

**DOCKETED**

<b>Docket Number:</b>	23-BUSMTG-01
<b>Project Title:</b>	Business Meeting Agendas, Transcripts, Minutes, and Public Comments
<b>TN #:</b>	248694
<b>Document Title:</b>	Transcript of the January 25, 2023 Business Meeting
<b>Description:</b>	N/A
<b>Filer:</b>	Liza Lopez
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	2/8/2023 4:11:55 PM
<b>Docketed Date:</b>	2/8/2023

BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of: )  
 ) 23-BUSMTG-01  
*Business Meeting* )  
 \_\_\_\_\_ )

WEDNESDAY, JANUARY 25, 2023

10:00 A.M. - 3:30 P.M.

In-person at:  
 California Natural Resources Agency Building  
 715 P Street  
 First Floor Auditorium  
 Sacramento, California 95814  
 (Wheelchair Accessible)

*Remote Access Only via Zoom*

*Please note that the California Energy Commission (CEC) aims to begin the business meeting promptly at the start time and the end time is an estimate based on the agenda proposed. The meeting may end sooner or later than the time indicated depending on various factors.*

*Pursuant to the California Code of Regulations (CCR), title 20, section 1104(e), any person may make an oral comment on any agenda item. To ensure the orderly conduct of business, such comments will be limited to three minutes or less per person. Any person wishing to comment on information items or reports (non-voting items) shall speak during the public comment portion of the meeting and have three minutes or less to comment.*

Reported by:  
 Peter Petty

APPEARANCES (\*Present via Zoom)

Commissioners

David Hochschild, Chair  
Siva Gunda, Vice Chair  
Andrew McAllister  
Patty Monahan

Staff Present:

Drew Bohan, Executive Director  
Linda Barrera, Chief Counsel  
Mona Badie, Public Advisor

	Agenda Item
Silvia Palma-Rojas	3
Jane Berner	4
Thanh Lopez	5
Nick Fugate	6
Deborah Dyer	7
Ralph Lee	8
Alejandro Galdamez	9
Erik Lyon	10
Kevin Chou	11
Richard Gibbs	12
Justin Scaccianoce	13
Wendell Krell	14
Andrew Horn	15
Jonathan Bobadilla	16
Aleecia Gutierrez	17
Kari Anderson	17

Guest Speakers:

State Assemblymember Eduardo Garcia	3
Sylvia Paz, Chair, Lithium Valley Commission	3
Simon Baker, CPUC	10

APPEARANCES (Cont.) (\*Present via Zoom)

Also Present: Agenda Item

Interested Parties:

Jonathan Palacios-Avila, StratosFuel, Inc. 15

Public Comment:

Steve Uhler, 1, 6, 9, 10, 11, 13, 14, 17, 22  
Teresa Cooke, California Hydrogen Coalition 3, 4  
Danny Kennedy, New Energy Nexus 6, 13, 16  
Scott Galati, DayZen, LLC 7, 8  
Matt Matheny, Home Ventilating Institute 9  
Kevin Hamilton, Central California Asthma  
Collaborative 9  
Braden Hines, Planet A Energy, Inc. 13  
Jake Winters, Monarch Tractors 16  
William Hadala, American Lithium Energy Corp. 16  
Michelle Wiggins, Wiggins Lift Co., Inc., 16  
Tina Hu, ChargePoint, Inc. 16  
Sophie Ellinghouse, WSPA 17  
Claire Warshaw, Self 22  
Mariela Loera, Leadership Counsel for Justice  
and Accountability (On Item #3) 22  
Nikola Lakic, Self (On Item #3) 22  
Jeremy Smith, State Building and Construction  
Council (On Item #3) 22  
Cristina Marquez, IBEW Local 569 (On Item #3) 22  
SeanKeoni Ellis, United Association Local 230  
(On Item #3) 22  
Michael Monagan, State Building and Construction  
Council (On Item #3) 22  
Hector Mesa, IBEW Local 569 (On Item #3) 22

I N D E X

	Page
Proceedings	8
Items	
1. Agency Announcements	10
2. Consent Calendar	11
a. New Energy and Industrial Technology Development Organization (NEDO), Japan	
b. Local Ordinances for the City of Piedmont and the City of Encinitas.	
i. City of Piedmont.	
ii. City of Encinitas.	
c. The Regents of the University of California, on behalf of the Energy Institute at Haas School of Business.	
d. Aspen Environmental Group.	
e. Baldwin Park Unified School District.	
f. Whittier Union High School District.	
g. Gladstein, Neandross and Associates.	
h. Order Instituting Rulemaking (OIR) Proceeding (22-EVI-04).	
i. Reliable, Equitable, and Accessible Charging for Multifamily Housing - GFO-21-603.	
i. Bay Area Air Quality Management District (BAAQMD).	

I N D E X (Cont.)

	Page
2. Consent Calendar (Cont.)	11
j. Clean Transportation Program Rural EV Charging - GFO-21-604.	
i. FreeWire Technologies, Inc.	
ii. Ventura Energy LLC.	
iii. ChargePoint, Inc. Proposed resolution approving Agreement ARV-22-006	
iv. ChargePoint, Inc. Proposed resolution approving Agreement ARV-22-007	
<del>k. Proposed resolution approving Agreement ARV-22-007.</del>	
<u>[This item has been moved to discussion and will be heard after agenda item 16]</u>	
l. BioVind, LLC.	
m. TechFlow, Inc.	
3. Information Item - Blue Ribbon Commission on on Lithium Extraction in California (Lithium Valley Commission): Overview of Report to the Legislature.	15
4. Information Item on the 2022 Joint Agency Staff Report on AB 8 - Hydrogen Refueling Stations.	38
5. Information Item on Zero-Emission Vehicle Infrastructure Plan (ZIP).	51
6. California Energy Demand 2022-2035 Forecast of Electricity Consumption.	66
7. Lafayette Backup Generating Facility (20-SPPE-02).	84
8. STACK Backup Generating Facility (21-SPPE-02).	91

I N D E X (Cont.)

	Page
9. Amendments to Appliance Efficiency Regulations for Air Filters (20-AAER-02).	97
10. Qualifying Capacity of Supply-Side Demand Response Working Group Final Report (21-DR-01).	109
11. Renewables Portfolio Standard Retail Sellers Procurement Verification Results Report.	130
12. California Electric Homes Program (CalEHP) - GFO-21-403.	139
13. California Clean Energy Fund DBA CalCEF Ventures.	144
i. CalSEED Initiative (22-02). Planet A Energy, Inc.	
ii. CalSEED Initiative (22-02). Sonocharge, LLC.	
14. Department of Energy (DOE) Lawrence Berkeley National Laboratory (LBNL).	158
15. Renewable Hydrogen Transportation Fuel Production - GFO-20-609.	164
a. StratosFuel, Inc.	
i. CEQA Findings.	
ii. Proposed resolution approving Agreement ARV-22-004	
16. STACK Backup Generating Facility (21-SPPE-02).	170
a. Zimeno Inc. DBA Monarch Tractor.	
b. American Lithium Energy Corp. (ALE).	
c. Wiggins Lift Co., Inc.	
d. ChargePoint, Inc.	

I N D E X (Cont.)

	Page
17. Petition to Request a Rulemaking Hearing.	187
18. Minutes	202
19. Lead Commissioner or Presiding Member Reports	225
20. Executive Director's Report.	---
21. Public Advisor's Report	---
22. Public Comment                    12, 72, 88, 119, 135, 148, 176,	206
23. Chief Counsel's Report	223
a. Pursuant to Government Code Section 11126(e)(1), the CEC may adjourn to closed session with its legal counsel to discuss the following matter to which the CEC is a party:	
i. <i>Interlink Products International, Inc. v.            Xavier Becerra, Drew Bohan, Melissa Rae King            (United States District Court for the Eastern            District of California, Case No. 2:20-cv-02283)</i>	
Adjournment	229
Reporter's Certificate	230
Transcriber's Certificate	231



1 P R O C E E D I N G S

2 JANUARY 25, 2023

10:04 a.m.

3 (Start of Introductory Video.)

4 MS. MURIMI: Welcome to the California Energy  
5 Commission's Business Meeting. Zoom's closed-captioning  
6 feature has been enabled to make Energy Commission business  
7 meetings more accessible. Attendees can use this feature  
8 by clicking on the "Live Transcript" icon and then  
9 selecting either "Show Subtitle" or "View Full Transcript."  
10 Closed captioning can be stopped by closing out of the Live  
11 Transcript or selecting "Hide Subtitle." Those  
12 participating solely by phone do not have the option for  
13 closed captioning.

14 The Energy Commission will continue to post a  
15 recording of this business meeting on the Business Meeting  
16 webpage in addition to posting a transcript of this  
17 business meeting rendered by a professional court reporter  
18 in the docket system on the business meeting webpage.

19 To increase access to the California Energy  
20 Commission's proceedings, this meeting is being held in-  
21 person and is also available for remote participation.

22 The public can participate in the business  
23 meeting consistent with the instructions for remote  
24 participation found in the notice for this meeting, and as  
25 set forth on the agenda posted to the Energy Commission's

1 website. Pursuant to California Code of Regulations Title  
2 20, section 1104(e) any person may make oral comments on  
3 any agenda item.

4           Once the public comment period begins, to  
5 indicate you would like to give a comment in-person please  
6 use the QR codes shown in the room and fill out the form.

7           For remote participants, please raise your hand  
8 by clicking on the "Raise Hand" icon at the bottom of your  
9 screen. If you are joining by phone press \*9 to raise your  
10 hand and \*6 to unmute.

11           To ensure the orderly and fair conduct of  
12 business, public comments will be limited to three minutes  
13 or less per person for each agenda item voted on today.

14           Any person wishing to comment on information  
15 items or reports, which are non-voting items shall reserve  
16 their comment for the general public comment portion of the  
17 meeting and shall have a total of three minutes or less to  
18 state all remaining comments. After the Public Advisor  
19 calls on you to speak, spell your name and state your  
20 affiliation, if any.

21           Welcome to the California Energy Commission's  
22 business meeting. The meeting will now begin.

23           (End of Introductory Video.)

24           CHAIR HOCHSCHILD: Good morning, everyone. I'm  
25 David Hochschild, Chair of the Energy Commission. Today is

1 January 25th, 2023. I call this meeting to order. Joining  
2 me are Vice Chair Gunda, Commissioner McAllister, and  
3 Commissioner Monahan. We have a quorum. Please stand for  
4 the Pledge of Allegiance.

5 (Whereupon the Pledge of Allegiance was recited.)

6 CHAIR HOCHSCHILD: I'd like to begin today's  
7 meeting by asking us all to share a moment of silence in  
8 recognition of the shootings in Monterey Park and in  
9 Halfmoon Bay.

10 (A moment of silence was observed.)

11 CHAIR HOCHSCHILD: Thank you.

12 I also wanted to recognize our colleague,  
13 Commissioner Vaccaro, who has been appointed to a position  
14 at the Public Utilities Commission, where she'll be  
15 advising now PUC Commissioner Karen Douglas. Congratulate  
16 her on that and just recognize her lengthy service and  
17 contributions to the Energy Commission in many capacities  
18 as Chief Counsel, as Advisor on Commissioner row. And then  
19 this last year as a Commissioner here with us where she  
20 really made some important contributions on the Lithium  
21 Valley Commission, offshore wind, the siting reform that  
22 took place. And on behalf of all of us, we thank her and  
23 congratulate her on her new position.

24 With that, are there any other announcements that  
25 folks wanted to make at the outset, colleagues? (No

10

1 audible response.)

2           Okay. I did want to recognize that we have a  
3 very, very lengthy agenda today and just invite my  
4 colleagues to try our best to move expeditiously through  
5 this. But I do want to say, you know, the volume of money  
6 we're moving, it never ceases to amaze me. So today, we  
7 are seeking to approve over \$127 million dollars. It's  
8 going to help our state's economic recovery, our state's  
9 clean energy progress. And just am incredibly proud of the  
10 whole Energy Commission team, and all the stakeholders  
11 we've worked with to be able to vote these items out today.

12           With that -- let's see what else we got here --  
13 we'll turn to the Consent Calendar, noting that Item 2k has  
14 been moved to discussion and is now Item 17 on the agenda.  
15 Are there any public comments on Item 1, Madam Public  
16 Advisor?

17           MS. BADIE: We don't have anyone in the room.  
18 And we do have one, Colin -- it just says Call-In User 2.  
19 I'm going to allow you to talk. Please state -- spell and  
20 state your first and last name, make your comment.

21           CHAIR HOCHSCHILD: And, sorry, just to be clear  
22 this is only for Items a through m on the Consent Calendar.  
23 So only comments on those items.

24           MS. BADIE: If you're on Zoom, raise your hand to  
25 get in the queue to talk. I'm going to unmute this Call-In

11

1 User 2. Call-In User 2, please make your comment.

2 MR. UHLER: Hello, Energy Commission and the  
3 Chair. This is Steve Uhler calling. I'm trying to follow  
4 this meeting. I do not find an agenda posted in any docket  
5 that's related to the business meeting. I'm wondering --  
6 now I do find agendas on a business meeting page. And  
7 there's no law against -- about putting an agenda over  
8 there. But you do have a law requiring that items  
9 submitted in a proceeding must be filed in the docket. So  
10 I ask that you file this agenda in the docket, because as  
11 you may or may not know, items placed on the business  
12 meeting page change. They change links and such. So I  
13 suggest that you adjourn until you can see that all items  
14 that are -- you're going to speak on or consider today, are  
15 placed in the docket.

16 Public Advisor, you may remember in October, I  
17 asked for the same similar question. But your Public  
18 Advisor has not gotten back to me on a rule  
19 notwithstanding, 20 CCR 1208 allowing you to consider items  
20 to be submitted in a proceeding that are not submitted in  
21 the docket. So are you going to take care of this?

22 Now the Chair has the option, under 1203 which is  
23 something that your Chief Counsel should have told you in  
24 October, to see that these items are placed in the docket  
25 for your consideration. There'll be many more items on the

12

1 docket that I can make this statement on. Rather than me  
2 doing that just consider that every agenda item is -- will  
3 be considered. I am objecting to you proceeding until you  
4 take care of this situation of your staff not, and you not,  
5 enforcing your regulation 1208 (a) before you start a  
6 meeting.

7 Chair, are you familiar with 1203 and 1208 (a)?  
8 Now, bear in mind it's a misdemeanor to withhold knowledge,  
9 information, facts, from the public pursuant to the Bagley-  
10 Keene. Are you going to remain silent?

11 CHAIR HOCHSCHILD: Are you finished with your  
12 comments, Mr. Uhler? Chief Counsel, do you want to just  
13 respond to the posting of the agenda?

14 MS. BARRERA: Yes, Chair. This is Linda Barrera,  
15 Chief Counsel of the Energy Commission. I appreciate your  
16 comments, Mr. Uhler. I just have a couple of notes to make  
17 here.

18 First, the business meeting agenda was filed in  
19 our business meeting page, which is required by the Bagley-  
20 Keene Open Meeting Act, and we comply with that. With  
21 regards to the proceedings that I believe you're interested  
22 in, which include rulemaking, maybe the air filters  
23 rulemaking, the RPS verification item. The business  
24 meeting agenda was published in those dockets, which is  
25 actually not a requirement, but we did so specifically for

13

1 the RPS verification business meeting item.

2 Second, section 1208 does not require that a  
3 document including proposed resolution be docketed before  
4 consideration by the CEC. Once approved, the resolution  
5 will be docketed, similar to other documents that are  
6 finalized after adoption of the resolution, such as  
7 business and meeting transcripts, responses to public  
8 comments, and the final Statement of Reasons.

9 So with that, Chair, I recommend that the  
10 business meeting proceed, because we have complied both  
11 with our regulations and with the Bagley-Keene Open Meeting  
12 Act.

13 CHAIR HOCHSCHILD: Thank you.

14 Madam Public Advisor, are there any other public  
15 comments on Items a through m?

16 MS. BADIE: No other public comment.

17 CHAIR HOCHSCHILD: Okay. With that, Vice Chair  
18 Gunda, would you be willing to move Item 2a, Items a  
19 through m?

20 VICE CHAIR GUNDA: Yes, I move items.

21 CHAIR HOCHSCHILD: Commissioner McAllister, would  
22 you be willing to second?

23 COMMISSIONER MCALLISTER: Second.

24 CHAIR HOCHSCHILD: All in favor say aye. Vice  
25 Chair Gunda?

1 VICE CHAIR GUNDA: Aye.

2 CHAIR HOCHSCHILD: Commissioner McAllister?

3 COMMISSIONER MCALLISTER: Aye.

4 CHAIR HOCHSCHILD: Commissioner Monahan?

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: And I vote aye as well. That  
7 item passes unanimously.

8 We'll turn down to Item 3, Information Item, Blue  
9 Ribbon Commission on Lithium Extraction in California.

10 MS. PALMA-ROJAS: Good morning, Chair. Good  
11 morning, Commissioners. My name is Silvia Palma-Rojas, a  
12 Supervisor in the Reliability, Renewable Energy &  
13 Decarbonization Incentives Division, RREDI. RREDI staff  
14 provide technical and administrative support to the Blue  
15 Ribbon Commission on lithium extraction in California known  
16 as Lithium Valley Commission.

17 I am pleased to provide an overview on the report  
18 to the Legislature, and here with me today is  
19 Assemblymember Eduardo Garcia and the Chair of the Blue  
20 Ribbon Commission, Silvia Paz, who will be providing  
21 remarks after my presentation. Next slide.

22 Authored by Assemblymember Eduardo Garcia, the  
23 Blue Ribbon Commission was created by Assembly Bill 1657,  
24 and was supported by the following findings and  
25 declarations:



1           World demand for lithium is expected to grow as  
2 much as tenfold in the next decade, but only small amount  
3 is produced in the United States.

4           The Salton Sea geothermal resource area is well-  
5 positioned to become a competitive source of lithium that  
6 could satisfy more than one-third of today's demands. The  
7 development requires investment and removal of barriers.

8           There is a national security rationale for  
9 developing a domestic supply of lithium. Lithium has been  
10 identified as a critical mineral "essential to the economy  
11 and national security of the United States."

12           The opportunity for lithium production in  
13 California has the potential to unleash billions of dollars  
14 of new economic infrastructure development. Next slide,  
15 thank you.

16           The Statute tasks the Commission with reviewing,  
17 investigating and analyzing 8 specific topics: Geothermal  
18 energy development for lithium recovery; market  
19 opportunities; electricity grid benefits; technical and  
20 economic challenges; safety and environmental protection;  
21 economic benefits; environmental impacts; local, state, and  
22 federal incentives; investment opportunities; and  
23 legislative and regulatory changes.

24           The Commission was tasked with providing a report  
25 to the Legislature with findings and recommendations. The

1 report was submitted December 1st 2022. Next slide,  
2 please.

3 The Statute established specific requirements of  
4 each of the 14 Commissioners, which ensured a diverse  
5 representation of perspectives. The Commission is made of  
6 industry, community organizations, environmental and policy  
7 experts, state and local representatives, and tribal  
8 leaders. Next slide, please.

9 The Commission conducted more than 23 public  
10 meetings, most of them virtual due to the Pandemic. In  
11 April 2022, the Commission began holding hybrid meetings,  
12 with physical locations in the communities of Westmorland  
13 and Calipatria, as well as at the Torres Martinez Facility  
14 in Thermal in the Imperial Valley College.

15 Other efforts that supported the public process  
16 and engagement were establishment of a docket to serve as a  
17 centralized location for information and public comments.  
18 Fact Sheets and key documents translated into Spanish, as  
19 well as Purepecha, and posted on the website. Several  
20 community and Tribal workshops and webinars for the  
21 community and Tribes to engage with the Commission and  
22 participate in the Report public comment period. All those  
23 activities with translation and interpretation in Spanish  
24 and Purepecha. Next slide.

25 The Commission worked to create a report that

1 provides awareness to the experience of residents in  
2 Imperial and Coachella Valleys and ensure community and  
3 tribal voices are represented. The picture on this slide  
4 is from one of the community and tribal workshops conducted  
5 to discuss the report with residents. This one was in  
6 North Shore.

7 Chapter 1 of the report is background  
8 information. Chapter 2 provides technical information,  
9 including the different methods of Lithium Extraction and  
10 how lithium recovery from geothermal brine differs from  
11 other prevalent methods, such as rock mining. Chapter 3  
12 provides an overview of the community and tribal  
13 perspectives. And Chapter 4 includes a summary and  
14 discussion of findings. And Chapter 5 includes the  
15 Commission's recommendations.

16 I would like to mention that Commissioners also  
17 had an opportunity to provide written comments and had  
18 three public meetings to discuss the report. The public  
19 had the opportunity to provide written comments on the  
20 report during a 30-day public comment period, through the  
21 docket system and Community and Tribal workshops and  
22 webinars.

23 The final version of the report was adopted by  
24 the Commission on November 17. Next slide.

25 The Commission received over 290 comments on the

1 initial draft report. A diverse group of stakeholders  
2 submitted comments, including residents and general public,  
3 industry, community-based organizations, Tribes and Tribal  
4 members, labor unions and trade councils, and other  
5 governmental entities. Of these 290 comments,  
6 approximately 258 public written comments were received  
7 supporting lithium recovery in Imperial County. Those 258  
8 letters come from residents from Imperial County,  
9 Riverside and San Diego.

10 Some of the topics in the Docket written comments  
11 and Tribal comments were state and local agencies should  
12 strengthen Tribal consultation, fund technical assistance  
13 to Tribes, include Tribes in business opportunities, and  
14 ensure protection of Tribal environmental and cultural  
15 resources.

16 Create a framework for the region to recover and  
17 process lithium in a safe and expeditious fashion.

18 Support for project labor agreements, training,  
19 and high road job and career approaches with family-  
20 supporting wage and benefit standards. Next slide.

