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APPEARANCESCOMMISSIONERS

David Hochschild, Chair

Siva Gunda, Vice Chair

Andrew McAllister, Commissioner

Noemi Gallardo, Commissioner

Patricia Monahan, Commissioner

STAFF PRESENT

Drew Bohan, Executive Director

Lisa DeCarlo, Acting Chief Counsel

Theresa Keates, Special Advisor

Elsa Beljean, Senior International Relations Advisor

Peter Chen, Energy Research and Development Division

Jeremy Smith, Deputy Director, Energy Assessments Division

Michael Lozano, Energy Research and Development Division

Kevin Mori, Energy Research and Development

PUBLIC ADVISOR

Mona Badie

ALSO PRESENT

Mindy Graybill, Department of Water Resources

Cristy Sanada, California Independent System Operators

Karolina Maslanka, California Public Utilities Commission

APPEARANCESPUBLIC COMMENT

Bruce Severance

Sarah Taylor, Western States Petroleum Association

Stephen Rosenblum

Brian Kolodji, Kolodji Corporation

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P R O C E E D I N G S

10:00 a.m.

THURSDAY, OCTOBER 3, 2024

CHAIR HOCHSCHILD: All right. I think we're ready to begin. Good morning, everybody. Go ahead.

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

CHAIR HOCHSCHILD: Good morning and welcome, friends. I'm David Hochschild, Chair of the Energy Commission. Today is October 3, 2024. I call this meeting to order.

Joining me are Vice Chair Gunda, Commissioner McAllister, Commissioner Monahan and Commissioner Gallardo. We do have a quorum. Let's begin by standing for the Pledge of Allegiance.

(The Pledge of Allegiance is recited.)

CHAIR HOCHSCHILD: Before we get into public comment, I do want to note we're back at our old honch here at the Art Rosenfeld Room. Some of the newer CEC staff may not have spent as much quality time in this room as all of us did, but I did want to note, this room was dedicated for one of the real giants in the energy world, Art Rosenfeld, who passed away a few years ago. He was a commissioner here and long-time scientist and advocate and really the godfather of energy efficiency, and I just want to say he

1 would have been very proud of Commissioner McAllister and I  
2 think the whole team at CEC for the code we adopted at the  
3 last meeting.

4           And I wanted to share one funny story about Art.  
5 He had done a calculation before hybrids were a thing. He  
6 had done a calculation that you save more fuel if your turn  
7 off your car at red lights. So, he did this routine, he  
8 turned off because he did the math, so he was a true  
9 believer and --

10           COMMISSIONER McALLISTER: I have a story related.

11           CHAIR HOCHSCHILD: Okay. Go ahead.

12           COMMISSIONER McALLISTER: Yeah. When he passed  
13 away, there was a lovely gathering of a lot of colleagues  
14 over the course of his whole career, and there was this  
15 story which I had not heard until then, that he used to  
16 increase the person vehicle miles, the gallons per person  
17 mile traveled. He used to try to make that as high as  
18 possible, and he would do that by picking up hitchhikers  
19 along every road and every trip, and to the consternation  
20 of his family, and kids, and his wife. So just everything  
21 was about energy to Art and his brain never turned off, and  
22 he just always was just brimming with ideas, so a lot of  
23 those became reality, and our world is better as a result.  
24 So he really -- he basically invented the craft for  
25 discipline of energy efficiency back in the day with just a

1 few other folks, real visionaries, back in the early 70's,  
2 and it just really transformed the world.

3 CHAIR HOCHSCHILD: And especially in this hot  
4 weather he pioneered the cool roof standards. I think it's  
5 something like 10,000,000 square feet a year adding cool  
6 roofs in California among other things.

7 COMMISSIONER McALLISTER: You know, there's even  
8 a Federal discussion. You know, who knows with Congress  
9 and everything whether it passes, but there's a Federal  
10 discussion about -- that's kind of beginning now about  
11 reflective roofs, and really that would not be a thing  
12 without Art, so, so many people influenced over the course  
13 of generations, and just a wonderful person and just  
14 pleasure to be around and work with.

15 CHAIR HOCHSCHILD: Well, cool roofs and  
16 hitchhikers, he has quite a legacy, so exactly, exactly.

17 So, we'll begin, if we could, with public  
18 comments and then move on to agency announcements. So,  
19 Mona, if we could start public comment.

20 MS. BADIE: Thank you Chair. My name is Mona  
21 Badie. I'm the public advisor for the California Energy  
22 Commission. The Energy Commission welcomes public comment  
23 at public meetings, and this is the open public comment  
24 period, so it is for any item on the agenda, although we do  
25 request that comments for voting items be reserved for the



1 dedicated public comment page for that item, but we also  
2 have informational items, and also any other item that was  
3 within the Energy Commission's business.

4           This is the time for comments, and there's a  
5 couple ways you can let us know you'd like to comment. One  
6 is by using the QR code that we have posted in the room or  
7 visiting the public advisor's table, and another way is by  
8 a raise of hands or approaching the podium today. And if  
9 you're on Zoom, you're going to use the raised hand feature  
10 that's on your screen. It looks like an open palm. And if  
11 you're joining by phone, please press star nine to raise  
12 your hand.

13           All right, just giving that a moment. We don't  
14 have anyone in the room, and we do have G. Bruce Severance  
15 on Zoom. I'm going to open your line. Please unmute on  
16 your end, and we're asking for comments to be two minutes  
17 or less. There will be a timer on the screen.

18           MR. SEVERANCE: Thank you very much. Can you  
19 hear me?

20           MS. BADIE: Yes.

21           MR. SEVERANCE: Thank you. I appreciate the  
22 opportunity to comment, and I, first of all, just want to  
23 commend CEC staff for the tremendous work that you do. I  
24 really have not met a single person there that wasn't  
25 absolutely brilliant and doing three times the work of a

1 normal human being, so, I commend how much the breadth and  
2 scope of the work that you do making the state a better  
3 place to live for everybody.

4 I comment today on the Diablo Canyon Unit One.  
5 It's one of the early generation reactors built before  
6 1973, when the metallurgical specifications changed, and  
7 because it has high copper and nickel impurities in the  
8 wells, it is much more susceptible to accelerated  
9 embrittlement due to radiation.

10 New data and reports from the NRC questions how  
11 accurate the mathematical models that are used for  
12 predicting embrittlement actually are. They've been using  
13 the same models since 1988. Their own research suggests  
14 that that mathematical model is no longer fitting the  
15 national surveillance stress test's data base for  
16 pressurized water reactors nationwide.

17 Reading from an excerpt from a 2022 study, "The  
18 existing model, which was developed in the 1980's has  
19 characteristics that manifest as under predictions of RPV,  
20 reactor pressure vessel material, neutron embrittlement  
21 under the high fluences radiation damage that is that would  
22 be reached at multiple pressurized water reactor plants  
23 where operated beyond 40 years."

24 "Furthermore, the amount of under prediction  
25 increases with increasing radiation exposure. In parallel,

1 licensees are allowed to defer and many have deferred  
2 surveillance capsule testing that is intended to confirm  
3 the embrittlement productions.”

4           So, the bottom line is that they’re saying very  
5 clearly that as they approach the 50th year of operation,  
6 the uncertainties with which they can predict the actual  
7 state of embrittlement of the reactor vessel based on the  
8 mathematical models that they have is increasing over time.  
9 And for this reason, I do not see that Unit 1 is a good  
10 financial risk as well as a safety risk for the State.

11           I endorse operating Unit 2 for the next five to  
12 ten years and taking Unit 1 offline sooner than later so  
13 that offshore wind has the opportunity to plug into grid  
14 infrastructure that’s there, allowing a smoother economic  
15 transition and less stress to employees at Diablo Canyon,  
16 who can job train to take on jobs in the new green economy.

17           Thank you very much for the opportunity to speak.

18           MS. BADER: Thank you for your comment. That  
19 concludes public comment for this first public comment  
20 period. Back to you, Chair.

21           CHAIR HOCHSCHILD: Thank you, and thank you,  
22 Bruce, for those comments. Obviously, safety is a huge  
23 issue for us to watch closely, including embrittlement at  
24 Diablo, and that’s something that, you know, the Diablo  
25 Canyon Safety Committee I’ve asked to look at, so thank you

1 for those remarks.

2 A few announcements I wanted to share, that we're  
3 going to be celebrating Latino History Month, or we are  
4 celebrating now, September 15th through October 15th, and  
5 also, October is National Disability Employment Awareness  
6 Month.

7 And I also want to remind attendees who would  
8 like to attend our free Annual EPIC Symposium, that will be  
9 on Monday, October 28th at the California National  
10 Resources Agency Headquarters, and you can register for the  
11 event at the CEC website, Energy.CA.gov.

12 Today the Commission will be seeking to approve  
13 just over \$17,000,000 in investments contributing to  
14 California's economic growth

15 And with that, I'll just turn to other agency  
16 announcements from other colleagues. Vice Chair Gunda.

17 VICE-CHAIR GUNDA: Thank you, Chair. I just  
18 wanted to invite Theresa Keates to just stand up. She  
19 joined our office as of last week in the middle of some  
20 important legislative work and coming from the Office of  
21 Governmental Relationships. Thank you. Theresa, if you  
22 want to just introduce yourself. Thanks.

23 MS. KEATES: I'm learning how to do this. Good  
24 morning, Commissioners. Thank you so much for having me.  
25 My name is Theresa Keates. Very excited to be joining the

1 Vice Chair's Office as Special Advisor.

2 As the Vice Chair mentioned, I was at the Office  
3 of Governmental and International Affairs where I was able  
4 to work with teams across the CEC and state government on  
5 legislation impacting the CEC. Before that, I was with the  
6 California State Legislature as the science policy fellow,  
7 worked at California Council on Science and Technology,  
8 CCST, working as a committee consultant with the Senate  
9 Environmental Quality Committee on a range of legislation  
10 impacting environmental issues.

11 And I come to legislative and policy work from a  
12 scientific background. I came to Sacramento after  
13 finishing a PhD in oceanography, and it's been a really  
14 wonderful journey getting to work on really impactful  
15 issues with passionate people, and I'm very excited about  
16 this next adventure. And Vice Chair, so in all of the work  
17 that you do and that your team does, thank you so much for  
18 having me along.

19 CHAIR HOCHSCHILD: Thank you. Any other agency  
20 announcements? Yes, Commissioner Monahan.

21 COMMISSIONER MONAHAN: Well, just following on  
22 the heels of the Vice Chair's announcement about changes in  
23 his office, I just wanted to announce that Jeffrey Liu is  
24 joining my office, and he's not here today, but I hope to  
25 bring him to another business meeting so everybody can meet

1 him, those who haven't met him. I think several of you  
2 probably have already intersected with him. He's actually  
3 the lead for Redwoods, which is our vehicle to grid set of  
4 grants solicitation.

5           And Jeffrey comes from General Motors. He's an  
6 expert on interoperability and really has been a lead  
7 thinker in the Fuels and Transportation Division around how  
8 do we advance a more effective and consumer-friendly  
9 charging experience, really looking at ways that we can  
10 move to a plug-in charge future.

11           So, really excited to have Jeffrey in my office.  
12 He's a really strong communicator and I think will help us  
13 in terms of that moving forward with the regulations that  
14 we need and the policies that we need to advance a better  
15 charging experience.

16           CHAIR HOCHSCHILD: That's great, and I would  
17 observe, you know, with Theresa and Jeffrey, you know,  
18 continue this tradition. We have a really strong group on  
19 commissioner row right now, and working really  
20 collaboratively together, the advisors and the talent is  
21 just spectacular. So, I know I speak for all of us in that  
22 regard, but welcome both Theresa and Jeffrey to the CEC.

23           Any other agency announcements from either of  
24 you? Okay. We'll turn now to Item 3 consent. Any public  
25 comment on this item?

1 MS. BADIE: Thank you, Chair. Good morning  
2 again. The Commission welcomes public comment on Item 3 at  
3 this time. This will be the consent calendar.

4 If you're joining us in the room, you can use the  
5 QR code, and you can use the QR code at any time to sign up  
6 for any item on today's agenda for public comment. And,  
7 also, you can raise your hand in the room, and if you're on  
8 Zoom, you'll use the raised hand feature on your screen, or  
9 star nine if joining by phone.

10 And I'm just giving that a moment. All right,  
11 not seeing any raised hands to comment on Item 3. Back to  
12 you, Chair.

13 CHAIR HOCHSCHILD: Thank you. Okay. So, let's  
14 -- initially we'll just take up items 3A through F. Unless  
15 there's Commissioner discussion, let's hear a motion for  
16 those items. Commissioner McAllister.

17 COMMISSIONER McALLISTER: Move Items A through F.

18 CHAIR HOCHSCHILD: Is there a second from  
19 Commissioner Gallardo?

20 COMMISSIONER GALLARDO: I second.

21 CHAIR HOCHSCHILD: Moved by Commissioner  
22 McAllister, seconded by Commissioner Gallardo. All those  
23 in favor say aye. Commissioner McAllister.

24 COMMISSIONER McALLISTER: Aye.

25 CHAIR HOCHSCHILD: Commissioner Gallardo.

1 COMMISSIONER GALLARDO: Aye.

2 CHAIR HOCHSCHILD: Vice Chair Gunda.

3 VICE-CHAIR GUNDA: Aye.

4 CHAIR HOCHSCHILD: Commissioner Monahan.

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: And I vote aye as well. Items  
7 3A through F pass unanimously.

8 For Item 3G, on this item I will recuse myself  
9 from any discussion, consideration and vote on the proposed  
10 resolution of \$100,000 membership fees for Veloz.

11 I am currently a member of the Public Policy  
12 Advisory Board of Veloz representing the Energy Commission.  
13 In this role I do not make decisions on behalf of Veloz.  
14 Together with my colleagues on the nonvoting Public Policy  
15 Board, we lend policy guidance and support to the Board of  
16 Directors.

17 Additionally, I do not receive any compensation  
18 in any form, any reimbursements or per diem for expenses.  
19 So, there is no financial interest in which there would be  
20 a conflict of interest under the Political Reform Act or  
21 the Warren Alquist Act.

22 However, in an abundance of caution I will recuse  
23 myself from the discussion and vote on this item in order  
24 to avoid any perception of a conflict of interest. So, I  
25 will turn over to the Vice Chair once I leave the room.



1 VICE-CHAIR GUNDA: Okay. The Chair has left the  
2 room. Unless there is any Commissioner discussion, I would  
3 like to move the motion.

4 COMMISSIONER McALLISTER: Move Item G.

5 VICE-CHAIR GUNDA: Commissioner Monahan.

6 COMMISSIONER MONAHAN: I second.

7 VICE-CHAIR GUNDA: Okay. We'll take the vote  
8 now. Commissioner McAllister.

9 COMMISSIONER McALLISTER: Aye.

10 VICE-CHAIR GUNDA: Commissioner Monahan.

11 COMMISSIONER MONAHAN: Aye.

12 VICE-CHAIR GUNDA: Commissioner Gallardo.

13 COMMISSIONER GALLARDO: Aye.

14 VICE-CHAIR GUNDA: I vote aye as well. Item  
15 passes, four, zero. We can invite the chair back.

16 CHAIR HOCHSCHILD: All right. We'll turn now to  
17 Item 4, informational Item, Department of Water Resources  
18 to Provide an Update on the Strategic Reliability Reserve  
19 Investment. I welcome Mindy Graybill from DWR.

20 MS. GRAYBILL: Hello. Good morning, Chair, Vice  
21 Chair, Commissioners. I am Mindy Graybill, Policy Advisor  
22 for the Statewide Energy Office with the Department of  
23 Water Resources. I am here to provide an update on the  
24 Electricity Supply Strategic Reliability Reserve Program.

25 Next slide, please. Thank you.

1           Assembly Bill 205 created the State's Strategic  
2 Reliability Reserve. Of the three parts of the reserve,  
3 CEC oversees two programs focused on demand response and  
4 distributed resources, whereas DWR's program is focused on  
5 grid-connected resources.

6           The Electric Supply Strategic Reliability Reserve  
7 Program, or ESSRRP, acts as an insurance policy and  
8 safeguards the statewide electric grid during extreme and  
9 combined events such as heat waves, wildfires and droughts  
10 driven by climate change.

11           The program also supports California's transition  
12 to a clean energy future.

13           Next slide, please.

14           Per AB 205 DWR is required to present regular  
15 updates at Energy Commission meetings for investments made  
16 and under consideration. The legislation also requires the  
17 attendance at the California Public Utilities Commission  
18 and the California Independent System Operator. A  
19 representative from each of these entities is in  
20 attendance.

21           Today is the ninth update presented to the Energy  
22 Commission by DWR, and we expect the next update to occur  
23 early in 2015 -- I'm sorry, 2025.

24           Next slide, please.

25           There are five distinct types of projects under

1 the program. The first is an extension of operating life  
2 of existing generation facilities planned for retirement.

3 The second is new temporary power generators up  
4 to 5 gigawatts or more -- I'm sorry, megawatts.

5 The third is generation facilities using clean  
6 zero emission fuel technology of any size to produce  
7 electricity.

8 The fourth is new energy storage systems of 20  
9 megawatts or more that are capable of discharging for at  
10 least two hours.

11 Lastly, the fifth is to reimburse corporations  
12 for the value of imports that were produced above market  
13 cost and in excess of procurement authorizations and  
14 requirements.

15 Next slide, please.

16 This slide provides a comparison of the total  
17 investment from 2022 through 2024.

18 Nothing has changed from the 2021 column since  
19 our last presentation in July. For 2023 we had 147.5  
20 megawatts of emergency and temporary generation available  
21 during the summer.

22 Moving down to imports, DWR was able to fund  
23 above-market cost for 3,391 megawatts of firm energy  
24 imports through October 31, 2023.

25 And lastly for 2023, DWR closed the diesel

1 generator program early in favor of lower emission  
2 resources.

3 For 2024 DWR expected up to 291 megawatts of  
4 energy and temporary natural gas generation, and currently  
5 we are still waiting on the final installation of the last  
6 48 megawatts.

7 On the other hand, in November an interconnection  
8 waiver did expire and reduces the interconnection at the  
9 Calpine Yuba City site by 11 megawatts.

10 The three (indiscernible) Alamos, Huntington  
11 Beach and Ormond Beach stations became part of the reserve  
12 in 2024. As we have discussed in our prior presentations,  
13 their default status is off rather than available for 24  
14 hours as part of the resource adequacy program.

15 Currently DWR does not have any new resources  
16 under consideration. We, like the rest of the industry,  
17 have found it difficult to move forward with projects due  
18 to increased costs, lack of interconnection and very high  
19 demand from nonemitting resources such as battery storage.

20 DWR must prioritize our investments and ensure  
21 that they do not repeat the facilities already planned for  
22 by load-serving entities and public utilities.

23 I want to thank and acknowledge the considerable  
24 coordination with the Energy Commission, the California  
25 Public Utilities Commission and the California Independent

1 System Operator in developing and maintaining the State's  
2 strategic reliability reserve.

3 This concludes my presentation. Thank you for  
4 having me today.

5 CHAIR HOCHSCHILD: I believe we have Cristy from  
6 CAISO and Carolina from PC who wanted to make some remarks.

7 MS. SANADA: Yeah, I can start. Hi, everyone.  
8 Cristy Sanada from the California Independent System  
9 Operator and the Director of California Regulatory Affairs  
10 at the CAISO.

11 So, yeah, I just wanted to say thank you so much  
12 to DWR and to the state agencies the PUC, the CEC, several  
13 others state agencies. We know you've planned and  
14 practiced managing summer conditions before each summer,  
15 and, you know, I think the strategic reserve and executing  
16 our summer operational playbook went very well this summer,  
17 and so we thank you all so much for this coordination.

