrific work. And unless there

1 are other questions, well, thank you.

2 COMMISSIONER GALLARDO: You didn't call me here.
3 Just quickly, sorry, it's Noemi.

4 CHAIR HOCHSCHILD: Yes. Oh, yeah, please go
5 ahead. Sorry, I didn't see you. Please, Commissioner.

6 COMMISSIONER GALLARDO: No worries, no worries.

7 Delphine and the whole team, thank you so much
8 for what you're doing. I am emphasizing the importance of
9 the, you know, preparing for emergencies. I think that's
10 so incredibly important given how erratic climate can be
11 and how disastrous situations can get if we're not planning
12 for emergencies. So I really appreciate this effort for
13 those purposes.

14 And thank you also, Commissioner Skinner, for,
15 you know, brainstorming, digging into this when you were a
16 Senator. And I think that's what's helpful about the
17 legislature, trying to think ahead to protect all of our
18 communities in California.

19 So again, thank you so much to everyone who's
20 working on this and for your leadership, too, Vice Chair
21 Gunda.

22 CHAIR HOCHSCHILD: Thank you so much.

23 Well, thank you again, Delphine.

24 With that, we'll turn to item 5, Update on Data
25 Visualization and Exploration Tools.

1 And welcome to Jason Harville.

2 MR. HARVILLE: Good morning, Chair, Vice Chair,
3 other Commissioners, especially Commissioner Skinner,
4 welcome. Glad to have you. Haven't had the chance to
5 brief you on what my office does yet and who I am, but look
6 forward to working with you and doing that soon.

7 In the meantime, I'm Jason Harville. I'm our
8 Director of Enterprise Data and Analytics. I lead the
9 Enterprise Data and Analytics Office, which is responsible
10 for enterprise level, excuse me, enterprise level data
11 infrastructure, management and governance. I'm here this
12 morning to provide an update on our data modernization
13 efforts, specifically on our implementation of new data
14 visualization and exploration tools.

15 Next slide, please.

16 Alright, data visualization and exploration tools
17 provide many benefits to Californians. Those who want to
18 explore and use our data can now do so through various
19 tools on our website. They can also download data directly
20 from these tools without needing to make data requests, and
21 they can use the tools to filter and parse the data prior
22 to downloading. This gives the public fast, interactive,
23 and detailed access to Energy Commission data without
24 additional time or work from Energy Commission staff.

25 Next slide.

1 To refresh your memories, Tableau and ArcGIS are
2 tools for creating interactive data visualizations that can
3 be hosted and used through our web browser. This allows
4 users to filter our data across a number of properties and
5 then view or download whichever subsets of that data they
6 like. As we build these tools, we maintain a link and a
7 description for each on the data exploration tools page on
8 our public website, and we're also tracking their
9 popularity to help measure their value to the public.

10 In fact, we now have so many visualizations that
11 it was getting burdensome to scroll through them all. So
12 to enhance the public experience, we recently updated our
13 Data Explorations Tools page to include a section for
14 featured data tools and also new searching and filtering
15 capabilities. You can see an example of that right there.
16 I'd like to give some kudos to our web team, and especially
17 to Eduardo Barraza in our Data Engineering Unit for
18 managing that update effort.

19 Next slide. Is it the -- okay.

20 Alright, this chart here shows the number of
21 website views for our top five data visualizations and the
22 total across all of our data visualizations over both the
23 past quarter and the last 12 months. It's important to
24 note that we can measure how often a webpage containing
25 these visualizations is viewed, that's the webpage itself,

1 but not when someone navigates directly to a full-screen
2 version of the visualization. So that means the numbers
3 you're looking at here are certainly undercounts. Folks
4 navigate directly to the visualization all the time, but
5 this is what we can measure.

6 And as you can see, dashboards related to zero-
7 emission vehicles and gasoline prices remain very popular,
8 like the last time I updated you, with our zero-emission
9 vehicle sales visualization receiving the most views in
10 quarter one of this year and over the past 12 months.

11 In total, our data and exploration tools received
12 approximately 39,000 views in quarter one of this year and
13 over 150,000 views in the 12 months ending with quarter
14 one.

15 Next slide.

16 To the right is a screenshot of quarter one's top
17 visualization. This visualization tracks the sales of
18 zero-emission vehicles in California, allowing users to
19 easily filter ZEV sales by a number of different properties
20 and to view those results both in data tables and on a map.
21 Users can then download whichever subsets of the data they
22 choose for their own purposes offline, providing faster and
23 easier access to data for the public and saving the Energy
24 Commission time and money on responding to data requests.

25 Next slide.

1 We currently have, according to this table, 38
2 data visualization exploration tools live on the public
3 website and nine under active development or review. One
4 of those under review actually went live last week after
5 these slides were approved though, so new visualizations
6 coming online every day here. We set a soft target last
7 year, anticipating we'd reach 40 in total. That was a
8 couple of subsequent years of the soft target of 20 each.
9 You can see we came fairly close. And these targets though
10 are -- it's coming from the demand from staff. As they
11 need to get things visualized, we're working to get them
12 visualized, so we're roughly on target with what we thought
13 we'd be doing here.

14 Secondly, staff usage of DataCamp for data and
15 analytics training, which includes Tableau training,
16 continues to be strong. We're now up to over 400
17 registered users. About half of those are what I would
18 call active users. And they've logged about 3,100 hours of
19 training last year. This is (indiscernible). So this
20 platform gives everyone in the Energy Commission access to
21 training on a wide range of new and existing analytics
22 tools for pennies on the dollar compared to sending
23 individual staff to specialized trainings.

24 Finally, speaking of staff, this last year was a
25 really big year for staffing for the Data Team. We've

1 created a new unit within IT, the Data Engineering Unit,
2 and filled out many of the positions for that unit over the
3 last year. Currently, under the leadership of its manager,
4 Santanu Bandyopadhyay, the team's up to eight members, and
5 we're hiring two new engineers hopefully this year.

6 So we're building out capacity, we're getting the
7 people onboard, and those people are gelling into a team.
8 We've never had a team like this before. So there's both
9 getting them on board and building out how this team works.
10 Santanu is doing a fantastic job. The team is growing
11 rapidly in its own skills and capacity. And I'm really
12 excited for all the work they're going to be getting done.

13 Next slide, please.
14

15 Okay, finally, I just want to walk you through a
16 few high-level goals I'll be working on this year. Of
17 course, we're going to keep building new data
18 visualizations. Like I mentioned, the exact number of that
19 is based on demand from staff. But I think a key
20 distinction this year is we're no longer really limited on
21 the support side, on the data side, to facilitate as many
22 as they want. So it really is almost purely demand limited
23 now from staff. So we'll see how many we get this year.
24 It's based on what's going on around the organization, but
25 at the rate we're going, I wouldn't be surprised to see

1 another 15 or 20 visualizations.

2 Internally, we continue the foundational work of
3 implementing new and existing data flows in our data
4 platform. This is where the majority of the work actually
5 happens. This is the big iceberg under the nice shiny tip
6 that is the data visualizations you see on the website.
7 It's a lot of work. It's a lot of really crucial work.
8 And for any of our existing data sets to take advantage of
9 all the great tools and capabilities we're building, we
10 have to first get that data into the new platform in the
11 cloud.

12 So as I mentioned, the Data Engineering Unit is
13 growing in capacity and the amount of work they can do.
14 We're going to see a real acceleration in the amount of
15 data that we are able to pull into the platform this year.

16 Finally, as more of this data comes into the
17 platform, we have a real growing interest in curating a
18 set, what I would call enterprise analytics tools, a real
19 toolbox that we support from the enterprise level that is a
20 consistent set of modern tools that play well with our
21 technology stack, integrate with our data that's in the
22 cloud so the staff can securely access what they need to
23 get in the cloud. They can do it in a managed environment,
24 which lessens the burden on them.

25 We can give them access directly to the data

1 rather than needing to have go-betweens. We can give them
2 access to compute for cloud compute, for working with
3 really large data sets, which right now is a struggle to
4 bridge between this massive mountain of data we have in the
5 cloud, but then giving staff a way to work with it that
6 meets their experience and skillset with the tools and also
7 provides the staff and the tools the amount of compute
8 that's needed.

9 So we can accomplish all of that with an
10 enterprise tool set, in addition to likely reducing costs
11 by streamlining licensing. You get a much better price
12 when folks aren't just buying whatever they need around the
13 organization. So building out this tool set, establishing
14 it here in the next fiscal year is a major goal for me this
15 year. And I look forward to updating you on that and
16 everything else we're doing.

17 Happy to take any questions.

18 CHAIR HOCHSCHILD: Great, thank you. Vice Chair,
19 or Commissioners?

20 VICE CHAIR GUNDA: Go for it, man.

21 COMMISSIONER MCALLISTER: Sure.

22 VICE CHAIR GUNDA: You go. You go.

23 CHAIR HOCHSCHILD: Whichever.

24 COMMISSIONER MCALLISTER: Either way, I mean, I
25 think I --

1 VICE CHAIR GUNDA: I will just say thank you and
2 pass it to you, but --

3 CHAIR HOCHSCHILD: Go ahead and share.

4 COMMISSIONER MCALLISTER: I mean, I'm happy to
5 start, but, you know, I think all of us are really
6 interested in this.

7 First of all, I want to just thank you, Jason,
8 just for your leadership and amazing skillset, really
9 uncommon to sort of have all of the things that you're
10 really facile with rolled up into one package, so thank
11 you.

12 And it's just really -- you know, I do,
13 obviously, a lot of talking about the importance of this
14 across California and also in other states. And just, it
15 blows other state energy offices' minds and PUC's minds to
16 understand really what we're doing. When the light bulb
17 goes on, they're like, oh, wow, you know? But clearly this
18 is an effort that's moment is here. And I think we're,
19 relatively speaking, we're ahead of the game. I know it
20 doesn't probably seem like that because it's so important
21 that it feels like we're playing catch up.

22 But I wanted to just thank Drew and Executive
23 Office for your support over the last, you know, really
24 decade to make sure that this has a home at the Energy
25 Commission, that it's got, you know, leadership attention

1 and consistent support and management to really make it
2 happen and have it grow and be, you know, both effective
3 and efficient. So I just really appreciate y'all's
4 attention in Executive Office.

5 Yeah, I wanted to ask you a little bit more. You
6 know, we've had -- you've presented about the Energy Data
7 Access Program before, but wanted to kind of maybe ask you
8 to expand upon that a little bit and sort of give a brief
9 status update.

10 And also, yeah, just, I think part of this is our
11 own, you know, you talked a lot about our own staff having
12 access, and I think there's huge potential to link up
13 external databases with what we have and sort of automate a
14 lot of that and do a lot of refresh of data, sort of
15 outward facing reporting from the Energy Commission, right,
16 to the world, but also sharing data with other parties,
17 particularly local governments, so that they can actually
18 avail themselves of these resources to do their climate
19 planning and understand their jurisdictions and energy use
20 patterns and figure out their own local policies. And I
21 think that's also a really important part of generating
22 public good out of this information.

23 So just maybe if you could give an update on
24 that, that would be great.

25 MR. SMITH: Sure, sure, just a super high-level

1 recap on what we're talking about, the Energy Data Analysis
2 Program --

3 COMMISSIONER MCALLISTER: Yes.

4 MR. HARVILLE: -- EDAP. No, it's fine.

5 And so essentially, local governments want to
6 analyze energy data for all sorts of great reasons. And we
7 have two primary challenges to getting them the analysis
8 that they need. The first is we can't share confidential
9 data with them. We can't share PII, which knocks out most
10 of the data that's very useful to them. And secondly, the
11 Energy Commission obviously has its own resource
12 limitations. So we can't prioritize and do the analysis on
13 their behalf for all the various local entities and all the
14 different tasks they want done.

15 So EDAP solves both of these problems by
16 introducing an intermediary, which we'll call the agent.
17 It's a private analytics firm that we formally designate as
18 an agent with the Energy Commission, which is a legal
19 designation that allows us to give that entity this kind of
20 confidential data for the purposes that we approve them to
21 use it for.

22 On the local government side, they would contract
23 with an entity like this. They can bring their own, who we
24 would then evaluate and designate as an agent if we haven't
25 already. So the way it works at this point is we can give

1 the data to this entity. They can do analysis that the
2 local government needs and the local government pays for,
3 so we're solving the resource constraint for the Energy
4 Commission. And then the entity gives that local entity a
5 non-confidential version of the analytical results they
6 need. Because you really, at the end of the day, you need
7 the results. You don't need the data; right? The data is
8 a means to the end.

9 So this EDAP is a means to the end of getting the
10 local governments the analysis they need while protecting
11 consumer privacy and solving the resource constraint,
12 letting the local governments bring resource to them. So
13 this is rolling out basically now.

14 COMMISSIONER MCALLISTER: Yeah.

15 MR. HARVILLE: We're tightening up a couple of
16 legal documents in response to public comment. It's
17 nothing major, nothing that's significant. And we have a
18 website in the works that's going to go live here very
19 soon.

20 COMMISSIONER MCALLISTER: Alright, thanks for that.
21 And just take the opportunity to thank the Chief Counsel's
22 Office for all the legal work. There's definitely a lot of
23 infrastructure building on the legal side.

24 I'm super excited about this because we've
25 been -- you know, I was in that position long ago and

1 before I came to the Energy Commission and it was super
2 frustrating not to have access to the right kinds of data
3 for doing local policy. And then just, we've been hearing
4 that from local government, just the drumbeat, like, how do
5 we get data more easily? We can't. You know, the
6 utilities, it's hard to get it from, and we invent the
7 wheel every time we ask. And so it really is a great use
8 of the Energy Commission's sort of data access authority
9 and our ability to really be that central clearing house.

10 But I really appreciate the effort across the
11 Commission, really, to make sure that it's done in a way
12 that doesn't become a burden on our resources but that can
13 really help the local governments. And we'll see where it
14 goes; right? I mean, I don't think there are other use
15 cases that go beyond local government, but we just really
16 need to be careful with PII issues and just, you know, be
17 very intentional.

18 So anyway, thanks a lot. I really appreciate
19 that, Jason.

20 CHAIR HOCHSCHILD: Vice Chair?

21 VICE CHAIR GUNDA: Yeah. Thank you, Chair. And
22 thank you, Commissioner McAllister.

23 I also want to just start with a thanks, Jason.
24 It's really --I'm glad that Commissioner McAllister went
25 first because, you know, most of the points that he raised,

1 and I just want to read through it, but also want to
2 recognize, again, your leadership. You know, I came to the
3 CEC as staff in 2017, personally, and I think I've watched
4 the conversation start from data lake, right, all the way
5 in 2018, and then kind of putting some money and
6 understanding how to modernize the data. And going through
7 the crisis of COVID and how it kind of pushed us back on
8 some of the work we wanted to do, and you were pulled into
9 basically setting up a virtual and remote working
10 infrastructure, and then I had to take an eye off of data
11 modernization for a minute.

12 I think, you know, just a recognition that it's
13 been a steady, long-term investment. And also just want to
14 state, it's under mandate, for the most part. I think CEC
15 as a data gatherer, CEC as a steward, was underfunded in
16 early days of the Energy Commission. Data modernization
17 and access as an important element, it was not a funded
18 mandate, and staff had to figure out ways to bring
19 resources together and move forward. And I think without
20 the steady hand of, you know, Commissioner McAllister, the
21 Executive Office, it would not happen.

22 So I just want to, you know, from, you know, from
23 my side, just say sincere thanks for those who believe in
24 this and have the commitment to make this happen. And the
25 fruits of it is amazing; right? As you said, it's the tip

1 of the iceberg. People don't see the enormous amount of
2 work that has to be done to move these things forward,
3 step-by-step, so big sense of gratitude. Also want to say
4 thanks to CEO for the work that they've done.

5 And to Commissioner McAllister's point, as a data
6 steward of the state, you know, we have the state's data
7 repository, I think what the mission that Commissioner
8 McAllister has laid out, even before I started here, was
9 maximizing access by minimizing the risks of, you know,
10 security lapses or privacy lapses; right? And it required
11 a lot of innovation. And then what he just talked about,
12 how do you give access to public entities, who we really
13 want to give it to? We don't want to be liable.

14 And so creating this agent kind of idea on the
15 side to then have them be the person that the state -- the
16 local agencies can contract with, versus giving us money,
17 that was super innovative. To operationalize takes months
18 and years. And I just want to say these conversations,
19 while they're summarized in 10 minutes, the enormous amount
20 of work that has happened, the persistence is just amazing.
21 So I just want to say that.

22 And finally, just from a staff's morale, you
23 know, I think one of the earliest statements you made is we
24 really want to make sure the staff spends time on actually
25 analyzing the data, rather than having to process the data,

1 and then kind of be taking data out of data spreadsheets or
2 PDFs. And then, you know, how do you scrape that half
3 pipeline body?

4 Again, enormous gratitude to you to making the
5 Energy Commission's mission of being that data transparency
6 and insights, you know, is kind of, you know, laid out
7 really well.

8 Finally, I want to recognize that CEC is the
9 leader within CNRA on data modernization and in the state.
10 And so the work that you're doing here and the work that
11 the IT Team is doing at large, it's going to be changing
12 the state, you know, a bit, but hopefully we create the
13 conditions for transformation. And again, I'm grateful to
14 be associated with this group of -- and our team. And
15 again, our team of Commissioner McAllister and the
16 leadership, Chair, EO for persisting on funding this, thank
17 you so much.

18 CHAIR HOCHSCHILD: Thank you so much. Any other
19 comments?

20 Yeah, Commissioner Skinner.

21 COMMISSIONER SKINNER: Thank you. So as we have
22 not had the chance yet to get briefed, but I appreciate the
23 information.

24 A practical question. So is, for example, the --
25 we have, my Division, FTD has a EV charging infrastructure

1 dashboard. Is that the kinds of thing that you have worked
2 with staff to train them to be able to use the data they
3 have around that and then put it into a very user-friendly
4 where anybody can go up and see, oh, here's all the
5 chargers and here's where they're located and that sort of
6 thing?

7 MR. HARVILLE: Yeah, exactly. It's one of the
8 visualizations that's live on the website on the tool space
9 I talked about. It's a great example of building a
10 pipeline to get data in there. And we're working with a
11 number of groups in FTD right now to build additional
12 pipelines for visualizations, but also once it's up there,
13 whatever use case you have, it's available.

14 COMMISSIONER SKINNER: Okay, great.

15 VICE CHAIR GUNDA: Commissioners --

16 COMMISSIONER SKINNER: I appreciate being able to
17 give that practical example because I've been utilizing a
18 number of those dashboards and very happy that I've just
19 seen, even in the very short time that I've been in the
20 Commission, big improvements in our dashboards and in the
21 way we present it and the information that it has, so thank
22 you.

23 MR. HARVILLE: Great, glad to hear it.

24 VICE CHAIR GUNDA: Commissioners, I just wanted
25 to say, I don't want to leave out other state agencies,

1 agency like DMV. Without DMV's support on the EV
2 dashboard, we cannot publish that. Much of the data we get
3 is from DMV. And then staff have done enormous amount of
4 work to figure out how to anonymize the data and clean the
5 data so we can publish it. So again, you know, a lot of
6 state agencies are working on this collectively.