21 Related to the Community and Tribal workshops to  
22 discuss the Report, the Commission wanted to provide  
23 opportunity for community members to provide oral feedback.  
24 And at its request, the CEC staff hosted and facilitated  
25 Community and Tribal workshops in three communities near

1 the Salton Sea during the evenings of the week of October  
2 17<sup>th</sup>. And hosted an online webinar the following week.

3 The three in-person workshops were in Niland,  
4 North Shore, and Salton City. Interpretation in Spanish  
5 and Purepecha was provided, and relevant documents were  
6 translated.

7 Approximately, we had 60 active attendees over  
8 the four workshops, along with academia and industry  
9 representatives that were observers.

10 Some of the key topics raised included concern of  
11 the unknown and excitement about the potential opportunity,  
12 potential cumulative public health and environmental  
13 impacts needed to be identified, communicated, and  
14 mitigated. Fence-line communities near DLE projects should  
15 be prioritized in both investment and mitigation of  
16 potential environmental impacts. And investment and public  
17 health and mitigation is necessary across the broader  
18 region.

19 And other comments were to define Lithium Valley  
20 with a physical boundary to ensure that communities close  
21 to the lithium recovery projects directly benefit. Next  
22 slide.

23 Like I mentioned before, 15 Recommendations were  
24 adopted on November 17, 2022 and focused on different  
25 topics such as permitting, economic development and

1 incentivizing investment, circular economy and  
2 environmentally sound sourcing, community benefits and  
3 safety, outreach and engagement.

4           The full list and details of the recommendations  
5 can be found in the report and in the appendix of this  
6 presentation. A few examples include recommendation to  
7 establish the Southeast California Economic Zone, which  
8 includes Imperial County and Eastern Coachella and Palo  
9 Verde Valleys. The intention in establishing this regional  
10 economic zone is to be recognized by federal, state, and  
11 local governments, and to be eligible to compete for  
12 funding and investments.

13           To support the development of a circular lithium  
14 economy based in California, with environmentally  
15 responsible sourcing of raw materials and requirements for  
16 product design that support recovery, reuse and recycling  
17 of materials.

18           To provide capacity building funds, such as  
19 grants, and other resources to Tribes and community members  
20 to engage with federal, state, and local permitting  
21 agencies.

22           To establish a Lithium Valley priority permitting  
23 process that includes additional resources for agency  
24 action on applications for geothermal, lithium recovery,  
25 and related manufacturing, production, or assembly

1 projects.

2 To accelerate state planning for investment and  
3 upgrades in transmission for geothermal power plants in  
4 Imperial Valley.

5 And, to provide state funds and industry support  
6 for the creation of curriculums, courses, and certification  
7 programs in science, technology, engineering, and  
8 mathematics in schools and colleges to advance critical  
9 knowledge and skills across all grade levels.

10 As I mentioned, at the end of these slides you  
11 can find more information about these recommendations. We  
12 also mention here about the remaining nine recommendations  
13 identified by the Commission. Next slide, please.

14 The Commission held its last meeting on Friday,  
15 January 20th, with a recommendation to the CEC to move  
16 forward in dissolving the Blue Ribbon Commission now that  
17 it is fulfilled its statutory obligations. Can we go to  
18 the next slide, please?

19 CEC staff will be bringing an action item to  
20 dissolve the Blue Ribbon Commission on Lithium Extraction  
21 in California in the next business meeting.

22 We would like to highlight that since the statute  
23 gave CEC the authority to establish the Lithium Valley  
24 Commission, the CEC holds the authority to dissolve the  
25 Lithium Valley Commission.

1           This concludes my presentation. And let me turn  
2 it over to Assemblymember Eduardo Garcia for his remarks,  
3 and then we will close this item with remarks from Silvia  
4 Paz.

5           Thank you.

6           MR. GARCIA: Good morning, hoping you can you  
7 hear me. My camera will be off. We are doing dual duties  
8 this morning. And so we're going to remain engaged here,  
9 but focused here. And my remarks will be brief.

10           I want to thank Chair Hochschild for providing  
11 an inclusive venue for discussing the opportunities and  
12 challenges of developing Lithium Valley. It seems like it  
13 was just a few days ago, but quite frankly, it's been  
14 several years ago that we started these conversations with  
15 a unique group of individuals that had the common interest  
16 in trying to achieve California's ambitious aggressive  
17 climate and renewable energy goals. And how we were  
18 inclusive, how we went about it in an inclusive manner, was  
19 the center of the conversations. And furthermore, how we  
20 ensured that regions like Imperial County were front and  
21 center of conversations like these.

22           I want to thank, and I know that it's somewhat  
23 dangerous sometimes to start naming people and who you want  
24 to thank, because you end up leaving someone out. But I  
25 think it's appropriate that we recognize the work of Chair

23



1 Silvia Paz and Vice Chair Ryan Kelley, and other  
2 Commissioners for their hard work, their commitment and  
3 leadership in meeting their obligations and delivering the  
4 report to the Legislature.

5           The Commission staff are diligently capturing the  
6 discussions that were over 23 meetings that took place in  
7 the last two years, including the traveling the district  
8 everywhere from Niland, North Shore, Salton City, to gather  
9 input from local community and tribes about the potential  
10 impact of building the Lithium Valley. And I'm going to  
11 tell you that when this Commission idea came about, it was  
12 important for us to ensure that all aspects of the  
13 community had a seat at the table early on, in order to  
14 have these critical conversations, as these discussions  
15 about lithium industry being possible in the region or  
16 taking place.

17           I want to just let you know that for us, it's  
18 always been about putting the people of this region first.  
19 And that's what this Commission really was driven by; an  
20 opportunity to ensure that the voices of those locally was  
21 integrated into an overall master plan that intersects with  
22 again, California's ambitious climate goals and renewable  
23 energy targets.

24           I want to thank the Administration for their  
25 commitment to this vision. I think that they not only talk

1 to talk, but they walked the talk. And I think the budget  
2 investments that we've seen this last budget says it all,  
3 securing funding for infrastructure in our region, that is  
4 unprecedented in terms of the amount of investment going to  
5 our area, improving permitting process, looking at economic  
6 development incentives, to support industry growth and job  
7 training and educational access opportunities was huge.

8           And I want to spend a little time on that, the  
9 education piece and the job training piece. There's so  
10 much more to be done there for purposes of preparing the  
11 workforce for this unique opportunity that we have in  
12 California. And so I just want to kind of lift up those  
13 that work in the education space, in the workforce  
14 training, our various trades, that we are going to be doing  
15 more in this space to make sure that we're prepared to take  
16 on this task that's in front of us. And we know that  
17 there's significant work that lies ahead, and we're up for  
18 that work that's in front of us.

19           There were a lot of meetings that took place and  
20 clearly a lot of interest to continue the community  
21 dialogue, community engagement. And I'm excited to see  
22 that what's come from the Lithium Valley Commission and its  
23 recommendations. It is a group that has now come together  
24 of community leaders, organizations, labor groups. They  
25 call themselves a Lithium Valley Community Coalition. They

1 are coming together to ensure that equity inclusion and  
2 environmental justice is front and center of these  
3 conversations moving forward. And so on our end, rest  
4 assured to the Commissioners, to the community, to the  
5 members of the CEC, we will be asking that we continue to  
6 do some work through a select committee process. And  
7 establishing California's lithium select committee, looking  
8 at the economic opportunities for the state, for the  
9 nation, that are being driven by this work happening in our  
10 district, in Imperial County and the Salton Sea region of  
11 the state.

12           Lastly, I just want to say thank you to everyone  
13 who worked on this particular task. The report doesn't  
14 mark the end to the work, it's really the beginning of much  
15 more work to be done. And we're looking forward to  
16 continuing to remain engaged with the different  
17 stakeholders. That includes our environmental justice  
18 community, our tribes, the nonprofit organizations, and  
19 then those who don't affiliate or associate to any of those  
20 particular groups, just the common folk who wants to know  
21 what's happening in our backyard. How is this going to  
22 improve public health? How is this going to address the  
23 climate issues of the state? And how is this going to  
24 transform the economic circumstances of our region that  
25 we've really been challenged with for many, many decades.

1           So I'll stop there, very grateful to all of you  
2 who have participated. What was an idea that came up in  
3 some gatherings with colleagues, stakeholders in  
4 Sacramento, local folks, has now come to be a blueprint, a  
5 roadmap to see real change in this part of the State of  
6 California. And this is something that I'm very proud of,  
7 and everyone should be as well. Much more work to be done.  
8 Thank you, Chair Hochschild, for the opportunity to say a  
9 few words.

10           CHAIR HOCHSCHILD: Thank you so much,  
11 Assemblyman. And before we invite Chair Paz to make a few  
12 remarks I just wanted to say on behalf of us, you know, I  
13 think all of us feel one of the great blessings of this  
14 work is the opportunity to meet and work with visionaries.  
15 And you are a visionary. What you have done with this  
16 legislation and with many climate bills before that, and  
17 more to come, is leading the way, and just the inclusion  
18 and relentlessness that you have brought to this is  
19 instrumental. And yet I would just again reiterate we're  
20 talking about north of \$10 billion of investment that's  
21 going to go into this region.

22           I had the opportunity, with Commissioner Monahan,  
23 to spend four days down in the Salton Sea region last week.  
24 We got to hold bottles of lithium chloride that have been  
25 produced in California and the region has a capacity to do

1 600,000 tons of lithium annually. The global market last  
2 year was 400,000 tons. Obviously, the global market's  
3 taken off, but this is the greenest way to produce lithium  
4 in the world. And just a really good snapshot on that.

5 Right now we're getting most of the lithium from  
6 four countries, Chile and Argentina, and China and  
7 Australia. And Chile and Argentina -- you know, when  
8 you're producing 20,000 tons of lithium, you're impacting  
9 30,000 acres. If you're doing it from hard rock mining in  
10 China or Australia, it's 3,000 acres. If you're doing in  
11 Salton Sea, it's 30 acres. So and it's a very, you know --  
12 100% powered by clean energy. So that's a model, and the  
13 way that we're doing it with the lithium tax that's going  
14 to bring resources and improvements to the community.

15 And with input from everybody from the tribes to  
16 environmental justice groups and others, I think is a model  
17 to be proud of. And it wouldn't be possible without your  
18 incredible leadership. So thank you so much, Assemblyman.

19 And with that, we welcome remarks from Chair  
20 Silvia Paz.

21 CHAIR PAZ: Good morning, Chair Hochschild and  
22 members of the Energy Commission. And good morning,  
23 Assemblymember Garcia, good to hear you.

24 So I want to start also just by thanking the  
25 vision that our Assemblymember had in putting this

1 commission together. I think it's taken us, and I'll  
2 include maybe not to speak for the Energy Commission, but  
3 it's taken us all through a learning journey. And there is  
4 a lot that could be replicated in the future in terms of  
5 how we are inclusive of our communities, especially when  
6 we're implementing some of the larger statewide strategies  
7 such as the advancement of our climate policy.

8           One of the things that was important, I think for  
9 me as I joined the Commission was to frame it as -- you  
10 know, framing the report as a set of considerations that  
11 the Legislature should consider when they are thinking  
12 about advancing a new industry, particularly in communities  
13 that have for too long been forgotten, and under-invested.

14           So when you look at the report or reread it or  
15 when you pick it up a few years later just to remember  
16 where this all started, is you'll hopefully get a very  
17 clear picture of the challenges as well as the  
18 opportunities that exist in our region, and from the  
19 community level. Those challenges that are reflected in  
20 poor health outcomes in low quality of air, in lack of  
21 infrastructure. All of those realities become a primary  
22 concern before they can even start thinking about the  
23 promise of a new industry, right. And, I think to the  
24 extent that we continue exploring how to do lithium  
25 extraction right, I think it's really going to be our

1 ability to balance and address the needs of the community.  
2 And to leverage our resources that we have to the  
3 advancement of the people that are in closest proximity to  
4 the extraction.

5           And I think that's really what was important for  
6 many of the residents from Imperial County when they were  
7 considering, you know, job creation. When they were  
8 considering community benefits agreements. When they were  
9 considering the taxation on lithium -- was to ensure that  
10 all of that would stay in Imperial County first before we  
11 are growing jobs elsewhere. Which, you know, our new  
12 lithium industry as you all know does have the capacity of  
13 doing.

14           So a little bit into the report itself, I just  
15 want to highlight the idea of the economic zone that was  
16 mentioned. I think most of the report and the  
17 conversations hone in on the Direct Extraction, which is  
18 important. And it's the stage in which we are, but I think  
19 that starting to think about the indirect ways in which we  
20 start investing, and really leveling the playing field in  
21 this region, so that the supply chain of the lithium  
22 industry can be built here, the better off that these  
23 communities will be. And the better able that the state  
24 will be able to deliver the promise that when we're doing  
25 this, we're doing it for the benefit of our communities

1 right, and the impacted communities first. So I just  
2 wanted to point that recommendation as one of the examples  
3 in which that can happen.

4 The other thing that is important obviously for  
5 the region, and this may I believe maybe fall a little bit  
6 more -- not all in the jurisdiction of the Energy  
7 Commission -- but it's the issue of infrastructure and  
8 transmission in particular. How do we strengthen the  
9 transmission lines, so that when we do have more energy  
10 capacity that those transmission lines are there to get the  
11 energy out of Imperial County.

12 The other thing that I encourage, anyone who is  
13 involved in continuing to explore the extraction of  
14 lithium, is to keep an eye for the work that the Lawrence  
15 Berkeley Lab is doing. They did receive a Department of  
16 Energy grant, so that they would be looking not just at  
17 quantifying the amount of lithium and the lithium  
18 potential, but also beginning to look at any impacts on  
19 water and air, which again it's important for our region.  
20 So again I would encourage everyone to be on the lookout  
21 for those findings and to incorporate the research findings  
22 into any work moving forward.

23 The community is still interested in ensuring  
24 that the EIR that the county is going to be doing does not  
25 -- the programmatic EIR -- that the county is going to be



1 conducting, that it doesn't waive the CEQUA requirements  
2 down the line for any other projects. And again those are  
3 just some fears that I want to bring to your attention.  
4 Because even though we feel and sense the urgency of moving  
5 forward, there are several things that should not be  
6 overlooked, and that is any potential impacts to the  
7 environment.

8           In terms of things I mentioned earlier, things  
9 that could be replicated, I believe this was the first time  
10 that the public comment period deliberately included an  
11 oral public comment input. So I want to thank the staff  
12 from the Energy Commission for the time that they spend in  
13 doing this and ensuring that there was a way in which we  
14 could expand the level of input into the report by not just  
15 limiting input to those who have the capacity to submit  
16 written comments. But that there was going to be an  
17 opportunity for people to orally comment on this.

18           And so again I will just close, again with much  
19 gratitude to Assemblymember Garcia. I want to thank  
20 Governor Newsom for his trust in me that I could deliver  
21 this. And I want to thank the Energy Commission for the  
22 support.

23           CHAIR HOCHSCHILD: Well thank you so much, Chair  
24 Paz. That trust was well placed. You delivered. And it  
25 is no easy task to oversee a 14-member Commission as

1 diverse as the Lithium Valley Commission and to produce  
2 this report. So I really want to applaud you for all your  
3 work.

4 And I would welcome my colleagues who'd like to  
5 share any comments on this. Go ahead, Vice Chair.

6 VICE CHAIR GUNDA: Thank you, Chair. I just  
7 wanted to just start by thanking Assemblymember Garcia for  
8 his leadership and the comments he made today.

9 I also wanted to just recognize you, Chair. I  
10 think it's extremely important. Now I think I've seen you  
11 in full action on the Lithium Valley development, the  
12 offshore wind development, I think it takes vision and  
13 fortitude and clarity of purpose when you do these things,  
14 which are not a linear line from here from the start to the  
15 end. And I just want to recognize your work. And both in  
16 the front, but a lot behind the scenes in ensuring these  
17 things are happening. So thank you, to you.

18 I also want to thank the staff, starting with  
19 Sylvia for your presentation today. But all the staff that  
20 spent so many hours in supporting the Commission and  
21 helping develop the report.

22 I think Assemblymember Garcia, the Chair and  
23 Chair Paz all noted the vision, the promise of lithium  
24 production in California, and also am grateful that they  
25 noted some of the challenges we have to navigate as we move

1 forward with the development.

2 I think the Blue Ribbon Commission on Lithium  
3 Valley is kind of the examples that we articulated in last  
4 year's IEPR. The importance of navigating a few core  
5 principles and ensuring equity, which includes bringing  
6 people together, providing a voice, and making the  
7 development of the economy today, and in the future truly  
8 our economy as Californians not supporting any single one.

9 So I mean there's a lot of people to thank here.  
10 But I wanted to close my comments with just recognizing  
11 Noemi Gallardo for helping me engage with Imperial Valley  
12 region, in a way. As part of the IEPR last year we  
13 traveled there. We got to meet with Chair Paz. I'm  
14 incredibly grateful for her thoughtfulness and generosity  
15 of purpose. And her leadership in the area, as well as  
16 Carmen Lucas, one of the tribal elders that took time to  
17 meet with us. And really share the vision of how to  
18 incorporate the values of the tribes as we continue the  
19 development there.

20 So with all that a big word of thanks and  
21 gratitude to everybody that's involved. Thank you, Chair.

22 CHAIR HOCHSCHILD: Thank you, Vice Chair.

23 Commissioner Monahan?

24 COMMISSIONER MONAHAN: And I want to keep on and  
25 maybe it's slightly redundant, but I think it's important

1 enough. I want to also thank Chair Silvia Paz for her  
2 leadership and Assemblymember Garcia for just his vision  
3 and commitment to making sure that this is the development  
4 that really benefits the community.

5           And, you know, we want to do this different than  
6 anyone else has ever done lithium extraction. We want to  
7 make sure that it's not just truly an extraction resource  
8 that doesn't benefit the community. And what I've heard  
9 from everybody who's involved is that commitment. And I  
10 think it behooves us all to just be able to not just have  
11 the vision, but the implementation that ensures that we  
12 safeguard the land. That we're sensitive to tribal  
13 resources. That we bring economic development to a region  
14 that needs it. That we don't harm air quality in a region  
15 that's already suffering from a lot of air quality  
16 challenges.

17           And I want to just recognize the Chair for his  
18 vision and leadership. Really it can't be overstated how  
19 the Chair has really promulgated this vision of an  
20 ecosystem that brings benefits to the local community.

21           I want to just recognize former Commissioners  
22 Douglas and Vaccaro who had seminal roles in -- as  
23 participants in the Blue Ribbon Commission. And Noemi  
24 Gallardo. Again, she's been amazing in terms of also  
25 bringing that interpersonal touch to this work and really

1 thinking how to connect us all in a deeply, kind of  
2 personal way to the community.

3           So I feel like this is just a huge potential in  
4 terms of, you know, just the transportation space. We need  
5 it so badly to be able to meet our goals to zero out  
6 pollution from transportation. And to have this happen  
7 here in California in the most environmentally friendly way  
8 possible in the world, is just this opportunity that I  
9 think we all feel acutely and are just so excited to be  
10 able to do this right.

11           CHAIR HOCHSCHILD: Yeah, Commissioner McAllister?

12           COMMISSIONER MCALLISTER: Just very, very  
13 briefly. So I won't repeat all the thanks. We had amazing  
14 staff and group of collaborators on this, so thank you to  
15 both Chairs.

16           And, really just, I would maybe reiterate in  
17 different words the thanks to Chair Hochschild. I mean,  
18 you have this ability to conjure things that nobody else  
19 has sort of fully realized are actually even a thing. And  
20 make it a thing, and actually then start putting some pen  
21 to paper And some rubber on the road and collaboration, and  
22 coalition building, and kind of move it forward. So that's  
23 really quite a remarkable skill. And not just in this  
24 area, but in other areas.

25           And then, I would just point out, there is there

1 is a centuries-long history across the globe of extractive  
2 industries impoverishing the communities that they exist  
3 in. And that's all sorts of mining and lumber, timber,  
4 oil. Just any 00 you name it, any mineral, iron ore,  
5 whatever. And so ever since the dawn of the Industrial  
6 Age, we've that's kind of been a constant theme. And so I  
7 actually think placing this activity in historical  
8 perspective is worthwhile. Because if we can sort of  
9 impose the California way on this and really have our cake  
10 and eat it, and make sure that it benefits the communities  
11 and doesn't fall into those resource extraction traps, then  
12 that is going to be a humongous signal to the rest of the  
13 world. It's going to be a demonstration that resonates far  
14 beyond even this this lithium industry. It will it'll go  
15 much further than that. So I just wanted to kind of back  
16 up a little bit and high level make that point.

17 CHAIR HOCHSCHILD: Well, well said.

18 You know, I'll just maybe close by sharing a  
19 story. Noemi, and I, and Commissioner Monahan had the  
20 opportunity to visit along with a number of community  
21 groups, a high school in Calexico last week where there was  
22 an amazing teacher who was teaching the kids how to build  
23 and then take apart an electric car. And they were so  
24 excited. They were so passionate about this. And they saw  
25 the future and they know what's possible. And somehow just

37

1 connecting this lithium economy we're building to the  
2 future of these young people, and to see them get so  
3 excited about it that really made my heartbeat stronger.  
4 And that's the vision I think we're all excited about, so.

5 I did also just want to recognize all my  
6 colleagues, in ways large and small, are advancing policies  
7 that are going to increase the demand for lithium.  
8 Commissioner McAllister with his amazing focus on building  
9 decarbonization and energy efficiency and home energy  
10 storage. And Commissioner Monahan on transportation and  
11 the Vice Chair on reliability. I mean, we increased energy  
12 storage from about 200 megawatts in 2019 to 4,500 megawatts  
13 today. That's almost entirely lithium-ion. We're on route  
14 to 15,000. By the end of the decade we're adding 1,000  
15 electric vehicles a day. Q4 adoption was almost 23 percent  
16 of electric vehicles and new vehicles bought in the last  
17 quarter. And an incredible momentum we're adding, you  
18 know, just under 1,000 home energy storage systems a week  
19 to the state. So just incredible momentum, and we want  
20 that all to be supplied by California lithium.