18 I'll just note, you know, that the state programs  
19 that are designed to support grid reliability during  
20 extreme events and emergency conditions, including DWR  
21 excerpt portfolio and demand response programs, the ELRP  
22 and DSGS, have really helped to provide grid support and  
23 added security across heat waves like we've experienced  
24 this summer. So, really just thank everyone. Thank you,  
25 Mindy, for the presentation.

1 CHAIR HOCHSCHILD: Karolina.

2 MS. MASLANKA: Thank you for having me today.  
3 I'm Karolina Maslanka, Energy Advisor to CPUC President  
4 Alice Reynolds, and I'm appearing here today on the  
5 president's behalf.

6 I don't have any questions, but I'd like to thank  
7 Mindy Graybill for the update, and I want to express my  
8 gratitude for all the collaboration, the coordination  
9 between our agencies, as well as the California Independent  
10 System Operator and the Governor's office has undoubtedly  
11 contributed to our ability to maintain a reliable system  
12 this summer. So, again, just want to say thank you, and  
13 the CPUC is looking forward to continued collaboration.

14 CHAIR HOCHSCHILD: Great. With that, let's go to  
15 Commissioner discussion starting with the Vice Chair.

16 I just want to observe again, this is the hottest  
17 summer in the history of the state. We're seeing hundred  
18 degree temperatures in October now, and the lights have  
19 stayed on, and we've not had a flex alert, and that is  
20 really a tribute to the hard work the Vice Chair and the  
21 whole team here and at our sister agencies CAISO, PUC. I  
22 think the collaboration has been outstanding, and I just  
23 really wanted to highlight this is a big step forward from  
24 where we were, you know, in 2020, so with that, over to  
25 you, Vice Chair.

1           VICE-CHAIR GUNDA: Thank you, Chair. I don't  
2 have any questions, but I just wanted to take a moment to  
3 express gratitude to the staff, but also kind of remind  
4 both the public and the dais on kind of some of the  
5 decisions and why we're doing this very quickly.

6           So, first, starting with just the gratitude.  
7 These presentations, they're short. Mindy, thank you, you  
8 know, on behalf of DWR for being here and then presenting,  
9 just to the tremendous work that DWR does behind the scenes  
10 to make this happen is not always visible. So, just want  
11 to say thank you to you and the entire DW crew, including,  
12 you know, Delphine Hou, Director Hou.

13           Also, want to give big kudos to CAISO. You know,  
14 Cristy, you probably see her more featured now in a lot of  
15 CEC presentations, but not just Cristy, the both  
16 confidence, and the kindness, and thoughtfulness you do  
17 things with is not always common, so, thank you for  
18 bringing everybody together and getting this work on the  
19 way. And along that, one thing, President Mainzer, and  
20 also Vice President -- Senior Vice President Rock, leader,  
21 and Didi for the tremendous work from CAISO.

22           CPUC colleagues, Karolina, thank you for  
23 representing President Reynolds' office, and also want to  
24 kind of just send a huge thanks to Director Leuwam and the  
25 entire Energy Division crew that worked tirelessly behind

1 the scenes to make this happen.

2           And on our side, you know, just the Energy  
3 Assessments Division ready and our Reliability and Renewals  
4 Division, just tremendous, tremendous work in what they  
5 have been able to achieve in both program implementation,  
6 but also the situational awareness of, you know, kind of  
7 having a forecast on where we are at any given day and  
8 getting through the rough days.

9           And as the Chair noted, just want to reflect on  
10 the September heat wave. We were 13 to 22 degrees above  
11 average, and we did reach, you know, close to one and five  
12 peak on the system in terms of the forecasted loads for  
13 2024.

14           And I think what Cristy mentioned, like we've  
15 seamlessly deployed and implemented the playbook, and, you  
16 know, just for recognition that in 2020, 2021, 2022 the  
17 number of flex alerts, the emergency alerts that we had  
18 versus no flex alerts this year is just a testament to the  
19 tremendous work that the staff, you know, across the  
20 agencies are doing collaboratively and to the Governor's  
21 office leadership on this issue.

22           Also want to just elevate the importance of the  
23 Western Energy Imbalance Market. These heat waves are  
24 happening not just in California, but across the west, and  
25 it's really important that we are using the size of



1 California and the rest of the resources in the west to  
2 support each other. So, want to thank CAISO's  
3 implementation of the WEIM and just kind of this notion  
4 that the overall market size and market geography should be  
5 larger than in a heat event, and it helps, you know, all of  
6 us to support each other.

7           Again, from specifically for CUC want to thank  
8 again Dina, Alok, Ashley, from READI and their work on  
9 deploying DSGS, the DSGS Option 3, which is driven by the  
10 CAISO prices being over \$200, have been triggered multiple  
11 times this summer, and again, you know, seamlessly deployed  
12 into the broader context.

13           Again, a big sense of gratitude. Thank you all  
14 for the excellent work and look forward to continuing our  
15 collaboration on these issues.

16           In closing, I want to say that this is not done.  
17 The strategic reserve is something that we need to think  
18 about for the next 20 years, and how do we think about  
19 creating the composition, how do we pay for it, and the  
20 size of it is an important part of the discussion moving  
21 forward.

22           Back to you, Chair.

23           CHAIR HOCHSCHILD: Commissioner Monahan

24           COMMISSIONER MONAHAN: Well, just -- I was  
25 actually taken aback by the 20 years we're going to need a

1 strategic reserve. With the growth in batteries, I was --  
2 I'm hopeful that we can use clean energy resources to avoid  
3 using any of these strategic reserve resources. I think  
4 there's a lot of sensitivity, and I know Commissioner  
5 Gallardo I share with the ones through cooling plants and  
6 keeping those open and impacts to communities, and I was,  
7 you know, really reassured and happy that we haven't had to  
8 deploy those resources. That is, I think, kind of our last  
9 resort.

10           And I had a question, Mindy, for you. I was  
11 really amazed that when I went to visit a facility that has  
12 deployed linear generators using currently natural gas, but  
13 with the potential to use clean hydrogen to power 96  
14 medium- and heavy-duty chargers for transitioning diesel  
15 vehicles to zero emission, and just curious if that is in  
16 the possible portfolio of future investments. They're  
17 cleaner than any natural gas facility currently in  
18 operation in terms of criteria pollutant emissions, and  
19 just wondering about their utility when it comes to the  
20 strategic reserve.

21           MS. GRAYBILL: Thank you, Commissioner for that  
22 question. In regards to that specific technology,  
23 currently we do not have that specific item under  
24 consideration, but I will take that back to the team and  
25 provide a response in our next update or via other forms of

1 communication to the CEC to stress and review those newer  
2 type of technologies being implemented.

3 VICE-CHAIR GUNDA: I just want to take this  
4 opportunity to expand on the kind of question. I think the  
5 importance, and you rightly point with respect how much do  
6 we need strategic reserve, and I think who's going to pay  
7 for it and then the composition of it, and I think  
8 Commissioner McAllister and probably chaired one on  
9 (indiscernible) always maintain demand flexibility could be  
10 a significant opportunity, and I think the -- if it's kind  
11 of -- if we can magically find the money, my go-to would be  
12 DSGS, right. I mean I think we need to reduce the impact  
13 on the rate payers, you know, and kind of having programs  
14 like ELRP or other programs that CPUC has to deploy in  
15 emergency circumstances, and really have alternate funding  
16 resources to push that demand flexibility and opportunity.  
17 And I think to your point as it pertains to OTC's, you  
18 know, I think we all kind of share, you know, the general  
19 consensus on moving away from fossil kind of strategic  
20 reserve as quickly as we can.

21 CHAIR HOCHSCHILD: Commissioner McAllister.

22 COMMISSIONER McALLISTER: We've done kind of a  
23 mild melt on load flex because I was going to make pretty  
24 much that point.

25 And I think that there are so many opportunities

1 in load flex to really just make more of the loads that are  
2 already out there, and particularly focusing on the  
3 commercial industrial sector. They have a lot of thermal,  
4 you know, malleable thermal loads that really are much --  
5 are really big bang for the buck in terms of cooling  
6 commercial buildings. There are numerous district cooling  
7 systems throughout California actually that could flex  
8 quite a bit. So, I've been doing a number of visits around  
9 trying to identify, and I'm just really confident that  
10 that's much bigger than we maybe thought.

11 And really, the substituting in clean load flex,  
12 whether it's regeneration or load flex for these plants  
13 that we just all feel it imperative to get beyond, I think  
14 is, you know, really looking forward to working with  
15 everyone and staff, and we're all thinking hard about this.  
16 We need to make it happen. The urgency is really rising  
17 and these equity issues around the cooling plants we just  
18 really need to create options that allow us to deal with  
19 that.

20 So, excited about the potential. Finding out a  
21 lot of the things I didn't really know about the grid and  
22 some of the energy consumption around the state, you know,  
23 behind the meter or at the community and district level  
24 that I think brings up a lot of potential.

25 CHAIR HOCHSCHILD: Commissioner Gallardo.

1           COMMISSIONER GALLARDO: Buenos dais. Good  
2 morning everybody.

3           Mindy, thank you so much for joining us and for  
4 the wonderful presentation. I think it's of value for us  
5 as Commissioners to learn more about what you all are doing  
6 and what point we're at, and then also for the public to  
7 hear and to learn. There's over a hundred people on Zoom.  
8 There's people here in the room. So, it adds a lot of  
9 value, so thank you for that.

10           And Karolina and Cristy, thank you so much for  
11 joining us. I know it's required for you all to attend and  
12 represent, and at the same time I think it's always  
13 wonderful for all of our peer entities to be in  
14 partnership, and this is an example of that.

15           So, I do have a question, Mindy, that struck me  
16 when you were presenting was the mention of the difficulty  
17 to move forward with projects, and I was curious if you  
18 could give us a little bit more detail about what's being  
19 done to address that, and if and what we can do as your  
20 peer entities to be helpful and support.

21           MS. GRAYBILL: Thank you for your question,  
22 Commissioner Gallardo. In regards to moving forward into  
23 newer technologies and in research into that, DWR has a  
24 very clear legislative direction to prioritize items that  
25 are not competing with other load-serving entities and

1 utilities. So, with that restriction, it does definitely  
2 impair ability to move forward as we would be competing in  
3 many areas of clean or (indiscernible) technologies.

4 And in respect to that, DWR's portfolio right now  
5 consists of varied amount of technology, but we are looking  
6 forward to addressing that into what may look at  
7 achievements, request for information out into the public  
8 to see if there's any other types of technologies that may  
9 be able to meet our categories of work we have authorized  
10 in the legislation, and then if any of those are capable  
11 and meet the criteria we are mandated to abide by. We can  
12 bring that up into other and future CEC presentations.

13 COMMISSIONER GALLARDO: Great, thank you. And I  
14 have one more if that's okay. I was just curious, Mindy,  
15 also because you said, you know, we won't get another  
16 report until next year, if you could talk a little bit  
17 about any type of comments you've gotten from the public in  
18 the various venues where you talked about the ESSRRP. I'd  
19 be interested to hear if there's anything in particular,  
20 any themes or anything like that.

21 MS. GRAYBILL: My experience with the program  
22 supporting DWR, I believe the main and clear message that  
23 has been addressed is the requirement for us not to compete  
24 with other load-serving entities and public utilities as we  
25 are directed by in our legislation.

1           COMMISSIONER GALLARDO: All right. Thank you. I  
2 appreciate that.

3           CHAIR HOCHSCHILD: Okay, thank you.

4           VICE-CHAIR GUNDA: I just wanted to thank again  
5 Mindy. Thanks for taking the time to provide this update.  
6 Look forward to the next update early next year.

7           Just in closing, I wanted to share that to  
8 Commissioner Monahan's question our group from RREDI has  
9 been tasked with leading kind of a strategy on the future  
10 composition and opportunities with the strategic reserve.  
11 You know, what is the amount that we would need, what is  
12 the composition, what would be the cost. So, I would  
13 invite and also thank Ching who is in the back here from  
14 our office who's been the lead advisor on the reliability  
15 when we think it's ready to put out provide an  
16 informational item. I think it will be helpful sometime  
17 early next year for the Commissioners to either get a  
18 private briefing or even a public briefing so that we can  
19 discuss together how best to structure that moving into the  
20 future.

21           CHAIR HOCHSCHILD: All right. Before we move on  
22 to Item 5, I wanted to introduce one more new addition --  
23 terrific new addition to the Energy Commission family, Elsa  
24 Beljean, who is going to be joining us and I think has just  
25 started already as our new Senior International Relations

1 Advisor. She's based in San Diego and is with us by Zoom,  
2 and let me just say by way of introduction, this is a  
3 really important role. Pre-COVID we were receiving north  
4 of 70 international delegations a year, and then all of us  
5 have done international engagement in one form or another.  
6 I know the Vice Chair has recently returned from India,  
7 I've been to China twice in the last year, Mexico, UK,  
8 Norway on offshore wind and many others, you know, because  
9 we're the fifth biggest economy in the world. We're  
10 leading on climate solutions, and this role is really an  
11 important function.

12 So, Elsa, we're thrilled to have you join the  
13 team and hoping you can give a little bit of background on  
14 yourself and just an overview of what you're going to be  
15 working on.

16 MS. BELJEAN: Of course. Happy to be here.  
17 Thank you. Hello, Commissioners.

18 I am honored to join the Commission. As you  
19 mentioned, my name is Elsa Beljean, Senior International  
20 Advisor. My background is in international economic  
21 development with a strong focus on climate policy. I am  
22 bilingual in English, Spanish and French which allows me to  
23 effectively engage with global partners.

24 Before joining the CEC, I worked at the  
25 California Governor's Office of Business and Economic



1 Development, also known as GO-BIZ, where I coordinated  
2 cross-border initiatives, economic recovery projects in the  
3 San Diego and rural counties, including the Indian Valley.

4 In my current role my focus advances California's  
5 international collaboration to support clean energy and  
6 climate policy goals, and through your leadership I'm happy  
7 to support advancing these goals. Thank you.

8 CHAIR HOCHSCHILD: Thank you so much, Elsa. We  
9 are just all of us are thrilled to welcome you and to be  
10 partnering with you.

11 Unless there's any other comments -- I would  
12 note, by the way, we have a new president of Mexico this  
13 week, right, and Commissioner McAllister especially been  
14 doing a lot of work as well as Commissioner Gallardo on  
15 that. So, anyway, welcome with the team and looking  
16 forward to working with you closely on all these issues.

17 With that, we'll turn to Item 5, Informational  
18 Item Electric Vehicles as Distributed Energy Resources. I  
19 welcome Peter Chen to present.

20 MR. CHEN: Good morning, Commissioners. I'm  
21 Peter Chen. I supervise the Transportation Unit in the  
22 Research and Development Division at CEC.

23 Today I'll be presenting on the potential for  
24 using electric vehicles as distributed energy resources, as  
25 well as an overview of CEC action to advance this concept.

1           Next slide, please.

2           I want to start with a snapshot of where we are  
3 with transportation electrification. This is a critical  
4 strategy to achieving California's climate goals, and,  
5 thankfully, it's happening now and it's happening quickly.  
6 The state policy is in place to drive ZEV adoption.  
7 California has been successful in hitting some key  
8 milestones.

9           Over 25 percent of new car sales in California  
10 last quarter were ZEVs with an average of 1,300 sold each  
11 day. These vehicles are supported by a growing network of  
12 over 150,000 public or shared chargers and over 500,000 at-  
13 home chargers.

14           The trend can also be viewed from the perspective  
15 of load growth, which is happening alongside other evolving  
16 aspects of the grid, including decarbonization of our  
17 electricity supply and expansion of the grid, itself, to  
18 support electrification.

19           Next slide.

20           Thankfully, EVs can be more than just a load.  
21 EVs are essentially mobile batteries that are uniquely  
22 flexible in how they plug in and interact with the grid.  
23 Many EVs charge at home and in the evenings, but there's  
24 also public charging, workplace charging, medium-, heavy-  
25 duty and commercial fleet charging, all with varying load

1 characteristics.

2 EVs can also engage in bidirectional charging  
3 where they can discharge to back up or offset home or  
4 building loads or even export power to the grid.

5 This flexibility around where, when and the power  
6 level at which EVs charge and discharge can be harnessed to  
7 use EVs as distributed energy resources to reduce or shift  
8 loads in ways that benefit the grid in ways that benefit  
9 the grid and rate payers. Methods to do this are often  
10 described as vehicle grid integration, or VGI, as well as  
11 EV load flexibility.

12 The potential of this flexibility has been  
13 quantified in recent studies, including the CEC's SB 846  
14 Load Shift Goal Report where we can see scenarios in 2030  
15 with EVs contributing nearly 1,000 megawatts of statewide  
16 load flexibility potential. Other analyses suggest EV  
17 charging will continue to grow to become the largest  
18 potential source of load flexibility in the future.

19 Next slide, please.

20 EV load flexibility can often drive lower system  
21 costs. This graph illustrates outputs from recent studies  
22 from the CPUC that looked into the impact of EV charging on  
23 the cost to upgrade the distribution grid.

24 The dotted green curve shows existing  
25 distribution grid capacity represented in this case as

1 aggregate substation headroom as the higher means more  
2 available capacity, and this capacity varies by time of day  
3 with plenty of available headroom in the early mornings and  
4 capacity constraints during peak periods.

5           The other two curves represent modeled statewide  
6 aggregate EV charging low profiles in 2035 based on  
7 different sets of assumptions. The blue curve assumes a  
8 large evening peak with a lot of EV charging around 9:00  
9 p.m. which may place additional strain on the distribution  
10 grid. This peak load when stacked on top of non-EV loads  
11 drives the need for significant distribution grid upgrades  
12 that can cost up to \$50,000,000,000. However, shifting EV  
13 charging in ways that avoid contributing to feeder peaks  
14 and get more usage out of available grid capacity can  
15 reduce the need for these upgrades and associated costs.

16           You can see an example of this where up to 70  
17 percent of that \$50,000,000,000 cost can be avoided just by  
18 changing the EV charging low profile from the blue curve to  
19 the orange curve which assumes more daytime charging  
20 perhaps at workplaces or public chargers, and also lowering  
21 evening peak.

22           So, the takeaway here is if we can harness EV low  
23 flexibility to align with great conditions we can save rate  
24 payers billions of dollars and help realize downward  
25 pressure on rates.

1           Next slide.

2           Despite the immense potential of VGI in using EVs  
3 as PRs, the policies that exist today are still evolving to  
4 realize these benefits of scale. CEC staff has a shared  
5 vision for key elements necessary to achieve a future with  
6 widespread VGI.

7           First we'll need to send the right signals to EV  
8 drivers to have them charge or discharge in ways that  
9 benefit the grid. This can take the form of price signals  
10 and rates or in programs. You'll need to have a variety of  
11 easy to use and interoperable products and services that  
12 enable those customers to participate in the rates and in  
13 the programs. We need infrastructure, both chargers and  
14 upstream grid infrastructure to be right size and deployed  
15 at the right locations to serve EV drivers while also  
16 keeping system costs low.

17           Lastly, tying back to alert points, the benefits  
18 of VGI must be verifiable and able to be relied upon for  
19 grid planning. VGI can be evaluated appropriately  
20 alongside other DERs, as well as traditional capital  
21 investments.

22           Next slide.

23           This slide highlights actions across multiple CEC  
24 divisions in coordination with CPUC, CARB and other  
25 partners active in this space that are supporting the VGI

1 vision I just described. CEC staff are actively ramping up  
2 internal coordination around VGI topics as well, including  
3 through a recently established interdivisional working  
4 group led by Jen, our Deputy Executive Director, to  
5 collectively support work in policy development around V2X  
6 or bidirectional charging.