7 CHAIR HOCHSCHILD: Yes, thank you so much.

8 COMMISSIONER GALLARDO: I just have a comment.

9 CHAIR HOCHSCHILD: Oh, sorry. Yes, please,
10 Commissioner.

11 COMMISSIONER GALLARDO: Jason, thank you so much
12 for you and your team's hard work. I think this is
13 fantastic. And my office is interested in a visualization
14 for Lithium Valley, so this was a reminder to come back to
15 you and discuss that.

16 Also, I wanted to ask you a question. I'm
17 curious if you're able to determine how many folks, whether
18 it's from staff versus the public, who are going to these,
19 you know, visualizations? Are you able to track that type
20 of data?

21 MR. HARVILLE: No, unfortunately, it's a hit to
22 the website is a hit to the website as far as we're
23 measuring.

24 COMMISSIONER GALLARDO: Okay, because I think
25 that would be interesting, too, if we could ever get there

1 to see, you know, how much staff is using it versus, you
2 know, general public, but thank you. I was just curious
3 about that piece.

4 CHAIR HOCHSCHILD: Thank you so much, Jason.

5 MR. HARVILLE: Appreciate it, Chair.

6 CHAIR HOCHSCHILD: Alright, with that, we'll turn
7 to item 6, Demand Side Grid Support Program Guidelines, and
8 I welcome Payam to present.

9 MR. BOHAN: Chair?

10 CHAIR HOCHSCHILD: Yes?

11 MR. BOHAN: As Payam is coming up, just can I
12 make one comment?

13 CHAIR HOCHSCHILD: Yes, please.

14 MS. BADIE: I just wanted to also acknowledge
15 Jason's leadership on this. He has a skillset that few of
16 us have and he has a remarkable ability to break down
17 really complicated things into simple ones. I want to
18 acknowledge him.

19 And I also want to acknowledge --

20 CHAIR HOCHSCHILD: We tend to do the opposite,
21 take something simple and make it complicated, so --

22 MR. BOHAN: We benefit from that.

23 Second, I just want to thank CCO generally, and
24 Christina in particular, because the creativity required,
25 as the Vice Chair alluded to, was significant. We asked

1 them to move a bit out of their comfort zone, but we got
2 where we needed to go. So I just wanted to acknowledge
3 those.

4 CHAIR HOCHSCHILD: Thank you for that.

5 COMMISSIONER MCALLISTER: Thanks, Drew. And I'll
6 just echo to Christina that thanks.

7 CHAIR HOCHSCHILD: Yeah, we'll echo that. Thank
8 you again, Jason. Great job.

9 Alright, we'll turn to item 6, Demand Side Grid
10 Support.

11 MR. NARVAND: Good morning, Chair, Vice Chair,
12 and Commissioners. My name is Payan Narvand and I am the
13 Supervisor over the Demand Side Grid Support Unit within
14 RREDI Division. And I would like to also welcome
15 Commissioner Skinner to the beautiful CEC family.

16 I'm here today with Deputy Director Aloke Gupta
17 and Director Deana Carrillo to help respond to any
18 questions.

19 Today, we are proposing modified guidelines for
20 the Demand Side Grid Support, also known by the acronym
21 DSGS, for your consideration for approval.

22 Next slide, please.

23 The effects of climate change, including extreme
24 heat, drought, and wildfire, coupled with supply chain
25 delays have challenged the state's ability to plan and

1 maintain grid reliability. So as part of the Budget Act of
2 2022, the legislature and governor created a Strategic
3 Reliability Reserve with programs, such as DSGS and
4 Distributed Electricity Backup Assets, also known as DEBA,
5 to help meet our emergency grid needs outside of our normal
6 reliability planning standards.

7 The DSGS and DEBA Programs serve as complimentary
8 programs to help meet grid needs during extreme events,
9 such as heat waves. DEBA incentivizes the purchase of new,
10 cleaner, and more efficient distributed energy assets that
11 will serve as on-call emergency supply or load reduction
12 during extreme events, whereas DSGS incentivizes the use of
13 existing resources, such as batteries and backup
14 generators, to reduce electricity load during extreme
15 events.

16 Next slide, please.

17 As part of the Strategic Reliability Reserve, the
18 DSGS Program serves as one of the state's tools in
19 responding to unplanned extreme events taxing California's
20 electric grid. As established by AB 205, the DSGS Program
21 seeks to achieve the following goals: number one, support
22 grid reliability by enhancing load capacity during extreme
23 events; number two, increase visibility into resource
24 adequacy capacity; and number three, prioritize the
25 dispatch of clean resources in times of need. These goals

1 benefit Californians by supporting the reliability of our
2 electrical grid, providing electricity to all Californians,
3 including our most vulnerable.

4 Next slide, please.

5 For business who enroll within the program, DSGS
6 currently has three participation pathways as options.

7 Option 1, emergency dispatch option, is available
8 for any load reduction resource and is triggered by energy
9 emergency alerts, also known as EEAs. This option provides
10 an energy payment and a standby payment under limited
11 circumstances. This was the first option launched when
12 DSGS started back in July 2022.

13 The Option 2 for market integrated demand
14 response, proxy demand resources built in the California
15 Independent System Operator, or California ISO, market.
16 Payment is based on the demand response resources
17 demonstrated capacity incremental to resource adequacy
18 commitments. This option was launched in August 2023.

19 Finally, we have Option 3, a market aware storage
20 virtual power plant, or VPP. Eligible resources include
21 behind-the-meter standalone batteries paired with solar or
22 battery EVs with bidirectional charging capabilities.
23 These resources are dispatched when California ISO day-
24 ahead energy market prices exceed a specified price
25 threshold, but do not actually participate in the market.

1 And some things for Option 3 depend on the VPPs
2 demonstrated capacity. This option was also launched in
3 August 2023.

4 Next slide, please.

5 Last summer was the first program season with
6 Option 2 and three, which saw significant growth compared
7 to the previous year. The DSGS Program had one emergency
8 alert last year, triggering non-combustion resources in
9 Incentive Option 1. And there were 26 event hours over 16
10 days throughout the summer for our storage VPP. By the end
11 of September, the program grew to 22 DSGS providers and
12 over 260,000 participants and over 500 megawatt enrolled,
13 with the majority of the megawatts enrolled from clean
14 resources.

15 Next slide, please.

16 Based on the DSGS Program Team's experience and
17 stakeholder feedback, we are proposing modification to the
18 program guidelines to incorporate lessons learned, grow
19 participation from cleaner resources, and improve program
20 effectiveness.

21 The Strategic Reliability Reserve is largely
22 supported by three gigawatt of fossil-fueled resources that
23 are anticipated to retire in 2026 and 2027. Additionally,
24 in 2023, the CEC developed a statewide load flexibility
25 goal of 7,000 megawatts by 2030.

1 As California transitions to 100 percent clean
2 energy, the proposed guidelines seek to test concepts to
3 grow the number of clean resources supporting the Strategic
4 Reliability Reserve that can reliably respond during both
5 slow moving, but also sudden onset grid emergencies.

6 Next slide, please.

7 To continue the growth of participation from
8 clean resources, the proposed guidelines introduce a new
9 Incentive Option for an emergency load flexibility VPP
10 pilots. The goal of this new Incentive Option 4 is to help
11 transition the Strategic Reliability Reserves from fossil-
12 fueled resources to clean resources by piloting a high
13 confidence, reliable demand-side product that addresses
14 both sudden onset, but also slow moving emergencies.

15 The Incentive Option provides monthly payments
16 for VPP capacity committed in advance by the DSGS provider
17 to be available during program events triggered by EEAs.
18 Eligible technologies include smart thermostats, electric
19 water heaters, electric vehicle supply equipment,
20 stationary batteries, and residential smart panels.

21 DSGS guidelines were originally on the agenda for
22 consideration at the March 17th business meeting. The
23 California Public Utility Commission raised concerns about
24 the potential impact of the proposed DSGS Incentive Option
25 4 on PG&E's Automated Response Technology, or also known as

1 ART, Program. In a letter submitted to the budget on March
2 17th, the CEC removed the proposed DSGS Program guidelines
3 from the March 17th business meeting agenda in order to
4 provide time for staff from the CEC and CPUC to better
5 understand the unique aspects of the two programs.

6 The proposed guidelines before the Energy
7 Commission today include modifications contained in the
8 previously released proposed DSGS Program Guidelines, 4th
9 Edition, published on March 6th, 2025, excludes PG&E
10 distribution service customers from participation in
11 Incentive Option 4. This modification is designed to
12 address the concern that Option 4 may potentially overlap
13 with PG&E's recent launched Resource Adequacy Qualified
14 Market Integrated Demand Response Program referred to
15 Automated Response Technology, or ART, Program, and
16 possibly negatively impact ART customer enrollments.

17 Management is intended to be incremental to
18 resource adequacy and Option 4 seeks to leverage customers
19 that are not able or interested in participating in
20 existing Resource Adequacy Qualified Demand Response
21 Programs and allows California to access stranded DER
22 megawatts to help maintain system reliability during grid
23 emergencies and support the state's load shift goal.

24 As with DSGS options, at the end of the 2025
25 season, staff plans to access Option 4's growth,

1 performance, and cross elasticity with (indiscernible)
2 Resource Adequacy DER programs. Based on the findings,
3 staff will seek guideline modifications to incorporate
4 lessons learned for the next season.

5 These guidelines also include several changes to
6 the program's storage VPP. To ensure that Option 3
7 resources can help support the grid during emergency events
8 that are not predicted by the California ISO DER head
9 market, the proposed guidelines include EEA triggers in
10 Incentive Option 3. Based on the stakeholder feedback to
11 encourage response to day of EEA triggers while recognizing
12 the limitation of optimizing response to real time events,
13 the proposed guidelines provide an energy payment of \$1.00
14 per kilowatt hour. Day-ahead EEA triggers are included in
15 the demonstrated capacity value.

16 The proposed guidelines also allow dual
17 participation with Option 3 and supply-side Demand Response
18 Programs for incremental export capacity only, which is not
19 compensated under Resource Adequacy. The proposed
20 guidelines also clarify that systems participating in
21 virtual need metering are eligible to participate in
22 Incentive Option 3.

23 Next slide, please.

24 The proposed guidelines make several changes to
25 help improve program effectiveness based on lessons

1 learned. For example, to provide better visibility into
2 DSGS Program impact and program performance, the proposed
3 guidelines require monthly performance reporting for
4 Incentive Options 2 and 3, and also require Option 3
5 aggregators to provide the CEC day-ahead notice of test
6 events.

7 Those guidelines also provide that for the 2026
8 program season, the CEC will update baselines to calculate
9 demonstrated capacity for Option 3 resources and sets a
10 two-year cadence for review of baselines going forward to
11 provide more accuracy and transparency in the amount of
12 incremental capacity DSGS is providing during program
13 events relative to load forecasts.

14 Next slide, please.

15 This year, we have been working closely with the
16 public to identify areas for improvements. I would like to
17 thank everyone for the continued engagement on partnership.
18 The proposed guidelines are based on public feedback from
19 one workshop and two public comment periods on two draft
20 versions of modified guidelines.

21 Once the Energy Commission approves the
22 guidelines, staff will immediately launch Phase 4 of the
23 program's implementation for the 2025 program season, which
24 begins May 1st.

25 Next slide, please.

1 Staff recommends the Energy Commission approve
2 the fourth edition of the Demand Side Grid Support Program
3 Guidelines and adopt staff's recommendation that adoption
4 of these guidelines is exempt from CEQA.

5 This concludes staff's presentation. My
6 colleague and I are available to answer any questions you
7 may have.

8 CHAIR HOCHSCHILD: Thank you so much.

9 Let's go to Commissioner discussion.

10 MS. BADIE: Sorry --

11 CHAIR HOCHSCHILD: -- on this item. Oh, is this
12 a voting item? Sorry.

13 MS. BADIE: Yes.

14 CHAIR HOCHSCHILD: I apologize. Let's do public
15 comment.

16 MS. BADIE: Thank you, Chair.

17 The Commission welcomes public comment on item 6
18 at this time. We're going to start with folks in the room,
19 and then we'll transition over to Zoom online and by phone.

20 So if you're in the room with us, we've asked
21 folks to use the QR Code. We've got some folks in the
22 queue for that. You can also raise your hand if you don't
23 hear me call your name. And on Zoom, you can start raising
24 your hand now. You'll use the raise-hand feature on your
25 screen. It looks like an open palm. And if joining by

1 phone, you'll press star nine.

2 So starting with folks in the room, if I could
3 ask Joshua Simmons, if you could please come up to the
4 podium to make your comment. And there will be a timer on
5 the screen. We're asking for comments to be two minutes or
6 less. For folks using the podium, I'm going to put your
7 name from the QR Code in the chat for the court reporter,
8 so you don't need to spell the name.

9 Joshua Simmons, do we still have you in the room?

10 Alright, if not, I will move on to Adam Hatefi.

11 MR. HATEFI: I've almost fallen like three times
12 trying to walk up and walk down here. Good morning,
13 Commissioners. My name is Adam Hatefi, spelled
14 H-A-T-E-F-I, and I'm a consultant for Generac Power Systems
15 and Ecobee Smart Thermostats.

16 We're thrilled to be here today to see the
17 Commission approve these expanded guidelines. We've been
18 at this for a while. Generac has participated in this
19 docket since its inception in 2022. And we have been
20 consistent in our advocacy to include a statewide Smart
21 Thermostat Virtual Power Plant Program. And I've
22 appreciated how sincerely your staff has considered our
23 input. Seriously, thanks deeply to the staff. They've
24 been very responsive and very nice to work with.

25 DSGS was created as a response to grid emergency

1 conditions in 2022 by the legislature. Thank you, former
2 Senator Skinner. And taxpayer funds were appropriated for
3 the express purpose of preventing grid outages and reducing
4 GHG and air pollution emissions from gas-fired peaker
5 plants. That legislation completely directed the CEC to
6 develop and adopt a statewide program to ensure its cost
7 effectiveness and create the greatest grid benefits
8 possible.

9 Generac filed written comments specifically to
10 respond to the letter sent on March 17th by the Deputy
11 Executive Director of the CPUC requesting a delay in the
12 approval of the 4th Edition of the DSGS guidelines to allow
13 time to consider any interactions with an approved PG&E
14 Demand Response Program.

15 We know that the CEC staff has worked tirelessly
16 over the past few weeks to find shared solutions to the
17 concerns raised by the CPUC staff regarding Option 4, and
18 that CEC staff has been committed all along to ensuring
19 that the utility-run market integrated programs are also
20 successful, which was evident from the exclusion of EDR and
21 market integrated resources in the original draft of Option
22 4 Guidelines. It is clear to Generac that there was no
23 need to see DSGS as competing with market integrated
24 programs.

25 Generac commends the Commission for putting

1 Option 4 back on the agenda to be approved today. This is
2 absolutely in line with the legislature and governor's
3 clear direction in creating DSGS. As my client will
4 explain further, Ecobee is already enrolling customers in
5 PG&E's R program. With today's approval, Ecobee looks
6 forward to enrolling as many customers as possible in DSGS
7 outside of PG&E's territory, beginning immediately.

8 However, PG&E is about 37 percent of the
9 statewide load, meaning that hundreds of thousands of smart
10 thermostats will be left out if we cannot enroll PG&E
11 customers. The legislature has continued to approve
12 taxpayer funds for DSGS because it sees value in the 350
13 megawatts of capacity already created -- I think we heard
14 500 megawatts today, which is great to hear -- and the
15 expansion to smart thermostats. The legislature recently
16 showed its intent to fund DSGS for the next fiscal year
17 with a mixture of funds from the climate bond and General
18 Fund's dollars.

19 Our grid needs a statewide emergency VPP program
20 to dispatch as many thermostats as possible during another
21 major heat wave or grid emergency. Therefore, we urge the
22 Commission to continue to work towards a resolution that
23 would allow providers to enroll PG&E customers in DSGS
24 before the May 8th business meeting.

25 Thank you for your time and consideration. And

1 sorry, I went over time.

2 MS. BADIE: Alright, next we're going to hear
3 from the queue, identified as PG&E. Whoever signed up for
4 the QR Code comments, it would be helpful for our record if
5 you could also tell us your name and spell it for the
6 record. Thank you so much.

7 MR. HARMON: You had me worried that I was Joshua
8 Simmons there for a second. I'm Josh Harmon, J-O-S-H
9 H-A-R-M-O-N. Good morning, Commissioners. I'm here on
10 behalf of Pacific Gas and Electric Company.

11 And I want to start by saying that PG&E did not
12 seek the exclusion of our distribution customers from
13 Option 4. Our comments, filed back in January, focused on
14 the impacts of DSGS Options 2 and 3 on CPUC programs.
15 Still, we view this exclusion as an encouraging first step
16 to minimizing potentially harmful overlap in the demand
17 response space.

18 To be clear, PG&E is fully supportive of both
19 incremental load flexibility and funding public purpose
20 programs outside of customer bills. Our concerns have
21 stemmed from our own experience administering CPUC DR
22 programs. To illustrate while DSGS grew, PG&E saw
23 enrollment for its base interruptible program dropped by 29
24 percent. For our Capacity Bidding Program, the decrease
25 was over 60 percent of capacity enrolled since 2023. I'm

1 not claiming that every single lost megawatt migrated to
2 DSGS, but the trends are concerning. Moreover, our team
3 has heard from former participants they were attracted to
4 DSGS Option 2 because it has less stringent operational and
5 enrollment rules, as well as lower performance requirements
6 and penalties.

7 Beyond providing load flexibility itself, as you
8 know, enrolled capacity in these CPUC programs lowers
9 PG&E's resource adequacy obligation, which is a significant
10 co-benefit for our customers given the high cost of RA in
11 today's tight market. We appreciate the CEC's shared focus
12 on maintaining this benefit for customer affordability.

13 In addition to increasing cost of agency
14 dialogue, we suggest the CEC consider calculating load
15 impact and cost effectiveness metrics for DSGS as is done
16 for CPUC programs. Such metrics would provide an apples-
17 to-apples comparison that would help the state optimize
18 incentive levels.

19 Finally, we'd like to sincerely thank CEC staff
20 for being receptive to our concerns and collaborating with
21 us, the CPUC, and other stakeholders over the last month.
22 We look forward to continuing conversation.

23 Thank you.

24 MS. BADIE: Thank you. And did I capture
25 everyone in the room who wants to comment on item 6?

1 Alright, I'm going to move on to Zoom. First of
2 all, I have from Andy Schwartz. I'm going to open your
3 line, Andy. We're asking for comments to be two minutes or
4 less.

5 MR. SCHWARTZ: Good morning. Can you hear me
6 okay?

7 MS. BADIE: Yes.

8 MR. SCHWARTZ: Great. Chair Hochschild, Vice
9 Chair Gunda, Commissioners, my name is Andy Schwartz
10 representing Tesla.