21 So with that let me thank Chair Paz and  
22 Assemblyman Garcia. And we'll turn now to Item 4,  
23 Information Item on the 2022 Joint Agency Staff Report on  
24 AB 8 Hydrogen Refueling Stations.

25 MS. BERNER: Good morning, Chair Hochschild, Vice

1 Chair Gunda and Commissioners McAllister and Monahan. I'm  
2 Jane Berner and I'm going to be presenting Agenda Item 4,  
3 which is an information item about a report recently  
4 prepared by California Energy Commission staff in  
5 partnership with California Air Resources Board staff about  
6 the progress in deploying hydrogen refueling stations in  
7 California. This is an annual report that we prepare as  
8 directed by Assembly Bill 8 of 2013. And the 2022 report  
9 was just released last month. Next slide, please.

10           The state's efforts to electrify the  
11 transportation sector are aimed at reducing greenhouse  
12 gases that cause climate change and reducing air pollution  
13 to improve air quality. To electrify the transportation  
14 sector, the CEC supports zero emission vehicle  
15 infrastructure in the forms of electric vehicle charging  
16 stations, and hydrogen refueling stations. This  
17 infrastructure enables Californians to drive better  
18 electric vehicles and fuel cell electric vehicles. And the  
19 joint agency staff report on assembly bill eight focuses on  
20 the hydrogen refueling station piece of this transportation  
21 electrification puzzle. Next slide, please.

22           The CEC has supported hydrogen refueling station  
23 development, mainly through the funding from the Clean  
24 Transportation Program. That program was established in  
25 2007. And Assembly Bill 8 directed the CEC to allocate \$20



1 million annually from the program towards hydrogen  
2 refueling stations until there are at least 100 publicly  
3 available stations in California. Next slide, please.

4 Assembly Bill 8 actually requires two annual  
5 reports: one that's prepared and released by CARB each  
6 summer, and then the joint report that I'm discussing here  
7 today that we prepare together in the winter.

8 In the summer report, CARB reports on results  
9 from annual surveys it conducts with automakers about the  
10 expected rollout of fuel cell electric vehicles and years  
11 ahead. And we use that information in the joint report to  
12 assess how well the refueling infrastructure is keeping up  
13 with vehicle deployment. Next slide, please.

14 So California has several goals related to the  
15 advancement of transportation electrification, which  
16 includes reaching 200 hydrogen refueling stations by 2025.  
17 And these fueling stations will help California transition  
18 to the future envisioned and Governor Newsom's executive  
19 order N.79.20, in which 100 percent of new passenger  
20 vehicle sales should be zero emission by 2035, and medium  
21 and heavy-duty trucks and buses also be zero emission as  
22 feasible by 2045. Next slide, please.

23 So we're making good progress towards these  
24 goals. There are 175 hydrogen refueling stations planned  
25 in California, 7 of which are entirely privately funded

1 outside of any CEC grant agreement. All 175 stations are  
2 designed to be publicly available. And as of the cutoff  
3 date we had for the report, 62 stations have been completed  
4 and opened to the public.

5 We currently have an open solicitation to support  
6 additional hydrogen refueling stations. And with those  
7 stations that we expect to fund there, we anticipate having  
8 200 stations funded with the state contributing \$279  
9 million total. Next slide, please.

10 In the joint report, we include maps of the  
11 hydrogen refueling network, showing where the open stations  
12 and the planned stations are located within the state.  
13 Most stations are in the state's largest urban areas, which  
14 are of course the greater Los Angeles area, shown in the  
15 inset map "A" on the slide and also the San Francisco Bay  
16 area shown in the map labeled "F". A goal of the new  
17 solicitation is to try to bring hydrogen fueling to areas  
18 of California currently without a station.

19 And CARB staff assist us in evaluating station  
20 coverage in terms of how many people can access stations  
21 within a reasonable drive time. In this map, coverage is  
22 represented as a heat map with blue meaning the location  
23 has relatively poor access to a station and turning to  
24 yellow, orange and red, as access to stations becomes  
25 better. In separate maps, we also show the station

1 coverage in relation to areas designated as disadvantaged  
2 communities. Looking at all planned stations with known  
3 addresses, 62 percent of the disadvantaged community  
4 population and 59 percent of the general population of  
5 California are within a 15-minute drive -- driving distance  
6 of one station.

7           So we also report on station capacity, meaning  
8 how much hydrogen a station can dispense daily and how many  
9 fuel cell vehicles those stations can support. Next slide,  
10 please.

11           So here's an overview of fueling capacity that we  
12 provide in the report. The stations that have reached open  
13 retail status can support nearly 51,000 vehicles. And when  
14 all 175 planned stations have opened, the network should be  
15 able to serve about 238,000 vehicles. And then the  
16 estimated 200 station network we anticipate being able to  
17 support 274,000 vehicles. Next slide, please.

18           So the report evaluates station capacity in  
19 relation to fuel cell electric vehicle deployment. As of  
20 September 30, 2022, there were 12,169 fuel cell electric  
21 vehicles estimated on California's roads, indicating that  
22 the stations opened today should be able to meet the  
23 fueling needs of these vehicles and allow for continued  
24 growth.

25           The survey of automakers that CARB does, is

1 translated into a projected number of fuel cell electric  
2 vehicles expected each year. And the latest estimates are  
3 34,500 vehicles by 2025, and 65,600 by 2028.

4 Just looking at these numbers, the plan station  
5 network should have more than sufficient capacity to meet  
6 the fueling needs of the anticipated number of fuel  
7 electric vehicles in coming years. However, we know we  
8 need to work on bringing stations to more areas across the  
9 state. And we also know that stations do not always  
10 operate at capacity. In the report, we discussed several  
11 barriers that have prevented stations from reliably  
12 operating including fuel shortages and shortages of  
13 replacement parts for station equipment. And staff plans  
14 to continue studying these barriers and engage interested  
15 parties in finding solutions to improve station operations.  
16 Next slide, please.

17 Staff tracks station development time also in  
18 the report, across four phases. Phase 1 being the time to  
19 file the initial permit application. Phase 2 being the  
20 time from filing to receiving building permits. Phase 3  
21 being the construction period. And Phase 4 being the final  
22 stage of going through testing to become open retail.

23 We studied development time according to the  
24 solicitation under which the station was funded. The  
25 earliest stations being funded in 2010, shown in the

1 leftmost bars in the orange color, and the newest funded  
2 stations were in 2019 shown in the rightmost bars in  
3 purple.

4           And the good news is with each solicitation, we  
5 have seen individual stations move faster through all the  
6 phases, resulting in a lower minimum development time.  
7 However, we still see a large range between the minimum and  
8 maximum station development times, and we have yet to see a  
9 station complete all phases in less than a year.

10           Recently, the COVID 19 pandemic has slowed many  
11 station development activities. And most recently,  
12 inflation has led to delays and subcontracting as station  
13 developers try to find lower cost options.

14           Because most stations under the 2019 funding have  
15 not finished all phases. The purple bars will continue to  
16 grow taller as stations that are progressing more slowly  
17 through the phases complete more phases. And so it's  
18 unclear at this point how much average station development  
19 time will actually improve between the 2019 stations and  
20 the earlier ones. Next slide, please.

21           The report also presents data collected from  
22 operating stations about the amount of fuel being  
23 dispensed. And CEC -- CEC staff also estimates some of the  
24 amounts for stations that do not report the data to us. As  
25 you can see from this figure there was a decrease in

1 fueling in early 2020, largely attributable to the  
2 pandemic. But fueling has fully recovered and now exceeds  
3 pre-pandemic levels at nearly 7,000 kilograms of hydrogen  
4 being dispensed on average each day.

5 CHAIR HOCHSCHILD: I'm sorry, I can't read. What  
6 is the difference between the dark blue and the light blue?

7 MS. BERNER: Yes. So the dark blue is actual  
8 reported data. The light blue with the checking is data  
9 that we've estimated from stations that aren't reporting.

10 CHAIR HOCHSCHILD: Got it, okay. Great.

11 MS. BERNER: A typical fill of a vehicle is about  
12 3 kilograms, so we can estimate that the station network is  
13 serving on average more than 2,000 vehicles per day. Next  
14 slide, please.

15 And the report also puts California's investments  
16 in an international context. In preparing the report,  
17 staff reaches out to our international counterpart  
18 counterparts to try to collect similar information about  
19 spending on stations, the number of open stations and the  
20 number of fuel cell electric vehicles deployed.

21 We collect information from the four countries  
22 believed to be making the largest investments which are:  
23 China, Germany, Japan And south Korea.

24 And while we've been unable to gather funding  
25 information from China, we know that they have made strides

1 in deploying stations and vehicles, most of their vehicles  
2 being commercial trucks. And counting just the spending  
3 from Germany, Japan, South Korea and California, the  
4 investment totals \$1.3 billion.

5 Japan And South Korea have increased their  
6 investments in the last year. And South Korea in  
7 particular has made a lot of strides in terms of opening  
8 stations and deploying vehicles.

9 While last year, we reported that on a per-  
10 capita basis California was first in terms of government  
11 spending on public hydrogen refueling stations, the data we  
12 collected this year indicates that we're now third after  
13 Japan and South Korea. However, given our open  
14 solicitation for more stations, our spending totals should  
15 increase in 2023, and we may see our position change again.  
16 Next slide, please.

17 And then, now that we've finished and published  
18 the 2022 report, in a few months we'll already begin  
19 working on the 2023 report, which is due at the end of the  
20 calendar year. As part of our report preparations, we look  
21 at if there's information we want to add or subtract or  
22 present differently in the next report. And so we always  
23 appreciate your feedback, any feedback you have in this  
24 regard.

25 And that concludes my presentation. Thank you

1 for listening for this informational item. And I'm happy  
2 to take any questions.

3 CHAIR HOCHSCHILD: Thank you.

4 We will go ahead and open it up to Commissioner  
5 discussion, starting with Commissioner Monahan.

6 COMMISSIONER MONAHAN: Well thanks, Jane, that  
7 was great.

8 And I asked Jane, actually to come and present at  
9 the business meeting because we've never done it. We do  
10 these reports every year. And I just think it's helpful to  
11 set the context for what's happening in the market in terms  
12 of the light-duty passenger vehicle market on fuel cells  
13 and hydrogen dispensing and I want to, you know, in the  
14 context of the hydrogen hub that we're trying to get in  
15 California. And I know this is something the Chair has  
16 actually really emphasized the importance of setting  
17 California in an international context.

18 And so the commitment that we are showing is  
19 rivaling the commitment of the lead countries in the world  
20 in this space. So I just want to say if we don't get a  
21 hydrogen hub it would be a travesty, because we definitely  
22 have put our money where our mouths are when it comes to  
23 building out a hydrogen infrastructure, really encouraging  
24 the OEMs, the auto manufacturers, to produce these vehicles  
25 and sell them here in California.



1           And one of the points that Jane highlighted was  
2 that our capacity is going to far exceed what the  
3 automakers are saying they're going to have by 2027. And  
4 while history is not always a guide, so far the automakers  
5 have fallen short on their deliveries to California. And I  
6 think that's just something we need to take notice of and  
7 be cognizant that we -- right now we only have two light-  
8 duty passenger vehicles on the market and we need more. We  
9 can't build the market without more.

10           I want to emphasize also what's happening in  
11 China. Those are not light-duty vehicles. Those are  
12 buses, those are trucks. And to me, that's a sign. That  
13 we don't know for sure, but I would guess they're using a  
14 lot more hydrogen than anybody else because of that. Just  
15 because they're using these vehicles that tend to travel  
16 more miles than passenger vehicles. So it's something to  
17 take notice of is what's going to happen in the medium and  
18 heavy-duty market in China. Could that -- China was a game  
19 changer, I think, when it comes to battery electric  
20 vehicles. Their light-duty sales are actually -- 25  
21 percent of their new vehicle sales are light-duty right  
22 now; 25 percent of the world's biggest car market. So that  
23 is part of the reason why prices have fallen.

24           One of the things Jane said about barriers, we  
25 want to do a workshop this year about those barriers.

1 Because we held one on charging infrastructure last year,  
2 and I think this year we'll do something similar in  
3 charging and for hydrogen, because station deployment is  
4 not the only barrier. There's an experience that customers  
5 are having where they have to wait in queues. There's no  
6 hydrogen. The station is down, because in the supply chain  
7 -- means that they -- it might be down for a long time. So  
8 there's some real barriers to a positive customer  
9 experience that we need to work more holistically than just  
10 station deployment in overcoming.

11 CHAIR HOCHSCHILD: Okay. Commissioner comments,  
12 Vice Chair Gunda?

13 VICE CHAIR GUNDA: Yes, Chair.

14 First of all, Jane, thank you for the  
15 presentation. But also all the work that you've done on  
16 the IEPR hydrogen chapter, I think it's really helpful.  
17 This particular item being on the informational agenda was  
18 really helpful. Thanks, Commissioner Monahan. I think  
19 it's -- those of us who are not directly working in the  
20 hydrogen vehicle space and on stations, it's really helpful  
21 to engage stakeholders in a more thoughtful manner when we  
22 get this kind of overview.

23 So I think my kind of high-level question, you  
24 know, we can follow up on this, is just the idea of given  
25 that we are trying to both balance making sure that

1 hydrogen is in fuel use, right, and we want to have  
2 hydrogen fuel use, but also trying to create drivers for  
3 markets, right? I mean, I think it's a tough balance on  
4 how you invest the dollars, where you invest the dollars.  
5 I think I welcome a conversation on that either as an  
6 agenda item or a briefing on how we're thinking about that  
7 particular attention.

8 I mean, I think most of the stakeholder meetings  
9 I've had is all around that. It's really a chicken and the  
10 egg problem, right. So I would love and welcome thoughts  
11 on that today or some other time, but truly thankful.  
12 Thank you.

13 CHAIR HOCHSCHILD: I had a question for you,  
14 Jane. Again, thank you for the presentation. Do we  
15 maintain metrics on uptime of the stations and if so can  
16 you share a little bit on that? I'm sorry, I missed that  
17 in your presentation.

18 MS. BERNER: Yeah, so we do present -- we have  
19 some information on that. There is a reporting system that  
20 stations report to for -- to say if they're up or down.  
21 And that's a public facing information actually, so that  
22 drivers can know if the station they want to go to is up or  
23 down.

24 It is a bit challenging to compile into larger  
25 statistics, because sometimes that up and down is frequent.

1 But we do know that certain stations have fallen into a  
2 case where they've been non-operational for months. And so  
3 they actually kind of get put into a special status. So  
4 there's a handful of stations like that, that have been  
5 down for a long period of time and are in the process of  
6 trying to come back up.

7 CHAIR HOCHSCHILD: And typically the root cause  
8 is what, when that's happening?

9 MS. BERNER: Right, so with particular stations  
10 it usually has something to do with the station equipment,  
11 not being able to repair something at the station. We have  
12 had incidents of fuel shortages, but generally that mostly  
13 tends to affect more the whole network at a period of time  
14 and then it resolves. But for stations that are down -- at  
15 particular stations down for long periods of time, it  
16 usually is some kind of repair that's needed.

17 CHAIR HOCHSCHILD: All right. Okay, thank you.  
18 Unless there's other comments, thank you, Jane.

19 And we'll turn now to Item 5, Information on Zero  
20 Emission Vehicle Infrastructure Plan. I should say just  
21 this item and the previous one are non-voting items, so  
22 comment on those items will be taken at Item 22 at the end  
23 of the meeting. So we'll turn to Item 5. Thank Lopez,  
24 welcome.

25 MS. LOPEZ: Good morning. Good morning, Chair,

1 Vice Chair and Commissioners. My name is Thanh Lopez,  
2 staff in the Fuels and Transportation Division. Today I'll  
3 be providing a brief overview and highlights of the Zero  
4 Emission Vehicle Infrastructure Plan or the ZIP. Next  
5 slide, please.

6           The transportation sector is responsible for  
7 approximately 50 percent of statewide greenhouse gas  
8 emissions. Reducing air pollution from the transportation  
9 sector is critical to reducing negative impacts to public  
10 health and the environment. California has set goals of  
11 high levels of zero emission vehicle adoption across light,  
12 medium, heavy-duty and off-road sectors to enable a cleaner  
13 healthier transportation system.

14           Deployment of zero emission vehicle charging and  
15 hydrogen fueling infrastructure are critical to meeting  
16 California's clean transportation goals. The Governor's  
17 Office of Business and Economic Development or GO-Biz  
18 worked with several agencies to develop the California zero  
19 emission vehicle market development strategy. This  
20 strategy lays out the overall strategy to meet California  
21 ZEV goals with the primary goal of large scale, affordable  
22 and equitable ZEV market development.

23           The strategy is organized around four core  
24 pillars: vehicles, infrastructure, and users, and  
25 workforce. Each pillar is important to building the ZEV

1 market. The ZIP supports an integrated state strategy and  
2 provides a fuller description of that infrastructure pillar  
3 and supports the core principles spelled out in the ZEV  
4 Market Development Strategy.

5           The ZIP focuses on what California has done and  
6 will do in the near and longer term to support both ZEV  
7 charging and hydrogen fueling infrastructure deployment.  
8 In supporting the strategy, the ZIP will provide benefits  
9 to Californians including improved air quality, reduced  
10 greenhouse gas emissions, robust access to, and investments  
11 in clean transportation, and expanding workforce  
12 opportunities for priority communities. Next slide,  
13 please.

14           This report was a result of coordination with  
15 various state agencies across the across the state on the  
16 screen shown here. This coordination is crucial to ensure  
17 that each program is complementary, ensures strategic use  
18 of state funds and maximizes benefits to all Californians.

19           Several public workshops were held during the  
20 development of the report to obtain stakeholder feedback on  
21 the purpose and vision of the document. The published  
22 Draft ZIP was presented at several workshops and meetings  
23 to present findings and gather stakeholder feedback to  
24 incorporate in the final version.

25           Each agency plays a crucial role in the

1 deployment of ZEV infrastructure across the state, and the  
2 ZIP captures efforts made by each agency. This is really  
3 the first time we've collected ZEV infrastructure  
4 deployment efforts across different agencies and summed  
5 them up in one report. This includes funding information  
6 from state programs, state budgets, utility authorized  
7 programs, and known private sector actions. The ZIP is  
8 intended to support decision making by state agencies and  
9 stakeholders by showing where ZEV infrastructure  
10 investments are going and where the state is headed. Next  
11 slide, please.

12 California is undertaking grid and transmission  
13 planning to account for increasing electrification of our  
14 building and transportation sectors.

15 New electric load from electric vehicles has  
16 steadily increased in recent years. However, a recent  
17 planning scenario adopted by the CEC in May 2022 showed  
18 that in 2030, demand from light-duty and medium and heavy-  
19 duty vehicles may only account for less than 5 percent of  
20 total system electric load during peak hours.

21 The state will continue to examine the  
22 distribution system to understand distribution impacts and  
23 needs and look at ways to improve distribution planning,  
24 including charging infrastructure forecasting to support a  
25 cost effective and widespread transportation

1 electrification.

2           The CEC is working on developing a tool to  
3 understand existing grid conditions and capacity that could  
4 potentially help utility and grid planners to identify  
5 locations where grid upgrades may be required to support  
6 high charging demand.

7           The CPUC is overseeing the investor-owned  
8 utilities plans to upgrade the distribution grid to meet  
9 the new load EV charging will create. The CPUC's  
10 Integrated Resources Planning Proceeding, which ensures  
11 sufficient electric generation and transmission capacity to  
12 meet reliability and greenhouse gas reduction goals, is  
13 planning for increasingly high penetrations of electric  
14 vehicles to guide procurement and infrastructure decisions.

15           Ongoing analysis planning and investments will be  
16 needed to ensure the grid is prepared. State agencies and  
17 policymakers are implementing policies to encourage grid  
18 friendly load growth, including time of use rates, storage,  
19 and vehicle to grid integration. Next slide, please.

20           The state is working together to ramp up efforts  
21 to ensure we meet the scale of the challenge. The state  
22 saw nearly 1.4 million ZEVs sold cumulatively in California  
23 last year with ZEVs reaching nearly 19 percent of all new  
24 car sales in 2022. Vehicle projections project up to 8  
25 million light-duty ZEVs and up to 180,000 medium and heavy-



1 duty ZEVs by 2030.

2           The CEC's Assembly Bill 2127 analysis estimates  
3 about 1.2 million chargers for light-duty, and 157,000  
4 chargers for medium and heavy-duty vehicles needed by 2030.  
5 I will note that these infrastructure figures are two years  
6 old, and we are anticipating an updated staff draft of the  
7 Assembly Bill 2127 report coming this spring. The report  
8 will provide updated figures with improved modeling efforts  
9 and updated assumptions.

10           In addition to funding infrastructure, many  
11 complementary efforts are happening to help the state  
12 rapidly deploy infrastructure. GO-Biz has played a large  
13 role in helping to streamline permitting efforts across the  
14 state. To date, over 44 percent of cities and counties in  
15 California have a streamline EV charging station permitting  
16 process and another 22 percent are in the process of  
17 streamlining their EV permitting process.

18           The CPUC is working to improve interconnection  
19 times with the investor owned utilities. The CPUC recently  
20 established a 125-business day average service energization  
21 timeline that utilities must meet. The utilities must also  
22 make the energization process more understandable and  
23 transparent to customers and gather data to help understand  
24 any bottlenecks in the process.

25           The California Building Standards Commission and

1 Housing and Community Development are considering  
2 additional measures for EV charging in the next round of  
3 building code updates. The most recent code included a  
4 section on future EV infrastructure for medium and heavy-  
5 duty EVs at locations such as warehouses, grocery stores,  
6 and retail centers.