7           These are all actions within the CEC's broader  
8 framework to advance load flexibility across many types of  
9 devices, not just EV chargers, that support our current  
10 load shift goal of 7,000 megawatts by 2030.

11           Now I'll walk through each of these bullet points  
12 on the slide, starting with analysis and reports. CEC's  
13 IPER forecast is a critical input into the great planning  
14 processes at the CPUC, CAL-ISO and utilities, and there's  
15 active work to continue building and enhancing CEC's energy  
16 modeling products, including focus analysis around flexible  
17 demand, EV charging and distribution grid impacts.

18           CEC also products the AB 2127 assessment which  
19 reports on statewide charging infrastructure needs to  
20 support projected EV adoption.

21           CEC has also been active in standing up load  
22 flexibility related regulations and programs. The load  
23 management standards are supporting the broader  
24 availability and access to rates that better reflect actual  
25 great conditions.

1           EV charging is also within the scope of CEC's  
2 authority to set flexible demand appliance standards which  
3 could be a venue for supporting EV load flexibility through  
4 standardized communication protocols or minimum performance  
5 standards.

6           And the demand side grid support program provides  
7 compensation for load reduction and back to power during  
8 emergency grid events with incentive options available to  
9 beyond the meter energy source as well as bidirectional  
10 chargers.

11           CEC is also active in tracking and supporting  
12 equipment standardization. For example, we manage an  
13 equipment list to help streamline the interconnection of  
14 bidirectional EV chargers, and CEC also plays a role in  
15 setting minimum standards for chargers through our grant  
16 programs, which is important for promoting interoperability  
17 and more reliable charging experiences for drivers.

18           Finally, CEC deploys funding for charging  
19 infrastructure and load flex related grants. For example,  
20 CEC's Fuels and Transportation Division has recently funded  
21 several projects to demonstrate bidirectional school bus  
22 charging, and CEC has also funded several active projects  
23 awarded under the Redwoods solicitation that are deploying  
24 charging automation products to respond to dynamic signals.

25           While these grants have focused more on deploying

1 commercial technologies, CEC also administers the EPIC  
2 Program which funds clean energy RD&D and precommercial  
3 innovations that benefit electricity rate payers. This  
4 program includes initiatives for implementing to advance  
5 innovative VGI products, technologies and use cases to  
6 market.

7 Next slide.

8 I'd like to end with a quick plug for a recently  
9 released EPIC grant funding opportunity on this same topic  
10 titled Enabling EVs as DERs. The solicitation is seeking  
11 to fund innovative projects focused on addressing VGI  
12 knowledge gaps, reducing costs of V2X enabling technology  
13 and innovative submetering solutions to facilitate VGI.

14 I recommend any interested applicants tuning in  
15 to also tune into our upcoming preapplication workshop.  
16 It's scheduled for October 16th, and you can learn more  
17 about this opportunity.

18 That's all I have. I want to thank the broader  
19 CEC team who contributed their input to putting together  
20 this presentation. Happy to take any questions. Thanks.

21 CHAIR HOCHSCHILD: Great presentation. I just  
22 have one quick question which is, you know, the vast  
23 majority of our 153,000 chargers in California are level  
24 two. When they're dispatching to the grid does that -- do  
25 you know if that's like 5 kw, or what is -- I mean



1 typically like, you know, a power wall would be at about 5  
2 kw. I just wondered how much power from a typical car in  
3 level two charger would be going back to the grid.

4 MR. CHEN: Yeah. I think there's a range of  
5 level two chargers that are available on the market. I  
6 think the cap is, you know, around 20 kilowatts is the max  
7 power per level. And, you know, it can go down to maybe  
8 like six point something. I forget the exact number, but  
9 that's the typical range of level two chargers, and it also  
10 it depends on where they're installed as well, so if you  
11 have a certain size breaker that's available, you might  
12 choose a certain size charger that fits for your  
13 application. So, there's quite a bit of variance and it's  
14 within that range of power level.

15 CHAIR HOCHSCHILD: Okay, that's helpful.  
16 Discussion, Commissioner Monahan?

17 COMMISSIONER MONAHAN: I want to thank Peter in  
18 his leadership. He's been really I think just a steady,  
19 smart leader in this space, so thanks for this presentation  
20 and for all you're doing to help advance vehicle grid  
21 integration and accelerate deployment of electric vehicles  
22 while we're benefitting the grid. I think that's really a  
23 key part of your presentation, right. The Kevala study  
24 kind of was, I don't know worse case, but it's presumed  
25 charging at the wrong time of day. There's a lot of rate

1 payer benefit from charging at the right time of day. Like  
2 the Chair likes to say, we want to run our vehicles on  
3 sunshine. How do we get there is really the question.

4           And I'll just say for those who haven't heard,  
5 that a bill was signed into law, SB 59 by Senator Skinner,  
6 that gives the Energy Commission the authority to require  
7 vehicle batteries be bidirectional capable if there is a  
8 good rationale for the grid, and I think people have to  
9 look at the experience of the driver as well. But it  
10 highlights, I think, this growing interest by legislators  
11 that builds on what we have been doing internally to unlock  
12 the power of vehicle grid integration at a much higher  
13 scale.

14           And, so, I recommend that we have this kind of  
15 periodic, like once a year update on what's happening.

16           Peter did a great job in my last meeting with  
17 ERDB around here's all the investments that have happened.  
18 Here's what we're learning from these investments, and for  
19 me it was really helpful, so would recommend others maybe  
20 if you're interested in that to follow up with Peter.

21           CHAIR HOCHSCHILD: Let's go to Commissioner  
22 McAllister and then the Vice Chair.

23           COMMISSIONER McALLISTER: Thanks, Peter. I  
24 really appreciated the briefing on this. And, obviously,  
25 humungous potential here to use all the different DERs that

1 we have out there, and primary among them is vehicles. I  
2 mean we're going to have so much battery capacity. We  
3 already do have so much battery capacity roaming the  
4 streets, and, you know, in private hands that can be  
5 mobilized for the right, you know, presumably for the right  
6 price at some level it can be mobilized to support the  
7 grid, and I think just we should be doing everything we can  
8 to make that happen.

9 I did want to make a point, and I think this is a  
10 great -- while we have everyone, you know, in a public  
11 meeting because this is -- you know, load flexibility is  
12 one of these issues that just cross cuts all of our  
13 offices, and I've been thinking about this for, you know, a  
14 long time and when there's a grid need, you know, say the  
15 CAISO wants to push a flex alert or really just, you know,  
16 grid conditions shift during the course of not just summer  
17 peaks but really any time where there's N minus one, or  
18 there's wildfires, or there's any grid condition that  
19 requires additional resources for voltage support or energy  
20 even, when a signal goes out, every flexible device needs  
21 to hear that signal, right.

22 And, so, right now, you know, product device  
23 categories are very siloed, you know, HVAC community is  
24 that, you know, the vehicle community itself is siloed.  
25 Each company kind of has its approaches, and, you know, we

1 did have to ask for pool pumps, for pool controls rather,  
2 and so, you know, that's one category that we worked with  
3 all the stakeholders there to come up with one standard  
4 that's specific to that category.

5           And I'm just hearing from a lot of different  
6 stakeholders VPP providers, any sort of low flex  
7 aggregators, folks that participate in, you know, the bid  
8 demand resources into the CAISO the hidden market, even  
9 sort of RA community, there are just a lot of folks  
10 operating at the grid edge that do not have consistent  
11 rules to play by. And when that button gets pushed to, you  
12 know, shift load in the moment or, you know, a rate goes  
13 out that says, hey, tomorrow or the CAISO, you know,  
14 tomorrow the cost is going to be \$400 a megawatt hour or  
15 whatever, whatever that signal is, every device that can  
16 flex needs to hear that signal.

17           So, there's a real imperative for -- there's a  
18 need for interoperability in the sense that each device  
19 category needs to be able to hear and then respond to a  
20 consistent signal. And so, whether it's more -- whether  
21 the solution is a performance-based standard or some kind  
22 of, you know, very specific technical standard for, you  
23 know, communications and controls, open ADR or what have  
24 you, I think remains to be seen. But it seems -- and then  
25 the other observation I would make is that the Federal

1 Government is -- it's thinking about this, you know, DOE is  
2 thinking about this but more in the sense of like doing  
3 research to kind of understand response behavior and things  
4 like that. They're really not considering building a  
5 standard along the lines of an appliance efficiency  
6 standard or something like that. So, we have zero Federal  
7 preemption in this area.

8           And we also at the state level I think there  
9 isn't really a regulatory body with a track record, a  
10 standards-making body rather, with a track record in --  
11 with sort of enough gravitas in the market and the ability  
12 to do rulemaking to develop standards across the country  
13 that would do this other than us. Most energy offices,  
14 maybe all other energy offices, are not standards-making  
15 bodies. I believe we are the only one, and in practice, at  
16 a minimum for sure, but I think maybe even statutorily.  
17 And also, you know, we're obviously the largest state with  
18 a long track record in doing these sorts of rulemakings.

19           So, since this is a cross-cutting area, I'd just  
20 like to bring that up. I would like to do a rulemaking  
21 around interoperability and have it be not just vehicles,  
22 but across the board and kind of see where it goes. I mean  
23 I think we would have to do some -- quite a bit of  
24 convening and fact checking and sort of, you know, get  
25 input from across the provider world, from the utilities,

1 et cetera, but I really think this is a moment of  
2 leadership for us in this area, and we have this 7,000  
3 megawatt goal that's a great framing that we have within  
4 our existing authority and our existing efforts to do this,  
5 and I think, you know, the bidirectional work, this is on  
6 the list of -- EVSEs are on the list for the FDAS team to  
7 develop a flexible demand appliance standard for, but I  
8 think that it would really be helped -- each device  
9 category would really be helped if we could set sort of  
10 clear expectation that, okay, this is the interoperability  
11 standard for these devices, and we're going to revolve our  
12 development of a new standard -- each new standard around  
13 that.

14           So, I really appreciate everyone sort of bearing  
15 with me on this. I know we're at a business meeting and a  
16 lot of people's attention focused on this, but this is one  
17 of these areas, you know, that appear every so often where  
18 it's very nerdy, it's very sort of techy, it's very sort of  
19 insider baseball at some level, but this is the basic  
20 blocking and tackling infrastructure that we need across  
21 the country, really, but certainly California, to mobilize  
22 loads as a grid resource. And in the case of vehicles, you  
23 know, behind the meter batteries and, you know, self-  
24 generation even have it be bidirectional.

25           And, so, we do have some standards to work off

1 of. We have a lot of, you know, work that's been done, but  
2 we need to be very intentional about how we take advantage  
3 of that work and incorporate it into a standard, because  
4 obviously we don't do that just because. We do that when  
5 there's -- I guess in this case the observation that I  
6 would make is there a clear market failure that only the  
7 State can step in to fix. And, so, it's a -- all the  
8 conditions are present. We have the authority, and I think  
9 we should move ahead, and so I just wanted to put that out  
10 there and hopefully we can, you know, manage a rulemaking  
11 that enables participation across the Commission and sort  
12 of navigate all the VK issues and the topical thematic  
13 issues as we go forward.

14 So, I just wanted to put that out there and  
15 really looking forward. I think the moment is really now  
16 to take this on, so thanks.

17 CHAIR HOCHSCHILD: Thank you. Vice Chair.

18 VICE-CHAIR GUNDA: Thank you. Commissioner  
19 McAllister, I just want to begin by just reacting kind of  
20 the broad setting that you articulated, and I would be  
21 absolutely supportive of us thinking through kind of how to  
22 "de-silo," you know, the categories and thinking about how  
23 to operationalize the goals.

24 And I think there is a technology element, there  
25 is a financial and rate design and incentive design element

1 to this, and just the grid responsiveness and connectivity  
2 and kind of how do we do that to the nodal pricing.

3 And I think there's so many pieces that needs to  
4 be tackled, and I would observe and agree with you that  
5 broadly we have been on a reactive mode in the demand  
6 flexibility and working within the sandbox of artificial  
7 constraints and doing anything we can do to enhance the  
8 opportunity for the sandbox and to rethink the sandbox I  
9 think would be really helpful, so I'm really supportive of  
10 kind of the framing that you shared.

11 And I think -- I just want to say, Peter, thank  
12 you for the presentation. Again, I think going back to  
13 both Commissioner Monahan, Commissioner McAllister's  
14 points, this is kind of a great start, and I think for us,  
15 you know, if our economic and climate policy for the state  
16 is largely electrification, which we, you know, agree on,  
17 and EVs are such an important element of that, through kind  
18 of analysis I really liked how you framed those four  
19 buckets of, you know, work that we do.

20 I kind of had Commissioner Monahan in the  
21 previous business meetings, you know, challenge ourselves  
22 as an agency to have better analytical consistency, right,  
23 on 2127 and the forecasting, and now Commissioner  
24 McAllister is kind of challenging us to have the technical  
25 and protocol consistency, right, there is an opportunity



1 for investment consistency, right.

2           So, overall, I would just support kind of a, you  
3 know, de-siloed in a cross-cutting divisional work, you  
4 know, that's EO as you pointed out, executive offices kind  
5 of leading.

6           Really look forward to thinking through that.  
7 For me, within the context of our office I want to take  
8 advantage of this work to then look at how do we better  
9 resource plan, how can we better do the liability, and  
10 that's where my mind goes. There are a lot of various  
11 challenges and opportunities for consistency that could  
12 then be leveraged, and a particular problem a little bit,  
13 but I think, you know, we could push on both ends.

14           And I just want to leave us with this, you know,  
15 which is the best form of the Energy Commission is when we  
16 have data driven optionality for public policy, right. I  
17 mean I think we are uniquely situated to have an objective,  
18 independent analytical frame on, you know, what we see as  
19 the opportunities, right. Like what is the problem  
20 statement, what is the solution matrix and how do we  
21 operationalize the solution matrix.

22           So, I think I want to challenge ourselves to do  
23 more, especially in this category given all the reasons  
24 that you stated in your presentation and just from kind of  
25 segueing from the previous, you know informational item

1 just the opportunity with V2G, or V2X, you know, in terms  
2 of getting away from fossil generation on the grid is  
3 humongous.

4           The opportunity for resource development and the  
5 optimizing resource development and having our conservation  
6 goals and land use goals, I think it's just tremendous  
7 opportunity and I do not believe we have been able to  
8 stitch together a holistic frame between various admirable  
9 and good work that in a PUC, CEC through consultants have  
10 produced like how do we then bring it together, right, into  
11 tangible policy that we can all get behind, so, really  
12 appreciate your work and look forward to hearing more in  
13 the future.

14           CHAIR HOCHSCHILD: Thanks. Commissioner Monahan.

15           COMMISSIONER MONAHAN: Just really fast, because  
16 I forgot to mention this before, is that I think, you know,  
17 we talked about vehicle to grid, but really vehicle to  
18 building is probably the biggest, and then it becomes a  
19 load flex tool, and that is, I think, easier a lot of ways  
20 from the distribution grid to be able to handle it, and I  
21 think that's one of the questions we'll be wrestling with  
22 going forward is how much are we just focusing on vehicle  
23 to building.

24           CHAIR HOCHSCHILD: Vice Chair.

25           VICE-CHAIR GUNDA: I apologize, I just wanted to

1 -- that triggered, and I think one of the areas I really  
2 like us to focus on is we keep saying, you know, the rate  
3 pay impacts, the positive rate pay impacts. I would  
4 challenge us that we do not as a state have consistent  
5 information that we could get behind, right.

6 On one end, totally agree with Commissioner  
7 Monahan's observation that Kevala's gentle work which was  
8 great, but also takes on an optimized, you know, kind of  
9 grid needs from a distribution side. But I don't think we  
10 have effectively made a case in terms of DER opportunity  
11 for affordable at the end rate benefits, holistically,  
12 right. It keeps getting siloed in very specific  
13 programmatic areas, and the benefits are very hard to do  
14 apples to apples comparison, right. So, I think I would  
15 challenge as a state agency that has independent authority  
16 to really lay out a case for DERs in a more, you know, in a  
17 more effective way.

18 And want to point out for those people who are --  
19 who haven't attended the workshop yesterday, there is a new  
20 bump on CAISO, daily kind of load shape. There is a little  
21 bump after midnight, and --

22 COMMISSIONER McALLISTER: Yeah (indiscernible).

23 VICE-CHAIR GUNDA: Yeah, we don't know if it's  
24 purely vehicles or like behind the meter storage but  
25 charging, but just like an interesting kind of a blip, like

1 right after midnight it happens.

2 COMMISSIONER MONAHAN: I mean that would be me.

3 COMMISSIONER McALLISTER: Mine would happen at  
4 9:00 p.m., but yeah.

5 So, I was going to make this point about the  
6 distribution grid because, you know, across the country  
7 actually, not just in California, there's this, you know,  
8 increasing understanding and imperative to our  
9 understanding that grid investments are a big chunk and  
10 distribution grid investments are a big chunk of what's  
11 driving rates. And, so, want to just pile on that and, you  
12 know, huge agreement with your point that if we can unpack  
13 -- if we could take that column, you know, that stack of  
14 costs that's driving rates and sort of, you know, segment  
15 it and understand which pieces -- you know, understand how  
16 managing flexible loads can be optimized to stage  
17 distribution system investments so that we can be much  
18 smarter about it and really ease that curve, you know, very  
19 intentionally, you know, as we're in this messy middle  
20 where we've got a lot of different resources, you know, the  
21 old ones and the new ones together, and it's driving, just  
22 a lot of cost drivers right now at this moment.

23 And I think load flex really has a lot of  
24 potential to, if done right, you know, to target and to be  
25 able to stage and target those investments at the right,

1 you know, (indiscernible) like bright circuits, you know,  
2 the right sort of places.

3 But we have to understand the grid in quite a bit  
4 of granularity in order to do that, and, so, you know,  
5 hopeful that the load flex goals work and the, you know,  
6 EADs work and the FTDs work around respective load  
7 flexibility can help inform that and that we can, you know,  
8 work very closely with the PUC and the utilities to  
9 understand sort of what the tradeoffs are there.

10 VICE-CHAIR GUNDA: Just ten seconds, thirty  
11 seconds.

12 COMMISSIONER McALLISTER: Obviously this has hit  
13 a nerve. This is a really important topic.

14 VICE-CHAIR GUNDA: And also because of the  
15 (indiscernible) relationships we don't get to talk together  
16 as a team, and I think, Commissioner McAllister, to your  
17 point, I think I would observe that, you know, as a state  
18 we have and as we -- you know, we do an excellent job on  
19 harmonizing a lot of policies, but I think specific demand  
20 flexibility and DERs you have this inadvertent silo between  
21 planning policy and regulatory framing.

22 COMMISSIONER McALLISTER: Yeah.

23 VICE-CHAIR GUNDA: Right, and I think we -- you  
24 know, again, kind of leaning on your point, do you make the  
25 necessary distribution upgrades today to allow and, you

1 know, create the conditions necessary for DERs or do you  
2 wait.

3 COMMISSIONER McALLISTER: Yeah.

4 VICE-CHAIR GUNDA: And how do you then implement  
5 that into the forecasting from a system level all the way  
6 to the distribution level. I think there are so many  
7 questions that it's hard to understate or overstate, you  
8 know, the importance of the kind the policy planning and  
9 regulatory coming together, the technology, analytical and  
10 the investments coming together, right, and then, you know,  
11 we just don't have a holistic framing on this, and I would  
12 really encourage us as a team to think through.