11 My top line message this morning is that we, like
12 others that have spoken, are thrilled to see this item on
13 the agenda and we encourage its adoption. Tesla strongly
14 supports the DSGS Program and the collaborative approach
15 the CEC has taken with industry and other stakeholders in
16 establishing it.

17 Tesla has thousands of systems currently enrolled
18 in Option 3, but those enrollments only scratch the surface
19 of the opportunity to take advantage of behind-the-meter
20 storage assets to provide vital grid services. Option 3
21 has a number of characteristics and features that we
22 believe make it an effective model. This includes the
23 simplicity and clarity it provides in terms of the customer
24 value proposition by, at least to date, avoiding complex
25 baselining methodologies and by removing friction from the

1 enrollment process, making it easy for customers to enroll
2 their systems in the program. By approving the updated
3 guidelines today, the CEC provides the clarity needed for
4 aggregators to effectively market this program and enroll
5 additional customers in advance of the upcoming summer
6 season.

7 We look forward to continuing to work with the
8 CEC on future program refinements to ensure the program
9 continues to offer a compelling and clear value proposition
10 to customers and practical means of bringing vital grid
11 services to market.

12 So again, I want to thank you and the CEC staff
13 for your work in this, and again, I encourage the adoption
14 of this item this morning. Thank you.

15 MS. BADIE: Thank you.

16 Next, we're going to hear from Cliff Staton. I'm
17 going to open your line, Cliff. We're asking for comments
18 to make two minutes or less. Oh, hold on one second,
19 Cliff. I lost you. Alright, I'm going to open your line.

20 MR. STATON: Thank you. Hi, my name's Cliff
21 Staten. I'm Vice President of Government Affairs with
22 Renew Home.

23 First, I want to thank the Commission, in
24 particular Vice Chair Gunda and Chair Hochschild, for your
25 leadership in creating this innovative program. And DSGS

1 Option 4 is really a huge step forward for grid resiliency.
2 It leverages assets that are just sitting on the sidelines
3 right now.

4 At Renew Home, we have several hundred thousand
5 Nest thermostats whose owners have chosen not to
6 participate in our market-integrated program, but they've
7 given us permission to shift their thermostats in a way
8 that would allow them to participate in Option 4. Our best
9 estimate is that statewide, by shifting these thermostats,
10 we can reduce load by 200 megawatts for one hour or up to
11 80 megawatts for up to four hours, which is a really
12 meaningful amount of load reduction to help avoid grid
13 outages.

14 So Option 4 is also a huge step forward in
15 program design, providing for device-level measurement for
16 smart thermostats. As far as I know, this is the first
17 time in the country that this will have been done anywhere.

18 As Payam noted, the issue was scheduled for
19 consideration on March 17, but delayed due to the potential
20 conflict with the PG&E ART Program. We made clear in our
21 comments that we submitted in the docket that we don't see
22 a conflict between Option 4 and ART, but we support
23 adoption of DSGS with the carve-out for PG&E territory.
24 And we remain hopeful that those concerns can be resolved
25 and the program can become statewide.

1 I also really want to specifically thank the
2 hardworking and creative CEC staff that have developed this
3 program over the last several months, specifically Deana
4 Carrillo, Aloke Gupta, Payam, Ashley Emery, and Erik Lyon.
5 They really have done an outstanding job listening to and
6 working with stakeholders to develop a groundbreaking
7 program that can deliver emergency reliability for the
8 state.

9 So hopefully you'll adopt these guidelines today,
10 and I will then challenge my team to work just as
11 diligently and creatively to stand the program up for this
12 summer.

13 Thank you.

14 MS. BADIE: Thank you.

15 Next, we're going to hear from Kate Unger. I'm
16 going to open your line, Kate.

17 MS. UNGER: Hi, thank you very much. This is
18 Kate Unger, U-N-G-E-R, with the California Solar and
19 Storage Association, or CALSSA. And we're very happy to
20 support approval of the modified guidelines.

21 As a trade association for distributed solar and
22 storage businesses in California, we have focused mostly on
23 DSGS Option 3, the behind-the-meter battery virtual power
24 plant. And we've participated in both development of its
25 design and its implementation. And our members represent a

1 majority of the capacity enrolled in Option 3.

2 Option 3 is a very smart and innovative program
3 that has allowed customer batteries to come off the
4 sidelines and be part of our grid reliability solution.
5 And mainly, that's because Option 3 avoids the main
6 obstacles that have discouraged behind-the-meter batteries
7 from participating in market integrated programs.

8 I did also want to note, we are strong believers
9 in flexible demand writ large. And though we do primarily
10 focus on battery storage as a flexibility tool. We also
11 support Option 4's Load Flexibility VPP Program. And we do
12 urge the CEC to move forward quickly to extend it to all
13 the territory in the state.

14 I wanted to emphasize the great work that the CEC
15 has done in bringing this program forward and for
16 continuing to support it and think carefully about it, and
17 for working with industry to make it successful in the real
18 world. The dramatic growth of Option 3 in 2024
19 demonstrated its great potential and we want to see it grow
20 further in 2025. We hope that the changes to the program
21 rules and the new guidelines will allow for that.

22 And I want to take the opportunity to highlight,
23 as I have throughout the process of guideline revision,
24 that customers and providers really need certainty in
25 program design and funding to be able to provide stability

1 for customers and bring them into the program to allow for
2 greater growth of this. And we do believe that DSGS can
3 scale greatly.

4 Last word, really appreciate the team, their
5 staff collaborative spirit, their professionalism and
6 dedication. Goodbye to Erik Lyon. He was fantastic. And
7 everybody else on the team is great too. We are so
8 grateful to the CEC.

9 Thank you so much.

10 MS. BADIE: Thank you.

11 Next, we're going to hear from Meredith Roberts.
12 I'm going to open your line, Meredith.

13 MS. ROBERTS: Thank you. My name is Meredith
14 Roberts. I'm the Western Policy Director for Ecobee and
15 Generac Power Systems. I definitely want to echo all the
16 thanks to the Commission and staff for their hard work for
17 the past few years and listening to stakeholders and
18 designing this great program.

19 I also want to go further and assure the
20 Commission, kind of echoing Cliff's thoughts on Option 4,
21 and the Ecobee team is currently working to enroll
22 customers in PG&E's ART Program. We began marketing the
23 program on March 24th and we'll continue enrolling as many
24 customers as we can. Before summer begins, we'll have a
25 good idea on program uptake, which we're happy to share

1 with staff at both agencies. And as of this morning, we've
2 already enrolled thousands of customers in ART.

3 DSGS Option 4 and the ART Program are very
4 different programs that solve for different problems, have
5 different participation requirements and program designs
6 that make them suitable for very different types of
7 customers. In our experience, not limited to California,
8 traditional utility DR programs, like ART, acts out at
9 about 20 percent enrollment. The CEC created DSGS Option 4
10 to capture the remaining households with smart thermostats
11 who can choose to seamlessly support the grid during
12 emergencies or to prevent emergencies, but have proven
13 unwilling to be part of a frequent market-based dispatch
14 program.

15 DSGS Option 4 will not negatively impact utility
16 demand response programs that provide resource adequacy at
17 the CAISO via ISO market integration. Our experience as a
18 program manager and prior utility pilot program shows that
19 there are megawatts of untapped resources in California
20 homes today that can be unlocked during grid emergencies
21 through customer-friendly emergency demand response
22 strategies. The program design presented in Option 4 will
23 enable this.

24 We're supporting the approval of the modified
25 Option 4 today and are further asking you to put this item

1 back on your agenda in May, or as soon as possible, to
2 approve a full statewide program for Option 4.

3 Thank you for your time and consideration for
4 comments throughout this process. We really do appreciate
5 all the hard work you put into this.

6 MS. BADIE: Thank you.

7 Next, we're going to hear from Gabriela Olmedo.
8 I'm going to open your line. We're asking for comments to
9 be two minutes or less.

10 MS. OLMEDO: Good morning, Commissioners and
11 staff. My name is Gabriela Olmedo. I am a Regulatory
12 Affairs Specialist with Energy Hub. Energy Hub's Edge
13 DERMS software and program services enable utilities and
14 grid operators to leverage DERs, including residential
15 batteries, thermostats, electric vehicles with over 1.6
16 million devices and two gigawatts of flexible capacity
17 under management.

18 I'm here to voice our enthusiastic support for
19 the proposed DSGS Guidelines and encourage their adoption,
20 as well as extend sincere appreciation to all the CEC's
21 efforts in developing this program, resolving concerns, and
22 working with stakeholders. I echo other comments that
23 staff has been really excellent to work with and we really
24 appreciate all of your hard work here. This is a really
25 important program that will serve to contribute needed

1 emergency reliability.

2 In regards to Option 4 in particular, we continue
3 to encourage the CPC and the CEC to work together to gain
4 confidence that offering Option 4 in PG&E territory would
5 be additive and not competitive with our program.

6 Just to reiterate our written comments,
7 differences in program design and requirements result in
8 distinct customer segments, particularly because there are
9 customers currently on the sidelines that could immediately
10 participate in Option 4 without having to accept any
11 additional T's and C's, resulting in at least tens, likely
12 a 100,000 customers that have smart thermostats in their
13 homes that could be immediately eligible. As we heard
14 earlier, these are participants that would otherwise be
15 stranded from participation in DR programs.

16 Energy Hub is actively investing in participation
17 in DSGS Option 4 and standing by to deliver incremental
18 emergency capacity to the California grid. We greatly
19 appreciate CEC Commissioners and staff who have worked to
20 develop Option 4 as a complement to existing DR
21 participation options to, you know, contribute meaningfully
22 to the stability and affordability of California's grid,
23 and we remain hopeful that some of these outstanding issues
24 can be resolved.

25 Thanks so much for your time.

1 MS. BADIE: Thank you.

2 Next, we're going to hear from Claire Zuma. I'm
3 going to open your line, Claire.

4 MS. ZUMA: Hi, this is Claire Zuma. And I ought
5 to have mentioned before, I used to work for SMUD from 2005
6 to 2015 as an engineering designer. And I'm supportive of
7 Demand Side Grid Support as a homeowner and had for a
8 while, a device on my air conditioning unit that would --
9 that SMUD offered at one time that was supposed to like
10 shut it off if they were having a problem, and I never ever
11 noticed any problem. I never noticed anything bad about
12 it, but of course I was working full-time and I was mostly
13 not at home, and I don't even know if it functioned
14 properly.

15 I want to say, though, that I've been very
16 reluctant to endorse something like this, not because I
17 don't like it, I like it, but I'm also getting older, I'm
18 feeling more vulnerable. I start to understand more about
19 the elderly and people with medical concerns and how our
20 society now has people in it that don't seem as supportive
21 of the elderly, and we have a much larger growing
22 population. And I understand you guys are probably well
23 aware of that kind of information.

24 But as an older female, I already, even as a mid-
25 age female, I've already been exposed to a lot of unusual

1 machine things, and even yesterday, I had a machine here,
2 my washing machine, act very unusually and apparently
3 couldn't spin out right, so it added more water and took an
4 extra hour or so, and I'm hanging things around, trying to
5 dry things out. I don't think that was a punitive event.
6 I think that was a machine designed to take care of itself
7 without human interaction, but I don't know. Sometimes I
8 have been in punitive situations.

9 So I'm really glad when all customers are
10 involved in this and not just someone like me that likes
11 energy issues. And so I'm in support, but I'm glad that
12 it's going to be more of a broad thing, and other people
13 will complain, not me.

14 Thank you.

15 MS. BADIE: Thank you.

16 That concludes public comment for this item.
17 There's no further hands raised. Back to you, Chair.

18 CHAIR HOCHSCHILD: Thank you so much.

19 Let's go to Commissioner discussion.

20 Yes, Commissioner Skinner, if you wish?

21 COMMISSIONER SKINNER: Thanks so much. I had a
22 few questions.

23 While I understand from the presentation, and
24 also from comments by the public, that there is concern or
25 was concern, rather, that -- not was, there is concern that

1 the inclusion of Option 4 could be -- I'm guessing I'm
2 hearing it as not only competitive with but potentially not
3 a -- not additive to a program that PG&E is currently
4 offering. But I note that it is that service territory
5 where we have the largest demand growth. So I am
6 interested from staff to give a little more information
7 about why the -- in Option 4, PG&E was excluded, or
8 participants in that territory.

9 MS. CARRILLO: Yeah. Good morning, Chair, Vice
10 Chair, Commissioner Skinner. I appreciate the question.
11 For the record, Deana Carrillo, Division Director of RREDI.

12 Last month, before our business meeting, the PUC
13 submitted a letter noting their concerns with potential
14 overlap between PG&E's new ART Program and design for load
15 shift in the resource adequacy market and the emergency
16 program for DSGS.

17 While staff is -- while staff always had the
18 design in mind and the guidelines to be incremental to
19 resource adequacy, in an abundance of caution, given where
20 we are for the summer season, as we worked with the PUC and
21 learned more about PG&E's ART Program, the differences and
22 some of the similarities, we determined that an abundance
23 of caution moving forward without PG&E territory for the
24 summer and still allow that incremental additive demand
25 response megawatts for DSGS for the season.

1 COMMISSIONER SKINNER: And so, and again, I'm new
2 to this, so I appreciate your bearing with me. So for now,
3 our adoption of this and our agreement and proceeding this
4 way is for potentially this summer only? We have --
5 there's still potential based on, you know, how it works
6 and discussions and such to make revisions to these
7 guidelines, say, for the next season or future?

8 MS. CARRILLO: Thanks for the question. And,
9 yes, there is. You probably heard from the stakeholders.
10 There's not only interest in innovation and swift response,
11 but also for some stability for the market. But as DSGS is
12 a fairly new program having launched, we do incorporate
13 lessons learned each summer season to refine. And that's
14 much of what this package of guidelines reflects. And
15 that's something that we're committing to for next summer
16 as well.

17 So both for Commissioners and for our
18 stakeholders, please note that we will be self-reflective
19 on lessons learned and we'll be bringing modifications for
20 next summer.

21 COMMISSIONER SKINNER: Well, I do appreciate,
22 also, that we're in April and our season for the need for
23 this starts May 1st, so I do appreciate that, yes, you
24 know, that timeliness was important. But I'm also curious
25 whether it was explored? Because some of the comments I

1 heard, and even from PG&E, that was it explored at all that
2 a revision to, say, design of either the way we were going
3 to roll out 4, Option 4, within PG&E's territory or PG&E's
4 program, whether any design changes might've accommodated
5 the concerns?

6 MS. CARRILLO: Yeah, that's the issue that we're
7 still researching and welcome, you know, early and frequent
8 conversations about some of those potential tensions. I
9 think as you design new programs, you're going to find
10 moments of tensions and you learn from those and
11 accommodate.

12 I think another statement of fact would be that
13 the administrative process under the PUC regulatory
14 paradigm is time intensive and takes some time. And so if
15 there were a design change, it could be done more quickly
16 or swiftly under the DSGS Program.

17 And so we will welcome those questions and are
18 actively learning from those and working with our
19 colleagues to identify how best to meet the different
20 market segments and customers where they are to ensure that
21 we also have clean resources under the Strategic
22 Reliability Reserve, as well as under market integrated and
23 the resource adequacy market.

24 COMMISSIONER SKINNER: Appreciate that. And I
25 guess my -- in these last weeks, having these intensive

1 briefings that I've received from various of our divisions,
2 I've recently had one where there was showing some
3 projections of our demand growth, and due to data centers
4 and a couple of other factors that demand growth was, I
5 wouldn't say only but very concentrated within our PG&E
6 service territory.

7 So clearly, given that our Demand Side Management
8 Program is very much designed to help us achieve
9 reliability, or not achieve, we have it now, but I mean to
10 maintain it, but also to reduce pressures on ratepayers to
11 use to -- you know, I guess the way I've always looked at
12 it, and even prior to being on the Commission, I've been a
13 huge advocate of programs like this, because my basic
14 perspective has always been, we have to maximize the value
15 of the benefit that we get for every unit of energy
16 produced.

17 And so if, you know, part of our demand side is
18 in a way shifting load, there's many other ways to do it,
19 but shifting load, so if we're not having to produce that
20 electricity by moving it, if it's moved to a time where
21 we're already producing that electricity and it thus
22 reduces our requirement to produce electricity at the time
23 it otherwise might have been utilized, we're clearly
24 getting that much more value from that electricity, and
25 we're pulling off the pressures to, you know, meet that

1 resource other ways.

2 So to me, you could think of it as efficiency,
3 you can think of it -- there's so many different ways to
4 think of it, but it's obviously a very important tool in
5 our toolbox and, of course, was included in the Strategic
6 Reliability Reserve, as well as other things.

7 So I'm happy to hear that, you know, we are still
8 in these conversations and that we still could potentially
9 look at whether there's design fixes to address this or
10 other ways to address it, since I think that it's such --
11 our demand side programs are so valuable to us statewide.

12 Thank you.

13 CHAIR HOCHSCHILD: Vice Chair?

14 VICE CHAIR GUNDA: Yeah. Thank you, Chair.

15 Commissioner Skinner, thank you for, you know,
16 both your questions and comments. I think that often on
17 the items I lead, I kind of ask some questions to put on
18 the back burner so it's helpful, kind of, you leading the
19 conversation.

20 So I want to begin by just making sure, you know,
21 and everybody who's listening in, and we've heard a lot
22 from stakeholders, the incredible work that the RREDI Team
23 is doing under the leadership of Deana, Aloke, and, you
24 know, like -- and a number of other colleagues. I think
25 not -- often being in Deana's shoes before as a director

1 here at the Energy Commission, it's not easy to get a lot
2 of approval rating from stakeholders on critical issues.

3 So just the grace and thoughtfulness and the
4 honesty in which you all approve and approach these things,
5 I think is extremely important. No matter what the success
6 is or not, I think building public trust and the space for
7 conversations to ensure maximizing public good within the
8 power that we have is essential. And you cannot do that
9 without building trust with stakeholders and having that
10 ability to have those conversations.

11 So just at the very start, Deana, you know, you
12 also remember the comments when we adopted the Building
13 Decarbonization Incentive Program structure and stuff, and
14 that was also a universal kind of agreement on your
15 leadership. So I just want to say, thank you, thank you.

16 And I also want to raise a few other things to
17 staff. Erik Lyon, who made a shift to leave the Energy
18 Commission to, hopefully, you know, just miss home and come
19 back at some point. But to Erik, who has been instrumental
20 over the last three, four years on working on demand
21 response and thinking about framework and how best to do
22 this at CEC, so just a big thanks to Eric.

23 Brian, Saida (phonetic), Guadalupe, Jordan, and
24 the entire IT Team, as well as Ashley and Payam, thank you
25 for that excellent presentation and your work on all this.

1 Also, a big thanks to Qing (phonetic), Qing Tan,
2 from our office, who likes the idea of being behind the
3 curtain. But on this, I just want to say, Qing, it's a lot
4 of hours that you've put in on this to help with the
5 conversations and moving things forward. So thank you for
6 your incredible work that you do.