7           And finally ensuring California has a reliable  
8 charging and hydrogen fueling network. Assembly Bill 2061  
9 requires the CEC, in consultation with the CPUC, to develop  
10 uptime recordkeeping and record -- and reporting standards  
11 for charging stations by January 1, 2024. The CEC has  
12 already started requiring uptime requirements in some of  
13 the most recently released solicitations and will continue  
14 to look at ways to assess the health of the network. Next  
15 slide, please.

16           The ZIP also acknowledges the role the private  
17 sector has played. Private funding has been critical to  
18 developing the existing ZEV infrastructure network and is  
19 anticipated to play a large role in the future.

20           Here you'll see a graph showing cumulative  
21 private investments are increasing for public light-duty EV  
22 charging between 2011 and 2021. At the end of 2021, an  
23 estimated almost \$600 million has been invested by the  
24 private sector for public charging. Staff plans to update  
25 this in the future to include 2022 estimates.

1           The ZIP emphasizes that continued growth in  
2 private funding, as well as growth in public funding, will  
3 be needed to keep us on the pathway to success in reaching  
4 our ZEV goals. Next slide, please.

5           So continued public funding support for ZEV  
6 infrastructure and strategies discussed in the ZIP is  
7 critical to promoting those private investments. The state  
8 has allocated a historic \$10 billion in investment over  
9 five years from recent state budgets to accelerate both  
10 zero emission vehicle and infrastructure deployments.

11           The CPUC also recently adopted a five-year  
12 statewide \$1 billion transportation electrification program  
13 that complements the \$10 billion package from the state.

14           This graphic provides a visual of total funding  
15 for infrastructure by sector for the CEC's Clean  
16 Transportation Program for fiscal years 2022-'23 through  
17 '25-'26, and funding from the CPUC Statewide Transportation  
18 Electrification Program for 2025 through 2030.

19           I'll note the Clean Transportation Program's  
20 latest investment plan update contains investments across a  
21 range of zero emission vehicle fuels, technologies, and  
22 supporting activities such as manufacturing and workforce  
23 development. These investments reflect both one-time  
24 general funds from the state budget acts of 2021 and '22,  
25 as well as Clean Transportation Program funds. These

1 amounts are subject to future budget act, appropriations,  
2 and any changes will be reflected in future iterations of  
3 the Clean Transportation Program Investment Plan.

4           The Clean Transportation Program investments are  
5 in addition and complementary to federal investments  
6 through the National EV infrastructure or NEVI program, of  
7 which California's allocation is expected to be \$384  
8 million. Next slide, please.

9           There is an ongoing role for public funding and  
10 both accelerating adoption of the market and addressing  
11 equity. One of the core principles in the ZEV market  
12 development strategy is equity in every decision.

13           The state is taking steps to ensure investments  
14 benefit those in low-income and disadvantaged communities.  
15 The CEC's Clean Transportation Program seeks to invest at  
16 least 50 percent of funding to benefit low income and  
17 disadvantaged communities. The federal NEVI funding  
18 requires at least 40 percent of investment benefit  
19 disadvantaged communities. And the CPUC's recently adopted  
20 statewide program that will focus light-duty charging at or  
21 near multifamily homes, prioritizing charging  
22 infrastructure for low-income, tribal and underserved  
23 utility customers.

24           The state is also making significant investments  
25 for medium and heavy-duty ZEV infrastructure to rapidly

1 transition to most polluting vehicles to zero emissions.

2           The most recent state budget act of 2022 included  
3 funding for equitable at-home charging for multifamily  
4 residents and priority communities. The state plans to  
5 maximize home charging to ensure that Californians have  
6 access to the least expensive and most convenient option  
7 for charging.

8           As the state continues to develop its network of  
9 fast charging, it's also important to ensure that there is  
10 convenient access to fast charging for priority  
11 populations. The CEC's most recent solicitations targeted  
12 harder to reach segments to ensure that access to charging  
13 is available to all Californians. Next slide, please.

14           In conclusion, ZEV infrastructure plays a  
15 critical role in transforming California to a clean  
16 transportation future. The state is committed to doing its  
17 part through regulation, targeted investment and continued  
18 coordination across state agencies, utilities and the  
19 private market. For next steps, the ZIP is intended to be  
20 updated every two years, so the next update will be in  
21 2024.

22           Thank you for your time. This concludes my  
23 presentation. I'm happy to answer any questions you may  
24 have.

25           CHAIR HOCHSCHILD: Thank you so much, Thank.

1 That was terrific.

2 Let's go to Commissioner discussion, beginning  
3 with Commissioner Monahan.

4 COMMISSIONER MONAHAN: Well so first off, Thanh  
5 didn't mention this, but I just want to emphasize that  
6 we're not required to do this report. This is extra and it  
7 took a lot of work. So Thanh was leading this together  
8 with Madison Jarvis. I think Mike Nicholas was involved.  
9 Mark was very involved -- Mark Wenzel was very involved in  
10 this. And it really came at the request of CARB and others  
11 who wanted to see a comprehensive plan. So not just the  
12 investment plan that we have, but more comprehensively what  
13 the state is doing, what the feds are doing, how are we  
14 planning for this ambitious goal of zeroing out emissions  
15 from all transportation sources over the next 15 to 25  
16 years?

17 So it's the only place where our whole  
18 infrastructure plan exists. And it came -- despite like  
19 all the work that FTD is already doing, trying to push out  
20 all this money, doing all these extra reports, I mean it  
21 was a huge workload. So and it's going to be done again in  
22 two years. So I just want to thank the team for taking  
23 this on in recognition that, you know, this was part of  
24 this state's commitment to making sure we're really  
25 planning, we're really preparing for all these electric

1 vehicles. And I think we've focused a lot on the light-  
2 duty space, but all the medium and heavy-duty regulations,  
3 the fleet regulations that are coming into effect, are just  
4 going to necessitate planning such as we have never done  
5 before. So that was the reason this plan exists. That's  
6 why we wanted to bring it to you.

7           And, you know, there's going to be more to come.  
8 And I think, Vice Chair Gunda, in terms of all the research  
9 that your team, the EAD is doing, and how we want to  
10 integrate that into future iterations to really ensure that  
11 we're thinking about the grid. We're attentive to the  
12 grid. And we're doing all we can to accelerate progress.

13           CHAIR HOCHSCHILD: Yeah, Vice Chair Gunda?

14           VICE CHAIR GUNDA: Yes, I just wanted to  
15 recognize, that was an excellent presentation.

16           And I also want to lend support to what  
17 Commissioner Monahan just mentioned. I think to me, one of  
18 the critical roles of CEC is to help guide transparency in  
19 public discussion and develop the policy ideation in a  
20 neutral venue. It all starts with reports like this that  
21 just brings all the information into one place and helps  
22 inform the public for an educated robust discussion. So I  
23 just wanted to acknowledge the work that you guys have done  
24 outside the requirements and how important and foundational  
25 it is for the kind of agency we have to grow into moving

62

1 forward through this transition. So thanks again.

2           And also I welcome Commissioner Monahan's  
3 comments on just integrating the work across energy  
4 planning, you know. So much of the future work is going to  
5 be around electrification and understanding the impact of  
6 the electrification loads on the grid. And how do you make  
7 sure that we understand it from a grid planning  
8 perspective, but also interconnecting from a  
9 decarbonization standpoint. So I think this is excellent,  
10 great work, look forward to continuing our collaboration.  
11 Thank you.

12           CHAIR HOCHSCHILD: Thank you, Vice Chair.  
13           Commissioner McAllister.

14           COMMISSIONER MCALLISTER: Thanks for the  
15 presentation. I just agree with all the integration.

16           I think we're actually -- we're building that  
17 into our DNA. And it's really exciting actually where  
18 these cross-pollinations across what used to be kind of  
19 policy silos. And really we're breaking those down and  
20 really appreciate all the effort. It takes a lot of  
21 intentionality to do that. And it creates -- it isn't just  
22 sort of linear, it actually creates a lot more work on the  
23 front end to do that. So I just want to recognize staff,  
24 really across all the divisions. But in this case thanks  
25 for the presentation, and all of that emphasis.



1 CHAIR HOCHSCHILD: Commissioner Monahan?

2 COMMISSIONER MONAHAN: And I also wanted to  
3 emphasize some of the upcoming and current solicitations  
4 that are pretty exciting, that are building off of Thanh's  
5 ZIP.

6 So we just announced the start of our CaleVIP  
7 2.0. So that's our big block grant program. It just got  
8 kicked off I think yesterday. So we're excited about that.  
9 It's not first come first serve anymore. And we're trying  
10 to apply lessons learned to really make sure that we can  
11 accelerate progress on that.

12 And there's a bunch of new solicitations under  
13 development, one for municipal fleets, one for multifamily  
14 housing called REACH 2.0, which is such a great acronym.  
15 One for DC fast charging called FAST, which is going to  
16 complement the federal DC fast charging program. We're  
17 also looking at installing Level 2 chargers through a  
18 solicitation called CHiLL-2. I don't know what "CHiLL"  
19 stands for so I'm sorry, but it's around Level 2 chargers.

20 And we're looking at the grid, potential for grid  
21 benefit through a new program called Responsive Easy  
22 Charging Products With Dynamic Signals, RDWDS, (phonetic)  
23 also a very good acronym. And so there's just a bunch of  
24 new solicitations coming to address some of the challenges  
25 that we're facing in terms of ensuring this is an equitable

64

1 transition, ensuring we're doing all we can to benefit the  
2 grid. So I just wanted to highlight some of those  
3 solicitations that are going to be coming forward.

4 CHAIR HOCHSCHILD: So yeah, Vice Chair, please.

5 VICE CHAIR GUNDA: Yeah, Commissioner Monahan,  
6 thanks for raising that. I think I want to use this  
7 opportunity to request all the Commissioners to be a part  
8 of, you know, the DEBA conversation, the Distributed Energy  
9 Assets Program. We have a workshop coming on Friday. But  
10 I think if you're able to make it, or if not somebody from  
11 the top leadership, to really help understand some of the  
12 best practices on moving the money quickly, but having real  
13 impact. And also leveraging the money in programs that  
14 you're doing both on the building integration side,  
15 transportation side. Because I think broadly, whether  
16 we're talking about reliability, group planning, energy  
17 transition, the focal areas are very similar. And the  
18 challenges are very similar, right. So I mean, it's a  
19 planning issue. It's just the interconnection issue of  
20 bringing resources online or the supply chain issue.

21 So no matter what we do there are some lessons on  
22 standardization, cross pollination, and with the continued  
23 theme of what Commissioner McAllister saying and really  
24 trying to integrate. Given our BKA assignments it's  
25 oftentimes hard for us to have a conversation separately

65

1 offline. So it will be really helpful if you can put staff  
2 that you are comfortable in leading those conversations and  
3 really raising your point of view in those in those  
4 important discussions.

5 I just wanted to welcome that. Thanks.

6 CHAIR HOCHSCHILD: Thank you, Vice Chair.

7 And thank you again to Commissioner Monahan, for  
8 your terrific leadership on this issue, and Hannon Rasool  
9 and the whole team, Thank, and your colleagues.

10 With that we'll turn now to Item 6, California  
11 Energy Demand 2022 through 2035 Forecast of Electricity  
12 Consumption. I welcome Nick Fugate.

13 MR. FUGATE: Good morning, Commissioners. I'm  
14 Nick Fugate. I'm with the CEC's Energy Assessments  
15 Division. And I'm here today to propose adoption of the  
16 California Energy Demand Forecast Update, for years 2022 to  
17 2035. I have a brief presentation covering the purpose of  
18 the forecast, a recap of our process this year, notable  
19 changes that we've made, as well as some high-level  
20 results. Next slide, please.

21 Demand forecasting is one of the Energy  
22 Commission's charter responsibilities. And if adopted  
23 today, this forecast will be incorporated into the 2022  
24 IEPR Update. The demand forecast is also a critical  
25 planning tool that lays the foundation for a number of

1 state-sponsored planning and procurement efforts, including  
2 transmission and distribution planning, integrated resource  
3 planning, resource adequacy, and other activities aimed at  
4 keeping California's energy clean, affordable, and  
5 reliable. Next slide, please.

6 We refresh the CEC's forecast every year vetting  
7 it within the CEC's annual IEPR proceeding.

8 In 2022 we held a number of demand analysis  
9 working group meetings to present and solicit stakeholder  
10 feedback on our inputs and assumptions, on proposed  
11 methodological changes, and on specific draft results.

12 We also held to IPER workshops to present our  
13 forecast results.

14 And we routinely engage with JASC. This is a  
15 working group intended to promote coordination between the  
16 IPER forecast and its dependent processes at the CPUC and  
17 ISO.

18 And as a consequence of that JASC coordination,  
19 there is an agreement between leadership at the Energy  
20 Commission, the Public Utilities Commission and the  
21 California ISO, referred to as the Single Forecast Set  
22 Agreement. Which describes the current commitments at each  
23 organization to use a particular combination of forecast  
24 products for particular planning purposes. For the sake of  
25 transparency, that agreement has been updated and will be

1 memorialized within the forecast chapter of the 2022 IEPR.  
2 Next slide, please.

3           2022 was an update cycle. And often in an update  
4 year we limit the scope of our analysis to consider only  
5 the additional historical data available to us, as well as  
6 refreshed economic, demographic, and rate projections.  
7 This cycle, however, our update was a little more  
8 ambitious. We revised our additional achievable fuel  
9 substitution analysis to include for select scenarios, the  
10 potential impact of CARB's State Implementation Plan, zero  
11 emission space water and -- sorry, space and water heating  
12 measure.

13           We also developed a new scenario framework for  
14 assessing potential policy and programmatic impacts around  
15 transportation electrification. We call these scenarios  
16 "additional achievable transportation electrification" and  
17 they reflect impacts from policies such as CARB's Advanced  
18 Clean Cars II and Advanced Clean Fleet Regulations.

19           Finally, we introduced a new general forecast  
20 scenario framework recognizing that the greatest drivers of  
21 uncertainty in the demand forecast right now revolve around  
22 the state's decarbonization strategies. We opted to focus  
23 the bulk of our analytic efforts on developing scenarios  
24 around those strategies rather than developing economic and  
25 demographic scenarios. So while previous forecast vintages

1 included a high, mid, and low baseline scenario, the 2022  
2 update includes only one baseline scenario and an expanded  
3 set of additional achievable scenarios, which I just  
4 described.

5 We've also adopted a more descriptive naming  
6 convention for the particular demand scenarios that are  
7 used in electricity resource and system studies. Next  
8 slide, please.

9 So to illustrate this framework I'm showing here  
10 the two demand scenarios we highlighted throughout our  
11 forecast development process this year. The planning  
12 scenario is similar to what would have been referred to as  
13 our mid-mid managed forecast from the 2021 IEPR cycle.  
14 This is the scenario that is used in a number of planning  
15 processes, notably system RA, the CPUCs integrated resource  
16 planning, and the ISO's TPP Bulk System Studies. The  
17 planning scenario combines our base line forecasts with  
18 mid-range assumptions around additional achievable  
19 efficiency, fuel substitution, and transportation  
20 electrification.

21 The second scenario is what we're calling our  
22 Local Reliability scenario. This is comparable to what had  
23 previously been referred to as our mid-low forecast and  
24 it's intended for use in TPP and RA local capacity studies.  
25 Allocating broad regional additional achievable impacts to

1 specific local areas adds another layer of uncertainty to  
2 the forecast. And so for this scenario we err on the side  
3 of higher load, with more conservative assumptions around  
4 efficiency and more optimistic assumptions around fuel  
5 substitution. Next slide, please.

6 This plot shows our forecast of statewide  
7 electricity sales for the two scenarios I just described.  
8 The mid-mid forecast adopted last year is also included  
9 just as a point of comparison. The difference between the  
10 planning scenario and the previously adopted mid-mid  
11 scenario is almost entirely attributable to additional  
12 achievable transportation electrification, which adds more  
13 than 20,000 gigawatt hours to electricity sales by 2035.

14 The more conservative efficiency assumptions and  
15 more aggressive fuel substitution assumptions embedded in  
16 the local reliability scenario, combined to further  
17 increase sales by more than 30,000 gigawatt hours by 2035.

18 And the planning scenario, just for the record,  
19 grows at a rate of 1.5 percent annually, which is notably  
20 higher than the 1 percent annual growth reflected in the  
21 previously adopted mid-mid forecast. Next slide, please.

22 This plot shows our annual peak forecast for the  
23 CAISO control area, and for the same scenarios I discussed  
24 on the previous slide.

25 Both the planning and local reliability scenarios

1 begin from a weather normalized estimate of 2022 peak, load  
2 which is relatively close to our previous forecast -- peak  
3 forecast for year 2022.

4           And the story is similar to the sales forecast.  
5 Transportation electrification adds nearly 2,700 megawatts  
6 to the planning scenario by 2035 relative to the previously  
7 adopted mid-mid forecast. This increases the annual growth  
8 rate to about 1.3 percent.

9           And in the local reliability scenario, reduced  
10 efficiency and increased fuel substitution again combined  
11 to add 4,000 megawatts to the 2035 peak load relative to  
12 the planning scenario.

13           These are of course high-level results. The  
14 forecast update was presented and discussed in much greater  
15 detail at various workshops last year with final overall  
16 results presented at an IEPR workshop on December 16th.  
17 And final detailed results have also been docketed and  
18 posted to our IEPR website. Next slide, please.

19           And just quickly before closing, I do want to  
20 take a moment just to offer my thanks specifically to our  
21 colleagues at the CPUC and ISO. As well as all of our  
22 other stakeholders who took the time to participate in  
23 workshops and DAWG meetings, review our presentations and  
24 results, and provide valuable feedback. Also thanks to the  
25 numerous staff contributors across the CEC's entire Energy



1 Assessments Division. And of course, my thanks to the IEPR  
2 team for their incredible support.

3 And with that I'll conclude my presentation by  
4 recommending that the Energy Commission adopt the  
5 California Energy Demand 2022 to 2035 Forecast.

6 CHAIR HOCHSCHILD: Thank you so much, Nick.

7 We'll turn now to public comment on Item 6.  
8 Madam Public Advisor, do we have any public comments on  
9 this item?

10 MS. BADIE: Thank you. If you want to make a  
11 comment on this item, the Demand Forecast, and you're in  
12 the room, please sign up at the table in the back or use  
13 the QR code at the back table.

14 If you want to make a comment on this item and  
15 you are on Zoom, please use the raise hand feature that  
16 looks like an open palm. And if joining by phone, please  
17 press \*9 to raise your hand and \*6 to mute and unmute when  
18 instructed.

19 If you do have your hand raised on Zoom, or phone  
20 and you're not commenting on Item 6, we ask that you lower  
21 your hand and wait for your item or comment during the open  
22 comment period, which will be later on in the agenda. And  
23 we'll announce that when it's time.

24 Okay, we don't have anyone in the room, so I'm  
25 going to turn to zoom now. And we have Teresa Cooke,

1 California Hydrogen Coalition. Teresa, you can unmute and  
2 make your comment, please.

3 MS. COOKE: Hi, there. Can you hear me?

4 CHAIR HOCHSCHILD: Yes, we can.

5 MS. COOKE: Okay, good. Thank you. Good after -  
6 - no, still good morning, Chair and Members. Teresa Cooke  
7 here today on behalf of the California Hydrogen Coalition  
8 and the California Hydrogen Business Council.

9 I am commenting in regard to Item number, I think  
10 it was 3 [sic: 4] of the AB 8 report that the ARB and CEC  
11 provide. I want to thank the Commissioners for their  
12 feedback and comment to the really great presentation that  
13 Jane did. As a follow up to the comment that Commissioner  
14 Monahan mentioned I do want to point out that while  
15 automakers have not brought the requisite number of  
16 vehicles to market, the state has also failed to develop  
17 the requisite number of stations. So those two things, as  
18 Commissioner Gunda noted, kind of go hand in hand.

19 I think it's important to recognize that Honda's  
20 second generation fuel cell electric vehicle has been  
21 announced as well as BMW's X5. Plus acknowledging medium-  
22 duty vehicles will be utilizing what we commonly refer to  
23 as light-duty stations, so there is definitely a market and  
24 vehicles on their way.

25 As Jane noted in her report, the goals and

1 ambition of the state have changed. And so should the  
2 ambition for hydrogen stations and fuel cells' big picture  
3 in order to achieve our advanced clean cars goals. By  
4 2030, California will need to have out the door the funds  
5 necessary to support 1,000 light-duty stations. Jane's  
6 presentation also noted that despite more vehicles, we have  
7 less stations than all of our international partners who  
8 are accelerating their ambitions. And I really appreciate  
9 staff and Jane putting together that visual, comparing  
10 investments from our climate allies, versus, you know,  
11 California's investment that was really helpful.

12           Drilling down to the AB 8 report, the report  
13 acknowledges station development delays, which is why we  
14 really encourage the CEC to issue GFO dollars sooner and  
15 faster. Obviously five-year development timelines, you  
16 know, with permitting and interconnection delays are not  
17 ideal. So we need to be moving quickly.

18           The CPUC has directed utilities to interconnect  
19 charging stations in 125 days. But they rejected doing the  
20 same for hydrogen, which is unfortunate, especially  
21 considering we're talking about 200 stations. The report  
22 also acknowledges that rural communities are largely  
23 excluded from station access. We agree. It sounds like  
24 Commissioner Monahan agrees, and that's something that, you  
25 know, we'll be looking into which we look forward to.

1           And then, you know, one just sort of observation  
2 that I want -- or two more things that I want to offer.  
3 The drop in renewable hydrogen utilized for the  
4 transportation market from 92 percent in 2021, to 60  
5 percent average in 2022, has a lot to do with the  
6 instability we're experiencing over at the ARB in the LCFS  
7 program. So very grateful for the work that the ARB is  
8 trying to do at this point to stabilize that program as it  
9 has a direct impact on the renewable content of the fuel  
10 that we are using in the transportation market today.