13 COMMISSIONER McALLISTER: Yeah, and would just  
14 add that's kind of the beauty of making a standard because  
15 it allows you to kind of get there at relatively low cost  
16 and create the conditions under which you can then be  
17 flexible when you do start to knit together, you know, the  
18 policy and the regulatory and the planning regimes.

19 And, you know, a big chunk of this has to do with  
20 reliability, so that's another kind of BK cleavage that we  
21 have, and that's sort of reflected in the 7,000 megawatt  
22 goal where, you know, roughly half of that is sort of  
23 liability supply side related and the other half is more,  
24 you know, permanent load shifting, you know, related that's  
25 sort of day in and day out, you know, load flexibility

1 that's less directly related to reliability but more, you  
2 know, more related to planning, right.

3           So, hopefully if we can do a rulemaking and sort  
4 of frame it properly and stage the stakeholder interaction,  
5 and these are -- I don't want to underestimate the  
6 diversity of all the stakeholders that would have to come  
7 to the table for this discussion, right, if we're going to  
8 include vehicles, you know, that's a whole -- that's a  
9 whole, you know, universe. And then each device category  
10 has its own somewhat, you know, more related set of  
11 stakeholders.

12           But there are a lot of providers, a lot of folks  
13 doing really interesting and cutting edge things at the  
14 grid edge. Need this resource to upgrade and to be able to  
15 have a viable business model.

16           So, I think overall it would be a huge public  
17 benefit to have clear, you know, communications and  
18 controls regime I guess is what I would call it across --  
19 that applies across, you know, significant load categories.

20           CHAIR HOCHSCHILD: Well, thank you all. Thank  
21 you, Peter. Great presentation. Much appreciated. With  
22 that, we'll turn now to Item 6, Petition for Rulemaking  
23 Pubic Resources Code Section 25354, and I welcome Jeremy  
24 Smith.

25           MR. SMITH: Good morning, Chair, Vice Chair and

1 Commissioners. My name is Jeremy Smith. I'm a Deputy  
2 Director in the Energy Assessments Division.

3 I'm presenting for your consideration the Western  
4 States Petroleum Association's petition for rulemaking  
5 regarding Public Resources Code 25354.

6 Next slide.

7 Public Resources Code 25354 is part of the  
8 Petroleum Industry Information Reporting Act of 1980, or  
9 PIIRA for short, which requires qualifying petroleum  
10 industry companies to submit data to the California Energy  
11 Commission to create a thorough understanding of petroleum  
12 industry operations in California. This information helps  
13 develop and administer energy policies in the interest of  
14 the state's economy and the public's well-being.

15 Subdivision A describes the reporting  
16 requirements for petroleum refiners and major marketers  
17 which have been in place since PIIRA's inception. These  
18 reports include, but are not limited to, petroleum  
19 refineries' feedstock inputs, imports and exports of  
20 petroleum products, production, inventories and sales  
21 through various channels, as well as major marketers'  
22 petroleum product receipts, inventories, exports and sales.

23 Subdivision C states that refiners and major  
24 marketers are required to submit on a monthly basis  
25 projections of the same information detailed in subdivision



1 A for the upcoming quarter.

2 The CEC had not been receiving this information  
3 from all obligated parties and it was vital to our work  
4 under Senate Bill X1-2 to assess market supply conditions  
5 to better understand the causes of gasoline price spikes.

6 So, in July, 2024, the CEC sent letters to these  
7 entities notifying them of their requirement to file these  
8 projections monthly. There are currently no regulations in  
9 place to implement these reporting requirements, but like  
10 the rest of Section 25354, this requirement is self-  
11 executing. Because there are no existing forms to collect  
12 these data, the CEC asked industry to provide this  
13 information in whatever form was readily available.

14 Next slide, please.

15 The Western States Petroleum Association, which  
16 is a trade organization that represents the oil and gas  
17 industry in the western states, has requested the CEC  
18 initiate a formal rulemaking process to develop regulations  
19 for reporting requirements detailed in Public Resources  
20 Code Section 25354, specifically subdivision C, and the  
21 requirement to submit 90-day projections of petroleum  
22 product operations as well as clarify certain elements of  
23 the refinery and maintenance reporting guidelines which  
24 were adopted earlier this May. WSPA did not propose any  
25 express terms for consideration with their request for

1 rulemaking.

2 Next slide, please.

3 Allow me to remind you of the work the CEC has  
4 been conducting related to petroleum industry reporting  
5 requirements.

6 As a response to gasoline price spikes in  
7 California in 2022, Senate Bill X1-2 was enacted last year  
8 to protect Californians from overpaying at the pump. The  
9 legislature provided the CEC with emergency rulemaking  
10 authority which enables an expedited process by which data  
11 reporting requirements can be enhanced to ensure we collect  
12 the information necessary to fulfill our responsibilities  
13 called for in the bill.

14 The timeline on the screen shows the SB X1-2  
15 emergency rulemaking activities to date, starting on the  
16 left side with the bill going into effect in June, 2023.

17 After the CEC initiated the rulemaking process a  
18 year ago in October, 2023, three data regulation packages  
19 and a revised guidebook have been adopted, including spot  
20 market data regulations in February, 2024, refining margin  
21 and marine import data regulations in May, 2024, and  
22 merchant terminal position holder data regulations in July.

23 Our work is not done and staff are hosting  
24 additional workshops to solicit public input into other  
25 data regulations, starting with the 90-day projection

1 requirements and refinery maintenance clarifications on  
2 November 12, 2024.

3 Next slide.

4 Staff recommend you deny the petition for a  
5 formal rulemaking for the following reasons.

6 First, these requests fall under the existing  
7 proceeding related to SB X1-2 emergency rulemaking  
8 activities.

9 Second, as I mentioned, staff are hosting an  
10 emergency rulemaking workshop on these topics next month.

11 Third, granting this request could subject the  
12 CEC to an untenable timeline and foreclose meaningful  
13 public participation.

14 Finally, Public Resources Code Section 25354 is  
15 self-executing and may implement -- may be implemented via  
16 guidelines in the case for refinery maintenance and  
17 emergency regulations.

18 That concludes my presentation. Chad Oliver from  
19 our Chief Counsel's Office and I are available to answer  
20 your questions. Thank you.

21 CHAIR HOCHSCHILD: Great. Let's go to public  
22 comment on Item 6.

23 MS. BADIE: Thank you. The Commission welcomes  
24 public comment on Item 6 at this time. If you're joining  
25 us in the room, we're asking folks to use the QR code or

1 approach the podium, and if you're joining on Zoom, you can  
2 start raising your hand now. You can use on your screen  
3 the raised hand feature. It looks like an open palm. Or  
4 you can press star nine to raise your hand on the phone.

5 First we'll start with folks in the room. We've  
6 got Taylor -- Sarah Taylor, excuse me. If you'd please  
7 approach the podium, and then, Sarah, if you could just  
8 spell your name for our court reporter as well before  
9 making your remarks. Thank you.

10 MS. TAYLOR: How are you all? Good morning  
11 Chair, Vice Chair, Commissioners. My name is Sarah Taylor.  
12 I am in-house counsel with Western States Petroleum  
13 Association. That is S-A-R-A-H T-A-Y-L-O-R.

14 WSPA is concerned that the CEC's existing general  
15 rulemaking proceedings for developing SB X1-2 regulations  
16 has not to date prioritized the serious need for  
17 clarification concerning the CEC's recordkeeping and  
18 reporting requests, specifically with respect to requests  
19 for projection and forecast data and the blurring of  
20 definitions between those two terms.

21 WSPA filed this petition for rulemaking to ensure  
22 that any data requested would provide the clarity,  
23 consistency, accuracy and qualifications needed to properly  
24 interpret and implement their requirements.

25 Importantly, Section 25354 of the California

1 Public Resources Code anticipates the need to prescribe  
2 various regulations to define the scope of requirements  
3 contained in SB X1-2.

4 SB X1-2 does not itself contain a provision  
5 allowing for monthly forecasts. This needs to be clarified  
6 through guidance provided via regulation. The CEC must  
7 recognize the significant and inherent limitations in any  
8 one company's ability to provide either forecasts or  
9 projections involving any globally traded commodity.

10 Making such predictions about the future direction of the  
11 market inherently involves a wide range of assumptions  
12 among private competitors, each of which operates with an  
13 incomplete set of data on the market and the decisions and  
14 priorities of other competitors. Thus, such  
15 prognostications are of questionable usefulness, even if  
16 the data is aggregated and could potentially be harmful to  
17 individual company's competitive position.

18 A rulemaking could help limit undue reliance on  
19 and potentially harmful usage of data projections. Relying  
20 on inherently uncertain predictions and potentially  
21 imposing severe financial penalties or taxes based on those  
22 predictions is particularly troublesome and frustrates the  
23 purpose of the statute.

24 It is, therefore, important that CEC establishes  
25 clear guidance with standardized reporting formats informed

1 by good-faith consideration of input from industry and that  
2 the data is appropriately qualified as projections or  
3 predictions about future events subject to inherent  
4 uncertainty.

5 Finally, as to concerns regarding public  
6 participation, as you know, the CEC ultimately retains  
7 discretion to provide the time necessary for meaningful  
8 public participation and get its rulemaking right.

9 Thank you all for your time. We appreciate the  
10 opportunity for comment.

11 MS. BADIE: Thank you. We don't have any other  
12 in-room comments. We're going to transition to Zoom.  
13 Stephen Rosenblum, I'm going to open your line. You'll  
14 unmute on your end. Please also spell your name and  
15 announce any affiliation you'd like to share. We're asking  
16 for comments to be two minutes or less.

17 MR. ROSENBLUM: Hi. Steve Rosenblum, R-O-S-E-N-  
18 B-L-U-M.

19 I don't have a comment on this, but I'd like to  
20 report a technical difficulty on Zoom. The speakers from  
21 DWR all had echoes on line, and I didn't find any place to  
22 report that, so I had a hard time understanding anything  
23 they said. All the speakers in the room at the Commission  
24 are easily heard, but the ones that are remote are not, so,  
25 I'd appreciate it if somebody could look into that. Thank

1 you.

2 MS. BADIE: Thank you, Stephen. All right. That  
3 concludes public comment. Back to you, Chair.

4 CHAIR HOCHSCHILD: Yeah. Sorry about that,  
5 Stephen. Thank you for letting us know. We'll work to  
6 correct that.

7 With that, we'll go to Commissioner discussion,  
8 starting with the Vice Chair.

9 VICE-CHAIR GUNDA: Thank you. I just want to,  
10 first, thank you, Sarah, for your comment, and I think  
11 there's a couple of points I really want to make sure that  
12 we at the Energy Commission recognize both in the spirit of  
13 what you've said, but also speed the process.

14 I think, one, I want to acknowledge how  
15 complicated and, you know, the ecosystem is pretty large  
16 and as you mentioned, diverse as it pertains to the  
17 petroleum industry, and it's important for us to do it as  
18 transparently and as clearly as possible, so, really hear  
19 you on that and we will as an agency always take input on  
20 making that better and better. And I think that's, you  
21 know, as alluded to in the discussions at the special  
22 session in the last week, you know, by a number of members  
23 of the assembly, and I it's really important for us to note  
24 how much whatever we do in petroleum affects the economy as  
25 a whole, so to that extent also I'll take your remarks in

1 good faith of trying to figure out that the analysis, the  
2 data that we rely on and the projections we make are all  
3 done with that gravitas of how important that is. So,  
4 thank you for your comments and also being a partner in  
5 this work over the last year and a half.

6 So, before I kind of further my comments, I just  
7 want to ask Chad, or Jeremy, or even Pat Rubohan  
8 (phonetic), our Executive Director, any responses to the  
9 specific comments that Sarah made?

10 MR. SMITH: Yeah, I'll just echo your  
11 appreciation for, you know, talking about how important it  
12 is to, you know, develop regulations that are very clear so  
13 we get the data that we need in order to make informed  
14 decisions, and I feel like the process that we have set in  
15 motion, starting with the Prerulemaking Workshop on  
16 November 12, will allow staff the time to develop the  
17 proposed regulatory language and the relevant data  
18 collection forms and instructions that we need prior to  
19 soliciting public feedback at that workshop.

20 And we're committed to working with the entire  
21 industry to ensure that we develop those rules in a very  
22 clear manner before we present any regulations for adoption  
23 at a future business meeting.

24 VICE-CHAIR GUNDA: Thanks, Jeremy. Maybe, you  
25 know, maybe the CCO and Executive Office, we've kind of



1 been in this situation where we get a petition for  
2 rulemaking and it's just impossible to entertain that  
3 within the context of other existing, you know, authority.  
4 Could you just comment on that for the public record?

5 MR. SMITH: Thank you, Vice Chair, for the  
6 question. Yeah, and so this you may recall we also had a  
7 petition for rulemaking back in March that the Commission  
8 chose to kind of address in a slightly different manner.  
9 But, you know, essentially the issue here is under the  
10 Administrative Procedure Act there's some ambiguity around  
11 kind of the procedures that would be required if an agency,  
12 the Commission, were to grant a petition, but specifically  
13 to grant a petition that would require the regulations  
14 package to be made available immediately and to schedule  
15 the matter for a public hearing, and so, that requirement  
16 essentially forecloses the public participation and  
17 feedback period, the kind of prerulemaking process the  
18 Commission, you know, wishes to engage in. Even with  
19 emergency rulemaking under the SB X1-2, the CEC has held  
20 those public workshops to discuss draft regulatory  
21 language, and so, granting a petition could foreclose that  
22 process in order to, you know, comply with all the  
23 provisions of the Administrative Procedure Act.

24 VICE-CHAIR GUNDA: Okay. Anything else. Drew,  
25 anything you want to add or Lisa. Okay, thank you.

1           I think, so with that, and again, Jeremy, thank  
2 you for your presentation, and want to take this  
3 opportunity to just thank you, the entire Energy  
4 Assessments Division, the pilot team on the incredible work  
5 that's been happening over the last year, and there was a  
6 statistic that, you know, you've shared with me in the past  
7 about 15,000 hours of data processing has occurred over the  
8 last, you know, 12 months. That is not a small task and I  
9 think, you know, it's both in your comments, and I want to  
10 reiterate I think the trust in our agency is directly  
11 correlated to the ability to put out information in the  
12 most thoughtful, transparent and clear manner.

13           So, thank you for bringing that to the table and  
14 continuing to work on that, and, you know, continue to kind  
15 of ask you and that entire team to work with the industry  
16 on making sure that they feel that they are being  
17 collaborated with, right. It's very important that they  
18 see this whole process as a partnership because the  
19 solutions we are pursuing here are going to be really  
20 important for them to be in partnership.

21           Also want to thank Lisa, you, Chad and the entire  
22 CCO team for the incredible work you do and the support you  
23 provide. Also want to share my thanks to the OGIA, the  
24 Ledge Group, but also our Comms team on trying to bring  
25 this together.

1           And, finally, I want to say just big things to  
2 Aria in our office who is the lead advisor on this issue  
3 from our office. Thank you, Aria, for developing, you  
4 know, the good faith work that you've been able to do.

5           Again, I want to go back to the industry partners  
6 on this that, you know, it's kind of been abundantly clear  
7 staff have already scheduled a rulemaking that will allow  
8 the contents of what you have mentioned to be addressed,  
9 but also within the context of the operations we work  
10 within the legal merits, I think it's -- I would support  
11 rejecting it, but I would entertain and also ask, you know,  
12 strongly that we make sure that we partner, and if there is  
13 anything in the rulemaking process that we're missing, and  
14 I think the observations by WSPA, or the asks by WSPA are  
15 kind of something that we need to honor. We cannot collect  
16 information that's inconsistent or not clear, so we should  
17 do everything we can to improve efficiency and minimize the  
18 impacts to data quality.

19           So, with that, Chair, back to you.

20           CHAIR HOCHSCHILD: Commissioner McAllister.

21           COMMISSIONER McALLISTER: So, I wanted to just do  
22 two things. One is just to thank you and your team for so  
23 much effort on this. You know, it's been sort of above and  
24 beyond for many months now for all of you, and your  
25 leadership has just been amazing, just all the time in the

1 seat at the Legislature helping deliver clarity and answer  
2 questions and just demystify this whole thing and just  
3 really be the responsible party kind of leading the charge  
4 here. Really appreciate, and I think I speak for all of  
5 us. But just been a marvel to watch really, so, thank you.

6 And then I want to -- you mostly -- you talked  
7 about the issue of just wanting to make sure that the  
8 emergency rulemaking that we have planned can capture the  
9 issues that WSPA was bringing up and just sort of make sure  
10 that that can be the robust vessel for the conversations  
11 that need to take place to have a good faith process and  
12 maybe -- you're nodding so I won't make you come back to  
13 the podium, but that is the case is my question, right?  
14 Correct? Okay, great.

15 CHAIR HOCHSCHILD: Commissioner Gallardo.

16 COMMISSIONER GALLARDO: I also want to appreciate  
17 Vice Chair Gunda for all his leadership and hard work on  
18 this. I know it's a challenging situation, extremely  
19 important for our state. And, Jeremy, I want to thank you  
20 for the briefing you gave me and the thoughtful  
21 presentation as well.

22 My question is actually for Sarah from WSPA, if  
23 you're willing. I was just curious after hearing all that  
24 you did, to me, I'm not in this space a lot, but it sounded  
25 like it's going to respond to a lot of what you asked, if

1 not all of what you asked, but I'm just curious if there's  
2 anything missing given what you heard.

3 MS. TAYLOR: Yes, absolutely.

4 COMMISSIONER GALLARDO: And I know I'm putting  
5 you on the spot, and you can decline as well.

6 MS. BADIE: Can you come to the podium so we can  
7 make sure our Zoom attendees can hear you.

8 VICE-CHAIR GUNDA: This is how we make a  
9 regulatory structure, so you have to kind of climb up and  
10 down. Thank you.

11 COMMISSIONER GALLARDO: I's an obstacle course.

12 MS. TAYLOR: Yeah, next time I'll sit closer to  
13 an aisle, but, no, I definitely appreciate you all bearing  
14 with me. I think I've made it obvious, my boss usually is  
15 the one that comes to these presentation, but I appreciate  
16 the question, Commissioner Gallardo. I would also  
17 appreciate the opportunity to confer with my team and maybe  
18 respond in a more complete and robust way later.

19 COMMISSIONER GALLARDO: Absolutely. I think  
20 that's fair. I was just curious, you know, given that  
21 we're having this discussion here, but I appreciate it.

22 MS. TAYLOR: Yeah, no problem. Thank you.

23 COMMISSIONER GALLARDO: We appreciate you coming,  
24 too, Sarah.

25 MS. TAYLOR: A quick jaunt, just a quick walk.

1 CHAIR HOCHSCHILD: All right. With that, I  
2 welcome motion on Item 6 from the Vice Chair.

3 VICE-CHAIR GUNDA: Move Item 6.

4 CHAIR HOCHSCHILD: Is there a second from  
5 Commissioner Gallardo?

6 COMMISSIONER GALLARDO: I second.

7 CHAIR HOCHSCHILD: All in favor say aye. Vice  
8 Chair Gunda.

9 VICE-CHAIR GUNDA: Aye.

10 CHAIR HOCHSCHILD: Commissioner Gallardo.

11 COMMISSIONER GALLARDO: Aye.

12 CHAIR HOCHSCHILD: Commissioner McAllister.

13 COMMISSIONER McALLISTER: Aye.

14 CHAIR HOCHSCHILD: Commissioner Monahan.

15 COMMISSIONER MONAHAN: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item  
17 6 passes unanimously.

18 We'll turn now to Item 7, Commercializing  
19 Industrial Decarbonization. I welcome Mike Lozano to  
20 present.

21 MR. LOZANO: Good morning Chair, Vice Chair and  
22 Commissioners. My name is Michael Lozano, and I work in  
23 the Energy Research and Development Division.