7 So I just want to associate with what
8 Commissioner Skinner said, and I would imagine Commissioner
9 McAllister would want to add in too, is the vision. And
10 it's important for us to maybe just reiterate how important
11 reliability is and having programs and megawatts that allow
12 for supporting reliability during extreme events, but as
13 clean of electrons as possible. And I think it's just
14 absolutely essential. And I think it's been kind of a
15 guiding principle for all of us to figure out how do we
16 shore up those electrons for those extreme events.

17 And there is a very strong recognition that
18 demand response could play a significant role in not only
19 clean of electrons, but if they are guided by especially
20 assets and, you know, like behind-the-meters storage and
21 then -- and also noted air conditioning units and HVAC
22 units, it's an opportunity to maximize that. And as we're
23 talking about the demand response, and I think there's an
24 agreement across the state, collectively as state agencies,
25 that we could do more. We could continue to work together

1 and expand the (indiscernible) offerings of the Demand
2 Response Programs.

3 And I would just want to offer, for the record,
4 the CEC cannot succeed without the success of PUC, CAISO,
5 or other LRAs, like SMUD and others, and vice versa. So I
6 think this is a collective success in ensuring that DR, the
7 value of DR and demand response and demand flexibility is
8 maximized within the tools we have at different agencies.

9 And so within the construct we discussed a couple
10 of years ago when we landed the 7,000 megawatt goal, the
11 broad differentiation of thinking about demand flexibility
12 as a load modifying side, which is primarily driven by the
13 rate design, you know? Luke and his colleagues at PUC,
14 when he was there on CalFUSE, and also work that
15 Commissioner McAllister is doing under the load management
16 standards, how do we maximize the load modifying element
17 before we even start planning for supply side DR emergency
18 programs? And so how do we maximize the demand
19 modification? and that's been a critical piece of the
20 overall toolbox. And I believe that's the work that is so
21 intricately plugged into CPUC's rate design and. And, you
22 know, CPUC's success on that is a collective success.

23 And then I'm thinking about, you know, how do
24 we -- the second -- the other two buckets, which is the DR
25 as a part of the resource adequacy stack and DR as a part

1 of the reliability programs that's incremental to RA and
2 most likely and beneficially not coming from rate payers.

3 So it has been our unified vision from the
4 beginning to make sure DSGS is the third bucket, which is
5 the reliability bucket, that is always incremental to RA
6 resource adequacy, and to the extent that it's incremental
7 to RA and is coming from non-rate payer money. And thank
8 you, Senator Skinner, for your work when you were at the
9 legislature.

10 The hope is to think about innovative ideas to
11 maximize DR participation. And those innovative ideas
12 might mean program design and potentially incentive design
13 that was not exactly overlapping with how the LRAs,
14 including PUC and SMUD might do them. And to the extent
15 that we can prove success in cost effectiveness in a
16 certain track of DSGS, our hope is that it gets absorbed
17 into the RA Program design.

18 And I think the guiding principle for DSGS and
19 other reliability programs is it cannot inhibit but enable
20 and expand the success of market transformation programs
21 that could be a part of RA. And, you know, I thoroughly
22 recognize, you know, the request that came from PUC and
23 really thank PUC colleagues for working closely with the
24 CEC staff over the last couple of weeks to get out, you
25 know, how can we both move forward with Option 4, but also

1 kind of give some space to have continued discussion to
2 what you said about, you know, what are some programmatic
3 elements we can do that CEC's DSGS design doesn't
4 inadvertently get in in the way of the success of market
5 transformation programs, including the RA programs? We,
6 ideally, would like to have DR and expand that too.

7 So again, thank you for all the work and thanks
8 for the comments from all the stakeholders. Thank you for
9 your confidence and engagement with the CEC staff. I think
10 for me, the biggest success of all this is the trust that
11 we build in kind of innovating and co-leading and owning
12 the success as a part of the overall California success.

13 And PG&E, appreciate your comments as well. I
14 look forward to the engagement. And I think moving
15 forward, it gives us an opportunity to see the success of
16 ART this summer and think about how best to reflect that
17 into the divisions of the guidelines.

18 And I want us to make sure, to Commissioner
19 Skinner's point, and as well as kind of commitment that we
20 should make sure that we revise the deadlines for next
21 year, taking into account the lessons we learned this year.

22 Thank you. And thank you all.

23 CHAIR HOCHSCHILD: Thank you, Vice Chair.

24 Here comes Commissioner McAllister.

25 COMMISSIONER MCALLISTER: Oh, fantastic. Thanks

1 to Commissioner Skinner and Vice Chair Gundo for covering a
2 lot of the ground here, so I won't repeat that.

3 I did want to just thank staff, first of all. I
4 mean, the team is amazing. And it's been -- you know, this
5 program got stood up really fast initially and has just
6 been on full gas ever since. And so just really appreciate
7 it. You know, we have another summer barreling in on us
8 and we need to be ready for that. And DSGS is one of the
9 real key tools in our toolbox for helping manage those
10 events, which we have to assume are going to keep showing
11 up sort of fast and furious, and not just in summer, right
12 in other parts of the year going forward. So really
13 appreciate that.

14 Great presentation, Payam. Thank you very much.
15 Aloke and Deana.. I've got to agree, Erik, Ashley and the
16 whole team have just been amazing.

17 So I do want to sort of amplify Vice Chair's
18 comments on just the various flavors that fit under the
19 7,000 megawatt goal. You know, we kind of know what supply
20 side DR is and we can always do better, but there's a long
21 history in the state of mobilizing those resources. And
22 then the sort of RA relevant demand-side resources and the
23 beyond RA kind of resources are -- they're newer.

24 And I think, you know, the sort of load modifying
25 or permanent load shifting kind of resources are -- that's

1 the category that I think we really need to think
2 increasingly creatively about. We have so much technology
3 at our fingertips. We have a lot of authority actually,
4 you know, in our load appliance -- FDAS, you know, the
5 Flexible Demand Appliance Standards and the Load Management
6 Standards. And so, you know, working with, you know, a
7 broad team across the Commission, including this team, to
8 develop those resources.

9 And I did want to just raise kind of a high-level
10 point that is kind of an ongoing concern. And first, I
11 think, for context, just would amplify the partnership with
12 the PUC. I mean, we have complimentary roles and really
13 are working together tightly to make sure that we're being
14 very intentional across both Commissions.

15 I wanted to just point out that fracturing of any
16 market, but certainly this market, creates inefficiencies.
17 And so the way back, you know, when I first came to the
18 Commission, we had a conversation about demand response
19 that resulted in bifurcation; right? The sort of wholesale
20 and the retail versions of demand flexibility got
21 separated.

22 And so, you know, I won't go into all that
23 history, but I think that we, you know, we focus a lot, and
24 there are good reasons for it, on the sort of accounting,
25 you know, which load shows up in which program. And, you

1 know, we want to make sure that we're not double counting
2 and that resources go to one or the other and we kind of
3 know where they're going and have transparency. That
4 accounting does create some inefficiencies and it can
5 create some confusion in the marketplace; right?

6 So I think the hope is that we can sort of have a
7 simple message. You know, we heard from PG&E, and I think
8 another commenter, just about, you know, this risk of
9 cannibalization is real and they are different programs and
10 they have different criteria, but we want to make the
11 decision of where to go for each individual load aggregator
12 as straightforward and simple and transparent as possible.

13 And so just, I want to just really encourage
14 staff at both Commissions to make sure that we're doing
15 that, right, and not over-complicate and not sort of dial
16 back the innovation or the boldness of these initiatives
17 just because we're kind of worried about how the accounting
18 is going to be done; right?

19 So I don't want to just -- that's been an
20 ongoing, not just in this realm, but in energy efficiency
21 and other areas where there's sort of a knee-jerk reaction
22 to be conservative because, oh gosh, we've got to work out
23 the details. And so, and I get why that happens, you know,
24 where we have to be accountable, you know, all these
25 programs have to be accountable. But I think a fracturing

1 of the marketplace just decreases efficiency, like really
2 by definition.

3 And so I want to just like, hopefully, I really
4 appreciate the learning that's going to come from this.

5 And I think we need to, you know, in Edison and SDGE
6 territory, really understand what's happening with loads,
7 work with stakeholders, try to really listen and ask and be
8 present for them to understand why they're making the
9 decisions that they're making, and then really take that
10 back and work with the PUC and make sure that we can bring
11 this back relatively, you know, relatively soon to another
12 business meeting to be more, you know, all-encompassing,
13 more get coverage throughout the state, so throughout the,
14 at least the investor owned utilities territories.

15 We're really excited about Option 4 and the other
16 modifications, so fully support this. And just thanks for
17 working to get it back on this business meeting.
18 Appreciate it.

19 CHAIR HOCHSCHILD: Thank you, Commissioner.

20 And I'll just close it out here, unless there's
21 comments from Commissioner Gallardo on this item, just to
22 say, first of all, thank you to the staff for all the hard
23 work you guys did with the program very quickly. I want to
24 just highlight, you know, when we set the load flex goals,
25 which was probably two years ago or so, 7 gigs, we're

1 already halfway there, and that's a big milestone.

2 This is the most attractive resource that we
3 have. It's the cleanest. It's the lowest cost. And, you
4 know, it's going to be a huge resource for our state. It's
5 a muscle we're still beginning to build.

6 You know, several years ago, I converted from gas
7 to electric in my house, electric heat pumps for water and
8 space heating. But I had a dumb, you know, thermostat,
9 Fujitsu, sorry, Fujitsu, but there was no interface. And
10 now I've got an Ecobee and, you know, just the ability,
11 even how well the apps work on your phone and your devices,
12 it really allows a degree of nimbleness that we've never
13 had before.

14 And to be able to dispatch millions of these, we
15 have a 6 million electric heat pump goal, and we're 2
16 million heat pumps installed and running, you know, this is
17 an incredibly attractive resource. And it's also, you
18 know, very easy to deploy because you're not having to take
19 up any land or go through any extensive permitting process.

20 So this is a muscle that I think is really
21 important that we built and standing up this program is
22 huge. So thank you, Payam and team, for all the hard work.

23 Thank you, Vice Chair, for, you know, leading on
24 this and for setting the load flex goal. I think it's
25 really important that we have a goal. And the legislature

1 asking us to do that with the governor was really
2 important. And I want to -- we're going to see it through.
3 We're going to get to that goal and we're going to pass it
4 because this is ultimately, I think, a really, really
5 exciting and dynamic part of the whole portfolio that we're
6 building. And so another big milestone today.

7 COMMISSIONER MCALLISTER: Yeah, Commissioner,
8 please.

9 COMMISSIONER MCALLISTER: Yeah, I just want to
10 add actually, you know, the day in and day out load shift,
11 you know, it changes load shapes across the state. It
12 fundamentally changes how -- what our electric, you know,
13 usage profile looks like. And so a lot of different
14 resources can contribute to that, heat pumps and all the
15 new electric loads that are coming on. Batteries are also
16 a really important resource to be able to even more
17 actively change load shapes. And so if we do that a day in
18 and day out, we get better load factors, we optimize the
19 use of the grid, we put downward pressure on rates. It's a
20 win-win-win. And we also have reduced RA requirements;
21 right?

22 And so all these resources, I think, you know, as
23 the Chair said, they're right there for the mobilization
24 now, today, and increasingly as they come onboard. And
25 they're not big infrastructure projects, they don't

1 require, you know, permitting. They don't require a lot of
2 the sort of barriers in traditional infrastructure
3 projects. And so I just, I want to encourage us all.

4 And there are examples of these kinds of programs
5 that are working at scale, like in PGM and in Canada and
6 other places where, you know, where they're kind of --
7 they're not necessarily, you know, perfect, but we don't
8 necessarily need perfect; right? We need good. So I think
9 then we can dial it in where we get that experience, start
10 to scale, talk to stakeholders, figure out how to improve
11 and expect accountability, of course; right? Get the data
12 we need to show that these resources are showing up.

13 But anyway, I'm preaching to the choir here, but
14 I think I get really excited about the possibilities. And
15 I just want to make sure that we get there quickly. This
16 is another area of leadership at California and we need to
17 kind of set the stage, set the table so we can really,
18 really serve.

19 CHAIR HOCHSCHILD: Are you excited enough?

20 COMMISSIONER MCALLISTER: I will --

21 CHAIR HOCHSCHILD: -- to move this item enough --

22 COMMISSIONER MCALLISTER: -- move the item.

23 CHAIR HOCHSCHILD: -- that I don't need a
24 second, Commissioner McAllister? Is there a second by the
25 Vice Chair?

1 VICE CHAIR GUNDA: Second.

2 CHAIR HOCHSCHILD: All in favor, say aye.

3 CHAIR HOCHSCHILD: Commissioner McAlister?

4 COMMISSIONER MCALLISTER: Aye.

5 CHAIR HOCHSCHILD: Vice Chair Gunda?

6 VICE CHAIR GUNDA: Aye.

7 CHAIR HOCHSCHILD: Commissioner Skinner?

8 COMMISSIONER SKINNER: Aye.

9 CHAIR HOCHSCHILD: And Commissioner Gallardo?

10 COMMISSIONER GALLARDO: Aye.

11 CHAIR HOCHSCHILD: Alright, and I vote aye as
12 well. Item 6 passes unanimously.

13 We will break for lunch. And we have a closed
14 session. Did we need to read off anything?

15 MS. WEBSTER-HAWKINS: Yes, Chair. On behalf of
16 the Chief Counsel, I'd like to announce that the Commission
17 will now go into closed session to discuss item 17D on the
18 agenda, pursuant to Government Code Section 11126(e), the
19 Commissioners may discuss any judicial or administrative
20 proceeding that was formally initiated after the agenda was
21 published or determine whether facts and circumstances
22 exist that warrant the initiation of litigation or that
23 constitute a significant exposure to litigation against the
24 CEC.

25 CHAIR HOCHSCHILD: Thank you, Renee.

1 Why don't we reconvene, we'll have closed session
2 followed by lunch, at 1:30 here in the auditorium? Thanks.

3 (The Commission convened closed session from 12:14
4 p.m. until 1:33 p.m.)

5 CHAIR HOCHSCHILD: Alright, welcome back from
6 lunch everyone. We have nothing to report from the closed
7 session.

8 And we will resume with the agenda picking up
9 with item 7, Order Instituting Informational Proceeding.
10 And I welcome Raquel Kravitz to present.

11 You'll have to unmute.

12 MS. KRAVITZ: Is that better. Is that good?

13 CHAIR HOCHSCHILD: Yes.

14 MS. KRAVITZ: I'm Raquel Kravitz, the Project
15 Manager for the Integrated Energy Policy Report, IEPR for
16 short. Staff is requesting the Commission's approval of an
17 Order Instituting Informational Proceeding for the 2025
18 IEPR.

19 Next slide, please. Thank you.

20 The Commission is required to prepare an IEPR
21 every two years to provide a broad overview of California's
22 major energy issues and trends, with an update in the
23 intervening year. The 2025 IEPR will focus on three key
24 areas: advancing clean energy deployment; dating the
25 California energy demand forecast; and assessing the

1 California's load shift resource potential.

2 Adoption of this order appoints Chair David
3 Hochschild as Lead Commissioner and Vice Chair Siva Gunda
4 as Associate Commissioner for the proceeding. It also
5 directs the executive director and staff to gather the
6 necessary information to complete the 2025 IEPR.

7 Next slide, please. Thank you.

8 On March 20th, Chair Hochschild issued the
9 scoping order outlining the topics and schedule of the 2025
10 IEPR. Let me walk you through the major area of focus.

11 First, the IEPR will emphasize advancing clean
12 energy deployment. These include exploring potential for
13 hydrogen under Senate Bill 1075, analyzing firm zero-carbon
14 resources as directed by Senate Bill 423, and addressing
15 barriers to grid connections under Assembly Bill 1373.

16 Building on the work for the 2023 IEPR, this
17 year's report will also provide updates on interconnection,
18 energization, and system upgrades, all vital steps in
19 ensuring California remains at the forefront of clean
20 energy leadership.

21 Next slide, please. Thank you.

22 Next, the IEPR will deliver an update to the 15-
23 year electricity gas forecast using the latest demographic
24 and economic data. This forecast will assess the impact of
25 California's decarbonization strategies on energy demand.

1 A highlight of this effort is the development of
2 weather-dependent hourly electricity load data set, which
3 will improve system planning for extreme weather events.
4 Additionally, the report will include updated projections
5 for North American commodity gas prices and end-use rates
6 through 2050, supporting long-term energy planning. And
7 finally, the IEPR will provide an update on California's
8 load shift resource potential with recommendations to
9 reduce net (indiscernible) electricity demand as outlined
10 in Senate Bill 846.

11 For the first time, the IEPR will assess the
12 statewide load shift goal using the 2025 demand forecast
13 and electrification trends. This analysis will explore
14 strategies to reach the state's ambitious 7,000-megawatt
15 load shift goal by 2030, developed in consultation with the
16 California Public Utilities Commission and the California
17 Independent System Operators.

18 Next slide, please. Thanks.

19 In summary, I'd like to request your approval of
20 this order instituting informational proceeding for the
21 2025 IEPR. Renee, behind me, Renee Webster-Hawkin will
22 be -- from legal office is available to help answer any
23 questions. Thank you for your consideration.

24 And that concludes my presentation.

25 CHAIR HOCHSCHILD: Thank you so much.

1 Let's go to public comment on item 7.

2 MS. BADIE: Thank you, Chair.

3 The Commission welcomes public comment on item 7
4 at this time. If you're joining us in the room, you'll use
5 the QR Code or raise your hand. And if you're joining us
6 on Zoom, you'll use the raise-hand feature on your screen,
7 it looks like an open palm, or star nine if joining by
8 phone, that will let us know you'd like to comment.

9 And I'm just giving that a moment. Alright, I am
10 not seeing any raised hands to comment on this item, so
11 back to you, Chair.

12 CHAIR HOCHSCHILD: Okay, we'll go to Commissioner
13 discussion.

14 Let me just thank you, Raquel, and the whole team
15 for preparing this and excited to work on this this year.

16 And Vice Chair, anything you want to chime in on?

17 VICE CHAIR GUNDA: Yeah. Thank you, Chair.

18 Raquel, thank you so much for the overview, and
19 I'm looking forward to adopting the item.

20 I just wanted to flag for the Commissioners that
21 we have -- that the forecasting is going through a time of
22 uncertainty given the electrification. You know, some of
23 the -- I just wanted to remind you that we have moved more
24 into using the Scoping Plan electrification results as a
25 basis for the forecast to allow for more electrification,

1 looking at some of the changes at the federal level that
2 might impact electrification, also looking at data center
3 load. We have made some progress on that, but thinking
4 through how best to engage on known and pending loads on
5 the system into the forecast. So just want to flag that
6 there's a lot of changes. I look forward to getting your
7 input on that.