11           And then the other thing I would offer, the  
12 hydrogen station capacity that is referenced pretty  
13 frequently is based on 100 percent utilization. I think if  
14 we were to compare hydrogen in charging stations which are  
15 about utilized at a 10 percent rate, we would find that we  
16 have enough station capacity for 9,000 vehicles not 15. So  
17 something to keep in mind.

18           Thank you for the extra couple minutes. And, you  
19 know, we appreciate the Commission's work.

20           MS. BADIE: Thank you. Next, we have DaShari  
21 Samuel. Your line has been opened. Please state and spell  
22 your name for the record your affiliation, if any, and make  
23 your comment.

24           Oh, I think we lost -- I think we lost them.

25           MR. UHLER: Hello, Commission. You've asked me

1 to unmute my microphone. My name is Steve Uhler. Are you  
2 hearing me? Am I being heard?

3 CHAIR HOCHSCHILD: Yes.

4 MR. UHLER: Okay. Again, I object to this  
5 agenda. And your learned Chief Counsel apparently has  
6 overlooked Bagley-Keene 11125.7(b) that the state may adopt  
7 reasonable regulations for your proceedings. And you've  
8 adopted those and you're ignoring them.

9 And then also, Chair, you have been suggesting  
10 that we can only talk after information items at the public  
11 comment period -- 11125.7(a) requires you offer it before  
12 or during consideration.

13 Now without waiving objections, I will go on to  
14 the demand forecast, of which apparently you just allowed  
15 somebody to comment on two agenda items before on hydrogen,  
16 which I object to you allowing that without interruption.

17 So on the demand forecast, since this is a demand  
18 forecast, and I believe pretty much everybody knows that  
19 the grid is an alternating current system demand in an  
20 alternating current system is calculated using trigonometry  
21 that produces volt amps and power factor. But to all of  
22 the items reference watts, watts is -- that's okay in a DC  
23 circuit. But you're going to get really uneven results,  
24 because you're not taking into -- consider power factor.

25 Also since this agenda item does not reference a

1 docket, your meeting page says I should expect to find all  
2 of the documents in the business meeting docket, BUS, or  
3 23-BUSMTG-01. Is this presentation what you're voting on?

4           And also it should be noted that -- take in mind  
5 that before or during the state body's consideration that  
6 before all of the items need to be posted in the docket and  
7 you have not done that. So, Chair, you're in violation of  
8 the Bagley-Keene by suggesting that we have to comment on  
9 information items after. Because Bagley-Keene cleanly  
10 states that you can only have reasonable regulations to  
11 ensure the intent of (a) of 11125.7(b) -- or 125.7 is  
12 carried out. You cannot tell us that we have to speak  
13 after the item.

14           So once again, you need to have volt amps. You  
15 need to have it everywhere in every calculation whether  
16 it's for all of your reliability -- particularly  
17 reliability. And you might want to go out and try to run  
18 the generator from a (indiscernible) --

19           CHAIR HOCHSCHILD: Sorry, Mr. Uhler, your time is  
20 up. And I'll just --

21           MR. UHLER: Okay.

22           CHAIR HOCHSCHILD: -- just say again the reason  
23 that we take public comment at the end for non-voting  
24 items, there's no action that the Commission is voting on.  
25 And that's been the case the entire 10 years I've been on

77

1 the Commission.

2 Are there any further public comments on Item 6  
3 at this time, Madam Public Advisor?

4 MS. BADIE: Yes, we have one other person by the  
5 name of Danny that has raised their hand on Zoom. Danny,  
6 your line has now been opened. Please state and spell your  
7 full name, your affiliation, if an, and make your comment.  
8 Comments are limited to three minutes.

9 MR. KENNEDY: Oh, I'm sorry. I think I raised my  
10 hand accidentally. I wanted to comment later on Item 13.

11 MS. BADIE: Okay, thank you.

12 MR. KENNEDY: Thanks for all the great work.

13 MS. BADIE: And we also have a Jeremy Smith on  
14 the line who has raised his hand. Okay, he just lowered  
15 hand. So I think we're done now, no more further public  
16 comment on this item.

17 CHAIR HOCHSCHILD: Okay, thank you.

18 We'll turn to Commissioner discussion starting  
19 with Vice Chair Gunda.

20 VICE CHAIR GUNDA: Thank you, Chair.

21 I just want to -- I think it's -- I'll take a  
22 little bit of time. I know we have a big, big agenda  
23 today. But this is just one place I really want to take a  
24 moment to thank the staff.

25 So it starts with Nick Fugate, when one of the

1 most understated and behind-the-scenes person at the  
2 Commission. So I just want to say thanks, Nick, for the  
3 incredible work that you've been doing. I've been part of  
4 tracking the demand forecasting since 2017. And the  
5 evolution of that has really taken off. The amount of work  
6 you have to do has taken off. And the amount of resources  
7 has deteriorated over the last five years. And it is  
8 extremely hard to fill jobs in this role. People who are  
9 both knowledgeable in forecasting methods, who have the  
10 commitment to go day in, day out and do the modeling  
11 improvements and run the numbers, but also willing to take  
12 a pay cut to join the Commission. So I admire your ability  
13 to stick with the lower pay than other competitors, to  
14 serve the state.

15           So with that I also want to thank a few others:  
16 Lynn Marshall, Alex Lonsdale, Kevin Key, Calvin Key, Mark  
17 Palmere, Ysbrand, Quentin Gee, Aniss Bahreinian, Bob  
18 McBride, Jesse Gage, Maggie Deng, Liz Pham, Elena Giyenko,  
19 Ingrid Nuemann, Ethan Cooper, Nick Janusch, Nancy Tran, Ken  
20 Newman, and Julianne. I mean, these are a few of the staff  
21 that we noted today. I mean, this takes a village. I  
22 mean, the demand forecasting team is about 50 people that  
23 work tirelessly over the entire year, not only in  
24 developing the analysis, gathering the data cleaning it up,  
25 but doing the stakeholder engagement that is so important

79



1 in developing such a foundational planning data set for the  
2 state. So again, just a huge thanks.

3 And I think I want to note a couple of pieces  
4 that you pointed out in the in your presentation, and I  
5 just want to elevate it again. I think that this  
6 particular forecast has taken really strong forward steps  
7 in capturing better electrification and then doing climate  
8 impacts. But also really making the forecasting not just a  
9 planning tool, but also a policy support tool, right.

10 So for a very, very long time, you know, we've  
11 been in kind of a steady state. The rate of change in this  
12 demand has not been that much. And then we were able to  
13 kind of do a steady state assessment on a few cases. But I  
14 think we are going through that inflection point and the  
15 real transition in the grid. And it's really helpful that  
16 you all are putting extra time in developing that.

17 I also want to note a big thanks to our sister  
18 agencies and the other energy entities as Delphine  
19 (indiscernible) CAISO, CPUC, but also CARB, in the  
20 presentation on the JASC. And working closely with you all  
21 to make sure that the products have good consensus and the  
22 methodologies and data we are using are generally made to  
23 have consensus.

24 And also the stakeholders, the IOUs, the  
25 (indiscernible), the vehicle manufacturers, the charging

1 station stakeholders, everybody who come together as a  
2 village to provide the data and make the modeling better.  
3 This is a true testament for CEC's public process and the  
4 way we do things and the way we are supposed to do things.  
5 And I applaud our team.

6           There are plenty of things I know you outlined in  
7 previous workshops on the improvements we could make moving  
8 forward. And I really hope that the demand forecasting set  
9 becomes more integral to the SB 100 analysis. And the  
10 demand analysis really goes into the evolution of  
11 developing scenarios through 2045, and how best to  
12 integrate them. So again, a big congratulations.

13           And I want to close with thanks to Aleecia, David  
14 Erne and Heidi, the management team (indiscernible). Thank  
15 you.

16           CHAIR HOCHSCHILD: Thank you, Vice Chair.

17           Commissioner McAllister?

18           COMMISSIONER MCALLISTER: Just quickly. So as a  
19 long-term previous Commissioner overseeing this, and now an  
20 interested observer and participant I just want to first  
21 thank Vice Chair Gunda for your leadership on this. I  
22 mean, the continuity over the over the last, what seven  
23 years or so has really been remarkable.

24           And I just kind of reiterate the thanks to all  
25 the staff and point out that this was an off year, you

1 know. And so on Tuesday the economic outlook workshop is  
2 now gearing up for the next forecast. So it's kind of a  
3 permanent revolution. And it really is a revolution,  
4 because it's an ever kind of changing and adapting and  
5 flexible. The core products, you know, maybe don't change  
6 but the overlays and the perspectives and the new lenses  
7 that we're going to need -- that we have developed in the  
8 last few years, and we're going to need going forward as we  
9 really put the pedal down on decarbonization is going to be  
10 critical. Particularly on the capacity side, just the grid  
11 -- the relevance for grid management of these products is  
12 just hard to overstate, impossible to overstate really.

13 And so this planning work is really the engine  
14 room of investments for the long term for California's  
15 decarbonization journey. And I think we just have to see  
16 it as that foundation. So you know, I have all the  
17 confidence in the team and leadership on this. So thanks  
18 for the work this year.

19 COMMISSIONER MONAHAN: I'm going to be very brief  
20 and just say -- I mean, it's now my third year on the  
21 Commission. So I'm no longer very new. And I have --  
22 every year I've had a growing appreciation for the work  
23 that EAD does. And the demand forecast and how  
24 sophisticated it is and how critical it is to grid  
25 planning. And as we electrify buildings, we electrify

1 transportation, you know, we're all coming together with  
2 intense curiosity about what the findings are going to be  
3 and what the implications are for the grid.

4           So I just want to thank the team, Vice Chair  
5 Gunda. I mean, this work has become more and more  
6 important as we plug more things into the grid and rely on  
7 that to meet our climate targets. So just thanks for the  
8 team. And thanks for all your hard work on this, and Vice  
9 Chair Gunda, for your leadership.

10           CHAIR HOCHSCHILD: I would like to associate  
11 myself with Commissioner Monahan's comments. I know how  
12 hard you work nights and weekends, and that stay in your  
13 team. And the stakes are obviously extremely high. If  
14 we're wrong on this stuff, it has big consequences. And I  
15 just want to say I have great faith in you and your  
16 abilities, Vice Chair, and your team. And Nick and all  
17 your colleagues for all the hard work. Aleecia and  
18 everyone else who's involved this, and really proud of the  
19 results. So happy to move this forward. So with that --

20           MR. FUGATE: Sorry, Chair?

21           CHAIR HOCHSCHILD: Yes. Please.

22           MR. FUGATE: I apologize, this is an awkward  
23 little note here, but may I just read something into the  
24 record?

25           CHAIR HOCHSCHILD: Absolutely, yes.

1 MR. FUGATE: So in the adoption resolution, we  
2 have an -- in the adoption resolution that was posted we  
3 noted that on January 13, 2022 we docketed a Notice of  
4 Availability for the Forecast Update. Just that should be  
5 2023, just to --

6 CHAIR HOCHSCHILD: Okay. Thank you for that.

7 With that, I'd invite a motion on Item 6 from  
8 Vice Chair Gunda.

9 VICE CHAIR GUNDA: I move Item 6.

10 CHAIR HOCHSCHILD: Commissioner McAllister, would  
11 you be willing to second it?

12 COMMISSIONER MCALLISTER: Second.

13 CHAIR HOCHSCHILD: Okay. All in favor say aye.  
14 Vice Chair Gunda.

15 VICE CHAIR GUNDA: Aye.

16 CHAIR HOCHSCHILD: Commissioner McAllister.

17 COMMISSIONER MCALLISTER: Aye.

18 CHAIR HOCHSCHILD: Commissioner Monahan.

19 COMMISSIONER MONAHAN: Aye.

20 CHAIR HOCHSCHILD: And I vote aye as well. That  
21 item passes unanimously.

22 We'll turn now to Item 7, Lafayette Backup  
23 Generating Facility.

24 MS. DYER: Good morning, Chair and Commissioners.  
25 I'm Deborah Dyer with the Chief Counsel's Office and I'm

1 appearing today as Hearing Officer for the Lafayette  
2 proceeding, which was initiated to review Digital Realty's  
3 application for a Small Power Plant Exemption, which is  
4 also known as an SPPE, for the Lafayette Backup Generating  
5 Facility.

6 Before you today is Applicant's motion to  
7 dissolve the committee that the Commission previously  
8 appointed to preside over the Lafayette proceeding.

9 Under the Lafayette Committee's direction, I  
10 submitted a proposed order for your consideration that  
11 recommends that the Energy Commission grant Applicant's  
12 motion and dissolve the Lafayette Committee, because it no  
13 longer has a role under updated SPPE regulations that took  
14 place on December 14th, 2022. Next slide, please.

15 Applicant's proposed project, the Lafayette Data  
16 Center, is a multi-story data center located at 2825  
17 Lafayette Drive, Santa Clara, California, the primary  
18 purpose of which is to house computer servers in a secure  
19 and environmentally controlled structure. The project  
20 includes not only the data center, but also a backup  
21 generating facility, which would consist of 44 3-megawatt  
22 diesel-fired generators and a single 1-megawatt diesel-  
23 fired generator.

24 The Warren-Alquist Act grants the Energy  
25 Commission the exclusive authority to certify the

1 construction and operation of thermal power plants that  
2 have the capacity to generate 50 megawatts or more of  
3 electricity. The Warren-Alquist Act also gives the Energy  
4 Commission the authority to grant an exemption to its  
5 certification's justification -- jurisdiction for thermal  
6 power plants with a generating facility between 50 and 100  
7 megawatts, with a Small Power Plant Exemption.

8           The granting of an SPPE does not approve the  
9 construction or operation of any project. It merely grants  
10 an exemption from the CEC's own certification process. And  
11 if the CEC ultimately decides to grant an SPPE, the project  
12 proponent must then secure the appropriate licenses and  
13 permits from the relevant local, state, and federal  
14 agencies. Next slide, please.

15           The Energy Commission adopted changes to its  
16 regulations governing SPPE proceedings, which took effect  
17 on December 14th, 2022, removing the adjudicatory processes  
18 applying to SPPEs. The requirements to appoint committees  
19 for holding evidentiary hearings and issuing proposed  
20 decisions were removed. And the updated regulations  
21 maintain the requirements for environmental review and  
22 public participation under the California Environmental  
23 Quality Act, also known as CEQA.

24           On December 12th, 2022, Applicant in this  
25 proceeding filed a motion to dissolve the Lafayette

1 Committee on the grounds that the new regulations in  
2 eliminating the adjudicatory process for the SPPE  
3 proceedings, have rendered the committee unnecessary. On  
4 December 16, staff filed a response concurring with  
5 Applicants' motion.

6 No further response to Applicant's motion was  
7 filed. However, on December 27, 2022, in a separate docket  
8 the one intervenor in this case, Mr. Robert Sarvey, filed a  
9 comment letter regarding the CEC's adoption of the amended  
10 SPPE regulations. And responses to Mr. Sarvey's comments  
11 are contained in the proposed order. Next slide, please.

12 After consideration of the relevant legal issues,  
13 Applicant's moving papers and staff's response the proposed  
14 order finds as follows: 1. As of their effective date of  
15 December 14, 2022, all existing SPPE proceedings were  
16 subject to, and must abide by the amended regulations. 2.  
17 The amended regulations eliminated the adjudicatory process  
18 for this proceeding. And 3. There's no need for the  
19 committee to oversee an adjudicatory process for the  
20 Commission or draft a proposed order following the hearing.  
21 The services of the committee appointed to preside over the  
22 Lafayette proceeding, including the committee's orders and  
23 rulings are no longer required or necessary. Next slide,  
24 please.

25 So the Chief Counsel's Office therefore



1 recommends that the Commission take the following actions:  
2 1. Adopt the proposed order, granting applicants motion to  
3 dissolve the committee which contains the findings outlined  
4 above. And 2. Withdraw the Lafayette proceeding from the  
5 committee, dissolve the committee, and vacate all ongoing  
6 committee orders and rulings.

7 In taking those actions, the Energy Commission  
8 remains the lead agency pursuant to both the Warren-Alquist  
9 Act and CEQA. And staff will continue to prepare the  
10 appropriate environmental documents and conduct the  
11 remaining necessary steps ultimately leading up to, and  
12 including providing a recommendation to the full  
13 Commission, which will then consider whether to grant an  
14 SPPE for the project.

15 That concludes my presentation, but I'm available  
16 to answer any questions that the Commission may have.

17 CHAIR HOCHSCHILD: Thank you, so much.

18 With that, we'll go to public comment on Item 7.

19 MS. BADIE: Thank you. If you want to make a  
20 comment on Item 7 and you're in the room, please sign up at  
21 the table in the back or use the QR code on the back table.  
22 If you want to make a comment on Item 7 and you are on  
23 Zoom, please use the "raise hand" feature that looks like  
24 an open palm, and if joining by phone press \*9 to raise  
25 your hand and \*6 to mute and unmute when instructed.

1           Going to our queue for in room we have Scott  
2 Galati, Counsel for Applicant. Please approach the podium.  
3 Please state and spell your full name. Thank you.

4           MR. GALATI: Good afternoon, Scott Galati, G-A-L-  
5 A-T-I. Thank you, Chair and Members of the Commission for  
6 taking this. Sorry to take your time doing this, but I  
7 think this was the way that we need it to done.

8           I just wanted to remind the Commission that  
9 granting this motion and implementing your regulations will  
10 have no effect on the environmental analysis that the staff  
11 does, and no effect on the environmental protection. And I  
12 truly believe that.

13           Staff has been working on data centers for quite  
14 some time. They've been working closely with the cities  
15 and the other agencies. And quite frankly, Applicants have  
16 been working with the staff as well.

17           I also wanted to let you know, just one item,  
18 just because I'm not going to be able to see you again on  
19 individual projects. But for data centers as a whole, just  
20 to remind you every data center application in front of the  
21 Energy Commission right now is proposing to use renewable  
22 diesel as its primary fuel. It still needs to have a  
23 condition and the ability to use CARB diesel if there is an  
24 emergency in the supply chain problem. Anything that the  
25 Energy Commission can do to encourage that there is no

1 supply chain problem will ensure that the projects use  
2 renewable diesels for all of their testing, maintenance,  
3 and during an emergency.

4 So thank you very much for considering this. We  
5 ask that you adopt the motion, and then you guys can  
6 continue on with your other work, which is more important  
7 than overseeing a committee for data centers. Thank you.

8 CHAIR HOCHSCHILD: Thank you.

9 MS. BADIE: There's no one else in the room, so  
10 we're turning to Zoom and I don't see any raised hands on  
11 Zoom. So back to you, Chair.

12 CHAIR HOCHSCHILD: Okay. Thank you.

13 We'll turn now to Commissioner discussion.  
14 Commissioner Monahan, you wanted to -- and I'm in full  
15 support, Commissioner.

16 Yeah, Commissioner McAllister?

17 COMMISSIONER MCALLISTER: Good enough.

18 CHAIR HOCHSCHILD: Okay. Unless there's --

19 COMMISSIONER MCALLISTER: I'll move this item.

20 CHAIR HOCHSCHILD: That would be great, thank  
21 you, Commissioner McAllister. Would you be willing to  
22 second?

23 VICE CHAIR GUNDA: I second.

24 CHAIR HOCHSCHILD: Seconded by Vice Chair Gunda.  
25 All in favor say aye. Commissioner McAllister.

1 COMMISSIONER MCALLISTER: 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. Item  
7 7 passes unanimously.

8 We will now adjourn for lunch right at noon, how  
9 about that, perfect timing. And reconvene in an hour at  
10 1:00 o'clock. Thanks.

11 (Off the record at 12:01 p.m.)

12 (On the record at 1:03 p.m.)

13 CHAIR HOCHSCHILD: Welcome back, everyone. I  
14 believe we are on Item 8, STACK Backup Generating Facility.

15 MR. LEE: Good afternoon, Commissioners. I'm  
16 Ralph Lee, the Hearing Officer for the Small Power Plant  
17 Exemption proceeding, for the STACK proceeding.

18 For your consideration today is a motion filed by  
19 the Project Applicant, STACK Infrastructure, requesting to  
20 dissolve the committee that the Energy Commission  
21 previously appointed to preside over the STACK proceeding.  
22 Upon the STACK Committee's direction, I submitted a  
23 proposed order that grants the Applicant's motion. This  
24 agenda item is essentially the same as the previous agenda  
25 item regarding the Lafayette proceeding except in the STACK

1 proceeding here there are no intervenors. Next slide,  
2 please.

3 As a brief background of the application, the  
4 Project Applicant proposes to construct and operate the  
5 Trade Zone Boulevard Technology Park at 2400 Ringwood  
6 Avenue and 1849 Fortune Drive in San Jose, California.

7 The Trade Zone Boulevard Technology Park would  
8 include the SVY Data Center, the SVY Backup Generating  
9 Facility, an advanced manufacturing building, a parking  
10 garage, and related facilities.

11 The SVY Backup Generating Facility would consist  
12 of 36 3-megawatt and 3 1-megawatt diesel-fired backup  
13 generators, which would supply up to 90 megawatts  
14 exclusively to the SVY Data Center.

15 As in Lafayette, the Project Applicant here is  
16 not requesting that the Energy Commission certify the  
17 construction or operation of any project, but is asking for  
18 an exemption from the Energy Commission certification  
19 jurisdiction. This exemption is called a Small Power Plant  
20 Exemption or an SPPE for short. If the Energy Commission  
21 ultimately decides to grant an SPPE, then the Project  
22 Applicant would still need to secure the appropriate  
23 licenses and permits from the relevant local, state, and  
24 federal agencies. Next slide, please.

25 As I mentioned, amendments to the Energy

1 Commission's regulations governing Small Power Plant  
2 Exemption proceedings took effect on December 14, 2022  
3 removing the adjudicatory process that previously applied  
4 to SPPE proceedings such as the requirements to appoint a  
5 committee to hold an evidentiary hearing and to issue a  
6 proposed decision. The updated regulations do maintain the  
7 requirements for environmental review and public  
8 participation under the California Environmental Quality  
9 Act known as CEQA.