24 Today I'm presenting two of the three recommended  
25 awards from round two of the Commercializing Industrial

1 Decarbonization, or CID, solicitation. The third award  
2 will be going to a future business meeting.

3 Next slide, please.

4 The purpose of this solicitation is to fund  
5 technology development and demonstration projects of  
6 promising precommercial technologies, to accelerate  
7 industrial decarbonization and increase overall energy  
8 efficiency to reach statewide goals set forth in SB 32, SB  
9 100 and SB 350.

10 Projects must fall within one of the following  
11 project groups. Group 1, low carbon industrial heating,  
12 two, energy efficiency and decarbonization of concrete  
13 manufacturing, and Group 3, energy efficient separation  
14 processes.

15 These two projects represent 12.9 million dollars  
16 in CEC funds with 5.2 million in match.

17 Next slide, please.

18 The projects will increase electrification and  
19 energy efficiency, decrease use of fossil fuels, greenhouse  
20 gas emissions and energy costs and help meet California's  
21 decarbonization goals for industry.

22 The industrial sector has significant potential  
23 for improvements in energy and water efficiency but is a  
24 difficult sector to decarbonize. Each individual facility  
25 has unique operational needs, has a mix of old and new

1 technologies and equipment, lacks easy access to actionable  
2 operational data for decision-making, and lacks verified  
3 performance data under real world conditions for promising  
4 emerging technologies. The recommended research projects  
5 will address these areas.

6 Next slide, please.

7 The first project is with Caliskaner Water  
8 Technologies, which will design, fabricate, install and  
9 evaluate innovative advanced water reclamation technologies  
10 for potable and nonpotable water, two technologies for  
11 potable and three technologies for nonpotable. The  
12 technologies will be demonstrated at the Linda County Water  
13 District's waste water treatment plant located in  
14 Olivehurst, California. The goal is to demonstrate reduced  
15 energy usage, reduce capital and operational costs, and  
16 improve treatment performance with a reduced system  
17 footprint.

18 We have two technologies for potable water. One  
19 is an advanced ultrafiltration membrane developed by Dupont  
20 designed to increase water flow and reduce fouling. The  
21 other is an advanced reverse osmosis train which is an  
22 innovative nanocoating on membrane materials that reduces  
23 fouling and clean-in-place frequency.

24 The three nonpotable water production  
25 technologies, one is an advanced cloth media filtration for



1 hydraulic -- higher hydraulic loading. One is an advanced  
2 sludge filter designed to replace secondary clarification  
3 filtration, which is conventional with a single package  
4 unit. And the final technology is a sludge and membrane  
5 bioreactor which is a hybrid system where waste water  
6 biosolids are encapsulated in microbial granules which  
7 settle to the bottom and are physically filtered out before  
8 being treated in the bioreactor.

9 Next slide, please.

10 The second project is with C-Crete Technologies  
11 which will develop a pilot demonstration to turn 20 tons a  
12 day of naturally occurring abundant noncarbonate rocks such  
13 as zeolite into cementitious binders for replacing 100  
14 percent of ordinary Portland cement. This binder, along  
15 with C-Crete's eco friendly chemical activators will be  
16 used to produce zeolite-based concrete to be tested by  
17 Vulcan materials.

18 C-Crete's technology allows for an electrified  
19 process for production of cementitious binders without the  
20 use of 1,500 degree Celsius kilns. When deployed at scale  
21 this makes use of billions of tons of zeolite rocks from  
22 California and CO<sub>2</sub> emissions reductions by millions of tons  
23 per year.

24 Next slide, please.

25 The technology potential for these two projects

1 for Caliskaner, California has an average daily waste water  
2 treatment flow of 4,000,000,000 gallons per day and  
3 currently reclaims about 30 percent of this daily flow. At  
4 20 percent market penetration there will be 20 gigawatt  
5 hours of annual electricity savings and over 7,000 metric  
6 tons of CO<sub>2</sub> savings.

7           With C-Crete, if C-Crete is deployed at scale, it  
8 will show great reductions. California is the second  
9 largest producer of cement in the United States with seven  
10 plants producing about 10,000,000 tons of cement while  
11 emitting 8,000,000 tons of CO<sub>2</sub> annually. This industry  
12 alone accounts for two percent of the statewide greenhouse  
13 gas emissions.

14           If C-Crete's process is used industry-wide, the  
15 benefits could be massive. Cement production will be  
16 electrified and use readily available California rocks  
17 while reducing CO<sub>2</sub> emissions by millions of tons.

18           Next slide, please.

19           Staff recommends approval of these two grant  
20 agreements and adoption of staff's determination that these  
21 projects are exempt from CEQA. I'm available to answer any  
22 questions. This concludes my presentation and thank you  
23 for your time.

24           CHAIR HOCHSCHILD: Yeah, just before we go to  
25 public comment, quick question. You mentioned California

1 is the second biggest cement producer. In this process  
2 what fraction emissions reduction does it have over  
3 conventional?

4 MR. LOZANO: Well, you've got to remember that  
5 Portland Cement between the clinker and the chemistry is  
6 two pounds per -- two pounds of CO<sub>2</sub> emissions for every  
7 pound of product. And this one basically you do not have  
8 to use fossil fuels for the heat. You can an electrified  
9 process. So, that would be based on whatever you get the  
10 electricity from. If you have a coal-powered power plant,  
11 that would be CO<sub>2</sub> emissions, but if you're using windmills,  
12 then it would be zero, and the chemistry would be zero.  
13 So, you can go to, you know, very little.

14 CHAIR HOCHSCHILD: Yeah. One point I just wanted  
15 to make. So much of what we're working on at the Energy  
16 Commission today is in some way, shape, or form related to  
17 electrification, and, you know, the grid is getting  
18 cleaner, a lot cleaner, not just in California but around  
19 the country. You know, we were at 52 percent of the U.S.  
20 portfolio being coal in 2011. We're at 16 percent now. I  
21 do not believe we're going to have operating coal plants in  
22 the United States in ten years and maybe even sooner.

23 You know, of course, here in California we're at  
24 61 percent clean energy and, you know, of all the capacity  
25 additions on the U.S. electric grid this year, you know, 95

1 percent is clean and 99 percent of the retirements are  
2 fossil, so it is -- when we see these things getting born  
3 here and spread, I mean it is really -- it's going to be  
4 supported by increasingly clean electricity. So, thrilled  
5 to see this. This is very tough stuff, so thank you.

6 Great presentation.

7 Let's go to public comment and then we'll go to  
8 Commissioner discussion.

9 MS. BADIE: Thank you. The Commission welcomes  
10 public comment on Item 7 at this time. We welcome comments  
11 in the room and also on Zoom. If you're in the room with  
12 us, you can approach the podium or use the QR code, and if  
13 you're on Zoom, you'll use the raised hand feature on your  
14 screen, or star nine if joining by phone. And just giving  
15 that a moment. Not seeing any comments for this item.

16 Back to you, Chair.

17 CHAIR HOCHSCHILD: Thank you. Let's go to  
18 Commissioner discussion. I'm not sure, Commissioner  
19 McAllister, would you like to -- okay. We'll start with  
20 you first, then.

21 COMMISSIONER McALLISTER: Well, I think all these  
22 are great projects, and thanks for the briefing. I really  
23 appreciate it, and, you know, when something seems too good  
24 to be true, I always get a little bit wary, but I pummeled  
25 staff with a lot of questions about this when I got my

1 briefing and cement, and that's exactly right, about, you  
2 know, roughly half of the emissions is just burning gas to  
3 heat up the kilns to get the clinker process going and  
4 then, you know, there's a lot of electricity involved as  
5 well, you know, just to keep the plant moving.

6           And, you know, we've visited a number with  
7 Commissioner Monahan, we visited a number of cement  
8 facilities, and I think often -- a lot of times we do  
9 incremental things. You know, energy efficiency often is  
10 about incremental improvement. And when you see a  
11 technology that's fundamentally different that could be  
12 producing an equivalent product and really sort of  
13 tunneling through the -- you know, with a completely  
14 different approach in a disruptive way, it's pretty  
15 incredible, and that's sort of where the hockey stick -- I  
16 mean this has incredible potential to solve one of the  
17 massive problems of our -- of carbon production that we  
18 have across the world, and, so, I don't want to get to out  
19 over my skis here, but, you know, a lot of fingers crossed  
20 that this is going to prevail, you know, at reasonable cost  
21 and, obviously, it's got a lot to like about, you know,  
22 either taking advantage of existing resources we have here  
23 in the state.

24           Cement is one of these products that tends to not  
25 be internationalized or globalized because it's so heavy

1 and the transportation costs are so big, but we really need  
2 cement or other building materials to substitute for it,  
3 you know, in the state, and that's got to be part of our  
4 solution here to get to zero.

5 But if this, you know, technology pans out, it  
6 could be a real game changer. So, super hopeful about  
7 this, tempered with experience of, you know, lots of people  
8 saying this guy -- that things are bad, and they are, but  
9 if this works it will be really transformational, so super  
10 stoked to see what happens here.

11 And the other projects you described are very  
12 solid, but the potable and nonpotable water project, I'm  
13 very supportive.

14 CHAIR HOCHSCHILD: Let's go to Commissioner  
15 Monahan.

16 COMMISSIONER MONAHAN: Commissioner McAllister  
17 said everything I wanted to say, but I mean, cement is our  
18 like opportunity in California really to show. I mean the  
19 other big emitter in the industrial sector is the oil and  
20 gas industry, and, you know, we're moving to a new zero  
21 emission transportation system. We're moving to a zero  
22 emission electricity system. And, yeah, I'm really excited  
23 to see how this pans out. It seems like CCS is our other  
24 -- the other place the concrete industry is going, so this  
25 would be a profoundly different path, and, yeah, it's a

1 great R&D investment.

2 CHAIR HOCHSCHILD: Vice Chair.

3 VICE-CHAIR GUNDA: You go ahead, Commissioner.

4 CHAIR HOCHSCHILD: Go ahead, Commissioner  
5 Gallardo.

6 COMMISSIONER GALLARDO: Okay. I was going to say  
7 I'm also excited about this, and it sounds weird to be  
8 excited about cement, but I think it's more about how we're  
9 looking at all the possibilities for us to get to that 100  
10 percent clean energy future, and that's what we've got to  
11 do.

12 So, I'm excited about that one, but I'm slightly  
13 more excited about the water treatment. I'm working on the  
14 Lithium Valley Vision, so I'm out in the Imperial Valley a  
15 lot and talking with the local governments there, and water  
16 treatment keeps coming up as a major issue that they want  
17 to address, and, so, I was thinking, oh, how exciting that  
18 we're investing in this technology that would improve the  
19 treatment and also reduce the footprint, save money, and,  
20 so, I feel like it has so much potential, so I'm excited  
21 about that. And, also, one of them is in the neighboring  
22 city, Olivehurst, I live in Plumas Lake, so, would love to  
23 do a visit when the time is right.

24 CHAIR HOCHSCHILD: Vice Chair.

25 VICE-CHAIR GUNDA: Yeah, thank you, Michael for

1 the presentation. I think the comments that all the  
2 Commissioners have made kind of really set the stage for  
3 the importance of this, and I think -- and I wanted to  
4 thank the kind of partnership opportunity we have here with  
5 experienced players in the industry. Excited about what  
6 Commissioner Gallardo mentioned in terms of, you know,  
7 water opportunity here.

8 I've also learned a new word, cementitious, which  
9 I've never heard before. That's kind of cool. You know,  
10 this job allows us to learn regularly.

11 But I kind of wanted to use this opportunity to  
12 just kind of say to Commissioner McAllister and maybe  
13 Commissioner Monahan, like in terms of industrial decarb I  
14 think we have the scoping plan that lays out, and I kind of  
15 see this as kind of those five broad verticals, right. I  
16 mean you have the kind of like oil and gas broadly and in  
17 the industry that we are trying to decarbonize, but I  
18 think, you know, three end users, transportation,  
19 buildings, industrial and electric grid and, you know,  
20 potential fossil transition as an energy source. I feel  
21 like industrial decarb does not necessarily have an  
22 implementation pathway. I think we have a high level  
23 pathway, and I just wanted to invite your thoughts on we've  
24 always struggled on the industrial forecasting given how  
25 much we have with the (indiscernible) and the Federal



1 investments. We talk about, you know, California being a  
2 manufacturing hub again, you know, revitalizing that. I  
3 just wanted to from both of your perspectives at a 30,000  
4 foot level like what should our agency do in, again, going  
5 back to those categories of funding analysis, situational  
6 awareness and policy directive.

7 COMMISSIONER McALLISTER: I really appreciate  
8 that question. And, you know, industrial by its nature  
9 it's sort of hard to generalize, right, because every  
10 process -- each process is unique, and even within sectors,  
11 you know, producing similar products often they're very  
12 different. And, so, you kind of have to slice and dice  
13 industrial in a different way than say we would residential  
14 or commercial buildings, or even transportation.

15 There are some common technologies, you know,  
16 motors and drives, compressors, so those are more along the  
17 energy efficiency track. But the big conundrum with  
18 industrial is how to find thermal energy -- decarbonize  
19 thermal energy, right, where we have heat needs in an  
20 industrial process. So, that's one beautiful thing about  
21 like cement that's potentially being used as a chemical  
22 solution to a thermal problem.

23 And, so, you kind of have to kick off each sector  
24 within industrial and sort of use a bespoke process to kind  
25 of attack that and solve the unique set of problems to that

1 kind of subsector of the industrial.

2           So, like chemical is an example, or glass, you  
3 know, where they have high thermal loads, fertilizer,  
4 right. So, there's some of these we can pick off possibly  
5 with the evolution to a hydrogen economy, right, fertilizer  
6 is kind of right in the mix with the hydrogen economy, so  
7 maybe that can help us, rather than importing fertilizer  
8 produced elsewhere, produce our own with a, you know, a low  
9 carbon footprint based on some of the hydrogen processes  
10 that will be coming into play.

11           But producing high temperature heat without  
12 combustion, or at least without fossil combustion, is a  
13 pretty big lift, and, so, you know, I think we're chipping  
14 away at it, but I would encourage maybe a briefing from  
15 Jana's team, you know, Angie and Cammie, and then either  
16 (indiscernible) side, who's doing a lot on the industrial  
17 side, really understands the landscape of the industrial  
18 kind of broad landscape of industrial end users, you know,  
19 industrial facilities in California.

20           So, they've been doing a lot of work kind of  
21 assessing that and trying to figure out where the  
22 opportunities are. I'm sure Commissioner Monahan has more  
23 to add.

24           COMMISSIONER MONAHAN: Well, I would just say I  
25 think this is an area where we should do a more public

1 process around getting thoughts around how to transition  
2 the industrial sector.

3           As Commissioner McAllister said, we've done a  
4 number of site visits and really the bespoke word I think  
5 really fits for this. And there's sensitivity around jobs.  
6 You know these are, you know, manufacturing jobs in  
7 California that we want to preserve, and so as we move  
8 forward, we need to be really conscientious of what this  
9 means for people's livelihoods, and so there's sensitivity  
10 there, too, around how do we make sure that we move to a  
11 clean energy economy that preserves jobs here in  
12 California.

13           So, I haven't talked to anybody about this, but I  
14 think we should have -- you know, we can do it through RFI  
15 process. We can also have more workshops next year, but I  
16 think that you're right, there's a gap. And we've been  
17 focusing. I go to cement because I'm like, oh, two  
18 percent. That's a lot of emissions, so let's focus there.  
19 Let's go to where -- and we can slice and dice the  
20 industrial industry of, well, who are the big carbon  
21 emitters and really focus on that as our -- that's what I  
22 would recommend as a pathway.

23           COMMISSIONER McALLISTER: That's a great  
24 suggestion. And one thing I would just add to throw in the  
25 bucket here, you have Indigo which staff is doing a great

1 job of those RFPs, and, you know, hopefully that's a vessel  
2 that when the tide turns on the economy and the tax recedes  
3 we can, you know, have more funding for that.

4 And then also there's a fair amount of overlap in  
5 California with Ag production and processing, right, so we  
6 kind of set that aside as a category, but, in essence,  
7 that's an industrial sector as well and has a lot of heat  
8 needs.

9 So, I think we could do a deeper dive on the  
10 nature of the needs for thermal in energy and sort of what  
11 temperature each process needs and try to sort of meet that  
12 more efficiently, because typically what we do is we have  
13 like, you know, the highest quality heat and then you kind  
14 of dumb it down for each process within a given facility.

15 But we could -- the Danes are actually helping us  
16 rethink that quite a bit. I think the relationship with  
17 Denmark on how to sort of put the right, you know, level of  
18 enthalpy. Anyway, not to get into thermodynamics, but like  
19 to sort of do the energy flow, do the energy and math  
20 balance within a facility in a more intentional way that  
21 has the footprint of the facility at the center of the  
22 analysis. So, they really -- they have an interesting way  
23 of doing things that I think we can learn a lot from.

24 VICE-CHAIR GUNDA: Thank you, Commissioner  
25 McAllister and Commissioner Monahan. I think I would love

1 -- I love the idea of having a further public process. I  
2 know we've been doing that, but I think -- I look at the  
3 scoping plan as a call for action, and you have this  
4 economy wide opportunity and then this real implementable  
5 solutions is like where the rubber meets the road, and then  
6 love to kind of have a process that allows for that further  
7 discussion and what we can do as an agency.

8 COMMISSIONER McALLISTER: Commissioner Monahan,  
9 are you thinking of maybe doing joint things with CARB  
10 around a scoping plan, or that could be fruitful at some  
11 point I think?

12 COMMISSIONER MONAHAN: That's a great idea.

13 CHAIR HOCHSCHILD: So, my computer is saying it  
14 needs to restart right in the middle of a meeting.

15 I just wanted to close this out by saying, you  
16 know, the low hanging fruit is picked in decarbonization  
17 and we're into the tough stuff now. This is not easy stuff  
18 to do.

19 We've had fits and starts in this area. You  
20 know, we funded Sun Maid Raisins a few years back to try to  
21 do electrification, and actually that didn't work out, and  
22 there's a few other efforts in this area. But these  
23 projects seem terrific. I'm especially excited, Mike,  
24 about the cement. I think it's very high leverage. I  
25 think it's actually the most important thing, you know,

1 within in this arena that we can be doing.

2           So, thank you for all the work. Really keep us  
3 posted how it progresses.

4           And unless there's further discussion, I welcome  
5 a motion from Commissioner McAllister on Item 7.

6           COMMISSIONER McALLISTER: I move Item 7.

7           CHAIR HOCHSCHILD: Is there a second from  
8 Commissioner Monahan?

9           COMMISSIONER MONAHAN: I second.

10          CHAIR HOCHSCHILD: All in favor say aye.  
11 Commissioner McAllister.

12          COMMISSIONER McALLISTER: Aye.

13          CHAIR HOCHSCHILD: Commissioner Monahan.

14          COMMISSIONER MONAHAN: Aye.

15          CHAIR HOCHSCHILD: Vice Chair Gunda.

16          VICE-CHAIR GUNDA: Aye.

17          CHAIR HOCHSCHILD: Commissioner Gallardo.

18          COMMISSIONER GALLARDO: Aye.

19          CHAIR HOCHSCHILD: And I vote aye as well. Item  
20 7 passes unanimously.

21                 We'll turn now to Item 8, Cost Share for Federal  
22 Clean Energy Funding Opportunities, Carbon Removal  
23 Innovation Support Program. Welcome to Kevin Mori.

24                 Colleagues, let me just say, I have a hard stop  
25 at -- now I've got to go at 12:30 to give a talk back in

1 the Bay Area, so we'll just blast through and then I'll  
2 turn it over to the Vice Chair if we don't finish by then.  
3 Thanks. Go ahead, Kevin.