8 And also just on the resource planning side,
9 whether it's in from resources, interconnection,
10 transmission or load flexibility, they all go together, and
11 it's important for us to work on that as well. So look
12 forward to collaborating with the rest of the Commissioners
13 on those issues.

14 And again, a big thanks to the IEPR Team as
15 always. You know, we just end one cycle and start the next
16 one. So thank you, Raquel, the IEPR Team, Sandra, Chair,
17 looking forward to speaking with you on this. And Drew,
18 Jen, both of you, for your support for the rest of the year
19 and all the staff. Thanks.

20 CHAIR HOCHSCHILD: Great. Thanks.

21 Any other comments? Seeing -- oh, go ahead,
22 Commissioner McAllister, please.

23 COMMISSIONER MCALLISTER: Just, you know, thanks
24 to you, Chair and Vice Chair, for taking this on and, you
25 know, looking forward to -- those are all meaty topics and,

1 you know, looking forward to working with you and the IEPR
2 Team on advancing all those topics.

3 CHAIR HOCHSCHILD: Are you looking forward to it
4 enough to move it?

5 COMMISSIONER MCALLISTER: I move this item. Was
6 it item 8?

7 CHAIR HOCHSCHILD: No, item 7.

8 COMMISSIONER MCALLISTER: Item 7 is moved.

9 CHAIR HOCHSCHILD: Is there a second from the
10 Vice Chair?

11 VICE CHAIR GUNDA: Second.

12 CHAIR HOCHSCHILD: All in favor, say aye.
13 Commissioner McAllister?

14 COMMISSIONER MCALLISTER: Aye.

15 CHAIR HOCHSCHILD: Vice Chair Gunda?

16 VICE CHAIR GUNDA: Aye.

17 CHAIR HOCHSCHILD: Commissioner Skinner?

18 COMMISSIONER SKINNER: Aye.

19 CHAIR HOCHSCHILD: Commissioner Gallardo?

20 COMMISSIONER GALLARDO: Aye.

21 CHAIR HOCHSCHILD: And I vote aye as well.

22 Thank you, Raquel. That item passes unanimously.

23 We'll turn now to item 8, Tribal Electric Vehicle
24 Infrastructure Planning and Workforce Training and
25 Development.

1 MS. MAGANA: Hello, Chair, Vice Chair, and
2 Commissioners. I'm Pilar Magana with the Fuels and
3 Transportation Division. Staff is seeking approval for
4 three projects that are proposed for funding through our
5 grant funding opportunity entitled Tribal Electric Vehicle
6 Infrastructure, Planning, and Workforce Training and
7 Development.

8 Next slide, please.

9 Before presenting these projects, I wanted to
10 provide a brief overview of the original solicitation which
11 sought proposals to fund projects that will accelerate
12 zero-emission vehicle adoption among California Native
13 American tribes.

14 Extensive outreach was conducted prior to the
15 solicitation's release with tribes throughout the state
16 informing the development of the solicitation to ensure
17 awareness of availability of funds and encourage the
18 maximum possible response. Applicants were allowed to
19 apply for funding under one, multiple, or all three
20 categories including EV infrastructure deployment, EV
21 infrastructure planning, and EV deployment of EV workforce
22 training resources.

23 Through this solicitation, a total of 26
24 applications were received with over \$46.7 million in
25 funding requested. Ultimately, nine projects are being

1 recommended for funding under the solicitation for a total
2 of about \$15 million, and three were presented at the March
3 17th business meeting, and today I will present another
4 three of these projects for consideration for a total of
5 about \$5.1 million. And the final three will be presented
6 at the May business meeting.

7 Next slide, please.

8 EV adoption remains a challenge for tribal
9 nations, especially those living in rural and low-density
10 areas. Access to reliable charging infrastructure remains
11 a barrier to switching from traditional fossil fuel-based
12 modes of transportation. While many tribal nations are
13 eager to adopt these technologies, access to these
14 resources, including the training associated with charger
15 operation and maintenance, has been limited.

16 These projects benefit Native American tribes
17 throughout California by increasing access to EV
18 infrastructure, improving their ability to plan for future
19 infrastructure, and creating employment opportunities
20 through the establishment of workforce development and
21 training programs both now and for future projects.
22 Overall, these projects will encourage continued and
23 increased establishment of EV infrastructure deployment
24 that will increase mobility, reduce emissions, and support
25 economic growth within these communities.

1 Next slide, please.

2 The first project proposed is with the California
3 Indian Manpower Consortium. California Indian Manpower
4 Consortium, or CIMC, requested funding under all three
5 categories. CIMC, in partnership with the Bishop Paiute
6 Tribe, is proposing a comprehensive project to accelerate
7 transportation, electrification, and workforce development
8 for the tribe and its members. The Bishop Paiute
9 Reservation is a disadvantaged community within Inyo County
10 that supports approximately 2,000 Bishop Paiute Tribal
11 members.

12 Led by Ecology Action, the project team will
13 install EV charging equipment at two high-traffic sites on
14 the reservation supporting passenger, medium-, and heavy-
15 duty vehicles. Each site will include the installation of
16 one DC fast charger with integrated battery storage, one
17 high-power DC fast charger to accommodate driver needs, and
18 one Level 2 charger.

19 In total, CIMC and the Bishop Paiute Tribe will
20 install at least four DC fast charging ports and two Level
21 2 charging ports across both sites. Both sites are located
22 at gas stations owned by the Bishop Paiute Tribe, and one
23 site sits on Highway 395, while the other station sits
24 along California State Route 168.

25 The team will also create an EV blueprint for the

1 tribe to accelerate EV infrastructure deployment in support
2 of passenger, heavy-duty, and off-road vehicles.

3 Lastly, the workforce training program will serve
4 20 participants and place a minimum of 10 of these trainees
5 into ongoing training for an additional two years following
6 the initial certification training year. Three
7 participants will receive EVITP training or electric
8 vehicle infrastructure training program, now training
9 online, and take the certification exam to become certified
10 EVITP electricians. This agreement is for approximately
11 \$2.99 million.

12 Next slide, please.

13 The second project is with Dry Creek Rancheria
14 Band of Pomo Indians from the Sonoma County region. They
15 applied for funding under the EV infrastructure deployment
16 and EV blueprint development project activities.

17 The Dry Creek Rancheria Band of Pomo Indians will
18 develop an EV infrastructure and planning blueprint to
19 increase the tribe's access to EV charging infrastructure
20 for at least four tribally-owned sites, as well as
21 establish a plan for future EV deployment at additional
22 sites. This will be accomplished through site-specific
23 planning and a multi-step approach that includes
24 identifying EV mobility needs, an outreach program for
25 community input, financial analysis, and blueprint

1 development that could be replicated by other tribes in the
2 region.

3 The tribe will also deploy charger infrastructure
4 at two additional identified sites to install a total of 20
5 Level 2 charging ports. For the first site, charging
6 infrastructure will be installed at the Bi'du Khaale
7 Affordable Senior Housing Development, which is pictured
8 here, in Cloverdale. The Senior Affordable Housing Project
9 is intended to provide multi-generational housing for low-
10 to medium-income families. And while Bi'du Khaale is
11 primarily a senior housing community, this affordable
12 housing project is also in response to the prevailing
13 housing insecurity experienced in the Dry Creek Rancheria
14 Band of Pomo Indians.

15 The other 10 charging ports will be installed at
16 Wild Haven Sonoma Glamping in Healdsburg. This site was
17 designed to minimize its environmental impact while also
18 supporting economic growth for the tribe.

19 The installation of five Beam Global ARC solar
20 generation and battery storage systems will also be
21 included as a part of this project. And this agreement is
22 for just over \$1.6 million.

23 Next slide, please.

24 And the third and final project I will be
25 presenting is with Aha Macav Power Service on behalf of the

1 Fort Mojave Indian Tribe. Aha Macav Power Service, or
2 AMPS, requested funding under Project Activities 2 and 3
3 for blueprint development and workforce training and
4 development.

5 Fort Mojave Indian Tribe and their tribally-owned
6 utility, AMPS, will conduct a feasibility analysis and
7 produce an EV infrastructure planning blueprint and
8 readiness plan for the electrification of tribal
9 transportation infrastructure. The plan will include a
10 range of recommendations and strategies to enhance
11 transportation electrification readiness, covering fleet
12 and personal vehicles, vehicle charging, and micromobility
13 for the tribe and its associated businesses.

14 Workforce development activities are also being
15 established under this project through the development of
16 introduction to electrification transportation courses
17 through EVOLVE, and advanced education in transportation
18 electrification courses with the support from CSU Chico and
19 ChargerHelp, and the establishment of an EV opportunities
20 portal that will be accessible to Fort Mojave tribal
21 members for ongoing training opportunities. This agreement
22 is for just over \$477,000.

23 Next slide, please.

24 Staff is seeking your approval for these three
25 agreements, as well as adoption of staff's findings that

1 each of these projects are exempt from CEQA. We have
2 representatives from CIMC, David Smith-Ferri from Dry Creek
3 Rancheria, and Fernando Parra from AMPS, all in attendance
4 via Zoom, who would like to speak on behalf of their
5 projects and are available to answer any questions.

6 Thank you for your consideration, and I'm happy
7 to answer any questions you may have. And I know David
8 Smith-Ferri is on the line, and would like to make a
9 comment.

10 CHAIR HOCHSCHILD: Do we have a public comment?

11 MS. BADIE: Yes. Thank you.

12 So the Commission would like to hear public
13 comment on item 8 at this time. If you're in the room with
14 us, you can raise your hand. And then if you're joining on
15 Zoom, you can use the raise-hand feature on your screen, or
16 star nine if joining by phone.

17 And I'm going to open the line for Jay Friedland.

18 MR. FRIEDLAND: Hi there. This is Jay Friedland.
19 Can you hear me? Just a --

20 MS. BADIE: Yes.

21 MR. FRIEDLAND: Okay. It's J-A-Y
22 F-R-I-E-D-L-A-N-D, and I'm with Ecology Action.

23 I just want to basically take a moment to thank
24 the Energy Commission staff for all their hard work on
25 this, as well as the Commissioners, and welcome to

1 Commissioner Skinner for supporting this key effort. Along
2 with our partners at the California Indian Manpower
3 Coalition and Bishop Paiute, we're planning to build out
4 California EV charging infrastructure at two key locations
5 in eastern California. And these are fairly remote. It's
6 between, you know, Bishop and Lee Vining. So, you know,
7 it's kind of far out there, right on the border with
8 Nevada, so it's a key transportation area. With the
9 planning and workforce development components, we also hope
10 to make it a very long-term sustainable effort.

11 So I want to keep my comments short, so thank you
12 very much. And we're also available to answer any
13 questions as well. Thank you.

14 MS. BADIE: Thank you.

15 Next, we're going to hear from David S. I'm
16 going to open your line.

17 MR. SMITH-FERRI: Commissioners, staff, and
18 guests, I'm David Smith-Ferri, and I work in the Housing
19 Department at Dry Creek Rancheria Band of Pomo Indians in
20 Sonoma County. Thanks to Pilar for the introduction.

21 Yeah, thanks to significant support from the
22 State of California, the tribe has just completed a
23 beautiful affordable housing development in Cloverdale that
24 Pilar referenced. We have rooftop PV and battery storage
25 on all 25 homes and the community center.

1 Sustainability is a core value for the tribe,
2 which has lived sustainably in the Russian River Valley for
3 thousands of years. The community center at this location
4 will be a hub for the tribe for large meetings and
5 weddings, all kinds of things.

6 And on behalf of the Tribal Council and the
7 Tribal Board of Directors, I want to thank the California
8 Energy Commission for making this grant opportunity
9 available to tribes and for this generous grant award to
10 Dry Creek Rancheria that will allow us to install EV
11 chargers at this housing development and at the glamping
12 site that Pilar referenced in Alexander Valley, as well as
13 create related master planning for all the tribe's
14 properties.

15 We look forward to working with Pilar and her
16 team, and we thank you.

17 MS. BADIE: Thank you. And then David, was it
18 David Smith Perry with a P?

19 MR. FRIEDLAND: Oh, yeah, sorry. I have bad
20 manners. It's David, correct. And the last name is
21 hyphenated, so Smith, S-M-I-T-H, Ferri, F as in Frank,
22 -E-R-R-I.

23 MS. BADIE: Thank you so much. We wanted to get
24 that correct in the record.

25 Alright, and that is the last hand that I see

1 that is raised for this item, so back to you, Chair.

2 CHAIR HOCHSCHILD: Thank you so much.

3 Let's go to Commissioner discussion, starting
4 with Commissioner Skinner.

5 COMMISSIONER SKINNER: Thank you, Chair.

6 And thank you, Pilar, for the presentation, and
7 of course, to the applicants for submitting these great
8 applications and our ability to move forward with expanding
9 EV charging infrastructure on our tribal sites, and also
10 with the workforce component. And as you mentioned, we're
11 going to have -- we'll achieve training for up to 100
12 tribal participants with the project that is -- it's an
13 online training with CSU Chico and ChargerHelp with the Aha
14 Macav Power Services. So that one is a really good
15 component, as well as the Paiute tribe in Bishop area, not
16 only will be providing that training for those members who
17 are interested in the EVITP certifications, but also to
18 chargers on site.

19 So in all, the projects, as you described, are
20 going to provide us 22 Level 2 chargers, a number of which
21 will also be publicly accessible, and some direct fast
22 chargers, plus those battery storage systems, which we
23 know, I mean, in general, they're great for our charging
24 systems because they help reduce the times of day that we
25 might pull load off the grid, but for our tribal locations,

1 they're really important because they don't have the same
2 level of grid access. So this part, or that inclusion in
3 the projects, is really fantastic.

4 So I'm glad that we're able to continue this kind
5 of partnership with our tribes. And I know that under
6 Governor Newsom, the State of California has been doing a
7 lot to accelerate, improve, and really keep up good
8 coordination and collaboration with our tribes to address
9 their unique needs, and this is just one component of that.

10 So really appreciate it. Very happy that it's
11 moving forward. And at the point where it's appropriate,
12 I'll be happy to move it.

13 CHAIR HOCHSCHILD: Is there any other comment?

14 Yeah, Commissioner Gallardo.

15 COMMISSIONER GALLARDO: Thank you, Chair.

16 So I also want to thank Pilar for the great
17 briefing she gave me, great presentation, all the excellent
18 work done behind the scenes.

19 So these grants are really exciting to me. I
20 think they do make EV charging more accessible, which
21 hopefully will then increase the EV adoption. Commissioner
22 Skinner mentioned the benefits of that, and there are a lot
23 of other reasons why I appreciate these grants. So I just
24 wanted to highlight a couple of things.

25 So, one, it's enabling the tribes to be leaders,

1 also, in implementing energy infrastructure.

2 The team also did an excellent job on the
3 geographic dispersion of the grants; right? Last month, we
4 saw projects in the far south of the state with Torres
5 Martinez and Barona, and then in the far north with Yurok.
6 And then this month, we're seeing projects in the middle
7 and other parts of the state, including the eastern
8 Sierras, San Bernardino County, Sonoma County, and on the
9 Nevada border, as someone mentioned.

10 And it's also really helpful to see opportunities
11 for workforce development, and that's intentionally being
12 done here, because that takes our dollars even further.
13 They're getting education, exposure, and experience. And
14 so it's for the tribes, their members, and their partners.
15 So all around, really great.

16 And I also wanted to make sure I thank the staff
17 for removing barriers for these grants, especially the
18 requirement for a limited waiver of sovereign immunity. We
19 keep hearing time and again in different forums that we
20 have with tribes that that is significant to them. And
21 removing barriers is also a way that the CEC is going to be
22 able to support our tribal energy sovereignty efforts that
23 we're supporting through the informational proceeding that
24 we opened last month. So thanks again to the staff for
25 that.

1 And I really appreciate, Jay and David, you
2 joining. I think getting positive reinforcement on all
3 these efforts is always of value. So I appreciate you
4 taking the time to be here with us.

5 CHAIR HOCHSCHILD: The only thing I would add is
6 that we're trying to do a good job to document the photos
7 of the tribal energy sovereignty projects we're doing
8 around the state, and Sierra Graves has been really helpful
9 in that. So it would be great to get pictures of the
10 installation, the people doing the jobs.

11 And to just note that with the addition of these
12 funds, on top of what we approved earlier in the agenda,
13 you know, it's \$20 million today for EV charging
14 infrastructure, so great to see those funds getting out the
15 door.

16 And special thanks again to Sierra Graves for
17 coordinating with the tribes on all these projects.

18 Commissioner, you were going to add something?

19 COMMISSIONER MCALLISTER: Yeah, just quickly.
20 Thank you.

21 I really appreciated the briefing, so I'm clear
22 on the project. So thanks, Pilar and team for that.

23 I did want to just point out, possibly of
24 relevance for the tribal projects and across the board, the
25 PUC's April 16 workshop on VGI, that they're -- so kind of

1 relevant for the whole transportation infrastructure piece.
2 So just paying attention to that, trying to connect some
3 dots. So thanks for that.

4 CHAIR HOCHSCHILD: Okay, with that, I'd welcome
5 the motion from Commissioner Gallardo on item 8.

6 COMMISSIONER GALLARDO: I move to approve item 8.

7 CHAIR HOCHSCHILD: Is there a second from the
8 Vice Chair?

9 VICE CHAIR GUNDA: I second item 8.

10 CHAIR HOCHSCHILD: All in favor, say aye.
11 Commissioner Gallardo?

12 COMMISSIONER GALLARDO: Aye.

13 CHAIR HOCHSCHILD: Vice Chair Gunda?

14 VICE CHAIR GUNDA: Aye.

15 CHAIR HOCHSCHILD: Commissioner Skinner?

16 COMMISSIONER SKINNER: Aye.

17 CHAIR HOCHSCHILD: Commissioner McAllister?

18 COMMISSIONER MCALLISTER: Aye.

19 CHAIR HOCHSCHILD: And I vote aye as well. Item
20 8 passed unanimously.

21 Congratulations. Thanks, Pilar.

22 We'll go to item 9, NORESCO, LLC, and I welcome
23 Elizabeth Butler.

24 MS. BUTLER: Good afternoon, Chair, Vice Chair,
25 and Commissioners. My name is Elizabeth Butler and I am

1 the Contracting Grant Manager for the Efficiency Division.
2 Today, I will be presenting item 9. This is a request to
3 approve a \$10.5 million contract with NORESKO, LLC to
4 provide technical support services for the California
5 Energy Code, reference compliance software, CBECC and
6 CBECC-Res, and the CEC's Compliance Program.

7 Next slide, please.

8 This three-year architectural and engineering
9 agreement will provide the following three benefits to
10 Californians: reducing the wasteful, uneconomic,
11 inefficient, or unnecessary consumption of energy used by
12 buildings; building decarbonization in newly constructed
13 and existing buildings; and encouraging load flexibility
14 and grid reliability.