10 On December 12, 2022 the Project Applicant filed  
11 a motion seeking to dissolve the committee on grounds that  
12 the updated SPPE regulations with the elimination of the  
13 adjudicatory process for SPPE proceedings, eliminated also  
14 the role of the committee, and made the committee  
15 unnecessary.

16 On December 16<sup>h</sup>, 2022 Energy Commission staff  
17 filed a response to Applicant's motion, which agreed that  
18 the committee should be dissolved. No further response to  
19 Applicant's motion was filed. Next slide, please.

20 Following consideration of the relevant legal  
21 issues of the Project Applicant's moving papers and of  
22 staff's response thereto, the proposed order finds as  
23 follows regarding the amended SPPE regulations. As of  
24 their effective date on December 14, 2020, to all existing  
25 SPPE proceedings including the STACK proceeding were

1 subject to and must abide by the amended SPPE regulations.  
2 The amended SPPE regulations eliminated the adjudicatory  
3 process for this proceeding, and thus the services of the  
4 committee including the committee's ongoing orders and  
5 rulings, are no longer required or necessary. Next slide,  
6 please.

7           So before you now is a recommendation that the  
8 Energy Commission adopt the proposed order that was  
9 submitted as backup materials for this item that would take  
10 the following actions: Grant the Project Applicant's motion  
11 to dissolve the committee. Withdraw the STACK committee  
12 from the -- STACK proceeding from the committee. Dissolve  
13 the committee and vacate all ongoing committee rulings and  
14 orders.

15           In taking these actions, the Energy Commission  
16 remains the lead agency pursuant to both the Warren-Alquist  
17 Act and the California Environmental Quality Act.

18           Energy Commission staff will continue to prepare  
19 the appropriate environmental document and conduct the  
20 remaining steps necessary to process the review of the  
21 STACK SPPE application, ultimately leading to and including  
22 providing a recommendation to the full Energy Commission  
23 for its consideration of whether to grant a Small Power  
24 Plant Exemption.

25           This concludes my presentation and I'm available

1 to answer any questions that the Commission may have.

2 Thank you.

3 CHAIR HOCHSCHILD: Thank you so much, Ralph.

4 Let's go to public comment on Item 8.

5 MS. BADIE: Thank you. The CEC will now take  
6 public comment on Item 8, STACK Generating Facility. If  
7 you want to make a comment on this item and you're in the  
8 room, please sign up at the table in the back or using the  
9 QR code on the back table. If you want to make a comment  
10 on this item, and you are on Zoom please raise your hand  
11 now. It's the feature that looks like an open palm. And  
12 if you're joining us by phone, press \*9 to raise your hand  
13 and \*6 to mute and unmute when instructed.

14 We have Scott Galati, Counsel for Applicant on  
15 the in-person list, but I'm also seeing his hand raised on  
16 Zoom. And he is the only hand raised on Zoom, so let me go  
17 to Mr. Galati.

18 Mr. Galati, your line has been opened. Please  
19 state and spell your first and last name and your  
20 affiliation, if any, and make your comment.

21 MR. GALATI: My name is Scott Galati, G-A-L-A-T-I-  
22 I. I represent STACK Infrastructure, the Applicant. I was  
23 just here to answer any questions, should the committee  
24 have any.

25 MS. BADIE: Thank you.



1           And I'm not seeing any other raised hands, so  
2 back to you, Chair.

3           CHAIR HOCHSCHILD: Okay, thank you.

4           We'll go to Commissioner discussion starting with  
5 Commissioner McAllister.

6           COMMISSIONER MCALLISTER: Yeah, not much to add.  
7 Thanks a lot, Ralph. And I just wanted to thank you and  
8 the team for all of the work on this proceeding for the  
9 committee up to this point. But certainly the environment  
10 has changed and this is totally appropriate thing to do to  
11 take advantage of the new process. So thanks for  
12 developing the order and I fully support it.

13          CHAIR HOCHSCHILD: Okay, unless there's other  
14 Commissioner comments I would welcome a motion from  
15 Commissioner McAllister on Item 8.

16          COMMISSIONER MCALLISTER: Move Item 8.

17          CHAIR HOCHSCHILD: Commissioner Monahan, would  
18 you be willing to second that?

19          COMMISSIONER MONAHAN: I second.

20          CHAIR HOCHSCHILD: All in favor say aye.  
21 Commissioner McAllister.

22          COMMISSIONER MCALLISTER: Aye.

23          CHAIR HOCHSCHILD: Commissioner Monahan.

24          COMMISSIONER MONAHAN: Aye.

25          CHAIR HOCHSCHILD: Vice Chair Gunda.

1                   VICE CHAIR GUNDA: Aye.

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

4                   We'll turn now to Item 9, Amendments to Appliance  
5 Efficiency Regulations for Air Filters.

6                   MR. GALDAMEZ: Good afternoon, Commissioners. My  
7 name is Alejandro Galdamez. I'm a Mechanical Engineer for  
8 the Efficiency Division Appliances Branch. With me today  
9 are Matt Chalmers and Lisa DeCarlo from the Chief Counsel's  
10 Office. I will be presenting for consideration, staff  
11 proposed regulations for air filters and CEQA  
12 determination. Next slide, please.

13                   The proposed regulation will assist consumers in  
14 selecting replacement air filters for their home's heating  
15 and air conditioning systems. By using the correct filter,  
16 the heating and cooling equipment will be able to achieve  
17 its designed efficiency, which will result in statewide  
18 energy savings compared to use of poorly performing  
19 filters.

20                   Indoor air quality will also be improved by  
21 ensuring the system operates as designed. Selecting  
22 appropriate air filters avoids energy use and utility costs  
23 that result when poor airflow through the filter causes  
24 fans to work harder.

25                   The proposal has a statewide potential electrical

1 and natural gas savings of approximately 38 gigawatt hours  
2 per year and 6.1 million therms per year respectively,  
3 which is equivalent to around 150 thousand round trips  
4 between Sacramento and San Diego in a Tesla Model 3 car.  
5 Next slide, please.

6           The test and list regulations being proposed  
7 would amend the existing regulations for air filters and  
8 will cover filters used in home HVAC ducted systems. The  
9 proposal would require representative air filter models,  
10 what our regs call the "basic model" to be tested using  
11 either AHRI 680-17 standard or ASHRAE standard 52.2.

12           With the data collected from testing the basic  
13 model, the manufacturer will certify data sets that account  
14 for the particular size filtration efficiency, airflow, and  
15 initial resistance of the filter.

16           Per the proposed regulation, the same information  
17 will be required to be on the filter's frame and/or pleats,  
18 and visible to consumers so that they can make informed  
19 purchase decisions. Next slide, please.

20           In addition to requirements set by the  
21 Administrative Procedure Act, the proposed regulation was  
22 determined to be exempt from the California Environmental  
23 Quality Act or CEQA.

24           I would like to thank all the stakeholders for  
25 their participation and submittal of comments. With that

1 said I request your approval to adopt the CEQA  
2 determination and proposed regulation for air filters.  
3 Thank you so much and I'm here for any questions you might  
4 have.

5 CHAIR HOCHSCHILD: Thank you so much, Alejandro.  
6 We'll go to public comment on Item 9.

7 MS. BADIE: Thank you.

8 This is the time where the Energy Commission will  
9 take public comment on Item 9. If you wish to make a  
10 comment on this item and you're in the room, please sign up  
11 at the table in the back or use the posted QR code at the  
12 back table. If you want to make a comment on this item and  
13 you are on Zoom, please use the raise hand feature. It  
14 looks like an open palm. And if you're joining by phone  
15 press \*9 to raise your hand and \*6 to mute and unmute when  
16 instructed.

17 Okay, looking to the queue for the in-room, there  
18 is no one for Item 9 and we will go to the Zoom attendees.  
19 Again, this is for Item 9. We have Steve Uhler. Mr.  
20 Uhler, please unmute on your end, say and spell your last  
21 name and make your comment.

22 MR. UHLER: Hello, Commissioners. This is Steve  
23 Uhler. This is a rulemaking and it's regulated by the APA  
24 and Title 1, but also it is also regulated by Title 20 I  
25 think 1208. And that's the only place that your staff has

99

1 been able to -- they haven't come up with any  
2 notwithstanding the 1208 of what would be deemed a record  
3 for a proceeding. The docket currently doesn't have all of  
4 the required documents in it for submittal based on the APA  
5 11347.3. Which requires you -- the law requires you to  
6 make available during the comment period in the proceeding  
7 of the rulemaking that rulemaking.

8           Now, I'm largely basing this on trying to follow  
9 a load management rulemaking where I couldn't get responses  
10 to comments. But I could get it from the OAL. I couldn't  
11 get responses to comments from staff. It was not filed and  
12 it is still not filed in that rulemaking. I want you to  
13 absolutely identify where the rulemaking file is located,  
14 as required by the APA. Where it's located. Is it  
15 centrally? Is it current? Does it contain the statements  
16 of mailing? Because I have made a comment on this within  
17 the parameters that I should get a response to comment.  
18 There is no response to comment.

19           So, you know, this is bringing up the point of  
20 1208, your rule. There is -- it's unambiguous in the APA,  
21 deemed record for a proceeding. But you don't have these  
22 items filed. So what are you voting on? What is the  
23 resolution you're voting on? That has to be a record for  
24 the proceeding. So I would like to have you clarify where  
25 that rulemaking file is located. Please clarify.

1           Again, you're required to have a rulemaking file  
2 that's deemed record for the proceeding. You have a rule  
3 1208 That limits that to whatever is filed in the docket.  
4 The docket currently doesn't have the required documents  
5 for submittal for review to the OAL. So you are not voting  
6 on any of those pursuant to your regulations and the APA  
7 unless you can come up and tell me where the location is  
8 for those items that I have mentioned here.

9           But to do otherwise this adoption is not  
10 complete. Your resolution might say you've considered  
11 everything in the rulemaking file and the rulemaking file  
12 is not complete.

13           CHAIR HOCHSCHILD: Thank you, Mr. Uhler.

14           We'll go to Chief Counsel Barrera. Do you want  
15 to respond to that?

16           MS. BARRERA: Yes, thank you, Chair.

17           Thank you for your comments, Mr. Uhler. You  
18 asked for a specific reference to the docket. These  
19 documents are filed in the rulemaking document for the air  
20 filters and that's 21-AAER-02. In that docket you will  
21 find the express terms. You will find that NOPA, the ISOR.  
22 You will find all comments submitted during the 45-day  
23 period, comment period, and three separate 15-day comment  
24 periods. So if you refer to the docket, you will find all  
25 the documents related to this rulemaking that form part of

1 the record.

2 With regards to the backup materials or with  
3 regards to the proposed resolution, a proposed resolution  
4 is posted in the Commission's website for the business  
5 meeting. And you will find the -- in the backup materials,  
6 the proposed resolution.

7 We are not required by any law or the APA to have  
8 a proposed order in that specific docket.

9 Once the Commission votes on that proposed  
10 resolution, we will be posting that final resolution in the  
11 docket for this rulemaking and submitting the entire  
12 package to OAL for approval.

13 CHAIR HOCHSCHILD: Thank you.

14 Madam Public Advisor, are there any further  
15 public comments on Item 9? Mona, are there any further  
16 public comments on Item 9?

17 MS. BADIE: Sorry. Yes, there are two more  
18 public comments on the Zoom line. We have Matt Matheny.  
19 Matt, I'm going to an open your line. Please spell and  
20 state your first and last name, your affiliation and make  
21 your comment. You have three minutes.

22 MR. MATHENY: Hello, this is Matt Matheny, can  
23 you hear me?

24 MS. BADIE: Yes.

25 MR. MATHENY: Okay. Uh, yes, Matt Matheny, M-A-

1 T-T; last name Matheny, M-A-T-H-E-N-Y. And I'm affiliated  
2 with the Home Ventilating Institute.

3 I just wanted to make a comment and request that  
4 CEC staff issue in their Final Statement of Reasons, just a  
5 clarification that the scope of the docket excludes  
6 residential ventilation systems. Based on verbal  
7 communication with CEC staff this is what we've been told.  
8 But we would just like clarification in the docket at  
9 least, understanding that the modifications to Title 20  
10 that we requested weren't possible. And we believe that  
11 this would assist industry and in ensuring that it's clear,  
12 the scope of the regulations for air filters. And that  
13 they do not apply to residential ventilation systems. So  
14 that's my comment. Thank you.

15 MS. BADIE: Thank you.

16 We have --

17 CHAIR HOCHSCHILD: Sorry, did you want to respond  
18 to --

19 MR. GALDAMEZ: The response will be -- that will  
20 be part of the response to comments. It will only affect  
21 ducted systems as defined in the same section of Title 20.

22 CHAIR THOMAS: Yes, thank you.

23 MS. BADIE: Thank you. We have Kevin, Kevin  
24 Hamilton on the line. Kevin, I'm going to open your line  
25 please state and spell your name and your affiliation for

103



1 the record. You have three minutes.

2 MR. HAMILTON: Hi, this is Kevin Hamilton. I'm  
3 Executive Director for the Central California Asthma  
4 Collaborative. K-E-V-I-N H-A-M-I-L-T-O-N.

5 Crossing over from our work in the environmental  
6 world and environmental justice and climate to the  
7 healthcare side with our asthma program, we regularly  
8 provide our residents of our asthma program up and down the  
9 eight counties in San Joaquin Valley with MERV 13 filters  
10 for systems if they have HVAC systems, and many do. And we  
11 teach them about these and why they should use them, and  
12 how important they are to health within the home. I hear  
13 the mention that surprised me that this is only commercial  
14 when it absolutely needs to affect the residential sector  
15 as well.

16 We are also teaching people what to buy when they  
17 go to the store, yet when they go to the hardware store  
18 they see this huge rainbow of filters there. And when you  
19 go and look for the MERV rating it's very difficult to  
20 find, even for me and I know what I'm looking for, with  
21 most manufacturers. So if you order online or if you're a  
22 commercial player, you know what you're looking for, you  
23 know how to get it at the warehouse, not a problem other  
24 than waiting in line.

25 But for folks in residence, especially in the

1 communities that we serve, that are so affected by black  
2 carbon from wildfires, and of course general particulate  
3 pollution that occurs at higher levels than anywhere else  
4 in the nation, it is critical that they have a safe place  
5 to breathe or as safe a place as possible, to breathe  
6 indoors. And I would argue that these filters in these  
7 systems are a critical piece of that. And that in self  
8 purchasing these, since they can't all afford to pay  
9 somebody to come and do that for them, that the markings on  
10 these and the regulations regarding them, be as strict as  
11 possible. And with regard to making it clear that this is  
12 a whatever level of filter it is, and this is what it will  
13 filter. So we've seen a lot of stuff out there that is low  
14 cost. But the labeling is also very sketchy at the same  
15 time.

16           So, thank you for doing this today. Really  
17 appreciate it. I want to thank staff for all the hard work  
18 on this. I know this is not nearly as easy as people might  
19 think it is. And thank you, Members of the Commission, for  
20 taking this on. That's it.

21           MS. BADIE: Thank you.

22           And that is everyone we have for public comment  
23 for this item. Back to you, Chair.

24           CHAIR HOCHSCHILD: Thank you.

25           We'll go to commissioner discussion, starting

1 with Commissioner McAllister.

2 COMMISSIONER MCALLISTER: Thank you, Chair.

3 So maybe just to start off, thanks for the  
4 presentation, Alejandro, and all the work. And I'll talk a  
5 little bit more about that, but could you just specify what  
6 the regulation actually covers? Because that seems to be a  
7 little bit --

8 MR. GALDAMEZ: So basically you -- manufacturers  
9 will have to test a basic model where they can decide what  
10 (indiscernible).

11 COMMISSIONER MCALLISTER: So which systems? Like  
12 where will these be installed? There seems to be a little  
13 bit of confusion about it.

14 MR. GALDAMEZ: Oh, sorry. It's in home,  
15 residential HVAC systems.

16 COMMISSIONER MCALLISTER: Correct, great.

17 MR. GALDAMEZ: So ducted systems that are under  
18 that.

19 COMMISSIONER MCALLISTER: Residential ducted  
20 systems.

21 MR. GALDAMEZ: Exactly, residential ducted  
22 systems.

23 COMMISSIONER MCALLISTER: Yeah. So it's not  
24 commercial only, it is a retail product that people go buy  
25 for their homes.

1 MR. GALDAMEZ: Yes.

2 COMMISSIONER MCALLISTER: So I just wanted to  
3 make sure that was absolutely clear. So thanks for that.

4 And so the last comment to really appreciate  
5 that, that support and sort of providing that context on  
6 how relevant this is for public health, we absolutely  
7 agree, which is the reason why we wanted to do this. One  
8 reason why we wanted to do this is that the MERV rating is  
9 critical for air quality, for filtering out. The higher  
10 the MERV the smaller the particle basically.

11 And it's been wild west out there where people  
12 just, you know, they move into a new house or an existing  
13 house and when they have to replace the filter they have no  
14 idea what. They go to the store, and they can't make heads  
15 or tails of it. And if it physically fits they think it's  
16 okay, but that MERV rating can be all over the map.

17 And so providing transparency to the marketplace  
18 was the purpose of this rulemaking. And it just turned out  
19 that that that required three 15-day languages to sort of  
20 get it right. Because you know, you go to the hardware  
21 store. And they're wrapped in cellophane and within that  
22 they're wrapped in paper. And you know, you have to  
23 actually be pretty specific with what you're going to  
24 require manufacturer to do, so that that MERV rating is  
25 visible in the retail setting.

1           And so that's kind of the -- so I just want to  
2 say thanks to all the stakeholders who got into all those  
3 nitty gritty details, and helped us navigate through to the  
4 final regulation, which I think is very strong. And is  
5 totally appropriate to ensure our transparency in the  
6 marketplace, so.

7           And if no one else has any comments, I will move  
8 -- this is Item 9, correct?

9           CHAIR HOCHSCHILD: Yes, it's Item 9.

10          COMMISSIONER MCALLISTER: Yes? I'll move Item 9.

11          CHAIR HOCHSCHILD: Commissioner Monahan, would  
12 you be willing to second?

13          COMMISSIONER MONAHAN: I am happy to second.

14          CHAIR HOCHSCHILD: Alright, all in favor say aye,  
15 Commissioner McAllister.

16          COMMISSIONER MCALLISTER: Aye.

17          CHAIR HOCHSCHILD: Commissioner Monahan.

18          COMMISSIONER MONAHAN: Aye.

19          CHAIR HOCHSCHILD: Vice Chair Gunda.

20          VICE CHAIR GUNDA: Aye.

21          CHAIR HOCHSCHILD: And I vote aye as well. Item  
22 9 passes unanimously. We'll turn now to Item 10.

23          MS. BADIE: Chair? Sorry, this is the Public  
24 Advisor.

25          CHAIR HOCHSCHILD: Yes?

1 MS. BADIE: Before we move on to the next item,  
2 we had Robert Sarvey who's an intervenor in Item 7 that was  
3 unable to raise his hand to get his comment in and would  
4 like to.

5 CHAIR HOCHSCHILD: Okay, yeah.

6 MS. BADIE: We'd like to reopen that. Mr.  
7 Sarvey, if you are on the line please raise your hand. And  
8 if not, we can come back and try again. Someone from the  
9 Public Advisor's Office is going to try to reach him by  
10 phone.

11 CHAIR HOCHSCHILD: If we don't reach him we can  
12 arrange to have him speak during Item 22 Public Comment.

13 MS. BADIE: Yes, yeah.

14 CHAIR HOCHSCHILD: Is he on? Is he on now?

15 MS. BADIE: We are not seeing him in the attendee  
16 list.

17 CHAIR HOCHSCHILD: Okay. See if he can comment  
18 and arrange for him to speak at Item 22.

19 We'll turn now to Item 10, Qualified Capacity of  
20 Supply Side Demand Response Working Group Final Report.

21 MR. LYON: Hello, Chair and Commissioners. My  
22 name is Erik Lyon, Advisor to Vice Chair Gunda. I will be  
23 presenting on the Final Report for the Qualifying Capacity  
24 of Supply Side Demand Response Working Group that we are  
25 submitting for adoption today. This report is the result

1 of a stakeholder working group led by the CEC at the  
2 request of the CPUC. Next slide, please.

3 Demand Response or DR can provide both local and  
4 greenhouse gas pollution reductions, contribute to electric  
5 system reliability, and provide cost savings to  
6 Californians by reducing the need for expensive peaking  
7 generation capacity. So it's really important that we find  
8 a way to measure and value demand response that reflects  
9 these benefits to California and beyond, which is what I  
10 will be talking about today. Next slide, please.

11 I'd like to start with just a brief bit of  
12 history. In 2021 the CPUC asked the CEC to begin a working  
13 group with the goal to develop recommendations for a  
14 comprehensive and consistent measurement and verification  
15 strategy, including a new capacity counting methodology  
16 for DR addressing both *ex post* and *ex ante* load impacts.

17 The capacity counting methodology refers to  
18 determining the qualifying capacity or QC of DR, which is  
19 the amount that DR providers can sell for resource adequacy  
20 to support electric reliability. And also serves as a way  
21 of comparing DR to traditional generation resources like  
22 natural gas power plants.

23 In response, the CEC formed the working group and  
24 submitted an interim report. In that report, the CEC  
25 recommended the working group continue to address the

1 nascent slice-of-day framework decided on in the resource  
2 adequacy proceeding of the CPUC. And in a subsequent  
3 decision the CPUC agreed, which brings us to -- to today.  
4 Next slide, please.

5 In the past, resources have needed to derive just  
6 a single capacity value by month. Under an hourly slice-  
7 of-day framework, capacity values will need to be able to  
8 vary hourly to reflect the characteristics of different DR  
9 resources. Ultimately, these values can be expressed in  
10 what we're calling a "slice-of-day table" that you see  
11 here. Each hourly capacity value will need fit into a cell  
12 within a framework like this. Next slide, please.