4 MR. MORI: I'll be quick. Good morning,  
5 Commissioners. I'm Kevin Mori from the Industrial and  
6 Carbon Management Branch in the Research and Development  
7 Division.

8 Today I am presenting two Federal cost share  
9 awards being put in through our CRISP program.

10 Next slide, please.

11 The CRISP program was established in response to  
12 AB 209 instructing the Energy Commission to fund technology  
13 research development and demonstration and prototype and  
14 pilot research test centers to remove atmospheric carbon.

15 The global average of carbon dioxide  
16 concentration has increased 20 percent over the last 44  
17 years, and carbon dioxide accounts for 76 percent of all  
18 greenhouse gas emissions.

19 The goal of this Federal cost share solicitation  
20 is to explore technologies and strategies that capture and  
21 utilize carbon emissions.

22 The proposed project, totaling in 3.3 million in  
23 CEC funding will leverage 14.3 million in Federal funding  
24 from the Department of Energy's Office of Fossil Energy and  
25 Carbon Management.

1           Next slide, please.

2           In the agreement with Electric Power Research  
3 Institute, EPRI will engage with local communities in Kern  
4 County to plan and design a direct air capture hub. EPRI  
5 will identify direct air capture technologies and clean  
6 energy sources for the design of the hub and plan for the  
7 associated storage. EPRI will also investigate the  
8 potential environmental impacts from the designed direct  
9 air capture hub and conduct life cycle analysis.

10           They currently plan for the initial hub to  
11 capture 100,000 tons of CO<sub>2</sub> annually and a goal to expand to  
12 1,000,000 tons.

13           Next slide, please.

14           The next agreement is with UC Berkeley, and they  
15 will be conducting a technical and social feasibility study  
16 for installing a direct air capture hub in the San Joaquin  
17 Valley. UC Berkeley will work with the other members of  
18 the community alliance for direct air capture to engage  
19 with local communities and work with various technology  
20 providers and research organizations for the hub design.

21           During the project they will need to identify  
22 suitable host sites for the direct air capture technologies  
23 and the storage of CO<sub>2</sub>, address the water and energy needs  
24 for the hub, assess the environmental impact and impact to  
25 surrounding communities, and conduct a life cycle analysis.



1           Both projects are still in the planning phase,  
2 but aim to make a large impact for California's climate  
3 change goals.

4           Next slide, please.

5           And with that, staff recommends the adoption of  
6 staff's recommendation that these actions are exempt from  
7 CEQA and approval of these grants with EPRI and UC  
8 Berkeley.

9           I am available for any questions. Thank you.

10          CHAIR HOCHSCHILD: Thank you so much, Kevin.  
11 Let's move to public comment on Item 8.

12          MS. BADIE: Thank you. The Commission welcomes  
13 public comment on Item 8 at this time. We'll take comments  
14 in the room and then transition to Zoom. If you're in the  
15 room, we have asked for folks to use the QR code, or you  
16 can also approach the podium, and if you're on Zoom, you'll  
17 use the raised hand feature on your screen or star nine if  
18 joining by phone.

19          And we do have someone at the podium. If you can  
20 please spell your name for the record before beginning your  
21 comment, and we're asking for comments to be two minutes or  
22 less. There will be a timer on the screen. Thank you so  
23 much.

24          MR. KOLODJI: Thank you. My name is Brian  
25 Kolodji, and it's the same name for my company, spelled

1 K-O-L-O-D-J-I. I'm an inventor of direct air capture  
2 technologies. I have seven patents as of next month, and  
3 my capture carbon with these technologies using natural  
4 working lands crops. We're actually able to double the  
5 profit of crops and make a profit off of direct air  
6 capture.

7 We received a reward -- award, rather, or grant,  
8 from the California Department of Food and Agriculture  
9 Sweep Program because we not only capture carbon, but we  
10 also save water in agriculture which is the biggest user of  
11 water in the world.

12 My reason for being here is I'm delighted to hear  
13 that direct air capture and, of course, today is the  
14 California Natural Resources big event held at your other  
15 facility, and we are using what they call nature-based  
16 solutions, which is what our Governor has promoted, which  
17 is executive order N-8220, and the 30 by 30 Program, so we  
18 are glad to hear about what's going on with EPIC and also  
19 with UC Berkeley, and we are currently in the throes of  
20 producing, and it's very fast-track technology so within  
21 -- before the year 2016 (sic) should we get funding,  
22 hopefully, we can actually build the very world's largest  
23 direct -- not just direct air capture, but capture facility  
24 at 100,000 tons per year plus in Kern County, which is  
25 where you folks in your funding Mr. Mori, and we're

1 delighted to hear that because our projects have been all  
2 three pilot plants and now, hopefully, a near commercial  
3 scale facility at the world's largest capture in the world  
4 using nature-based solutions will be built in California  
5 and lead the way for the rest of the world.

6 Thank you very much, Chair Hochschild and Vice  
7 Chair Gunda and all of the California Commission for  
8 leading the way for the world in global climate change  
9 solutions.

10 CHAIR HOCHSCHILD: Thank you.

11 MS. BADIE: Thank you, and we have one commentor  
12 on Zoom. Stephen Rosenblum, I'm going to open your line.  
13 We're asking for comments to be two minutes or less.

14 MR. ROSENBLUM: Good afternoon. Thank you for  
15 the opportunity to speak. My name is Stephen Rosenblum,  
16 R-O-S-E-N-B-L-U-M.

17 I'd like to comment on the EPRI proposal. I  
18 haven't seen the details of it, but from the presentation  
19 it sounds to me like the captured carbon is going to be  
20 sequestered in underground storage, and if that's the case,  
21 the Commission needs to be mindful of SB 905 in California  
22 which requires rules and regulations about such sites to be  
23 made before they can be permitted in California.

24 I'm not sure you're aware, but there's a lot of  
25 this kind of activity going on in the absence of proper

1 implementation of SB 905, and I would hope that any  
2 projects that the Commission supports would not go forward  
3 on the sequestration part until proper regulations are in  
4 place.

5 Thank you.

6 MS. BADIE: Thank you for your comment. That  
7 concludes public comment. Back to you, Chair.

8 CHAIR HOCHSCHILD: Okay. Well, thank you for the  
9 presentation. Super excited to support this space.

10 I did have a chance to do a direct air carbon  
11 capture tour with my team about a year or so ago to the  
12 four companies in the Bay Area.

13 I also have been to Iceland to see the largest  
14 direct air carbon capture project in the world, which is  
15 the Orca Project operated by Climeworks.

16 This has to be part of our strategy. We have to  
17 do it. Even if we get to 100 percent clean energy and 100  
18 percent clean vehicles, we have so much incumbent, you  
19 know, to the atmosphere and now we still have a major  
20 problem, and so, I am very proud that California is the  
21 leader in innovation in this space, and we want to keep  
22 going faster, further.

23 The funding we have is not a lot, but I think  
24 we're leveraging it really well, and I want to be crystal  
25 clear, you know, from my perspective absolutely want to

1 support a hub for this activity in California leveraging as  
2 much Federal money as we can. I think California is a  
3 great place for that with the innovation talent we have  
4 here and the natural landscape, the ability to site some of  
5 these direct air carbon capture facilities. You know,  
6 we're well suited for that.

7 You know, a lot of issues to work through there  
8 but this is a great start, so thank you for the  
9 presentation and I'd welcome any other comments. Vice  
10 Chair Gunda, please.

11 VICE-CHAIR GUNDA: Yeah, thank you, Kevin, for  
12 your presentation. Thank you to both the commentators on  
13 the public comment. You know, just kind of doing this  
14 project is not, you know, any reason not to continue work  
15 on the more natural work in land solutions. Thank you for  
16 raising that.

17 Kevin, can you just quickly comment on the  
18 concern that was raised in terms of --

19 MR. MORI: For the storage, right. Yeah, so,  
20 it's going to be -- so, these are feasibility studies. The  
21 storage has not been identified yet, and that is something  
22 that they'll be looking into.

23 CHAIR HOCHSCHILD: Do you want to speak to that?

24 MR. KOLODJI: Actually, if you read the 2022  
25 scoping plan from CARB, you'll find that natural working

1 land is valid. Bio-sequestration is referenced as a  
2 legitimate sequestration method, and that's what we're  
3 using. We're actually sequestering using direct air  
4 capture, we're sequestering the carbons directly neat off  
5 of a power plant to the crops and increasing the profit in  
6 the crops and the yields by a minimum of 50 percent.

7           So, this is actually proven with USDA and  
8 University of California who we are working with, by the  
9 way, and published with the last two Agronomy Society  
10 Association meetings, American Society of Agronomy. It's  
11 been proven for over a hundred years in greenhouses and 50  
12 years without greenhouses.

13           VICE-CHAIR GUNDA: Thank you so much. So, I just  
14 wanted to kind of take a couple minutes on my comments  
15 here.

16           I think this provides in a broad set of partners  
17 again kind of opportunity to learn from this project, so  
18 excited to support them, and completely agree with the  
19 Chair that we would need that as an important of our future  
20 solutions for decarbonizing.

21           Also wanted to just focus that, you know, Kern is  
22 an important part of our state that has to -- you know, we  
23 have a huge opportunity for employment transition in Kern.  
24 I also like to always point out that Kern is like the  
25 largest provider of clean energy in California. It's an

1 important thing to mention, and it is also --

2 COMMISSIONER McALLISTER: Also, in the United  
3 States.

4 VICE-CHAIR GUNDA: -- and one single county. So,  
5 that's, you know, just big things to Kern.

6 But also, I want to think through, you know, it's  
7 important for environmental justice communities, you know,  
8 DAX, I would love for us to kind of continue to have  
9 understanding of how -- what the benefits and impacts are  
10 understood by various groups within California and how do  
11 we advance together on this. So, Kevin, to kind of look  
12 forward to future briefings. Thanks.

13 CHAIR HOCHSCHILD: Commissioner McAllister.

14 COMMISSIONER McALLISTER: Yeah, just wanted to  
15 chime in. Thanks so much for the briefing, Kevin.

16 And I was also able to go to Iceland relatively  
17 recently, earlier in the year, and building bridges with  
18 DOE and the fossil office who is funding a lot of this  
19 work, and I think, you know, definitely the Federal dollars  
20 will be key to helping do something at scale.

21 I just wanted to also just have a shout out for  
22 the Federal Cost Share Program. Just it's so important.  
23 It garners so much good will out there in the marketplace  
24 and it shows our commitment, it shows our collaboration  
25 with DOE, and that is just worth so much right now, I mean,

1 depending on, you know, how things go in November, I think,  
2 you know, we've got an incredible good set of relationships  
3 across all of the offices of DOE and our putting skin in  
4 the game is something that very few other states can do,  
5 and they really appreciate it. It helps give them  
6 credibility. It helps get us more movement in the market,  
7 and it's just a great thing, so I wanted to just make sure  
8 that we acknowledge the Cost Share Program. I really  
9 appreciate staff's -- it requires understanding what's  
10 going to happen in the future in order to sort of set money  
11 aside and do that, and so I think that creative  
12 collaboration is just really terrific, so thanks for  
13 leading.

14 CHAIR HOCHSCHILD: Unless there's another -- yes,  
15 Commissioner Gallardo.

16 COMMISSIONER GALLARDO: Kevin, I also appreciated  
17 the briefing and thoughtful presentation here. I had a  
18 question that I think aligns with what you were saying,  
19 Vice Chair Gunda, in terms of Kern County needs and what  
20 not.

21 I'm just curious if you could talk a little bit  
22 more about the job creation. I think you mentioned it, but  
23 if you have any details you could share about that, I'd  
24 appreciate it.

25 MR. MORI: Thank you for the question. So, in



1 the -- it's not clear if the DOE has that kind of analysis  
2 in their scope of work, but we do have it included in ours,  
3 so we're going to be looking for what kind of job creation  
4 is going to be coming out of building these direct air  
5 capture hubs, so that will be in our scope of work.

6 COMMISSIONER GALLARDO: Okay, thank you. I  
7 appreciate that.

8 I also want to emphasize what you said,  
9 Commissioner McAllister, about us showing investment and  
10 commitment. I think that is really important and I hope we  
11 can do more with that.

12 CHAIR HOCHSCHILD: Do you appreciate it enough to  
13 make the motion?

14 COMMISSIONER GALLARDO: Yes, I move to approve  
15 Item 8.

16 CHAIR HOCHSCHILD: Is there a second from  
17 Commissioner McAllister?

18 COMMISSIONER McALLISTER: Second.

19 CHAIR HOCHSCHILD: All in favor say aye.  
20 Commissioner Gallardo.

21 COMMISSIONER GALLARDO: Aye.

22 CHAIR HOCHSCHILD: Commissioner McAllister.

23 COMMISSIONER McALLISTER: Aye.

24 CHAIR HOCHSCHILD: Vice Chair Gunda.

25 VICE-CHAIR GUNDA: Aye.

1 CHAIR HOCHSCHILD: Commissioner Monahan.

2 COMMISSIONER MONAHAN: Aye.

3 CHAIR HOCHSCHILD: And I vote aye as well. Item  
4 8 passes unanimously.

5 We'll turn now to Item 9, Presiding Member  
6 Reports, and, colleagues, with your permission I'd love to  
7 just go first so I can get back on the road.

8 I've been super busy last month. Let me start  
9 most recently. I was in climate week in New York City for  
10 much of last week with Kat Robinson, my Chief of Staff,  
11 joined by Secretary Ross from Agriculture, (indiscernible)  
12 from Transportation, Ann Randolph, Jamie Callahan from the  
13 Governor's Office, a whole bunch of really, really fruitful  
14 meetings.

15 I guess, you know, one of the most exciting for  
16 me was offshore winds. We led a port tour. There were  
17 about a dozen state legislators who were there as well from  
18 California, and Senator Lena Gonzalez and I did this tour  
19 of the port in Brooklyn, \$861,000,000 project, 300 jobs.  
20 Right now, building out this sort of whole retrofit of the  
21 port for offshore wind to do assembly of the blades, the  
22 towers and the nacelles right there. It will be done by  
23 January of '26, about a year from now. And just seeing  
24 that many workers doing this clean energy industrialization  
25 project was really inspiring. I congratulate New York

1 State.

2 Our time will come for those jobs and that  
3 industry, and we are going to be hosting February 20th and  
4 21st a big summit in Long Beach, in Senator Gonzalez's  
5 district, focused on just that opportunity. In fact, you  
6 know, in a very timely fashion our \$45,000,000 grant  
7 solicitation has just posted for the ports upgrade grant  
8 that we're going to be doing, and I'm looking forward to  
9 seeing the applications as those come in.

10 So, that was a big highlight, great meetings as  
11 well on a number of other topics, including building  
12 electrification and electric vehicles, the clean global  
13 initiative, the Clinton global initiative, bunch of investor  
14 round tables, and it was sort of nonstop. We've been  
15 really, really positive.

16 I also just want to share a little bit more  
17 readout from the trip I had to D.C. So, I met with the  
18 White House, Vice President's Office, Senator Padilla,  
19 Congressman Schiff, Department of Energy, Department of  
20 Transportation, Department of Interior, John Podesta and  
21 the White House Climate Office, Ali Zaidi, among others.  
22 Really, really fruitful meetings on all of our priorities.  
23 You know, we just stressed the need to, you know, see as  
24 much funding released as possible for all these  
25 solicitations, and I think that is underway.

1           In fact, I'm happy to share just within the last  
2 few minutes a big notice was just posted from DOE Loan  
3 Program, another billion dollars for EV-go, California  
4 Company to do fast charging and support fast chargers  
5 across the country. So, more funding is coming.

6           So, also wanted to share a road trip that  
7 Commissioner Monahan and I did last week to what is the  
8 largest lithium recycling operations maybe in the world,  
9 definitely in North America. This is Redwood Materials.  
10 What they're doing there today is incredible. So they are  
11 doing roughly 125,000 vehicles' worth of electric battery  
12 recycling and rapidly expanding, and they've really figured  
13 out how to recover the lithium and the other metals from  
14 the batteries very cost effectively and to the point where  
15 it's now cheaper, so the cost of recycled lithium is  
16 cheaper than virgin lithium, and that will function  
17 eventually as a downward force on prices of electric  
18 vehicles as a scale.

19           And the goal from our perspective is a hundred  
20 percent recycling of lithium ion batteries. That space is  
21 getting more mature. So, that was a great visit.

22           We also visited the Tesla battery factory right  
23 next door. Eleven thousand employees there, about twelve  
24 hundred at Redwood. And just, you know, very fruitful. I  
25 want to thank Drew Bohan who came with us, my advisor

1 Robert Chun and a number of others, Jonah Steinbuck, so,  
2 really fruitful visits on those trips.

3 And then yesterday dedicated big new biogas  
4 facility, taking landfill gas in Pittsburg, and, you know,  
5 it's nice to see, you know, us to begin to make use of this  
6 waste gas and, you know, help reduce emissions that would  
7 otherwise be vented or flared.

8 So, that's it from my side, and with that I  
9 apologize. I've got to get on the road. So, thanks. So,  
10 where we go this way, Commissioner Gallardo, do you want to  
11 start us off?

12 COMMISSIONER GALLARDO: Sure. I do have some  
13 visuals again, and I'm going to lean on them because I'm so  
14 tired. I had a hard week. It helps me to remember  
15 everything.

16 But, first, I wanted to start out by what the  
17 Chair said at the beginning, but I also wanted to say this  
18 is Latino Hispanic Heritage Month, which is really  
19 meaningful to me. I am already getting sentimental.

20 Being the first Latina Commissioner at the Energy  
21 Commission is just such an honor, and it's a privilege, and  
22 I'm trying to do the best that I can, but also just, you  
23 know, this is the month to celebrate these types of  
24 achievements, accomplishments and milestones for our  
25 community, my community.

1           And I want to give a shout out as well to all of  
2 the Latinos, Hispanics that are part of the CEC family. We  
3 have so much brilliant and talented people and I just  
4 wanted to also celebrate them and give a special shout out  
5 to La CEC Familia, which is the employee resource group  
6 that is committed to Latina culture. We have chats,  
7 conversations and get together to plan events, and so I  
8 wanted to let them know how much they mean to me and how  
9 special they are.

10           And then I also wanted to give a thank you to  
11 everybody who put the picnic together. That was so much  
12 fun. I didn't get to go last year, and I was late this  
13 year, but even for the short period of time that I was  
14 there I felt a sense of unity and really just, you know,  
15 it's wonderful that we can do that. There's work to be  
16 done and it's tough, but then we have this opportunity to  
17 also be together and celebrate each other and just be  
18 family. So, thank you to all of those who put in the hard  
19 work for that.

20           All right, I'll go to my visuals now. Can we go  
21 to the next slide? Oh, so we have the Darden scoping  
22 meeting coming up. This is going to be our second opt-in  
23 application that has been deemed complete, so we're really  
24 excited about that. The staff from the STEP Division and  
25 from Chief Counsel's Office has been working really hard on

1 all of this, so, really appreciate them for doing that.  
2 The Executive Office has also been involved, so appreciate  
3 all of their work on opt-in in general. It's a new program  
4 that we've been moving along and here's our second  
5 application, so, I'm excited about that one. That will be  
6 out in the Central Valley area.

7 So, we'll go to the next one.

8 So, we had our first workshop for our JAEDI  
9 proceeding. JAEDI stands for Justice, Access, Equity,  
10 Diversity and Inclusion. It's a major initiative we have  
11 here at the Energy Commission, and now we're sharing it  
12 with the public as well.