15 Next slide, please.

16 In this agreement, NORESKO will lead a team of
17 professional architectural and engineering consultants to
18 provide technical support for: developing, updating, and
19 maintaining the California Energy Code for residential and
20 non-residential buildings; developing, updating, and
21 maintaining the California Energy Code reference compliance
22 software, CBECC and CBECC-Res; and developing, updating,
23 and maintaining the California Energy Code compliance data
24 infrastructure, compliance documents, and other supporting
25 documentation that aids the Energy Code Compliance Program.

1 Our funding for this agreement, this three-year
2 agreement is \$6 million from the Energy Resources Programs
3 Account, or ERPA, and \$4.5 million from the Cost of
4 Implementation Account, or COIA, funds.

5 Next slide, please.

6 The purpose of the work with NORESCO includes
7 five core tasks: Energy Code update measure identification
8 and analysis; energy and climate accounting methodologies
9 for the Energy Code; Energy Code software tools development
10 and maintenance; Energy Code software tools documentation
11 and deployment; and Energy Code compliance documentation,
12 compliance analysis, and compliance data infrastructure
13 support. Together, these tasks provide the technical
14 resources needed to help the CEC develop, implement, and
15 provide compliance support for the 2025 and 2028 Energy
16 Codes. It will also support maintenance and enhancements
17 to the 2022 Energy Code and will support preliminary work
18 on future Energy Codes.

19 Next slide, please.

20 Staff recommends approval of the agreement with
21 NORESCO, LLC. Thank you for your consideration. I am
22 available for questions.

23 CHAIR HOCHSCHILD: Thank you.

24 Let's go to public comment on Item 9.

25 MS. BADIE: Thank you, Chair.

1 The Commissioner welcomes public comment on Item
2 9 at this time. If you're joining us in the room, you can
3 raise your hand or use the QR Code. If joining by Zoom,
4 you'll use the raise-hand feature on your screen, or star 9
5 if joining by phone. And I'm just going to give that a
6 moment.

7 Alright, there's no one in the room, so I'm going
8 to transition to Zoom.

9 Claire Zuma, I'm going to open your line, and
10 we're asking for comments to be two minutes or less. There
11 will be a timer on the screen.

12 MS. ZUMA: Hi, I'm Claire Zuma, and I just read
13 this morning that there's a law that's been passed,
14 apparently, or that might be passed that would be
15 restricting California Energy Codes. And I'm guessing you
16 guys are aware of that. And I don't think it's finalized
17 yet. It has some other votes to go through, but I thought
18 I'd mention that just in case you were unaware. I read
19 about it from Sammy Roth from the Los Angeles Times in his
20 *Boiling Point* newsletter. It's today's *Boiling Point*
21 newsletter that has that kind of information.

22 CHAIR HOCHSCHILD: Yeah, thank you. No, we are
23 aware. And I would just note that the last Building Code
24 that we adopted, which was in September of 2024, is
25 projected to save \$4.8 billion for customers. So we remain

1 steadfast in our belief this is good for the state, so
2 thank you for that.

3 Any other public comments?

4 MS. BADIE: That was the last hand. Thank you.

5 CHAIR HOCHSCHILD: Okay, with that, let's go to
6 Commissioner discussion, starting with Commissioner
7 McAllister.

8 COMMISSIONER MCALLISTER: Elizabeth, thanks very
9 much for the presentation, and just all the team behind
10 you, you know, dozens of staff that have just worked really
11 hard on this and the Building Code updates, and generally.
12 And I really appreciate NORESCO's sort of pulling together
13 a compelling team, a lot of subs on it with very specific
14 skills that are critical for getting it right.

15 And I would just note that we have one contract
16 for both res and non-res this time around. As you heard,
17 just to my colleagues on the dais, instead of two, one for
18 res and one for non-res, which has historically kind of
19 been the way it's panned out, but this is a more efficient
20 way to go about it and encompasses, actually, sort of a
21 more complete team, I would say, so all the tools in the
22 toolbox for developing the 2028 and beyond Code updates.

23 And as we sort of pivot the Code towards existing
24 buildings, as we really double down on where the emissions
25 reductions going forward are tending to concentrate, you

1 know, new construction, obviously lots of new technology,
2 we can do more there. But I think that in terms of the
3 relative performance of new versus existing, the new is in
4 pretty good shape and the existing needs a lot of work and
5 investment, and we have these big programs that we're
6 rolling out so to focus on particularly low-income
7 existing.

8 So I think the team is really able to pivot and
9 focus on the right things as we define a scope for 2028
10 more completely, and in future Building Codes, so really
11 confident in the team. I want to just thank NORESCO and
12 Bruce Wilcox and the whole set of contractors that are in
13 this contract.

14 So I don't have any questions, but I would just
15 pass it to my colleagues to ask questions if you have them.

16 CHAIR HOCHSCHILD: Vice Chair?

17 VICE CHAIR GUNDA: Chair, thank you.

18 Thank you, Commissioner McAllister, for adding
19 that, and Elizabeth, thank you for the presentation.

20 (Indiscernible) for the technical resources, I just wanted
21 to lend my support, too, just in recognition of how
22 important these kind of contracts are to further our work
23 and making sure we're able to both help the localities and
24 the building industry meet the standards, but also helping
25 our work.

1 So I just wanted to lend my support,
2 acknowledging and knowing closely how hard these kind of
3 things are and how important technical contracts are.
4 Thank you.

5 CHAIR HOCHSCHILD: Unless there's further
6 comments, I'd welcome a motion from Commissioner
7 McAllister.

8 COMMISSIONER MCALLISTER: I move Item 9.

9 CHAIR HOCHSCHILD: Is there a second from the
10 Vice Chair?

11 VICE CHAIR GUNDA: Motion. Move item 9.

12 CHAIR HOCHSCHILD: All in favor, say aye.
13 Commissioner McAllister?

14 COMMISSIONER MCALLISTER: Aye.

15 CHAIR HOCHSCHILD: Vice Chair Gunda?

16 VICE CHAIR GUNDA: Aye.

17 CHAIR HOCHSCHILD: Commissioner Skinner?

18 COMMISSIONER SKINNER: Aye.

19 CHAIR HOCHSCHILD: Commissioner Gallardo?

20 VICE CHAIR GUNDA: Aye.

21 CHAIR HOCHSCHILD: We'll turn now to item 10,
22 Sierra Nevada Cheese Company. Thank you.

23 MR. LEE: Good afternoon, Chair, Vice Chair, and
24 Commissioners. My name is Colin Lee and I work in the
25 Energy Research and Development Division. Today, I'll be

1 presenting one recommended award for the Industrial
2 Decarbonization and Improvement of Grid Operations, or
3 INDIGO, Program solicitation on the deployment of
4 decarbonization technologies and strategies for California
5 industrial facilities.

6 Next slide, please.

7 This solicitation is funded by the INDIGO Program
8 and aims to develop and deploy novel decarbonization
9 technologies and strategies. The goal of this solicitation
10 is to deploy advanced decarbonization and/or grid support
11 technologies at California industrial facilities to promote
12 electrification and reduce GHG emissions produced from the
13 industrial sector. This solicitation targets technologies
14 that have the potential to demonstrate cost effectiveness
15 and are scalable to multiple industrial facilities with
16 potential to increase confidence for adoption.

17 One project is recommended for award under this
18 solicitation. The total funding represents \$5.5 million in
19 CEC funds, with \$1.4 million in match funds.

20 Next slide, please.

21 The INDIGO Program was established by Assembly
22 Bill 209 in 2022 and is funded by the California Climate
23 Investments Program and administered by the California Air
24 Resources Board. INDIGO will accelerate the adoption of --

25 MS. BADIE: Colin, can you hear us? Oh --

1 MR. LEE: Yes.

2 MS. BADIE: -- Colin, we lost your audio for a
3 bit when you transitioned to the benefits slide.

4 MR. LEE: Oh, sorry about that. I'll just go
5 again.

6 The INDIGO Program was established by AB 209 in
7 2022 and is funded by the California Climate Investments
8 Program and administered by the California Air Resources
9 Board. INDIGO will accelerate the adoption of
10 decarbonization technologies that support achieving the
11 state's long-term GHG emissions reduction goals while
12 maximizing other co-benefits.

13 INDIGO will fund the installations and
14 implementation of cutting-edge emerging technologies within
15 California's industrial facilities that meet the guiding
16 principles of benefiting or improving public health and the
17 environment, particularly in priority populations,
18 enhancing the electrical grid, especially during net peak
19 periods, and demonstrating the reliability and
20 effectiveness of advanced electrification, grid support,
21 and decarbonization technologies and strategies.

22 The project awarded under this program will
23 provide benefits including decreased use of fossil fuels,
24 reduced greenhouse gas emissions and local criteria air
25 pollution, while helping meet California's goals for

1 industrial decarbonization.

2 Next slide, please.

3 The project with Sierra Nevada Cheese Company
4 will focus on a waste-to-energy system that cuts greenhouse
5 gas emissions from the company's industrial operations in
6 Glenn County. Currently, the cheese plant's wastewater is
7 stored in open lagoons where bacteria break down organic
8 material and produce biogas. The methane released from
9 these lagoons emits 2,200 metric tons of CO2 equivalent
10 annually, more than the total CO2 emitted from natural gas
11 and electricity used on-site.

12 This project will install an anaerobic digestion
13 system to capture GHG emissions from the lagoon and convert
14 it into usable energy. The resulting biogas will fuel a
15 Mainspring linear generator to produce renewable
16 electricity for the entire facility. Any surplus biogas
17 will be used to replace natural gas in the steam boiler's
18 new dual-fuel burner.

19 In addition, the project will install a Flow CO2
20 heat pump capable of producing both hot and cold water.
21 This heat pump will replace an existing R410A electric
22 chiller, reducing electricity demand by 20 percent, and
23 refrigerant global warming potential from over 2,000 to 1.
24 Additionally, the heat pump will reduce demand on the
25 natural gas boiler for hot water production, contributing

1 to an overall 68 percent reduction in natural gas
2 consumption.

3 The project expects GHG emissions reductions of
4 around 3,600 metric tons of CO2 per year, or 85 percent of
5 the facility's emissions. NOx emissions reductions of
6 around 237,000 pounds per year, and electric grid energy
7 savings of around 2 gigawatt hours per year.

8 Next slide, please.

9 The industrial sector accounts for 20 percent of
10 California's greenhouse gas emissions, contributing over 85
11 million metric tons of CO2 and making it the state's
12 second-largest emitter. This project has the potential to
13 make a significant impact across multiple industries and
14 contribute to these emissions by demonstrating various
15 emerging technologies in an integrated solution.

16 Anaerobic digester technology can be utilized in
17 various biowaste-related industries, such as food
18 processing and pulp and paper. There are an estimated over
19 1,200 potential new biogas installations across California,
20 capable of producing 116 billion cubic feet of renewable
21 methane from biogas annually.

22 Converting existing gas boilers to take a hybrid
23 biogas fuel can be applicable to many high-temperature
24 industrial processes. The CO2 heat pump demonstrates
25 electrification technologies for facilities using chillers

1 and low-temperature heat in industrial processes.

2 Finally, the linear generator demonstrates
3 utilizing biogas as a fuel for backup generators to support
4 off-grid operations in industrial and other settings.

5 The project expects \$1.1 million in annual
6 operating cost savings with a five-year payback period for
7 the 35-year expected lifetime of equipment. With
8 successful demonstration of this project, expected adoption
9 of this technology from industrial facilities will expand.

10 Next slide, please.

11 Staff recommends approval of the grant agreement
12 and adoption of staff's determination that the project is
13 exempt from CEQA. I am happy to take any questions. Thank
14 you.

15 CHAIR HOCHSCHILD: Thank you.

16 Let's go to public comment.

17 MS. BADIE: Thank you.

18 The Commission welcomes public comment on item 10
19 at this time. If you're in the room with us, you can raise
20 your hand, use the QR Code. If you're on Zoom, please use
21 the raise-hand feature on your screen, or star 9 if joining
22 by phone. And I'm just going to give that a moment.

23 Alright, I am not seeing any raised hands for
24 this item. Back to you, Chair.

25 CHAIR HOCHSCHILD: Alright, let's go to

1 Commission discussion. I'll just share.

2 Again, this is the type of work we like to see.
3 This is, you know, not low-hanging fruit. This stuff is
4 really hard to do. And, also, really, really important.
5 And so particularly gratified to see a bunch of new
6 technology, including linear generators and heat pumps and
7 so on, in this type of application. So really pleased to
8 see this moving forward.

9 And I'd welcome any comments from Commissioner
10 McAllister.

11 COMMISSIONER MCALLISTER: Great. Thank you,
12 Chair.

13 And thanks, Colin, for that presentation. You
14 know, just love this project. It's multifaceted. It's got
15 a bunch of technologies, several technologies that are
16 really the future. And in particular, you know, love to
17 have more biogas generation, but also the heat pump
18 technology and related, you know, infrastructure, that
19 industrial infrastructure that this project is funding is
20 great.

21 And I would also just point out for unfamiliar
22 folks that CO2 as a refrigerant has gone underappreciate
23 it. And it's really coming into the market and has -- you
24 know, it's inherently it has a CO2 greenhouse gas footprint
25 of one, and so, you know, because it's one divided by one

1 is one. So that is really, I think, a maturing, quickly
2 maturing technology. It has its nuance, and it's great
3 that we're funding ways to do fuel installations of high-
4 pressure systems like this, which CO2 is.

5 And then maybe, I don't know, Colin, if you could
6 put sort of this in context with our broader industrial
7 strategy, you know, INDIGO, and kind of maybe give us a few
8 highlights of some of the other investments we're making or
9 sort of the general strategy for INDIGO.

10 MR. LEE: Yeah, across INDIGO, we have multiple
11 projects. A lot of them are focused on decarbonization
12 electrification technologies related to heat pumps, steam-
13 generating heat pumps, high-temperature heat pumps, and
14 industrial facilities. We also have a lot of other
15 projects in the pipeline looking into high temperature
16 processes such as glass manufacturing, and steel as well.
17 So looking to decarbonize the industrial sector through a
18 lot of these other solutions as well.

19 COMMISSIONER MCALLISTER: Thanks for that. And
20 California's industrial base is pretty unique and, you
21 know, does not have some heavy industries that other states
22 and countries might have, but has a lot of sort of
23 innovation happening in that sphere. So really glad that
24 we're in the mix there.

25 I don't have any other comments, but Vice Chair

1 might.

2 CHAIR HOCHSCHILD: Comments on item 10? Yeah,
3 Vice Chair, please.

4 VICE CHAIR GUNDA: Thank you, Chair.

5 Thanks, Commissioner McAllister. Maybe this is
6 to you. I just wanted to kind of ask, you know, again,
7 recognizing the importance of this kind of project, how are
8 we thinking about the broader need for investment in the
9 industrial sector? And, you know, any kind of broad vision
10 that you have as of today that would be helpful for us to
11 think about? I'm also like looking at the forecasting
12 side --

13 COMMISSIONER MCALLISTER: Yeah.

14 VICE CHAIR GUNDA: -- and how and where we need
15 to improve based on the investments you think we are going
16 to be making.

17 COMMISSIONER MCALLISTER: I appreciate that
18 question. And, you know, we've dipped our toe in
19 industrial periodically, we, the Commission in its history;
20 right? And I'm referring to previous iterations of the
21 Commission that go back a few decades, actually.

22 And I've worked on industrial myself, you know,
23 professionally before I came to the Commission, and, you
24 know, in South America, Mexico and industries are pretty
25 similar across the world. You know, they vary in their

1 markets and their particulars, but the processes are pretty
2 much the same.

3 But each industry, particularly the ones with the
4 big bang for buck, you know, the large industries that have
5 a lot of thermal load, they really are kind of each one is
6 unique. The processes are kind of similar. But the
7 investors, the owners, the markets, the sort of footprint,
8 all of those really vary. And so, you know, the
9 engineering often is you can transfer from one project to
10 the other, but the relationships really need to be with the
11 industries, the chief financial officers, the plant
12 engineers.

13 And so it just really becomes a more bespoke
14 approach. And so it's about building relationships with
15 these big industries over time and building trust; right?
16 And that's not easily done. It really takes, you know,
17 commitment and promises that you keep and, you know,
18 working with the large industrial users and their
19 associations.

20 So that's kind of the vision, is to really sort
21 of chip away at this and build relationships over time. I
22 think staff is doing a great job with that. These
23 solicitations and programs, INDIGO among them, really help
24 with that relationship building and the resources are
25 great. But I think they really, they have to complement

1 the relationships. And that way we can learn from one and
2 then go to another industry and say, hey, you know, this
3 worked, really. We want to work with you to make it happen
4 in your plant, you know?

5 So I think that's the vision. And we do have a
6 fair amount of manufacturing. You know, Colin referred to
7 a number of industrial sectors that we have significant
8 presence in the state. And, you know, the dairy industry
9 is one of them and we're chipping away at that one, too, a
10 lot of heat loads, a lot of a lot of opportunity for sort
11 of thermodynamic improvements, you know, and efficiency.

12 So anyway, that's kind of the broad vision. And
13 it takes it takes time and staff and, you know, a lot of
14 kind of, you know, shoe leather.

15 VICE CHAIR GUNDA: Thank you, Commissioner
16 McAllister.

17 And thanks, Colin, for the presentation.

18 COMMISSIONER MCALLISTER: Yeah.

19 CHAIR HOCHSCHILD: So I'll just say, you know, in
20 the course of our work, there are many, many firsts. This
21 is the first of a decarbonized cheese company. I think we
22 if we can pair with the decarbonized wine company, I think
23 we've got a good event, so --

24 COMMISSIONER MCALLISTER: Let's have a
25 decarbonized hors d'oeuvres party or something, yeah.

1 CHAIR HOCHSCHILD: With that, I would welcome a
2 motion on item 10 from Commissioner McAllister.

3 COMMISSIONER MCALLISTER: I move item 10.

4 CHAIR HOCHSCHILD: Is there a second from the
5 Vice Chair?

6 VICE CHAIR GUNDA: Second the item.

7 CHAIR HOCHSCHILD: All in favor, say aye.
8 Commissioner McAllister?

9 COMMISSIONER MCALLISTER: Aye.

10 CHAIR HOCHSCHILD: Vice Chair Gunda?

11 VICE CHAIR GUNDA: Aye.

12 CHAIR HOCHSCHILD: Commissioner Skinner?

13 COMMISSIONER SKINNER: Aye.

14 CHAIR HOCHSCHILD: Commissioner Gallardo?

15 COMMISSIONER GALLARDO: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item
17 10 passes unanimously.

18 We'll turn now to item 11, Direct Air Capture
19 Research Demonstration and Community Engagement.

20 MS. HADDAD: Good afternoon, Chair, Vice Chair
21 and Commissioners. My name is Maryam Haddad and I work in
22 the Energy Research Development Division. Today, I'll be
23 presenting three recommended awards under the Carbon
24 Removal Innovation Support Program, called CRISP, on direct
25 air capture, research demonstration and community

1 engagement.