13 Before we get into recommendations it is  
14 important to understand the current approach. Each DR  
15 provider begins by analyzing previous years' performance  
16 data. This includes measuring load impacts from individual  
17 DR dispatches.

18 Next, they will account for any changes in  
19 expected performance relative to performance in past years.  
20 A common example of this is dropping data points from  
21 events with low performance due to technical issues that  
22 have since been resolved. This is an underappreciated step  
23 in my opinion, because it is necessary to develop the best  
24 estimates for future DR capabilities, but basing QC on past  
25 performance is the main performance incentive currently

111



1 faced by DR.

2           Next, DR providers project out expected customer  
3 enrollment and composition. Like the previous step, this  
4 is critical to valuing future DR capabilities, but it is  
5 very difficult for policy makers to know whether these  
6 values are reasonable or not.

7           Next year providers apply planning assumptions,  
8 critically temperature, to all those customers and load  
9 impacts and aggregate them into a portfolio. CPUC staff  
10 reviews the claimed values along with supporting  
11 documentation, make adjustments if deemed necessary, and  
12 approves final QC values. Next slide, please.

13           I've alluded to a few of the challenges with the  
14 current approach. But I wanted to call out a few,  
15 specifically the current approach is based on the load  
16 impact protocols, which are logical and sensitive and  
17 sensible in their own right. But also variable in  
18 interpretation and leave much to the discretion of those  
19 who conduct the work.

20           Second, DR faces little to no incentive to  
21 deliver on their resource adequacy commitments. Most DR is  
22 not subject to the resource adequacy, availability,  
23 incentive mechanism or RAAIM, under the California ISO.  
24 Regardless, we believe that RAAIM is not a good fit for DR.  
25 So the solution is not as simple as just applying this

1 existing framework to demand response.

2           Finally, DR providers have described the process  
3 from the beginning as very challenging, but I think it's  
4 also worth noting that the process is similarly challenging  
5 for the CPUC staff whose job it is to review and approve  
6 requests for QC. I was part of a CEC team that helped CPUC  
7 staff review these submissions and despite the extensive  
8 reporting requirements. It was often difficult to make an  
9 informed decision or recommendation. Next slide, please.

10           So we received five proposals under the working  
11 group that fell into two categories. The first consists of  
12 adaptations of the current approach to the slice-of-day  
13 framework. And those came from the California Large Energy  
14 Consumers Association and Demand Side Analytics in  
15 partnership with San Diego Gas and Electric. OhmConnect  
16 also submitted a proposal focused on streamlining reporting  
17 requirements, assuming another proposal in this category is  
18 adopted.

19           The second category consists of incentive-based  
20 approaches. These proposals were submitted by the  
21 California Efficiency + Demand Management Council and by  
22 our own team. Next slide, please.

23           Ultimately, we are recommending an incentive-  
24 based approach. One of the most frequent comments and  
25 questions we received on the draft report recommendations

1 is why we did not require proposals to include an incentive  
2 mechanism if we were ultimately going to recommend going in  
3 that direction. So I want to address that head on.

4           The answer is that we did not want to pre-judge  
5 the outcome by requiring a certain framework. However, we  
6 did want the solution to be able to address the many issues  
7 that we had previously identified through the working  
8 group. And while our team believes an incentive-based  
9 approach can do that, we did not want to rule out creative  
10 ideas from our stakeholders. However, the only other  
11 category of proposals than incentive-based approach is  
12 really new only insofar as it applies the existing  
13 methodology to the new slice-of-day framework. And so we  
14 do not believe that they address the core issues we have  
15 observed.

16           It's also worth noting that there is precedent  
17 for incentive-based frameworks as recommended by California  
18 entities including the CPUC and ISO. And they are applied  
19 in other jurisdictions across the US.

20           Finally, we think we can reduce the burden both  
21 on DR providers and CPUC staff. Critically, we are  
22 optimistic that this can reduce the timeline to finalize QC  
23 values, allowing DR providers to contract their resources  
24 earlier, and providing a more level playing field relative  
25 to other resource types. Next slide, please.

1           Specifically, our recommended methodology most  
2 closely resembles the CEC staff proposal, but with some  
3 modifications. I won't go into the technical details now,  
4 but what is critical to understand is that applying an  
5 incentive-based mechanism requires upfront agreement about  
6 how performance will be measured after the fact or exposed.  
7 So we focused on how DR capabilities will be represented  
8 beforehand, or *ex ante*, and how performance will be  
9 measured after the fact, or *ex post*. And we've made sure  
10 that those measurements are apples-to-apples comparisons,  
11 so that a penalty can be applied to shortfalls between the  
12 two.

13           Each hourly capacity value will fit into a slice-  
14 of-day table like the one I showed at the beginning of this  
15 presentation. Next slide, please.

16           So we've tried to dot the i's and cross the t's  
17 as much as we could, but there are still some outstanding  
18 implementation and policy questions to consider. We have,  
19 for example, recommended that CPUC implement the proposed  
20 penalty mechanism for now. However, we recognize that if  
21 an alternative to RAAIM were developed by the CAISO that is  
22 resource neutral and appropriate to apply to DR, it may  
23 eventually be preferable for the CAISO to take on this  
24 role. However, we recognize that such a process could take  
25 a while and in the absence of that mechanism, we think the

1 CPUC is the appropriate entity.

2 We have also left room for CPUC to define  
3 supplemental reporting requirements, particularly during a  
4 transition period away from a forecasting-type methodology  
5 to an incentive-based one. Until there is more confidence  
6 in incentive-based methods, more supporting evidence for  
7 future capabilities might be required, particularly if the  
8 penalty is phased in over time. However, the proposed  
9 methodology itself requires little additional information.

10 Finally, we recommend that the CAISO formally  
11 exempt all DR from the RAAIM if this proposal is adopted.  
12 While loopholes effectively prevent RAAIM from applying to  
13 most DR today, its presence provides incentives for  
14 accounting practices that cloud the DR marketplace.  
15 Exempting DR from RAAIM would recognize that a new, more  
16 appropriate incentive mechanism for DR has taken its place.

17 So, with that I'll conclude. Thank you very  
18 much. I'd like to thank the CEC team Tom Flynn and Daniel  
19 Hills-Bunnell, as well as David Erne. Thanks to the  
20 colleagues at the CPUC and the CAISO for supporting this  
21 effort, as well as the many stakeholders who gave  
22 generously of their time and effort particularly CLECA,  
23 DSA, SDG&E, OhmConnect, and CEDMC, for taking the time to  
24 submit proposals. We appreciate your time and effort. And  
25 I believe we have Simon Baker on the line from the CPUC.

116

1           So with that, I'll turn it over to him for some  
2 brief comments.

3           CHAIR HOCHSCHILD: Simon, can you hear us?

4           MR. BAKER: Yes, I can hear you. Can you hear  
5 me?

6           CHAIR HOCHSCHILD: Yeah, go ahead.

7           MR. BAKER: Okay, good afternoon, Chair  
8 Hochschild and Commissioners. I just wanted to express the  
9 PUC's appreciation for the work that the Energy Commission  
10 has done on behalf of this request that we made out of the  
11 resource adequacy proceeding.

12           It's been a significant effort, as Erik  
13 mentioned, over 18 months long. A stakeholder engagement  
14 process on a set of issues that is very complex and also  
15 very contentious. There were over 30 different stakeholder  
16 organizations that they needed to work with. We  
17 accompanied the process.

18           And we work with the CEC, but we also looked at  
19 the CEC to really bring some fresh eyes to this issue. And  
20 from the report that's being submitted here today, we can  
21 see that there's a lot of new thinking that has gone into  
22 this. And we really appreciate the Energy Commission's  
23 effort on this. This is going to be considered in our  
24 proceeding. And it's timely the way that it has been  
25 developed to be able to mesh nicely with the slice-of-day

117

1 framework, that we are further developing in the resource  
2 adequacy proceeding.

3           And we've also really appreciated the Energy  
4 Commission's participation in consulting to us on the load  
5 impact protocols process that that Erik spoke about  
6 earlier.

7           In 2022, for the first time we had some really  
8 important help from CEC staff to provide us some additional  
9 technical expertise, and a second set of eyes on that. And  
10 I think that really lended itself well to better understand  
11 the challenges with the status quo system. And be able to  
12 provide recommendations that are more informed and more  
13 thoughtful in that regard. So we really appreciate the  
14 Energy Commission's willingness to participate in that  
15 process as well.

16           We look forward to continuing to work with the  
17 Energy Commission as this comes into our proceeding. And  
18 as we go through the implementation process that Erik  
19 mentioned. We still have more to think about in our  
20 proceeding. We're going to be taking formal comments and  
21 going through our formal decision making process. But this  
22 is a really great head start. And so thanks, once again.

23           I also want to just say briefly that this  
24 collaboration is one of many that we have across a number  
25 of different proceedings and activities. And there was one

1 earlier, the voting item on the IEPR demand forecast  
2 adoption, which is another area where we collaborate a lot.  
3 And I'm on the Joint Agency Steering Committee that  
4 collaborates with the Energy Commission on the development  
5 of that. And once again this year, that process went well.  
6 We're now going into our 10th year in that collaboration  
7 and it's going really well.

8 I want to thank you and your staff for all of the  
9 hard work on the demand forecast this year. Those are my  
10 remarks.

11 CHAIR HOCHSCHILD: Great. Thank you so much,  
12 Simon.

13 We'll turn now to public comment on Item 10.

14 MS. BADIE: Thank you. If you want to make a  
15 comment on this item and you're in the room, please sign up  
16 at the table in the back or use the QR code posted at the  
17 back table. If you want to comment on this item and you  
18 are on Zoom, please use the raise hand feature, it looks  
19 like an open palm on the screen. And if joining by phone,  
20 press \*9 to raise your hand and then \*6 to mute and unmute  
21 when instructed.

22 Each person will have up to three minutes to  
23 comment, and comments are limited to one speaker per  
24 organization. Looking for the in-person there is no one  
25 in-person who wishes to comment and we will now go to the



1 Zoom. This is for Item 10.

2 We have Steve Uhler. Mr. Uhler, I will allow  
3 you to talk. Please state and spell your name for the  
4 record and make your comment. Thank you.

5 MR. UHLER: Hello, Commissioners. This is Steve  
6 Uhler. And since we're talking about demand here, I would  
7 ask you to not underestimate the value of knowing power  
8 factor for loads that you may shed. Particularly if you're  
9 going to penalize some people, because some people might  
10 have loads that have unity power factor or high power  
11 factor while another load -- while it's much less kilowatts  
12 or megawatts -- has a poor power factor that actually adds  
13 up to drawing twice the kilowatts that have to be produced  
14 the horsepower that has to go into the generating unit in  
15 order to power to power that load. You need to pay  
16 attention to both leading and lagging power factor.

17 If you're familiar with power factor, it's a  
18 trigonometry. It's Pythagorean theorem, basically. If you  
19 have a leading power factor of .8 and you have a lagging  
20 power factor of .8, you now have unity. If you shed a load  
21 that is a leading power factor, which you would really like  
22 to have a lot of those because most of your loads are  
23 inductive, purely inductive, they're going to be lagging.  
24 That that leading power factor load can actually reduce  
25 your demand, probably far more than some of these demand

120

1 responses by setting somebody off. So you really need to  
2 pay attention to that.

3           You have the data available to you, 1353.  
4 Utilities use power factor in their rate system. Please  
5 see that the power factor is provided particularly related  
6 to your oddly named miscellaneous data monetization. I  
7 provided a sample of how you can distribute that to the  
8 public. And I ask you to do that on this ongoing effort.

9           Please do not underestimate the value of power  
10 factor. Thank you.

11           MS. BADIE: Thank you.

12           That is the only comment for this item. Back to  
13 you, Chair.

14           CHAIR HOCHSCHILD: Thank you. We'll turn to  
15 Commissioner discussion, starting with Vice Chair Gunda.

16           VICE CHAIR GUNDA: Thank you, Chair. I'd just  
17 begin by thanking our team here: Erik Lyon, Tom Flynn,  
18 Daniel Hills-Bunnell and David Erne, just want to give a  
19 big shout out to them. And CPUC colleagues Dan Bush, Alope  
20 Gupta, Eleanor Adachie and Simon Baker who just spoke, have  
21 been incredible colleagues and partners on this work. As  
22 well as stakeholders that took a lot of time, volunteered a  
23 lot of time, generous time, to not only provide input but  
24 try to develop consensus around principles, and how best to  
25 move DR forward. So just it's an important effort. It's

121

1 an effort, I think no matter what shape it takes at PUC,  
2 has yielded some important discussion that elevated the  
3 discussion as a whole and improve the work.

4 So I think I want to just state a couple of  
5 things as PUC considers, you know, using this. First of  
6 all, I think a factual observation is that we have not  
7 completely taken advantage of DR or demand flexibility in  
8 the State of California. When we talk about September 6  
9 and how tight the market was, we are really looking at  
10 improving that overall opportunity for demand response and  
11 demand flexibility. And I think there is an opportunity  
12 here to really rethink the way we do DR, in kind of strata.

13 You know, there are some kinds of loads that are  
14 extremely difficult, and operationalized from a demand  
15 response. You know, large loads that are really processed  
16 and have real economic impact to the State of California, I  
17 think those loads are if we think of them as one bookend,  
18 we also have the load modifier, the demand modifiers where  
19 we just include the load reduction we get from just rates.  
20 So I think those are the bookends.

21 And then we haven't really stratified the DR in a  
22 way to think about what strata our tiers (phonetic) could  
23 be really helpful for demand, like flexibility from a RA  
24 perspective, and what's helpful from a reliability  
25 perspective. And I think that's a huge opportunity. And

1 the reason I kind of start with that as noted here, it's  
2 critical, no matter how we go about this tiering demand  
3 flexibility, operationalizing this. It starts with being  
4 able to agree on a method to understand how much we have,  
5 account for it and then showcase it.

6 So I think this process specifically on  
7 developing the framing on an incentive based mechanism -- I  
8 think again I want to note that the stakeholders were all  
9 not in complete agreement on the methodology to move  
10 forward. But I think it is strong enough consensus, at  
11 least I take the silence from the stakeholders as a way  
12 that is a gentle endorsement of like the way we are going  
13 here.

14 So my biggest ask moving forward to PUC is to  
15 continue to use the venue that CEC brings as a neutral  
16 independent ideation place to kind of work through some of  
17 these consensus and coalitions. And really be able to  
18 provide actionable pathways to CPUC. And I think that's  
19 what we tried to do here.

20 And, you know, we joke about Erik a lot. He  
21 surprises us by how tall he is oftentimes when he comes up.  
22 But just a really brilliant person who has been incredibly  
23 thoughtful. We threw this big project at him and he, I  
24 think, grew personally and professionally through this  
25 process. But also really provided valuable insights, which

1 I hear from stakeholders on a regular basis. So thank you,  
2 Erik, for your work, and the entire team.

3 CHAIR HOCHSCHILD: Commissioner McAllister.

4 COMMISSIONER MCALLISTER: So thanks, Erik, for  
5 the presentation and all the work.

6 And I think our work on demand flexibility,  
7 generally of which sort of demand response is sort of one,  
8 sort of the right half maybe let's say. And then the other  
9 half sort of as it moves over to use Vice Chair Gunda's  
10 framing, as it moves over to permanent load shifting type  
11 of activities I think it's still even though we've been  
12 trying to do it for a long time, it still sort of feels  
13 like it's a nebula that hasn't quite formed planets yet and  
14 solar system. And so but this is a big step towards that,  
15 I think. And starting to give names to the different sort  
16 of approaches. And names to the different kinds of  
17 activities in this spectrum of work flexibility. And also,  
18 you know, focusing on the incentive-based approaches.

19 And I think it compliments a lot of the other  
20 work that's going on at the PUC on ratemaking. And  
21 certainly a lot of the stuff, we're doing on low  
22 flexibility. And I guess I would just make kind of an  
23 observation that for me, over the years traditionally  
24 utilities they focused on trying to have a high kind of  
25 utilization rate, which, you know, capacity factor. On the

124

1 load side, the load factor, but essentially the same thing.  
2 And if we -- so part of it is basically the peak over the  
3 average. And that's the math. You can lower the peak.  
4 That improves your capacity factor. And you can also level  
5 out the load more generally. And can improve your capacity  
6 factor.

7           And the reason I'm saying this is because we have  
8 a big challenge ahead of us to optimize our investments in  
9 the grid infrastructure to deal with all this  
10 electrification. And if we can basically fill valleys with  
11 all this new load, either on a permanent load shifting  
12 basis or strategically as part of peak clipping, demand  
13 response. And demand response to do now more sophisticated  
14 load shifting, all this adds up to really, I think, a sea  
15 change in how we manage the grid. And how we think about  
16 how we're going to make those investments. And what  
17 programs we bring forward to help those resources  
18 materialize and be aggregated in a marketplace.

19           And so I just -- this contribution to that  
20 discussion, I think, is really important. And it's like a  
21 lot of things we do. It's kind of hard to -- it's  
22 technical and so not maybe quite as accessible as we would  
23 like to sort of lay people. But as you dig in and really  
24 work through this I think you've done a good job of trying  
25 to balance that by making it -- this obviously is a highly

1 technical product. But part of our challenge is going to  
2 be messaging this evolution. And we do need to figure out  
3 how to sort of explain to consumers, why what is happening  
4 is happening.

5           And so anyway I want to just thank you for the  
6 contribution. And it's part of a longer journey, but a  
7 very valuable one that we're all walking together. So,  
8 thank you.

9           CHAIR HOCHSCHILD: Commissioner Monahan.

10           COMMISSIONER MONAHAN: Erik, nice job. And I  
11 just want to say this year's IEPR is going to be focusing  
12 on how do we increase the speed of interconnecting and  
13 deploying clean energy resources to the grid. And this  
14 fits, I think, with that IEPR topic. You know, we're just  
15 trying to think through what are the incentive mechanisms  
16 that will get the outcomes we want, which is more things  
17 plugging into the grid more swiftly, and with greater  
18 attentiveness to peaks.

19           So just thank you for your work. And thanks to  
20 everybody participating in this process.

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

22           VICE CHAIR GUNDA: Yeah, Chair, I just forgot to  
23 kind of elevate Tom Flynn as well as a part of this work.  
24 I just quickly noted his name, but Tom Flynn has been an  
25 incredible contributor of this work. And I think his

1 experience at CAISO previously, and his ability to bring  
2 consensus was much valued in this process. So again, Eric  
3 and Tom, thank you.

4 CHAIR HOCHSCHILD: I did have a question, Erik,  
5 for you or maybe others as well. Just what is our current  
6 understanding, you know, at total max capacity with the  
7 tools we have available now for how big demand response  
8 could be if we're fully optimizing with the technology? I  
9 mean, what what's the universe of size that we're talking  
10 about?

11 MR. LYON: That's a really tough question. I  
12 might defer to Commissioner McAllister on that. But I mean  
13 supply side demand response right now, I think is on the  
14 order of 1,500 megawatts. But there's so much more beyond  
15 that. You know, there's time-of-use rates, the lead  
16 management standards. But I think if we were to really go  
17 in on supply side demand response, it could be an order of  
18 magnitude almost higher. Like, I think there's quite a bit  
19 of headroom there.

20 CHAIR HOCHSCHILD: Commissioner McAllister, yes?

21 COMMISSIONER MCALLISTER: So there's a  
22 complementarity and you know, you can kind of see it as a  
23 conflict even, between the different ends of that spectrum,  
24 right? So if you're successful in doing permanent load  
25 shifting, and sort of day-in, day-out responding to time-

127



1 of-use rates, and it actually changes the average load  
2 shape over time because you're doing it every day, then  
3 that's one way to get to optimize load. That's not what we  
4 traditionally think of as demand response. Like supply  
5 side demand response is more like, okay we have an issue.  
6 We need capacity. Let's push a button and drop some load  
7 or shift some load or get a head of some load. And that's  
8 an occasional thing that we do only when we need it.

9           And so the more you do one, kind of the less you  
10 do of the other. And so, all told they can add up to a  
11 very significant resource. And I don't want to throw out a  
12 number, but it's a lot. It's an important shifting of that  
13 of that load growth curve over time, that peak load curve  
14 over time. So, you know, in the orders of magnitude more  
15 than we have now for sure.

16           VICE CHAIR GUNDA: Yeah, Chair, I think a couple  
17 of pieces, right? I mean, I think to what Commissioner  
18 McAllister just laid out that's exactly the point that we  
19 have to deal with. If we get really good at demand  
20 flexibility either through rate making or a behavioral  
21 change at the customer level, what level of load shed do  
22 you have left? So that's an important element.

23           But I think one good proxy point is the LBNL  
24 report that they worked on for CPUC, which is in the 10  
25 gigs range, so of load a load shift ability that we have in

1 California. And as we continue to electrify the loads  
2 that's going to grow.

3           You know, like this morning, we heard on the  
4 transportation side that we're about 5 percent of the peak  
5 load today during the net peak time, or the load. I mean,  
6 conceivably all of that can be removed with the right  
7 incentives. And as you go towards 2030 and 2035, you're  
8 talking about that load growing up to 10 percent.

9           So I think those are the opportunities. I think,  
10 you know, it's a balance on how we want to develop the  
11 system. And how demand flexibility becomes a kind of a  
12 resource that ultimately optimizes reliability and cost  
13 effectiveness of the system as a whole. So that's where  
14 the numbers are.

15           CHAIR HOCHSCHILD: Okay. Well, with that thank  
16 you so much for your work, Erik. And I'd welcome a motion  
17 on this item from Vice Chair Gunda. Item 10.

18           VICE CHAIR GUNDA: Move Item 10.

19           CHAIR HOCHSCHILD: Commissioner McAllister, would  
20 you be willing to second?

21           COMMISSIONER MCALLISTER: Second.

22           CHAIR HOCHSCHILD: All in favor say aye. Vice  
23 Chair Gunda.

24           VICE CHAIR GUNDA: Aye.

25           CHAIR HOCHSCHILD: Commissioner McAllister.

1 COMMISSIONER MCALLISTER: Aye.

2 CHAIR HOCHSCHILD: Commissioner Monahan.

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: And I vote aye as  
5 well. Item 10 passes unanimously.