13 I want to thank Vice Chair Gunda for his  
14 leadership. The reason we're able to do more and better is  
15 because he enabled us to have a framework that came through  
16 on the 2022 IPER proceeding, and so that's part of what  
17 we're talking about at the workshops is how are we going to  
18 implement this JAEDI framework more thoroughly into the  
19 Energy Commission's efforts, and, you know, also hearing  
20 from the public about what else should we be doing, and  
21 that way we adopted it in 2023, so might even be a little  
22 stale now, so we might need some recommendations on how to  
23 improve it.

24 But as you can see, there is a lot of images  
25 there from the workshop. We had really great attendance,

1 over a hundred people. Aretha Welsh from my office is the  
2 one who put that on, so that's a picture of her in the  
3 middle with us all pointing in her direction to celebrate  
4 her hard work, so it went really well, and we'll announce  
5 the next one.

6 I also wanted to just acknowledge the Deputy  
7 Secretary of -- I think it's Equity and Environmental  
8 Justice, Noaki Schwartz, also attended, and she was really  
9 pleased with all the work that the Energy Commission is  
10 doing as a whole, and she is also working to update the  
11 CNRA's policy on equity and environmental justice, so we're  
12 looking forward to that, and again, a chance to align our  
13 efforts with what CNRA is also moving forward.

14 And then Julia Hatton from the DACAG. She's a  
15 member of the DACAG, but she came with her hat as the  
16 Executive Director Rising Sun Center for Opportunity. She  
17 joined us also, and, you know, had great things to say,  
18 also very supportive, so, we'll be inviting them to our  
19 next workshop. I'll let you all know as well in case you  
20 can come.

21 And I also want to highlight that Ryan Young, who  
22 is our new Deputy Public Advisor, helped to moderate a  
23 panel with representatives from our various divisions who  
24 talked about how they're implementing the JAEDI framework,  
25 so, wonderful workshop.



1           We'll go to the next slide.

2           I also had the chance to attend a ribbon cutting  
3 for a major microgrid at Fort Hunter Liggett, which is a  
4 training center for the Army. We did not make an  
5 investment in this particular microgrid, but the Army was  
6 so grateful for all the things that the Energy Commission  
7 are doing, they're hoping that we will invest in future  
8 projects that they have, but it was just really impressive  
9 to me how committed they are to clean energy to the  
10 independents.

11           And I also got to ride in a helicopter to see the  
12 installations from above. I got to see Hearst Castle also  
13 as a bonus, but, yeah, that was first time in a helicopter,  
14 scary at the beginning, but I'm glad I did it. It gives  
15 you an additional sense of how much they do, and, you know,  
16 all the various things they've got to think about as  
17 they're protecting our country and also trying to, you  
18 know, move forward with the clean energy future.

19           We'll go to the next slide.

20           So, I also had the opportunity to visit Tecate  
21 which is in Baja, California. I was invited by the  
22 Institute of the Americas. They have an Energy Ambassadors  
23 Program which I found fascinating the way they have set it  
24 up. It's basically not people from the energy industry.  
25 It's representatives who come together to form a cohort,

1 but they're from different types of industries, different  
2 types of other spaces, academia, and so they come to learn  
3 about energy, particularly clean energy, and then take that  
4 back to their spaces to hopefully promote and be  
5 ambassadors of clean energy.

6 So, I spoke about Lithium Valley. They're really  
7 interested given that they're neighbors to that area. They  
8 want to see if there's anything they can participate in if  
9 there are opportunities, you know, for business.

10 Also, they're really excited about EV chargers,  
11 and getting those installed, and potentially doing a  
12 corridor from Baja, California to California EV charging,  
13 so I told them that we have this amazing Commissioner who  
14 is leading those efforts, and I will, you know, can make a  
15 connection. So, that is definitely of interest and they're  
16 wanting to learn more about microgrids and other things.

17 We'll go to the next slide.

18 So, I also had the opportunity to attend the  
19 California Tribal Chairpersons Association tribal  
20 reception. This was a great event as well because it's --  
21 they invite high level representatives from all state  
22 entities to be here, and we celebrate all the achievements  
23 of our tribal leaders throughout California. So, it was a  
24 wonderful reception. There was awards. You know, we broke  
25 bread together. And also, I wanted to highlight that CPUC

1 President Reynolds was there, Commissioner Houck was also  
2 there and our amazing tribal liaison and Director of Tribal  
3 Affairs Sierra Graves was also there with me.

4 We got a chance to take a photo, as you'll see  
5 there, with Fred Bean, who is the representative on the  
6 DACAG, the Disadvantaged Communities Advisory Group. He's  
7 also the chairman of the North Fork Rancheria, so wonderful  
8 to be able to support him as CPUC and CEC together.

9 I think that might be the last one, but I'll say  
10 next slide just in case. Oh, there is one.

11 So, this is why I am so tired today is this week  
12 I've been in Imperial Valley. It was extremely hot, got to  
13 112 degrees. The reason I was there is that we had a  
14 convening for funders from philanthropy and also state  
15 officials, including four secretaries who were there to  
16 learn more about the Imperial Valley, so this is not  
17 necessarily from the Lithium Valley, but Imperial Valley.  
18 And what we're trying to do is help support local  
19 governments and community organizations there so they can  
20 meet and maximize these opportunities like Lithium Valley  
21 in whatever else can come next.

22 So, this area of the state is really  
23 underinvested in, has a lack of all types of  
24 infrastructure, and so we're hoping that we can build them  
25 up. This is not an effort I'm leading. This is an effort

1 being led by the Governor's Office, so I'm hoping I can  
2 bring some of the other state leaders who are working on  
3 this program to educate us a little bit more about what's  
4 going on in case we can do these types of efforts in other  
5 areas of the state.

6 So, you'll see the images there. Secretary  
7 Crowfoot was also with us, Secretary Tamika Moss, who heads  
8 Housing and Business Consumer Services, was there, and  
9 just, you know, really robust sessions that we had, really  
10 good discussions.

11 So, I'll leave it there. I think that is my last  
12 one since that was this week, right. There we go. Thank  
13 you.

14 COMMISSIONER McALLISTER: Okay, that was  
15 terrific. Thanks, Commissioner Gallardo, and all your face  
16 time down in Imperial Valley is just amazing. It's  
17 building a lot of bridges, and so really appreciate that  
18 and looking forward to collaborate on some of it down  
19 there.

20 So, just second your thanks to everybody who  
21 organized the picnic. It was really great. And thanks to  
22 you for pushing it further into the fall so that the  
23 temperature was okay. But that was great, and I don't know  
24 who ended up winning the -- I had to bail. I had to catch  
25 a flight before the soccer tournament was done, but

1 congratulations to whoever won that. Which division was  
2 it? Admin, ah, okay, great. Well, congrats to Rob and the  
3 team.

4 So, wanted -- so just really hearing the  
5 excitement about having a new president in Mexico who is a  
6 friend already to California, and it's just an amazing  
7 woman and leader, and very knowledgeable about energy, so  
8 very excited to sort of see where that goes and wishing  
9 President Sheinbaum the best of luck.

10 Wanted to just point to my Chief of Staff Brian  
11 for leading our Mexico engagement and, you know, recently  
12 signed an updated MOU with Baja, California, and likely,  
13 you know, we're going to look to renew the MOU that we have  
14 had in the past with the Federal Government of Mexico, so,  
15 lots going on there.

16 And then I wanted to remind everybody about the  
17 Electrification Summit, the second version, which is coming  
18 up on March 11th and 12th next year, so always out but the  
19 save the date went out and the agenda is really coming  
20 together. We're going to focus on industry, local  
21 government, in addition to some of the themes that we  
22 started last year that gave grass to the eco-partnership,  
23 so a lot of good progress there and, hopefully, we have  
24 some, you know, some media worthy announcements to make at  
25 the time.

1           I did -- I've been doing a lot of traveling as  
2 well. I, in fact, just late last night got back from the  
3 NASEO annual meeting which was in New York City. The  
4 Chair, John Williams, is New York's -- runs or is the  
5 Senior VP at NYSERDA, so it's in his home state. Next year  
6 it will be in Nashville. The Chair will be -- the Chair of  
7 NASEO at that time will be the State Energy Office leader  
8 there in Tennessee. So, yeah, big party at my house.

9           Let's see. A bunch of traveling. Did an event  
10 in San Francisco with the American Chamber of Commerce from  
11 Australia, and so the AMCHAM they call it, and that was a  
12 really great event. Very much interested in following up,  
13 getting a delegation. They really want a delegation from  
14 California to go over to Australia. We have a lot of  
15 commonalities. We share a lot of DNA and are thinking  
16 about similar things from different perspectives,  
17 definitely on hydrogen, on transportation. They're super,  
18 super interested in, you know, doing a fair amount and  
19 really want to work with us. Load flexibility, they're  
20 also leading on pieces of that. There's a lot of similar  
21 thinking going on there to mobilized demand side resources  
22 we were talking about earlier.

23           I visited -- did a trip to Southern California  
24 and among the places I visited was a company called  
25 Nostromo which is doing -- essentially it's cold storage,

1 or ice storage, that's highly controlled and very  
2 sophisticated in terms of its ability to displace onsite  
3 cooling for commercial industrial, really large commercial  
4 facilities.

5           So, they have kind of a flagship system at the  
6 Beverly Hills Hilton that shares that space or shares the  
7 property with the Waldorf Astoria there, so high end  
8 hotels. That's just kind of their first installation.

9           They're also partnering with CenTrio which is a  
10 company that has been acquiring over the last decade or so,  
11 maybe more than a decade, district heating and cooling  
12 systems, and there's a district cooling system in Century  
13 City. There's another one in central L.A., and large  
14 buildings attached to it, to these systems. There's two  
15 others in the L.A. area and there's others around the  
16 state. We have one actually here in Sacramento that does  
17 hot water and steam and cold water, I believe.

18           And it's an incredibly appropriate technology for  
19 managing cooling load, and, you know, the commercial  
20 industrial space is pretty wide open for that. So, a lot  
21 of potential there. They are about to get a -- I believe  
22 it's a done deal, but they're getting \$700,000,000 from LPO  
23 to expand operations. It's an Israeli company and I met  
24 with the leadership. Very -- it seems like one avenue,  
25 very promising load flex, but just really an example of the

1 potential.

2           And, also, together with -- then from there I  
3 went to the CalFlexHub annual meeting, so we've been  
4 funding, as you all know, the CalFlexHub. LBL is the  
5 principal, a bunch of great partners. They've been doing  
6 an annual symposium every year, and just the advancement,  
7 the thinking they're making progress on is really  
8 tremendous. So, again, a lot of work just to develop this  
9 load flex ecosystem.

10           And again, hear it over and over again that  
11 there's a need for better interoperability to make it all  
12 work and to make it -- to reduce transaction costs and  
13 allow these companies that are mobilizing demand side  
14 resources to have a business model that's viable.

15           Also, with a number of staff, let's see, took a  
16 -- went to SPAN which is a smart panel manufacturer down in  
17 South San Francisco, and with a number of staff, so Gypsy  
18 Ashong, Dan Mineta, my advisor Hewson, Ching went as well,  
19 really great, and Raja came along as well, so we really had  
20 a good -- a good group, and they are making a lot of  
21 progress on sort of solving multiple issues with one panel  
22 upgrade. So, it's got controls at the circuit level and  
23 metering at the circuit level, so you can really -- they're  
24 working on, you know, doing -- they can already do  
25 disaggregation to the circuit level, but even below that



1 possibly going forward, and helping -- you know, that's  
2 potentially smart panels, and they're not the only company  
3 doing this. But the app integration across all end uses,  
4 you know, whether it's vehicle, and HVAC, and sort of that  
5 API, integration I think they're doing a good job on that.

6 But, you know, we were talking about distribution  
7 grid, sort of taking advantage of the grid that we have and  
8 staging investments in upgrading the distribution grid.

9 Smart panels are a really good strategy to keep under the  
10 capacity that's already installed, so you don't have to do  
11 upgrades to the distribution grid, and it turns out most  
12 people who even have 100 amp panels and the vast, vast,  
13 vast majority of the time they're not anywhere near a  
14 hundred amps, right, and so, with some fairly  
15 straightforward load management at the premise level you  
16 can do a lot with a smart panel.

17 So, really, really kudos to SPAN and the team for  
18 developing technology and, you know, proving that out.

19 Let's see. I guess -- I wanted to just give some  
20 kudos to Abina and the RREDI team on the development of our  
21 -- well, our state funded equitable building  
22 decarbonization program and the IRA pieces in that space,  
23 the Homes and Heroes Program. We are getting close to  
24 being able to roll out the first of those, which is the  
25 Hero Program that's going to infuse the funds, IRA funds,

1 into the tech program that's been running the Energy  
2 Solutions runs already, and so with focusing on low income.  
3 So, look for an announcement in the near -- in the next  
4 coming days and weeks on that.

5 But just the level of interaction, you know, that  
6 was at NASEO this week and a lot of DOE representation, you  
7 know, leadership of DEO was there, just really interested.  
8 And they're acting and learning from the State making sure  
9 those relationships are vital, which we really, really  
10 appreciate, and heard over and over how grateful they are  
11 for the competent team that we have here and all the  
12 interaction. You know, we're talking like daily calls,  
13 sometimes multiple calls per day coordinating and trying to  
14 just get all those boxes checked, you know, make sure that  
15 all the conditions are there for rolling out these  
16 programs.

17 And, you know, a lot of pressure, a lot of  
18 urgency to get funds encumbered before the election, right.  
19 So, there are a lot of sleeves rolled up right now between  
20 our staff, you know, Dina and Jen, Nelson and the Executive  
21 Office, too, and Diane Minetta, my liaison to all those  
22 efforts in division. I really appreciate the whole team  
23 which is too numerous to name, but they're doing amazing  
24 work and working long hours to get this done.

25 And, finally, I guess I just wanted to mention

1 I'm going to go to D.C. in a couple of weeks. This is  
2 really emblematic of just the, I think, historically close  
3 relationship we have with Department of Energy right now on  
4 -- certainly on energy efficiency in buildings and related  
5 topics. Partly I just wanted to call out Ram Narayanmurthy  
6 who is the Deputy Director of the Buildings Technology  
7 Office at DOE who is a Californian, lives in California.  
8 It seems like we're on a panel of some sort like every  
9 week, including next week. But he's just such a leader in  
10 this area and so diligent and so energetic and so positive  
11 that it really, I think enhances everyone's efforts  
12 certainly across EERE at the Department of Energy, and, so,  
13 I'm going to go as a sort of help and be more involved in  
14 the process of planning at DOE, I'm going to go and give a  
15 talk at the Building Technologies Peer Review in a couple  
16 of weeks. They do this annual peer review to sort of  
17 develop their plans for the year ahead and sort of do a  
18 snapshot of where they're at and sort of, you know,  
19 evaluate themselves, which is a pretty great process that  
20 they do. So, looking forward to that.

21 I guess that's it. Thanks.

22 VICE-CHAIR GUNDA: Thank you, Commissioner  
23 McAllister. I'm just going to go through just quick  
24 updates from our office's point of view.

25 So, just at a high level we already discussed the

1 reliability -- grid reliability basically. You know, as  
2 you all know, we're looking at hundred degree temperatures  
3 in October. Definitely, you know, the evolving climate  
4 impacts on reliability are continuing to be, you know, more  
5 and more intense and we need to kind of prepare for that.  
6 But as of today, tomorrow, the grid looks pretty positive.  
7 We've got plenty of capacity on the system, you know, even  
8 though it's not under RA, it's on the system, so --

9 COMMISSIONER MONAHAN: That's amazing.

10 VICE-CHAIR GUNDA: Yeah.

11 COMMISSIONER MONAHAN: I mean that's amazing.

12 What a difference a couple of years makes.

13 VICE-CHAIR GUNDA: Absolutely. And I just wanted  
14 to kind of go right into segue and to say thanks to the  
15 staff again. Amazing cross-coordination and GEO leadership  
16 on this issue. It was important that the GEO stepped in  
17 and they really did.

18 Wanted to kind of flag, you know, a rather  
19 important area for SB 100. SB 100, you know, there have  
20 been a number of workshops. Broadly we've discussed the  
21 scenarios that we're going to work on. I think that's  
22 pretty well laid out, and thanks for weighing in on the  
23 demand flexibility scenario and other scenarios.

24 I think that one thing that's coming out of SB  
25 100 is that real recognition of land use issues. The

1 tension between, you know, like just in the back of the  
2 envelope we're talking about two to three million acre  
3 development, if it's all going to be on the bulk grid. So,  
4 kind of thinking about how do we optimize land use, and  
5 taking into account that affordability issue I think would  
6 be an important issue to discuss.

7           Petroleum, kind of broad issue. Just we went  
8 through the assembly side of the special session, and I  
9 think many of you have already been briefed, but the  
10 assembly has voted on moving forward the Governor's  
11 proposal and now it's going up to the Senate, and that  
12 understanding is, you know, Monday, early next week we'll  
13 have the Senate kind of gaveling in on the special session  
14 and, you know, look forward to supporting the process as an  
15 agency, and I would just say I'm incredibly proud of CEC  
16 again. Our credibility really relies on our ability to  
17 show the integrity and data quality and analysis and try to  
18 be really objective and data focused, and I think our staff  
19 did an amazing job preparing us for the hearings.

20           But I do want to raise three important issues for  
21 you to crack, and I think if the proposal were to move  
22 forward we will have a pretty important, you know, kind of  
23 rulemaking authority within the Energy Commission. And I  
24 think three things that the Legislature has really weighed  
25 in on, and I think we've done as an agency, and also I want

1 to extend my thanks to DPMO and Ty Milder. I think we made  
2 a good case to the extent that it passed, but I think three  
3 things that kind of came up, sufficiency of storage, so the  
4 idea around creating a reserve really relies on the ability  
5 to store and plan. So that kind of keeps coming up, you  
6 know, and again, for us as a Commission here based on the  
7 data we have, I genuinely believe that we have the space.  
8 Not every refinery has it, not at all times, but we do have  
9 space to actively plan.

10 I just want to make sure that you're digging in  
11 in your kind of briefings to further your understanding on  
12 that issue.

13 Cost versus benefits, you know, we've estimated  
14 anywhere from a \$1,000,000,000 to \$2,000,000,000 of  
15 potential avoidance of cost at the pump, and let alone, you  
16 know, we're talking about that and we're not talking about  
17 indirect impacts on the economy because of the price hikes,  
18 right.

19 So, just want to say the benefits are pretty big.  
20 The threshold question is are there enough benefits. I  
21 think the answer is yes. In terms of the cost, we've kind  
22 of come up with a bunch of different ways of estimating the  
23 cost of retaining that kind of reserve. It's really  
24 minimal. Like we're kind of -- we're talking about tens of  
25 millions compared to billions that could be avoided. So,

1 it would be good for you and your offices to begin and make  
2 that analysis more vigorous as you kind of think through  
3 that.

4 But I do want to kind of make sure the threshold  
5 question that the Legislature kind of mentioned around is  
6 can we trust the State agency to do such a complicated work  
7 that could affect the economy, right, like in so many  
8 different ways. And I think it's really important for us  
9 to take on the burden, if the proposal were to move  
10 forward. This has humungous impact with positive and risks  
11 to be mitigated. So, welcome all of your input in making  
12 sure that we as an agency do the best we can do to both  
13 maximize the benefits and create mitigation strategies on  
14 any risks that might happen.