2 Next slide, please.

3 Direct air capture, or DAC, is a process that
4 removes carbon dioxide directly from the atmosphere,
5 helping reduce existing carbon dioxide levels. The process
6 has three main steps and produces two outputs, concentrated
7 carbon dioxide and filtered air. First, large fans pull in
8 atmospheric air. Then the air passes through filters using
9 solid solvent or liquid solvent that capture and
10 concentrate carbon dioxide. Lastly, the filters are heated
11 to release the concentrated carbon dioxide to either be
12 stored underground or used to make products. The filtered
13 air then returns to the atmosphere.

14 Next slide, please.

15 CRISP was established by Assembly Bill 209 to
16 help develop direct air capture technologies using either
17 physical processes, chemical processes, or a combination of
18 both. Projects benefiting petroleum or gas production,
19 processing, or refining, such as enhanced oil and gas
20 recovery, are not eligible.

21 CRISP is one of California's first program
22 advancing direct air capture technologies, positioning the
23 state to be a carbon management leader by investing in
24 research and development and leveraging its innovative
25 startup ecosystem. CRISP is part of California climate

1 investment that uses capital trade funds to reduce
2 greenhouse gas emissions, boost the economy, and improve
3 public health and environment, particularly in
4 disadvantaged communities.

5 Next slide, please.

6 A 2022 Scoping Plan from the California Air
7 Resource Board emphasizes the need for new strategies such
8 as carbon dioxide removal to tackle residual carbon
9 emission and achieve carbon neutrality. Investing in
10 direct air capture technologies can create jobs, stimulate
11 local economies and promote innovation in clean energy.

12 Projects awarded under the CRISP program will
13 provide several advantages, including a decreased reliance
14 on fossil fuel, reduced greenhouse gas emissions, and
15 improve local air quality. These initiatives will
16 contribute to California's goal for achieving carbon
17 neutrality.

18 The field demonstration projects awarded under
19 this solicitation must co-develop a Community Benefit Plan
20 with local stakeholders and tailor it to the host
21 community. The plan must outline benefits like job
22 creation, economic development, environmental improvements
23 and social impacts.

24 Next slide, please.

25 This solicitation sought to fund projects that

1 will advance innovative direct air capture technologies,
2 technical, economic and environmental viability. These
3 include activities such as testing, piloting and
4 demonstrating advanced technologies, along with active
5 community engagement, benefit planning and community
6 education.

7 Projects recommended for funding fall into the
8 following groups. Group 1, direct air capture research and
9 development and Group 2, direct air capture demonstration
10 and community engagement.

11 In addition to the Community Benefit Plan
12 previously mentioned, demonstration projects are required
13 to allocate at least seven percent of CEC funds to support
14 community engagement, education, and risk and benefit
15 analysis.

16 Seven projects are recommended for award under
17 this solicitation. The total funding represents \$12.99
18 million in CEC funds with \$13.69 million in match funds.
19 Three projects will be presented today and the rest will be
20 presented at a future business meeting.

21 Next slide, please.

22 Projects with Circularity Fuels, Inc. will
23 develop a self-heating monolith reactor using direct
24 electric heating for sorbent regeneration, eliminating the
25 dependency on steam and water. Currently, direct air

1 capture technologies face scalability and cost challenges
2 due to high energy demands, water consumption, and complex
3 infrastructure.

4 Most commercial systems use steam-based
5 regeneration requiring a significant amount of water, which
6 increases operational costs and reduces sorbent lifespan.
7 The Circularity Fuels' direct air capture process will
8 eliminate the need for steam by utilizing resistive
9 heating, leading to a nearly 80 percent reduction in energy
10 consumption when compared to conventional systems.

11 Additionally, Circularity Fuels plans to validate
12 the process performance under real world conditions. By
13 the end of the agreement term, Circularity Fuels' project
14 aims to reduce carbon capture costs and energy use by 30
15 percent. This will cut their energy consumption from 2,500
16 to 1,750 kilowatt hours per metric ton while producing
17 high-purity carbon dioxide for use in sustainable aviation
18 fuel. Also, the project will produce water as a byproduct.

19 Next slide, please.

20 Project with Noya PBC will optimize sorbent
21 material and improve carbon dioxide regeneration using
22 amines with Noya fully electric dual-heated system,
23 reducing the cost and improving performance for large scale
24 systems. Amines are effective sorbent for direct air
25 capture as they bind carbon dioxide easily and need a small

1 amount of energy to release it. To work well and for a
2 longer period, amines must be protected from heat and
3 oxygen, which cause them to break down.

4 Noya's direct air capture process will create a
5 sorbent environment designed to minimize the degradation of
6 amines. This will be achieved by employing dual heating to
7 regulate the temperature of the sorbent and preventing air
8 exposure to the sorbent at elevated temperature.

9 By the end of the agreement term, Noya's project
10 aims to reduce carbon capture costs and energy use by 30
11 percent, cutting their energy consumption from 2,500 to
12 1,730 kilowatt hours per metric ton. Additionally, their
13 project will produce one metric ton of water for every
14 metric ton of captured carbon dioxide.

15 Next slide, please.

16 The project with AirCapture LLC will use
17 microwave energy to release carbon dioxide from solid
18 sorbent, offering a more energy efficient water free
19 alternative to traditional steam-based system. Reliance on
20 a steam-based regeneration system results in high energy
21 and water consumption and poses potential environmental
22 risks such as sorbent degradation and quality.

23 These challenges will limit direct air capture
24 deployment in water sensitive areas of California and the
25 United States. AirCapture's microwave-assisted process

1 tackles this issue by using electromagnetic energy,
2 reducing energy consumption, capital costs, and site
3 limitation while improving efficiency of regeneration
4 cycles and sorbent lifespan. By the end of the agreement
5 term, AirCapture's project aims to reduce carbon capture
6 costs and energy use by 30 percent, cutting their energy
7 consumption from 350 to 245 kilowatt hours per metric ton.
8 Additionally, the project will improve the lifespan of the
9 sorbent by 50 percent.

10 Next slide, please.

11 Staff recommends approval of these agreement
12 grants and adoption of staff's determination that these
13 projects are exempt from CEQA.

14 And that concludes my presentation, and I'm happy
15 to take any questions. Thank you.

16 CHAIR HOCHSCHILD: Thank you so much.

17 Let's go to public comment on item 11.

18 MS. BADIE: Thank you, Chair.

19 The commission welcomes public comment on item 11
20 at this time. If you're in the room, you can raise your
21 hand or use the QR Code. If you're joining by Zoom online,
22 you'll use the raise-hand feature on your screen, or star
23 nine if joining by phone. And I'm just going to give that
24 a moment.

25 Alright, I am not seeing any raised hands for

1 this item. Back to you, Chair.

2 CHAIR HOCHSCHILD: Thank you.

3 Well, what a great set of projects. Super
4 excited to see this launch and to see the diversity of
5 different technologies.

6 Let me just see if there's any other comments.
7 Commissioner McAllister.

8 COMMISSIONER MCALLISTER: I just want to say
9 thanks to Maryam for that briefing, and agree with the
10 Chair, these are great projects. And, you know, there's so
11 much need for air capture. I mean, I think we're all in
12 agreement that that's going to help us really get this over
13 the finish line. So happy to be supporting these
14 technologies that really are taking care of our resources.

15 CHAIR HOCHSCHILD: Yeah. Thank you.

16 Vice Chair?

17 VICE CHAIR GUNDA: Yeah. Thank you, Chair.

18 Thanks, Maryam, for that really good presentation
19 and kind of defining the projects.

20 You know, so I just wanted to reiterate the
21 importance of the carbon removal as a, you know, as a part
22 of the Scoping Plan and the target of, you know,
23 approximately 75 million tons, right, that has to come from
24 CDR.

25 I think what I understand from previous analysis

1 was approximately under \$200 a ton was seen as a place
2 where we can begin to scale. And the projects that you
3 kind of talked about today that's either under or like
4 slightly in that vicinity gives me a lot of confidence and,
5 you know, we need to pursue these. And, yeah, looking
6 forward to supporting it.

7 Thanks, Maryam.

8 CHAIR HOCHSCHILD: Yeah, and I'll just say, when
9 I did a direct carbon capture for last year, it was quite
10 clear that the majority of the innovation in the sector
11 resides here in our state. So happy to contribute to the
12 continued momentum there.

13 So with that, I welcome a motion from
14 Commissioner McAllister.

15 COMMISSIONER GALLARDO: May I make a comment?
16 Sorry.

17 CHAIR HOCHSCHILD: I'm sorry. Go ahead. Yeah, I
18 didn't see you. (Indiscernible.)

19 COMMISSIONER GALLARDO: No worries. No worries.

20 Maryam, I also wanted to thank you for the
21 excellent presentation and the briefing. That was really
22 helpful to better understand. And I agree with my peers
23 here on the technology and the innovation and the need for
24 it.

25 And I also want to highlight that the community

1 engagement portion that's really intentional here makes so
2 much sense, because when there is emerging technology, it's
3 so helpful for the community to better understand it and to
4 know how it could potentially affect them, and then being
5 able to, you know, participate accordingly in our
6 proceedings or with, you know, the developer or whoever
7 else.

8 So I want to make sure we've highlighted, you
9 know, that that's a part of these CRISP grants and excited
10 to see how that develops.

11 Thank you.

12 CHAIR HOCHSCHILD: Thank you.

13 Unless there's any more comments, I'd welcome a
14 motion on Item 11 from Commissioner McAllister.

15 COMMISSIONER MCALLISTER: Move Item 11.

16 CHAIR HOCHSCHILD: And Commissioner Gallardo,
17 would you be willing to second Item 11?

18 COMMISSIONER GALLARDO: I second Item 11.

19 CHAIR HOCHSCHILD: All in favor, say aye.

20 Commissioner McAllister?

21 COMMISSIONER MCALLISTER: Aye.

22 CHAIR HOCHSCHILD: Commissioner Gallardo?

23 COMMISSIONER GALLARDO: Aye.

24 CHAIR HOCHSCHILD: Commissioner Gunda?

25 VICE CHAIR GUNDA: Aye.

1 CHAIR HOCHSCHILD: Commissioner Skinner?

2 COMMISSIONER SKINNER: Aye.

3 CHAIR HOCHSCHILD: And I vote aye as well. Item
4 11 passes unanimously.

5 We turn now to Item 12, Build Momentum, dba
6 Momentum.

7 MR. FUNG: Okay. Hello, Chair, Vice Chair, and
8 Commissioners. I am Matt Fung from the Industry and Carbon
9 Management Branch. Today we are seeking approval of this
10 grant, which resulted from a solicitation focused on
11 advancing load-flexible technologies and strategies to help
12 meet Senate Bill 100 clean energy goals and support other
13 Energy Commission efforts, including Appliance and Demand
14 Flexibility Regulations and the Load Management Standards.
15 Our primary goals are to enhance demand flexibility and
16 grid reliability and a cost-effective and equitable manager
17 for the industrial, agricultural, and water sectors.

18 Next slide, please.

19 Benefits of this Industrial, Agricultural, and
20 Water Flexible Demand and Deployment Hub, or IAW Flex Hub,
21 project include creating more avenues for the IAW sectors
22 to participate in load flexibility programs and that can
23 improve grid reliability, increasing affordability by
24 shifting load to off-peak hours or shedding energy during
25 grid emergencies can reduce customers' energy costs and the

1 need for operating expensive peaker plants, and enhancing
2 environmental sustainability with demand flexibility
3 technologies and strategies can reduce greenhouse gas
4 emissions by reducing electricity use.

5 Next slide, please.

6 A broader goal to electrify more IAW loads,
7 demand flexibility is a key component to achieving
8 electrification and decarbonization. The recent Senate
9 Bill 846 report set out to achieve 7 gigawatts of load
10 shift in the state by 2030, of which IAW sectors can make
11 up about 2 gigawatts of load shift potential.

12 With these reasons, and building upon the
13 successes of the building sector's California Flexible Load
14 Research and Deployment Hub, this solicitation is set to
15 establish the IAW Flex Hub to demonstrate and deploy
16 scalable and signal-responsive demand flexible technologies
17 and facilitate their market adoption through a portfolio of
18 research projects. Research projects must enroll in a
19 California Investor-Owned Utility Dynamic or Real-Time
20 Pricing Pilot Program, a Wholesale Demand Response Program,
21 a load serving entity or third-party DR Program, or the
22 Emergency Load Reduction Program.

23 Research projects must also demonstrate a minimum
24 of five percent reduction in annual energy costs from
25 demand flexibility and a five-year or shorter payback

1 period for the chosen demonstration site.

2 The proposed award is to the entity Build
3 Momentum for \$17 million, who will contribute about \$5.2
4 million in match funds. In the initial phase, the Hub will
5 spend \$10.6 million for market assessment, community impact
6 framework, and the four initial projects. The next few
7 slides will briefly cover the four initial projects being
8 performed under the IAW Flex Hub.

9 Additional projects will be prioritized and added
10 based on research results and industry needs.

11 Next slide, please.

12 The first project is located in Irwindale,
13 California, and will focus on researching alternative rate
14 structures for the water sector to shift their electric
15 load to times of renewable overgeneration to avoid
16 renewable curtailment. These alternative rate structures
17 plan to be implemented in Southern California Edison's
18 Flexible Demand Response Program and demonstrated at a
19 water facility within the first year. Learnings from this
20 project will inform future demand flexibility programs.

21 The second project is located in Santa Barbara,
22 California, and will focus on developing digital tools to
23 assist water treatment and supply facility operators on
24 demand flexibility optimization while maintaining water
25 facility operations. These digital tools will be

1 demonstrated at the Meyer Desalination Plant to analyze the
2 efficacy and impacts of curtailing portions of the
3 treatment train to reduce energy load during peak resting
4 periods and save an estimated 70 percent in bill costs.

5 The third project will take place at the Siemens
6 All-Electric Electronics Coding Facility in Pomona,
7 California. This project will focus on building
8 optimization of the manufacturing floor and office spaces
9 to include space conditioning, hot water, solar, and energy
10 storage with an expected 30 percent reduction in peak power
11 costs. The load management application and building energy
12 optimization strategies used will be demonstrated,
13 verified, and made available to the market for other
14 industrial facilities to use.

15 Next slide, please.

16 The fourth industry project is located at the
17 Innovative Cold Facility in San Diego, California. This
18 project will focus on demand flexibility load optimization
19 for a food production and distribution facility that
20 contains blast freezing and storage services. This
21 optimization system will use model predictive controls for
22 the low global warming potential refrigeration systems,
23 blast freezing, and space conditioning load management that
24 will deliver between 5 percent to 13 percent reduction in
25 annual energy costs.

1 Next slide, please.

2 According to the California Demand Response
3 Potential Study, the IAW market can potentially shift 5
4 gigawatt hours of load in 2050, which is about 17 percent
5 of the total estimated California load shift potential that
6 can enable the use of cheaper and cleaner generation
7 sources. Work from the IAW Flex Hub can also help the
8 state meet its SB 846 2030 load shift goal.

9 Next slide, please.

10 Staff recommends approval of this agreement and
11 adoption of staff's SECA recommendation. I am available
12 for any questions.

13 CHAIR HOCHSCHILD: Thank you so much.

14 Let's go to public comment.

15 MS. BADIE: Thank you.

16 The Commission welcomes public comment on item 12
17 at this time. If you're in the room with us, you can raise
18 your hand. If you're on Zoom, you'll use the raise-hand
19 feature on your screen. And if you're joining by phone,
20 you'll press star nine. And I'm just giving that a moment.

21 Alright, there are no raised hands for this item.
22 Back to you, Chair.

23 CHAIR HOCHSCHILD: Okay. We'll go to
24 Commissioner discussion. Just thrilled to see both the
25 investment and the scale in this. And it lines up nicely

1 with our discussion earlier today. So a really nice
2 alignment in our R&D investments with our policy objectives
3 and our market program.

4 Let's go. Commissioner McAlister, you want to
5 start off?

6 COMMISSIONER MCALLISTER: Thanks, Matt. I really
7 appreciate it, and appreciate the briefing and all the
8 effort to bring this to a meeting. I really love this
9 model where you've got sort of one lead and then they're
10 sort of managing various projects. That keeps a bunch of
11 different irons in the fire. And then, you know,
12 whatever -- and some of those will be successful and it
13 sort of lets us be creative and lets us really stir up
14 interesting projects with potential in parallel rather than
15 in series.

16 So I really just appreciate the program approach
17 that we've used before. And I think it's faithful. So I
18 really appreciate it. It's proven. So I really appreciate
19 the staff effort on this. Really excited about all these
20 projects, they're really interesting technologies, so
21 thanks.

22 CHAIR HOCHSCHILD: Vice Chair?

23 VICE CHAIR GUNDA: Yeah. Thank you, Chair.

24 Matt, thank you for the presentation. You know,
25 I just wanted to kind of give thanks to, you know, Cody,

1 Angie, and of course, Jonah for the leadership on this
2 issue.

3 Again, in the spirit of the discussion this
4 morning on demand flexibility as a whole, I see that these
5 projects are kind of helping both on the load modifying
6 side and the product demand flexibility in a variety of
7 sectors, so looking forward to supporting it. I think
8 there's a lot of opportunity here to gather data and look
9 forward to following up with your team on that.

10 CHAIR HOCHSCHILD: Are there comments? If not, I
11 would welcome a motion from Commissioner McAllister.

12 COMMISSIONER MCALLISTER: Move item 12.

13 CHAIR HOCHSCHILD: Is there a second from the
14 Vice Chair?

15 VICE CHAIR GUNDA: Second.

16 CHAIR HOCHSCHILD: All in favor, say aye.
17 Commissioner McAllister?

18 COMMISSIONER MCALLISTER: Aye.

19 CHAIR HOCHSCHILD: Vice Chair Gunda?

20 VICE CHAIR GUNDA: Aye.

21 CHAIR HOCHSCHILD: Commissioner Skinner?

22 COMMISSIONER SKINNER: Aye.

23 CHAIR HOCHSCHILD: Commissioner Gallardo?

24 COMMISSIONER GALLARDO: Aye.

25 CHAIR HOCHSCHILD: And I vote aye as well. Item

1 12 passes unanimously. Thank you.

2 We'll turn to item 13, ReJoule Incorporated.

3 MR. CHEN: Good afternoon, Chair, Vice Chair, and
4 Commissioners. My name is Peter Chen. I'm the Supervisor
5 of the Transportation Unit in the Energy Research and
6 Development Division. Today, I'm presenting Phase 1 of a
7 proposed EPIC Federal Cost Share Agreement with ReJoule
8 Incorporated to advance electric vehicle battery
9 repurposing pathways for long-duration second life energy
10 storage use cases.

11 Next slide, please.

12 As EV batteries are retired, they may still have
13 sufficient leftover capacity to be repurposed for less
14 demanding stationary energy storage applications,
15 extracting additional value and benefits before recycling
16 to recover the critical materials. Second life stationary
17 energy storage can provide services to improve grid
18 reliability, support affordability, and help integrate
19 renewables.

20 This \$2.5 million agreement with ReJoule
21 leverages \$10 million from the U.S. Department of Energy
22 and an additional \$12.2 million from other cost share
23 partners. As a federal cost share agreement, CEC funding
24 will be contingent on continuation of ReJoule's active
25 federal grant for this project.

1 Next slide.

2 This agreement is structured in two phases. In
3 Phase 1, ReJoule will be advancing their portable rapid
4 battery grading and diagnostic platform to reduce the time
5 needed to test the state of health of retired EV batteries
6 and determine whether they are suitable for repurposing or
7 if they should go directly to recycling. This technology
8 also enables testing EV batteries at their origin location,
9 reducing costs by avoiding the need to transport them to
10 separate locations for testing. ReJoule will work to
11 establish pathways to obtain key UL certifications for
12 battery repurposing and stationary energy storage systems
13 using their diagnostic platform.

14 Phase 1 also involves engineering design,
15 technological analysis, and environmental review for CEQA
16 compliance and planning in preparation for the Phase 2
17 demonstrations. In Phase 2, ReJoule will be building two
18 second life battery energy storage systems capable of at
19 least 100 kilowatts of continuous discharge over 10-plus
20 hours, as well as peak shaving and demand response.

21 The batteries will be demonstrated at two
22 California sites. The first site, on the left, is the
23 Meridian at Corona Station all affordable housing
24 complex -- All Electric Affordable Housing Complex, sorry,
25 in Petaluma. ReJoule will be deploying a 2-megawatt-hour

1 system integrated with EV chargers.

2 And the second site is the Tribal Administration
3 Building for the Middletown Rancheria of Pomo Indians.
4 ReJoule will be deploying a 1.6-megawatt-hour system to
5 supplement onsite solar generation and provide backup power
6 during prolonged power outages. The tribe is located in a
7 high-power threat area in the Lake County region and will
8 benefit from the increased energy resilience that the
9 battery will provide.

10 Next slide, please.

11 This agreement will initially provide \$1.15
12 million for Phase 1, which involves CEQA-exempt tasks
13 including design and planning, certification, and
14 development of environmental compliance materials for the
15 two California demonstration sites.

16 Upon completion of the environmental review in
17 compliance with CEQA, up to an additional \$1.35 million
18 will be added for Phase 2 through approval of an amendment
19 at a future business meeting. This phased approach also
20 aligns with the structure of ReJoule's agreement with DOE.

21 Next slide.

22 If this project is successful and EV battery
23 repurposing achieves scale, the California market potential
24 is significant. For perspective, California has over 1
25 million EVs on the road today. Assuming each EV has a 60-

1 kilowatt-hour battery pack degraded to 70 percent capacity
2 at the end of life, 1 million EV batteries can translate to
3 42 gigawatt-hours of storage, or 7 gigawatts over an
4 assumed 6-hour cycle, of potential stationary storage
5 capacity. And this is roughly half of today's total
6 statewide battery energy storage capacity.

7 Studies suggest that repurposed batteries can
8 also have a 25 to 75 percent cost advantage over new
9 batteries. Technologies like ReJoule's battery diagnostic
10 platform and learnings from this project's real-world
11 demonstrations will contribute to realizing this cost
12 advantage, with the goal of making battery repurposing an
13 attractive approach to turn aging EV batteries into grid
14 assets that can help achieve the state's clean energy goals
15 more cost-effectively.

16 Next slide, please.

17 Staff recommends approval of the first phase of
18 this agreement with ReJoule, consisting of detailed design
19 and planning, certification, and environmental studies, and
20 to adopt staff's recommendation that this action is exempt
21 from CEQA.

22 That concludes my presentation. I'm available to
23 answer any questions.

24 CHAIR HOCHSCHILD: Thank you so much, Peter.

25 We'll go to public comment on Item 13.

1 MS. BADIE: Thank you.

2 The Commission welcomes public comment on Item 13
3 at this time. If you're in the room with us, you can raise
4 your hand or approach the podium. And if you're on Zoom,
5 you'll use the raise-hand feature on your screen, it looks
6 like an open palm, or star 9 if joining by phone.

7 And I'm not seeing anyone in the room, so I'm
8 going to transition over to Zoom. Jacqueline Ewens, I'm
9 going to open your line. Just a reminder, if you can, to
10 please spell your name for our co-reporter. And also,
11 we're asking for comments to be two minutes or less. There
12 will be a timer on the screen.

13 MS. EWENS: Hello. Thank you very much for
14 having us. My name is Jacqueline, J-A-C-Q-U-E-L-I-N-E,
15 Ewens, which is E as in Echo, -W as in Whiskey, -E as in
16 Echo, -N as in November, -S as in Sierra. And I'm speaking
17 on behalf of ReJoule.

18 We want to thank the CEC very, very much for your
19 time and support of this project. And in particular, thank
20 you to Peter and Ron for their work in bringing this
21 project to the business meeting.

22 ReJoule specializes in the diagnostics and
23 grading of EV batteries to maximize the value of every
24 battery for economic and environmental benefits.

25 Also, thank you to the CEC. We have a current

1 grant, EPIC-19055, where we have built the world's first
2 battery energy storage system with repurposed batteries,
3 which is now fully operational in Pomona, California.

4 This new project that we're proposing as part of
5 the DOE project will leverage our learnings from our pilot
6 project with the CEC and support the development and
7 engineering of the two systems that Peter shared. As
8 mentioned, these two systems will provide resiliency to the
9 communities who experience frequent outages while also
10 allowing them to maximize their solar usage, reduce
11 emissions, and reduce costs.

12 Operation systems will also create jobs in the
13 site communities and utilize second life batteries from a
14 domestic supply chain that further reduces emissions.

15 This project is a really critical step in the
16 development of demonstration of this technology. Also, as
17 Peter shared, the potential for scaling this technology is
18 huge. And when adopted at scale, repurposing EV batteries
19 for storage systems could transform our grid, increase
20 adoption of renewables, and support resiliency while
21 leveraging an already existing waste stream.

22 Thank you so much for your time.

23 MS. BADIE: Thank you.

24 And that is the only raised hand for this item.

25 Back to you, Chair.

1 CHAIR HOCHSCHILD: Great. Thank you.

2 We're thrilled to see this, and congratulations
3 to ReJoule and the whole team.

4 I just want to -- you know, yeah, we have been
5 obviously focusing a lot on lithium recovery, and Lithium
6 Valley is part of our efforts here at the Energy
7 Commission. But the end goal is 100 percent recycling of
8 lithium for our battery projects. And so it's great to see
9 these sort of second life applications, and especially in a
10 Native American tribe, so I'm thrilled to support this.

11 I would welcome comments from any Commissioners
12 who'd like to speak.

13 VICE CHAIR GUNDA: And, obviously, thanks to say
14 thanks to Peter.

15 CHAIR HOCHSCHILD: Thank you, Peter. Great job.

16 If not, let's go to a vote. Vice Chair, would
17 you be willing to move Item 13?

18 VICE CHAIR GUNDA: Yeah. Move item.

19 CHAIR HOCHSCHILD: Is there a second from
20 Commissioner McAllister?

21 COMMISSIONER MCALLISTER: Second.

22 CHAIR HOCHSCHILD: All in favor, say aye.

23 Vice Chair Gunda?

24 VICE CHAIR GUNDA: Aye.

25 CHAIR HOCHSCHILD: Commissioner McAllister?

1 COMMISSIONER MCALLISTER: Aye.

2 CHAIR HOCHSCHILD: Commissioner Skinner?

3 COMMISSIONER SKINNER: Aye.

4 CHAIR HOCHSCHILD: Commissioner Gallardo?

5 COMMISSIONER GALLARDO: Aye.

6 CHAIR HOCHSCHILD: And I vote aye as well.

7 Thank you, Peter. Item 13 passes unanimously.

8 Turn now to Item 14, Lead Commissioner and
9 Presiding Member Reports. Let's begin with Commissioner
10 McAllister. And you shared a bit on your China thing
11 already.

12 COMMISSIONER MCALLISTER: Absolutely. Yeah, I
13 just wanted to make sure I got time for the China thing
14 this morning, so I appreciate that opportunity.

15 The only thing I'll mention, since the last
16 business meeting, I've been on the road almost
17 consistently, almost constantly, so not a lot of sort of --
18 yeah, I don't want or need to report on many of those
19 trips.

20 But I did want to just mention, I think three of
21 us at least were down at VerdeXchange earlier this week.
22 And I just really want to highlight the need to support
23 L.A., not just because of the fires, but really because the
24 global eye is on .L.A for the next few years, really, as
25 they navigate World Cup matches and Super Bowl and then,

1 you know, have the Olympics and the Paralympics coming up
2 in the next few years. And a lot of work to do to build
3 infrastructure, rebuild infrastructure.

4 And the VerdeXchange is always a real potpourri
5 of topics and conversations, but really draws the who's who
6 of L.A., you know, sort of leadership across all sectors of
7 the economy. And it's really a really great event. And
8 David Abel and Eliot Abel do a great job with it. So
9 always great to have the opportunity to interact with L.A.
10 leaders.

11 So that's really all I wanted to say. Thanks.

12 CHAIR HOCHSCHILD: Any other updates? Vice
13 Chair?

14 VICE CHAIR GUNDA: Yeah. We have a second
15 business meeting on the 24th, so I'm going to reserve mine
16 for that. Thanks.

17 CHAIR HOCHSCHILD: Vice Chair Skinner?

18 COMMISSIONER SKINNER: These are there updates?

19 CHAIR HOCHSCHILD: Yes.

20 COMMISSIONER SKINNER: That's what I thought.

21 I wanted to, I think we've done this in the past,
22 but I really wanted to thank the staff that worked on the
23 Tribal Energy Summit. It was great to see so many of our
24 tribal partners together and all discussing with staff and
25 Commissioners ways that we can improve our work together,

1 ways that we can just expand that work, and also
2 celebrating the work that we have done. So I thought that
3 was a great day.

4 And then I participated in a CALSTART panel
5 around California's role in clean transportation
6 leadership. And I was joined by Tyson Eckerle from the
7 ARCHES Project and our CARB Chair Randolph, and so that was
8 a fascinating discussion.

9 And otherwise have been having fun getting
10 further briefed by all the amazing work that the different
11 divisions and branches of the CEC does, as well as working
12 on some statutory mandates that the areas that are under me
13 have responsibility for. So it's been busy, but fun.

14 CHAIR HOCHSCHILD: Commissioner Gallardo?

15 COMMISSIONER GALLARDO: Yeah, I have some images
16 to show if those are ready.

17 And Commissioner Skinner highlighted one of the
18 things that I'm going to start with, which is our Energy
19 Commission's Tribal Summit that our Director of Tribal
20 Affairs, Sierra Graves, put together was phenomenal.

21 Do you have the slides ready to go?

22 MS. BADIE: Commissioner Gallardo, we don't have
23 slides from your office.

24 COMMISSIONER GALLARDO: Oh. They were in the
25 folder. We put them in the folder. I put them in

1 directly. Can you pull them up? Sorry, Mona, are you able
2 to pull them up?

3 MS. BADIE: Right now.

4 COMMISSIONER GALLARDO: Okay.

5 MS. BADIE: I'm so sorry, I'm not seeing them in
6 the folder, so I'm not able to pull them up.

7 COMMISSIONER GALLARDO: Okay. There's some
8 images I want to show, so I'll just wait. I'll do like
9 Vice Chair Gunda and wait until the 24th. Sorry about
10 that.

11 CHAIR HOCHSCHILD: Do you want to put them up?

12 COMMISSIONER GALLARDO: I'll just wait till the
13 24th.

14 CHAIR HOCHSCHILD: Okay. Commissioner
15 McAllister, you may have had one other thing.

16 COMMISSIONER MCALLISTER: Yeah, I just wanted --
17 I was traveling a lot and I'm going to miss the 24th
18 actually, so just letting everybody know.

19 But I wanted to just thank my staff. I was
20 traveling just like a banshee over the last few weeks, and
21 actually in China with my Advisor Maggie Deng, who was just
22 phenomenal and is still over there actually with her
23 grandparents. She has roots in China, so she was
24 incredibly helpful.

25 And then Hughson Garnier, who got back from his

1 honeymoon right about when I was traveling and just really
2 held down the -- held the fort incredibly well.

3 And then, of course, my Chief of Staff, Bryan
4 Early, was just essential to keep all the trains moving.

5 So I just wanted to acknowledge my team. Thanks.

6 CHAIR HOCHSCHILD: No updates from me.

7 Let's turn now to Executive Director's report.

8 I believe, Mona, you were going to report on
9 their behalf.

10 MS. BADIE: On behalf of the Executive Office,
11 nothing to report.

12 CHAIR HOCHSCHILD: Okay. Is there item 16, any
13 report from the Public Advisor?

14 MS. BADIE: Yes. Thank you.

15 On Friday, April 18th, at this building on the
16 second floor in the media room, and also online via Zoom,
17 there's going to be a meeting of the CEC-CPUC Disadvantaged
18 Communities Advisory Group. And on the agenda, SoCalGas
19 and PG&E will present their 2024 and 2025 Gas R&D
20 Investment Plans for feedback from the Advisory Group. And
21 also there will be a presentation by Chelsea Kirk, who is a
22 member of the Disadvantaged Communities Advisory Group, on
23 decarbonizing California equitably, a tenant-centered
24 approach to decarbonization, and among other items.

25 And that is all I have to report. Thank you.

1 CHAIR HOCHSCHILD: So we're going to go back to
2 an item, which we'd like to reopen, and have the Vice Chair
3 recuse. On which item was that.

4 Mona, can you confirm item 13?

5 MS. BADIE: ReJoule?

6 CHAIR HOCHSCHILD: Wait, was it the one we just
7 did?

8 VICE CHAIR GUNDA: Yeah, that has a UC Davis as a
9 lead.

10 CHAIR HOCHSCHILD: Okay, so --

11 VICE CHAIR GUNDA: That was 13, I believe.

12 CHAIR HOCHSCHILD: Okay. Thank you. So Vice
13 Chair, do you want to state your recusal?

14 CHAIR HOCHSCHILD: Yeah.

15 MR. BOHAN: I believe we need a motion to reopen.

16 CHAIR HOCHSCHILD: Correct. Okay, so thank you.
17 And it is, I'm confirming, this is item 13?

18 VICE CHAIR GUNDA: I'm just giving -- yeah, I
19 think so.

20 CHAIR HOCHSCHILD: Okay, let's just make sure we
21 get that right.

22 So the Vice Chair teaches a course at UC Davis
23 and we meant to have him recuse from anything involving UC
24 Davis.

25 MR. BOHAN: I believe it's item 12, Chair.

1 CHAIR HOCHSCHILD: Okay. Let's just make sure
2 it's item 12.

3 VICE CHAIR GUNDA: Oh, right, item 12. Thank
4 you.

5 CHAIR HOCHSCHILD: Okay, so we need -- thank you.

6 COMMISSIONER SKINNER: I will move to reopen item
7 12.

8 CHAIR HOCHSCHILD: Is there a second from
9 Commissioner McAllister?

10 COMMISSIONER MCALLISTER: Second.

11 CHAIR HOCHSCHILD: All in favor of reopening item
12 12, say aye.

13 Commissioner Skinner?

14 COMMISSIONER SKINNER: Aye.

15 CHAIR HOCHSCHILD: Commissioner McAllister?

16 COMMISSIONER MCALLISTER: Aye.

17 CHAIR HOCHSCHILD: Vice Chair Gunda?

18 VICE CHAIR GUNDA: Aye.

19 CHAIR HOCHSCHILD: And Commissioner Gallardo?

20 COMMISSIONER GALLARDO: Aye.

21 CHAIR HOCHSCHILD: Okay, and I vote aye, as well,
22 so item 12 is reopened.

23 Would you like to state your recusal?

24 VICE CHAIR GUNDA: Yeah, I don't have a formal
25 language, but I just will note that I am hoping to teach --

1 I'm currently in the process of teaching a class and I
2 would recuse.

3 CHAIR HOCHSCHILD: Okay. Do we need to take a
4 vote with those four? Okay.

5 So is there a motion from Commissioner Skinner on
6 item 12?

7 COMMISSIONER SKINNER: So move.

8 CHAIR HOCHSCHILD: Is there a second from
9 Commissioner McAllister?

10 COMMISSIONER MCALLISTER: Second.

11 CHAIR HOCHSCHILD: All in favor, say aye.

12 Commissioner Skinner?

13 COMMISSIONER SKINNER: Aye.

14 CHAIR HOCHSCHILD: Commissioner McAllister?

15 COMMISSIONER MCALLISTER: Aye.

16 CHAIR HOCHSCHILD: Commissioner Gallardo?

17 COMMISSIONER GALLARDO: Aye.

18 CHAIR HOCHSCHILD: And I vote aye, as well, so
19 item 12 passes now four to zero with Vice Chair Gunda
20 recusing. Thank you.

21 VICE CHAIR GUNDA: Thank you.

22 CHAIR HOCHSCHILD: Let's go to the Chief
23 Counsel's report, Item 17.

24 MR. RANCHOD: Thank you, Chair, Vice Chair,
25 Commissioners.

1 You know how hard CEC's team of talented and
2 dedicated legal professionals works to advance and help
3 support the agency's mission. I'd like to take a minute to
4 express my thanks to the legal team for helping get me up
5 to speed over the past three plus weeks since I started its
6 role on the impressive breadth and volume of matters on
7 which the Chief Counsel's Office provides counsel and other
8 legal services. They also have been extremely patient as I
9 ask yet again what a particular acronym means.

10 I want to take a moment to also acknowledge those
11 members of the legal team that joined CEC most recently.
12 In June, Eric Lazarus joined the Transactions Unit and
13 Erika Georgi joined the advocacy and compliance unit, both
14 as Attorney IVs.

15 In July, Melanie Mariotti joined the Regulatory
16 and Advisory Unit as an Attorney III. And Mariana Brewer
17 joined as a Legal Analyst.

18 Cheryl Loehr joined as an Attorney III in the
19 Transactions Unit in August.

20 And the following month, Maya Murphy-Cook joined
21 us as our Graduate Legal Assistant.

22 In October, we welcomed Lisabeth Lopez as a Legal
23 Assistant.

24 And finally, this February, we were fortunate
25 that Devin Black rejoined CEC, this time as an Attorney IV

1 in the Advocacy and Compliance Unit.

2 Each of these individuals is playing an integral
3 role in the chief counsel's office, and we're lucky to have
4 them at our agency.

5 Finally, I'd like to express my appreciation for
6 the leadership of our four assistant chief counsels, Allan
7 Ward, Christina Evola, Lisa DeCarlo, and Matt Pinkerton.
8 Each of them manages one of our legal units, and we could
9 not run CECO as effectively without them.

10 That concludes my report. Thank you.

11 CHAIR HOCHSCHILD: Thank you. We're adjourned.
12 Thanks, everybody.

13 (The meeting adjourned at 2:59 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 17th day of April, 2025.



MARTHA L. NELSON, CERT**367

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.

April 17, 2025

MARTHA L. NELSON, CERT**367