15 Specifically, the last point I want to make on  
16 that is the worker health and safety. There has been kind  
17 of a notion that if we were to do any sort of minimum  
18 inventories or resupply obligations it would create a  
19 perverse incentive to the industry to then not do the  
20 maintenance required, which I do not think is accurate  
21 personally. I think, you know, you're talking about  
22 planning with constraints, not to create constraints into  
23 planning, right. It's kind of -- so, I think it's  
24 important for you to begin, and specifically, Commissioner  
25 Gallardo, to you, you know, the communities who live close

1 by, the fence-line communities, and also many of the  
2 workers actually live there. It's jobs versus safety, and  
3 so just wanted to kind of flag that to you as an important  
4 element.

5 So, that's on the petroleum side. Lot to do.  
6 Happy to answer any question.

7 COMMISSIONER MONAHAN: I'm just curious about the  
8 trust issue mentioned earlier. Is that like capacity? Is  
9 that what they're unsure about, I mean we have expertise,  
10 but --

11 VICE-CHAIR GUNDA: It's resources. Do we have  
12 the capacity? Do we have the resources? Can we actually  
13 set up a table to think of this holistically and  
14 inadvertently silo the discussion or narrow it in ways that  
15 we are creating other risks.

16 COMMISSIONER McALLISTER: I wanted to just ask,  
17 you know, just because you have a bunch of storage, you  
18 know, building a bunch of new storage doesn't necessarily  
19 solve the problem per se, and I guess is there a  
20 conversation happening about sort of who makes the  
21 decisions of when to fill it, when to release it.

22 VICE-CHAIR GUNDA: That would be us.

23 COMMISSIONER McALLISTER: That would be us, so  
24 that's the ideas that we -- so, yeah, we have to have a  
25 very --



1           VICE-CHAIR GUNDA: We'll have the rulemaking  
2 process. I think the idea, right, so if I can just provide  
3 one stat, like middle of June, end of June, like early  
4 July, the typical situation is that refineries maximize  
5 their storage, right, because they know as they're coming  
6 into the summer you have higher demand than potentially  
7 production in some months, sometimes, and then there's some  
8 outages, and then draw down, right.

9           The question then becomes, okay, if you're kind  
10 of having let's assume, I think these are kind of ballpark  
11 numbers but pretty kind of good numbers to hold onto. If  
12 within California if you're storing about twelve-and-a-half  
13 million barrels, let's say, right, at your bottom. You're  
14 still at the bottoming out about -- sorry, maximum 12-1/2,  
15 bottoming out at about nine, right. So, those 3-1/2  
16 million gallons roughly is four days' worth of supply.

17           We are not talking about creating a cushion all  
18 the way up. We're talking about as you draw down there's  
19 ways for you to fill back, right. So, it's kind of active  
20 planning in their optimization model on revenues how are  
21 you going to maximize your revenue? Nobody is talking  
22 about maximizing revenue, maximize that, but plan actively  
23 to guard against erosion, especially under tight  
24 circumstances if there's unplanned outages and planned  
25 outages.

1           It's kind of a preplanning, maximizing a  
2 preplanning to reduce --

3           COMMISSIONER McALLISTER: More active planning,  
4 yeah.

5           VICE-CHAIR GUNDA: Yeah. That's really what it  
6 comes down to if it's put in the right context.

7           COMMISSIONER McALLISTER: Thanks.

8           VICE-CHAIR GUNDA: But what I would really  
9 welcome -- I mean I feel the burden on kind of shoulders of  
10 the staff and our agency on doing such an important work.  
11 I welcome the burden, but I also see the opportunity for  
12 all of you to weigh in pretty significantly on this issue.

13           COMMISSIONER McALLISTER: Thanks for all you're  
14 doing there.

15           VICE-CHAIR GUNDA: Absolutely. So, a couple of  
16 quick pieces, plugs. We have October 7th, thanks to  
17 Commissioner Gallardo, first of all, I want to associate  
18 myself with the things Commissioner Gallardo mentioned in  
19 here opening remarks about, you know, about her appointment  
20 but, you know, the work that we're doing here, and I want  
21 to thank Commissioner Gallardo for your association with me  
22 on the non-energy impacts. So, we're going to kick off  
23 non-energy impact conversation October 7th. I know not all  
24 of you can make that, but I think it's one of the most  
25 pivotal works we'll be doing as an agency in kind of

1 thinking through the mythicization of the potential ways of  
2 thinking about non-energy impacts, and down the lane kind  
3 of creating the conditions necessary for having them within  
4 the planning process, so, just welcome your engagement and  
5 your kind of guidance on that.

6 Plug. Demand flexibility event, you know, so we  
7 have two complementary events between Commissioner  
8 McAllister and our office on electrification and demand  
9 flexibility. We'll also be focusing some time early first  
10 quarter in the next year, and then we're going to think  
11 through how to harmonize our work on that.

12 Finally, last area of importance to plug here is  
13 regional markets. Again, thanks to Commissioner McAllister  
14 for his partnership. Both of us are working on the  
15 regional markets issue from our agency. President Reynolds  
16 and Commissioner Houck from PUC are working on that as  
17 well.

18 So, just a reminder that we had the Pathways  
19 Launch Committee that was set up to explore the  
20 opportunities to enhance regional markets. They've done a  
21 step one proposal which was for CAISO to essentially create  
22 more independence for the WEMB Board, you know, CAISO kind  
23 of voted on it so there is more independence for the  
24 Western Energy Markets Board, quote, unquote. So, they're  
25 equal status as it pertains to markets.

1           They are now on the precipice of putting in their  
2 step two proposal, and so an important part of the step two  
3 proposal is to forward enhancement of independence. So,  
4 this would require Legislative change, a minor Legislative  
5 change potentially within the statute of CAISO. CAISO  
6 currently is required to manage the market they participate  
7 in. That's what the statute states, they have to manage.  
8 So, the step two, if the Legislature were to consider would  
9 be along the lines of may manage or be a part of, right.  
10 So, they can be a part of market without actively managing  
11 it.

12           Again, this has been a year-and-a-half worth of  
13 work. It's kind of like not always visible, but I will  
14 just say between me and Commissioner McAllister probably  
15 we've made 500 calls, 600 calls over the last year across  
16 the states and regional partners to really move the  
17 conversation forward, and I'm proud of the work we're  
18 doing, but more to come on that.

19           So, I'll stop there. Those are all the pieces we  
20 are working on. Plenty of gratitude to go around, and  
21 thanks to go around.

22           COMMISSIONER McALLISTER: I want to just thank  
23 you for your leadership on the markets discussions, and  
24 then also just -- and also for Alice -- for President  
25 Reynolds and for Commissioner Houck.

1           There's a lot of history that we're kind of, you  
2 know, working through. The western states are a diverse  
3 bunch, and just the level of collaboration and the level of  
4 kind of respect and the bridge building that we've been  
5 able to do, and I think you've really been a core part of  
6 that, has been really gratifying, you know.

7           Wherever the markets discussion goes I think  
8 there's a lot of good that can come out of this much more  
9 broadly since, you know, we've kind of demystified  
10 Californians to all these other states, California and how  
11 we operate. They looked at us like I think a black box.  
12 They just didn't get it. And it is complicated, and we're  
13 a big state. But I think increasing the level of comfort  
14 just having substantive conversations, that in and of  
15 itself has been quite an accomplishment.

16           And then beyond that, just so much hard work and  
17 heavy lifting with partners across, you know, many or most  
18 of the western states, and a lot of thought leadership  
19 coming from Oregon, Colorado, you know, other states, and  
20 it's just really -- I think it's raising the level of our  
21 entire platform for western discussions. I want to  
22 acknowledge Grace, Chris McLean, Brian, my staff on this,  
23 and Jane has done a great job for your office.

24           So, cautiously optimistic, but, you know, we've  
25 been -- I think the conversation and the Regional

1 Organization Launch Committee, everyone has been taking  
2 pains to not get over our skis on this, just really have --  
3 make sure that we're dotting every "i" as we go, and I  
4 think it's just really -- yeah, it's been very positive, so  
5 thanks for your leadership.

6 VICE-CHAIR GUNDA: Yeah, Commissioner McAllister,  
7 I think, you know, just to, you know, important moment of  
8 observation. I think you've kind of alluded to it.

9 California as we travel globally, you know, attracts a lot  
10 of praise, right, like when you go, and there's a lot of  
11 discomfort or mistrust about California in the West. It's  
12 just, you know, just blanket, because, you know, our  
13 policies, as Commissioner McAllister mentioned, sometimes  
14 are not clear and the impacts of what we do are real to our  
15 neighboring states, and I think of what I would take an  
16 opportunity to observe is, you know, it's corny to keep  
17 saying this, but this Commission, and I love the  
18 constitution of my colleagues and my friends on this and  
19 the staff, the executive leadership and everybody, kindness  
20 goes a long ways. Humility goes a long ways. And the  
21 ability to build trust and to just, you know, competence  
22 with clarity and compassion makes a lot of sense, and I  
23 think we are in this together, not alone, and it's really  
24 importance for us with our levels of roles and the weight  
25 of our roles to create procedural equity for everybody and

1 kind of be good ambassadors for California as people that  
2 we care, you know.

3 COMMISSIONER McALLISTER: And everyone is really  
4 concerned about their ratepayers. I mean that's just a  
5 constant --

6 VICE-CHAIR GUNDA: That's the unity.

7 COMMISSIONER McALLISTER: -- that's the refrain.  
8 That's what we all have in common, and sort of  
9 demystifying, you know, sort of helping people understand  
10 California and that, you know, the noise that they  
11 sometimes hear in our processes isn't always the substance  
12 that's behind it, so, yeah.

13 VICE-CHAIR GUNDA: I think you're right. The  
14 unifying thing is the liability and the costs.

15 COMMISSIONER McALLISTER: Exactly.

16 VICE-CHAIR GUNDA: Right. I think that's --  
17 everybody cares about it.

18 And, sorry, I forgot to like mention one piece.  
19 Thanks to Commissioner Gallardo for creating the JAEDI  
20 framework and such. I will have an opportunity to speak at  
21 one of the employee resource groups on, you know,  
22 diversity, and I think, you know, as you mentioned at the  
23 top, it's an opportunity for us to talk about both of our,  
24 you know, representation in good ways that we will  
25 challenge and learn.

1           One of the hardest things for me growing up was  
2 dyslexia, and I get to speak about that, and, again, what a  
3 wonderful opportunity to share the story of difficulties  
4 that we got through. But to the extent that we can  
5 showcase to, you know, people that look to us as potential  
6 successes, I don't know, I still have doubt on mine. I'm a  
7 proud B+ on that. But just kind of being able to share the  
8 story about coping with those things, I think you're  
9 preparing this forum for CEC. Thanks.

10           COMMISSIONER MONAHAN: Well, you all can see that  
11 we're happy to talk to each other because we never get to  
12 do it, so sorry for those that are like I'm hungry.

13           And I just want to say to Commissioner Gallardo,  
14 I really appreciate your remarks and I was reflecting that,  
15 yes, it's an honor to be the first Latina; it's also a  
16 burden I would say. You know, the first is always you feel  
17 the weight of history on you and what that means, and I  
18 just want to acknowledge that being the first is really  
19 hard, and just you do it beautifully, and I just want to  
20 recognize that.

21           COMMISSIONER McALLISTER: I meant to say this and  
22 didn't, but, you know, so I have a -- a big chunk of my  
23 heart is in Latin America, as you know, and I -- I tend to  
24 kind of feel slightly -- I have imposter syndrome when I  
25 sort of -- you know, that's not my background. I'm not,



1 you know, an immigrant from Latin America. I don't have  
2 that sort of personal or family history. And so, I  
3 sometimes don't, you know, sort of feel like I should  
4 represent, but I really -- I can't tell you how much it  
5 means to me to have you in this position, right. And I --  
6 you know, I want to like defer to you on some of these  
7 cultural issues, but, you know, La Familia is just a great  
8 group of folks, and sort of I think I'm an honorary member,  
9 and, yeah, it's truly -- it's great to have this kind of  
10 focus, you know, and having people understand that they're  
11 part of a community within the Commission and within State  
12 service and just across all of the different groups that we  
13 interact with and belong to. And I think that, yeah, it's  
14 just deeply, deeply meaningful, and I -- you know, so I  
15 just want to be here to support you, you know, and sort of  
16 take your lead on a lot of issues about how to really  
17 execute on our commitment to making sure that everyone is  
18 heard, and particularly the sort of, you know, Hispanic and  
19 Latino diaspora.

20 COMMISSIONER GALLARDO: You all are going to make  
21 me cry again. That's not fair.

22 But thank you, Commissioner Monahan for what you  
23 said. I think it can be a burden and that just comes with  
24 having major responsibility and duty. But I still, you  
25 know, will take it on as best I can and hopefully because I

1 was the first, now there will be a second coming up soon,  
2 and a third and a fourth, and that will continue. So, what  
3 you said means a lot to me, and I agree with you.

4           And, Commissioner McAllister, I'm happy to  
5 support you, and, you know, I was honored that you when I  
6 became a Commissioner you asked me if I wanted to take over  
7 the relationships, you know, with Mexico and Latin America,  
8 and you've done such a tremendous job with that, no, I will  
9 support you on continuing to strengthen those  
10 relationships. I think you've done a wonderful job and  
11 your affinity for the culture is authentic, and we  
12 appreciate that, and we need those champions as well. So,  
13 I just want to honor you for those acknowledgments and for  
14 being so committed as well. And you are definitely a  
15 member of La CEC Familia. There's no doubt about that.

16           And thank you, Vice Chair Gunda, for, you know,  
17 recognizing the JAEDI initiative. I cannot take credit for  
18 creating that. That was, you know, CEC created initiative.  
19 Carousel Gore, Courtney Smith also had a lot to do with the  
20 origins of that initiative, so I want to make sure that,  
21 you know, that credit is given to them.

22           But thank you, and I appreciate you being  
23 vulnerable. I think you're right about that. When  
24 leadership can be vulnerable then staff can also see that  
25 it's okay to bring their whole selves to work, even if, you

1 know, there's some pieces of them that are vulnerable, and  
2 I think that makes us stronger actually.

3 COMMISSIONER MONAHAN: So, in terms of just like  
4 my update, I'm going to be brief. I would say like a lot  
5 of the work recently has been around regulations. Like  
6 that's a new arm muscle that we are developing at the Fuels  
7 and Transportation Division. It's charger reliability,  
8 replacement tire efficiency, charger payment coming up, and  
9 now deciding about within close collaboration with the Air  
10 Resources Board, who is the lead on vehicles, whether there  
11 should be a requirement around vehicles, battery to house,  
12 battery to grid, and, so, those are all new muscles that  
13 we're developing and it's been a process is what I would  
14 say, as in the Fuels and Transportation Division together  
15 with CCO, because CCO has been such a partner on this.  
16 Thank you for all your support, that we're moving, you  
17 know, towards a more unveiling to the Commission soon.

18 I also want to say, you know, we've been  
19 successful getting Federal funding. We got \$100,000,000  
20 for this tri-state application that Ben DeAlba, my former  
21 advisor, has been leading, so just to excited that more  
22 money is coming to California in the transportation space.

23 I went on a study tour with Lacey, and that was  
24 sponsored, so Chair Randolph is the cochair of the  
25 transportation electrification partnership that's part of

1 the Los Angeles clean take incubator, and we went on a tour  
2 in preparation for the LA Olympics on how to -- how cities  
3 are electrifying transportation. And Secretary Omishakin  
4 from CalSTA went as well. We also had Senator Lena  
5 Gonzalez and L.A. Councilmember Nythia Raman and Vice Mayor  
6 Cindy Allen, and so it's kind of funny, a group of women  
7 all going to learn about transportation, and Secretary  
8 Omishakin, of course.

9           But it was really a great tour. We got to  
10 meet actually with the mayor of London who's done  
11 congestion pricing and really has done an amazing job  
12 getting electric vehicles sort of special ability to travel  
13 through city centers, but using that tool to be able to  
14 reduce congestion in the city and make it more bike  
15 friendly and electrify at the same time.

16           So, I would say that it was an amazing tour. We  
17 learned a lot. We're going to be meeting to figure out,  
18 well, what do we do here in L.A., in California, from what  
19 we've learned and prepare for the Olympics because we  
20 really want to showcase the Olympics in L.A. like this is  
21 the clean air capitol, not the smog capitol.

22           The Chair mentioned this tour that we did of  
23 Redwood materials in the Tesla gigafactory. I want to  
24 thank Patricia Carlos of my staff. We actually -- it was a  
25 long time coming. We had cancelled it because of the

1 travel restrictions, and we decided, oh, we're just going  
2 to do it in one long day, so it was like 6:15 in the  
3 morning until 10:30 at night. And Cal Recycle came as  
4 well, and it was really a great learning experience and,  
5 you know, just as the Chair said, really showcased the  
6 opportunity for recycling lithium and having that be a  
7 clean, cheap source of lithium.

8 I went to Clean Mobility Summit in Fresno that  
9 was sponsored by one of our grantees, The Fresno Metro  
10 Black Chamber of Commerce. They're doing all sorts of  
11 interesting things with Bike Share.

12 Also, there is a really cool produce company  
13 called OK Produce that's electrifying its heavy duty  
14 vehicles, and they're doing it because they want to --  
15 they're like, hey, we're delivering produce. It should be  
16 with clean vehicles. Like they're motivated not by the  
17 CARB regulations but by their own personal ethics, and it  
18 was just a great example of community engagement around  
19 electric transportation. And the Office of Small Business  
20 Administration, Caroline Gray, she came as well and she  
21 actually used to be part of -- she led that grant to us.  
22 She actually remembered comments I had made when I -- I  
23 don't know, my second month on the job, so, it was kind of  
24 funny, like full circle, and she's amazing.

25 And I also with Commissioner Gallardo pointed

1 this one to me to go to the SCE Customer Empowerment Day at  
2 the Center of Hope congregation. And Reverend Jackson, our  
3 former Clean Energy Hall of Fame award winner, was working  
4 with SCE on this, and it was just a really cool like  
5 community engagement day.

6 And one of the things they talked about was how  
7 many members don't believe in free things. They're like I  
8 don't believe you if you say, SCE, that you're going to  
9 give me a free thing. You actually have to have somebody  
10 in the community who's is really like trusted to say, yeah,  
11 no, actually you can get a big discount on the heat pump,  
12 you can get a big discount on an electric vehicle, and so  
13 it was just a great event and very heartwarming.

14 Last thing I'll say is we had our second Clean  
15 Transportation Program Advisory Committee meeting. We're  
16 really trying to get to the finish line this year on a  
17 plan, so it was a great event and got good feedback, and  
18 hoping to bring before the end of the year the investment  
19 plan to all of you. And I'll stop there.

20 VICE-CHAIR GUNDA: Awesome. Thank you,  
21 Commissioner Monahan. I think with that, we'll move to the  
22 next item, Item 10, Executive Director's Report.

23 MR. BOHAN: Thank you, Vice Chair, Commissioners,  
24 no report today.

25 VICE-CHAIR GUNDA: Thank you, Drew. Going to

1 Item 11, Public Advisor's Report.

2 MS. BADIE: Good afternoon. Just wanted to  
3 announce that the CEC CPC Disadvantaged Communities Advisor  
4 Group has its next meeting on Friday, October 18, and the  
5 agenda will be published early next week. That's all.

6 VICE-CHAIR GUNDA: Thank you, Mona. Going to  
7 Item 12, Chief Counsel's Report.

8 MS. DeCARLO: Thank you, Vice Chair. No report  
9 from the Chief Counsel's Office.

10 VICE-CHAIR GUNDA: Okay. Thanks, everybody, for  
11 joining us today. A long discussion, a lot of opportunity  
12 to chat. And with that, the meeting is adjourned. Thank  
13 you.

14 (The meeting adjourned at 1:00 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 16th day of October, 2024.



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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.



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MARTHA L. NELSON, CERT\*\*367

October 16, 2024