6 We'll turn now to Item 11, Renewable Portfolio  
7 Standard Retail Sellers Procurement Verification Results  
8 Report.

9 MR. CHOU: Good afternoon, Chair Hochschild and  
10 Commissioners, I am Kevin Chou, program staff with the  
11 Renewables Portfolio Standard, RPS, Verification and  
12 Compliance Unit. Today staff is requesting adoption of the  
13 Renewables Portfolio Standard Staff Draft, 2017-2020 Retail  
14 Sellers Procurement Verification Report. Next slide,  
15 please.

16 Californians are benefitting as more renewable  
17 generation is built to serve California's RPS requirements.  
18 Transforming California's electric system takes time and a  
19 lot of work, but it is happening.

20 First, by displacing electricity generation from  
21 coal and natural gas, the RPS program allows California to  
22 achieve its climate and energy goals by providing clean and  
23 safe domestic energy, and also helps to reduce harmful air  
24 pollution and global warming emissions.

25 Second, the RPS program helps to create new jobs

130

1 and provide other economic benefits. Compared with fossil  
2 fuel technologies, which are typically mechanized and  
3 capital intensive, the renewable energy industry is more  
4 labor intensive. Next slide, please.

5 California has a track record of having one of  
6 the most ambitious Renewables Portfolio Standard programs  
7 in the nation. The RPS was originally established in 2002  
8 with a requirement for electric load serving entities to  
9 procure 20 percent renewable energy by 2020. The RPS  
10 requirements have quickly evolved over time, with Senate  
11 Bill 100 increasing the procurement requirements for  
12 eligible renewable energy resources to 60 percent of retail  
13 sales by 2030 with a goal of achieving 100 percent  
14 renewable and zero carbon resources by 2045. The RPS  
15 program is a key driver for achieving the decarbonization  
16 of the energy sector envisioned by the Legislature and  
17 signed into law by Governor Brown with Senate Bill 100.

18 Compliance Period 3 requires load serving  
19 entities to procure at least 33 percent electricity from  
20 eligible renewable resources, and RPS staff are in the  
21 process of determining if this requirement has been met for  
22 local publicly owned electric utilities or POU's, while  
23 California Public Utilities Commission, CPUC, staff will  
24 make this determination for retail sellers.

25 Today, we've reached a milestone as we've

1 completed the Retail Sellers' Verification Procurement  
2 Report for Compliance Period 3 and are ready to transmit it  
3 to the California Public Utilities Commission, so that they  
4 can determine compliance for the retail sellers. Next  
5 slide, please.

6 This report presents RPS findings for the state's  
7 43 retail sellers, including three large investor-owned  
8 utilities, three small and multijurisdictional utilities,  
9 23 community choice aggregators, and 14 electric service  
10 providers. Results include the total RPS claims reported  
11 for years 2017-2020, ineligible and withdrawn claims, and  
12 claims deemed eligible to count toward retail sellers' RPS  
13 targets.

14 Retail sellers reviewed and accepted detailed  
15 summaries of their eligible renewable energy claims. Staff  
16 finalized a draft report and posted it for comment on  
17 November 23, 2022. Subsequent revisions were made and  
18 posted on January 4th and January 13th.

19 The 2017-2020 claims were reported through the  
20 Western Renewable Energy Generation Information System, or  
21 known as WREGIS.

22 Once adopted by the Energy Commission, the 2017-  
23 2020 Retail Sellers' Procurement Verification Report will  
24 be transmitted to the California Public Utilities  
25 Commission to complete verification and compliance findings

1 for retail sellers. Next slide, please.

2 This bar chart shows the evolution of retail  
3 seller participation and reporting activity by compliance  
4 period. Compliance periods referred to as CPs are 3 to 4  
5 years in length. As you can see, beginning in CP 1, 21  
6 retail sellers reported over 118,000 gigawatt hours of  
7 renewable energy.

8 As of CP 3 reporting we have a total of 43 retail  
9 sellers that have reported well over 259,000 gigawatt hours  
10 of renewable energy, doubling the amount of renewable  
11 energy claimed in this decade long period. Notably, the  
12 number of Community Choice Aggregator participation has  
13 drastically increased from 5 to 23 entities from CP 1 to CP  
14 3. This increase in retail sellers also dramatically  
15 increases the amount of staff time required to verify  
16 claims as staff must develop working relationships with  
17 each of the reporting entities. Next slide, please.

18 The steps outlined in this verification analysis  
19 flowchart were completed to generate the draft retail  
20 sellers' verification procurement report.

21 In the first part of this flowchart, you see that  
22 staff verified claims reported were generated by RPS  
23 certified facilities. Staff then verified that all  
24 renewable electricity procurement combined did not exceed  
25 generation from each RPS eligible facility. Staff does

1 this by summing up all procurement claims from all  
2 reporting entities for a particular facility and comparing  
3 the total amount claimed to the total amount generated by  
4 the facility to ensure claims do not exceed generation.

5 Staff then determined the amount of renewable  
6 electricity procured from multifuel or biomethane  
7 facilities matched eligible amounts of RPS generation.

8 In the second part of this flowchart, staff  
9 verified all eligible claims came from RPS eligible  
10 facilities, are not double-counted, and only serve  
11 California's RPS. The analysis then identified eligible,  
12 ineligible, and withdrawn procurement claims, which were  
13 then presented in summary claims table reports for each  
14 retail seller.

15 Staff then determined the total amount of RPS  
16 eligible procurement for each year, and the overall  
17 compliance period for each retail seller and results were  
18 sent for their approval or dispute. After finalizing  
19 results, the draft retail sellers' verification report was  
20 prepared and posted for public comment. Next slide,  
21 please.

22 As retail sellers represent over 75 percent of  
23 statewide retail sales of electricity, the Energy  
24 Commission's adoption of this report will represent a key  
25 milestone on the journey to achieving these ambitious

1 targets and serve as a foundation for the significant work  
2 California and the world will do to undertake -- will need  
3 to undertake over the coming years, to contain global  
4 greenhouse gas emissions and combat the threat of climate  
5 change.

6 In closing, Energy Commission staff has  
7 determined that that the procurement claim amounts listed  
8 in the RPS 2017-2020 Retail Sellers Procurement  
9 Verification Report are eligible to count toward meeting  
10 retail sellers' RPS procurement requirements.

11 With that, I ask that the Energy Commission adopt  
12 the proposed resolution adopting the Renewables Portfolio  
13 Standard 2017-2020 Retail Sellers Procurement Verification  
14 Report and directing staff to transmit the final report to  
15 the California Public Utilities Commission for their use in  
16 Compliance Period 3, compliance activities.

17 Thank you. This concludes my presentation and  
18 for staff.

19 CHAIR HOCHSCHILD: Thank you so much, Kevin. I'd  
20 appreciate any public comment on Item 11.

21 MS. BADIE: Thank you. The CEC will take public  
22 comment on Item 11, the RPS Retail Sellers Verification  
23 Report.

24 Now if you want to comment on this item and  
25 you're in the room, please sign up at the table in the back



1 or use the QR code at the table. If you want to comment on  
2 this item, and you are on Zoom, please use the raise hand  
3 feature that looks like an open palm. And if joining by  
4 phone, please press \*9 to raise your hand and then \*6 to  
5 mute and unmute when instructed.

6 We're asking for comments to be limited to three  
7 minutes and one speaker per organization. I'm not seeing  
8 anyone in the in-room queue, so we will turn to Zoom. And  
9 we have a raised hand from Steve Uhler.

10 Mr. Uhler. Please spell your name for the record  
11 and make your comment. Thank you.

12 MR. UHLER: Hello, Commissioners, this is Steve  
13 Uhler, U-H-L-E-R. I'm concerned that you're going to adopt  
14 this based on the methodology report that you haven't  
15 approved. It appears that staff favor load supporting  
16 entities over end users.

17 Have you ever seen a renewable energy credit,  
18 which is a certificate of proof associated with generation  
19 from electricity from an eligible renewable resource,  
20 issued through the accounting system established by the  
21 Energy Commission pursuant to 399.25. of the Public Utility  
22 Code? So you have a guideline. You're allowed to produce  
23 a guideline not under the APA's requirement of making a  
24 regulation or rule. That guideline has references to the  
25 WECC rules. The WECC rules that are currently on the site,

136

1 because your guidelines do not define a particular version  
2 of the of the WECC rules, they don't line up anymore. And  
3 if you are counting, now the WECC doesn't -- the WREGIS  
4 does not accept outside certificates.

5           So I'm wondering, how do your certificates get  
6 into the WREGIS system to be counted? Or are you  
7 considering that the WREGIS system is part of your  
8 accounting system. And if it is you are still required to  
9 have proper meetings for changes in the rules related to  
10 your accounting system and how you track certificates.

11           Please consider this. I would like you to post  
12 what it looks like. I would like to see that your  
13 certificate at least as a seal referencing the State of  
14 California, so the public won't be scammed by people.  
15 Because this is ripe for being scammed. I feel I've been  
16 scammed. You're not able to tell me how many renewable  
17 energy credits or how much environmental attributes that I  
18 own. You don't seem to consider the contracts that  
19 utilities make with their customer.

20           I suggest that you table this until you  
21 understand those things. At least the renewable energy  
22 credits so you know what you're talking about. Thank you.

23           MS. BADIE: That was the only public comment.

24           Back to you, Chair.

25           CHAIR HOCHSCHILD: Okay, thanks. We'll turn to

1 Commissioner discussion. I support the item. This had  
2 been in the wheelhouse of Commissioner Vaccaro and so I  
3 have no further comment. I just would note, we are on item  
4 11 out of 23 today, so I do want to keep things moving  
5 expeditiously.

6 Any other comments from Commissioners? Would you  
7 be willing to move the item, Commissioner McAllister?

8 COMMISSIONER MCALLISTER: I'll move Item 11.

9 CHAIR HOCHSCHILD: Okay. Oh, yeah. Please do.

10 VICE CHAIR GUNDA: No, I just wanted to thank  
11 Commissioner Vaccaro for her leadership, but also just  
12 Dina, Harmon and Roxanne, for your work, and Kevin, an  
13 excellent presentation.

14 I know there's some questions raised in the  
15 public comment, in the comment, and hopefully you guys can  
16 communicate. But I just wanted to say RPS is one of the  
17 hardest things to do in terms of accounting. You know,  
18 analysis is very easy if you have the data. And you know  
19 much of 90 percent of the work that you guys do is like  
20 clean up the data and really establish which data to be  
21 used. So I just wanted to say thank you for all your  
22 efforts and keep up the good work. Thank you.

23 CHAIR HOCHSCHILD: Well said, thank you.

24 COMMISSIONER MCALLISTER: It's nice to be in  
25 production mode after you know after figuring out the first

1 couple of cycles. So getting it dialed in, so  
2 congratulations on that.

3 CHAIR HOCHSCHILD: So Commissioner McAllister has  
4 moved Item 11. Vice Chair, would you be willing to second?

5 VICE CHAIR GUNDA: I second.

6 CHAIR HOCHSCHILD: Okay, all in favor say aye.  
7 Commissioner McAllister.

8 COMMISSIONER MCALLISTER: Aye.

9 CHAIR HOCHSCHILD: Vice Chair Gunda.

10 VICE CHAIR GUNDA: Aye.

11 CHAIR HOCHSCHILD: Commissioner Monahan.

12 COMMISSIONER MONAHAN: Aye.

13 CHAIR HOCHSCHILD: And I vote aye as well. Item  
14 11 passes unanimously we'll turn to item 12, California  
15 Electric Homes Program.

16 MR. GIBBS: Good day, Chair and Commissioners.  
17 My name is Richard Gibbs with the Reliability, Renewable  
18 Energy & Decarbonization Incentives Division. Today, staff  
19 is seeking approval of the block grant agreement for the  
20 California Electric Homes Program or Cal-E-H-P. CalEHP was  
21 originally named as the Building Initiative for Low-  
22 Emissions Development Program Phase 2, or BUILD 2.0, in  
23 Assembly Bill 137. The BUILD program benefits affordable  
24 new home construction, however CalEHP will benefit new  
25 market-rate housing construction. Once the agreement

1 presented today is approved and executed, our recipient TRC  
2 Engineers, Inc. will design, implement, and administer up  
3 to \$68 million dollars for the CalEHP incentive program and  
4 technical assistance. Next slide, please.

5 CalEHP is a statewide market transformation  
6 initiative with the goal to spur significant market  
7 adoption of all-electric homes and energy storage system  
8 technologies for new market-rate residential construction.

9 CalEHP will meet the goal of market  
10 transformation by incentivizing the construction of new  
11 market-rate multifamily and single-family as all-electric  
12 residential buildings, as well as installation of  
13 residential energy storage systems.

14 By supporting the construction of all-electric  
15 and energy storage equipped homes, Californians will see  
16 the benefits of greenhouse gas reduction within overall  
17 building decarbonization.

18 The absence of gas equipped appliances in these  
19 homes would lead to improved indoor air quality and better  
20 health outcomes for residents. Next slide, please.

21 Staff came before you in May of 2022 when the CEC  
22 adopted the CalEHP Guiding Principles document which  
23 establishes the overarching objectives for the program's  
24 design, implementation, and administration. The principles  
25 reflect key program elements the CEC is prioritizing, and

1 as such, the program administrator will use the principles  
2 as guidance in designing and implementing the program.

3 In June 2022, CEC issued a competitive block  
4 grant solicitation for a third-party administrator to  
5 implement the program. The agreement being presented to  
6 you today is a result of that solicitation.

7 Staff, CEC staff received several application  
8 submissions for this solicitation, and after scoring  
9 applications, a Notice of Proposed Award was posted in  
10 October of last year. TRC Engineers, Inc. will receive the  
11 highest scores and is thus the awardee. Next slide,  
12 please.

13 Once this block grant agreement is executed, TRC  
14 will design, implement, and administer CalEHP with the  
15 incorporation of guiding principles, and guidance and final  
16 approval from CEC.

17 TRC will also provide technical assistance to  
18 eligible builders to assist them in understanding,  
19 applying, and completing projects under the program.

20 Under the agreement, TRC will also provide  
21 outreach and public workshops to gather additional public  
22 input to develop the incentive program.

23 In addition, TRC will form a technical advisory  
24 group to develop a mechanism for stakeholder engagement and  
25 feedback.

1           The CEC will provide input and guidance  
2 throughout the development and implementation of CalEHP  
3 over the course of the agreement. Next slide, please.

4           The budget proposed in this agreement is a little  
5 over \$68 million dollars. Over \$58 million dollars will be  
6 issued in incentives and up to \$9.9 million will be spent  
7 on TRC's administrative costs.

8           Regarding the timeline of the program launch,  
9 program design and outreach begins once the agreement is  
10 approved and executed. The outreach will include at least  
11 two workshops that will cover the initial program design  
12 and final program design in preparation for launching the  
13 program in quarter 2 or 3 of this year. As well, TRC will  
14 disseminate information about the program to stakeholders  
15 and participants to support program participation. Next  
16 slide, please.

17           Approving the presented agreement will allow us  
18 to begin our work with TRC as the third-party administrator  
19 for CalEHP.

20           In conclusion, following review by the Chief  
21 Counsel's Office, staff is seeking your approval of the  
22 block grant agreement and staff's determination that this  
23 action is exempt from CEQA. We are available to answer any  
24 questions you may have. And thank you for your  
25 consideration.

1 CHAIR HOCHSCHILD: Thank you.

2 We'll go to public comment on Item 12.

3 MS. BADIE: Thank you. If you want to make a  
4 comment on Item 12 and you're in the room, please sign up  
5 at the table in the back using the QR code posted or sign  
6 up with our Public Advisor's Office, that's at the back  
7 table. If you want to comment on this item and you're on  
8 Zoom, please use the raise hand feature that looks like an  
9 open palm. And if joining by phone, press \*9 to raise your  
10 hand and then \*6 to mute and unmute when instructed.

11 Each person will have up to three minutes to  
12 comment and comments are limited to one speaker per  
13 organization.

14 Looking at the in-person queue, there is no one  
15 there for this item, and now going to Zoom, I am not seeing  
16 any raised hands for this item. Back to you, Chair.

17 CHAIR HOCHSCHILD: Thank you. We'll start with  
18 Commissioner McAllister.

19 COMMISSIONER MCALLISTER: Thank you, Chair.

20 Richard, nice job. That reflects a lot of  
21 teamwork behind you. And thanks to Deana leading the  
22 Division and really grabbing this bull by the horns.

23 You know, we have the BUILD program that is out  
24 and up and running and really moving the market on the  
25 affordable side. And this really complements that nicely.



1 And having TRC, which is I think known as an expert in this  
2 field and has a good track record, that will help it move  
3 forward expeditiously.

4 So I'm super supportive and good to have this  
5 resource to cover our bases across the multifamily housing  
6 or the multifamily housing landscape, so.

7 CHAIR HOCHSCHILD: Unless there are other  
8 comments, Commissioner, would you be willing to move Item  
9 12?

10 COMMISSIONER MCALLISTER: Move Item 12.

11 CHAIR HOCHSCHILD: Vice Chair Gunda, would you be  
12 willing to second?

13 VICE CHAIR GUNDA: Second.

14 CHAIR HOCHSCHILD: All in favor say aye.  
15 Commissioner McAllister.

16 COMMISSIONER MCALLISTER: Aye.

17 CHAIR HOCHSCHILD: Vice Chair Gunda.

18 VICE CHAIR GUNDA: Aye.

19 CHAIR HOCHSCHILD: Commissioner Monahan.

20 COMMISSIONER MONAHAN: Aye.

21 CHAIR HOCHSCHILD: And I vote aye as well. Item  
22 12 passes unanimously.

23 We'll turn now to Item 13, California Clean  
24 Energy Fund DBA CalCEF Ventures.

25 MR. SCACCIANOCE: Good afternoon, Chair and

1 Commissioners, I am Justin Scaccianoce, a Utilities  
2 Engineer in the Research & Development Division. I am here  
3 before you today to present for your approval two small  
4 grant awards under the CalSEED Initiative, which is under  
5 EPIC program funding. Next slide, please.

6           Since its inception in 2017, CalSEED has awarded  
7 \$28 million dollars to 118 clean energy startups with  
8 innovative technologies. To date, these companies have  
9 garnered nearly \$195 million dollars in various types of  
10 follow-on funding. Additionally, four companies have been  
11 acquired and three have completed series A VC funding  
12 rounds.

13           The growth of these small businesses can also be  
14 measured in terms of an increase in career opportunities,  
15 technology ownership rights, advancement on the technology  
16 readiness level scale and successful small-scale validation  
17 of the unique technologies.

18           In reflection of the CEC's commitment to  
19 diversity, CalSEED actively conducts outreach to ensure  
20 that the applicant pool is representative of all  
21 Californians, including women, low-income entrepreneurs,  
22 veterans, communities of color, and other underrepresented  
23 groups. Next slide, please.

24           CalSEED provides small grants to entrepreneurs  
25 with early-stage clean energy technologies.

1            Applicants first apply for a \$150,000 dollar  
2 Concept Award, which also comes with access to technical  
3 resources and business development expertise.  
4 Additionally, those that receive a Concept Award  
5 participate in Cleantech Open's accelerator program in  
6 which they develop a business plan and are invited to  
7 compete for \$450,000 additional dollars via a follow-on  
8 prototype award to further develop their innovation. Next  
9 slide, please.

10            There were a total of four participants in this  
11 most recent Business Plan Competition. Today, we will  
12 present the top two competitors for consideration to  
13 receive the Prototype Award.

14            Both participated in the Cleantech Open over the  
15 summer of 2021 but deferred competing for a Prototype Award  
16 until the latest Business Plan Competition in fall, 2022.  
17 Next slide, please.

18            Planet A Energy is advancing an innovative, long-  
19 duration storage technology that concentrates solar energy  
20 through their patented 'light pipes' to transfer heat to a  
21 bed of low-cost black sand.

22            By combining energy collection and storage into a  
23 single system, this new solar technology would reduce the  
24 system complexity and cost of long-duration storage and  
25 offer months of stored energy at a third of the cost of

1 incumbent technologies.

2 Planet A Energy successfully used their CalSEED  
3 Concept Award to develop early testbeds for each  
4 constituent component of their proposed system, which  
5 allowed them to prove their concepts and refine their  
6 designs.

7 With this award, they will build a prototype that  
8 integrates all component technologies into a complete  
9 system, develop comprehensive performance models for that  
10 system, and use the prototype to create a production-ready  
11 design. Next slide, please.

12 Sonocharge is a women and minority owned business  
13 that is continuing their development of a novel, mechanical  
14 wave-driven acoustic device that would significantly  
15 improve the charging performance, capacity, longevity, and  
16 safety of lithium metal batteries.

17 The lithium-ion concentration gradient and slow  
18 lithium-ion diffusion in the electrolyte of a battery is  
19 the major limiting factor that inhibits the development of  
20 fast-charging batteries. Generating acoustic streaming in  
21 the electrolyte with a surface-acoustic-wave-device reduces  
22 the thickness of the depletion layer and generates  
23 homogeneous mixing across the battery, which prevents  
24 dendrites, adverse heating, and electrolyte breakdown.

25 With the Concept Award, Sonocharge was able to

1 conduct early testing on small pouch cells. These tests  
2 produced very exciting results including a 20 percent  
3 higher initial capacity, and an almost 10 times greater  
4 capacity over 215 charging cycles with acoustic streaming.

5 With this award, Sonocharge will design and  
6 fabricate a surface acoustic wave device that can fit into  
7 a lithium metal battery. They will then analyze the  
8 performance effects it has on individual battery cells, and  
9 multi-cell battery pouches. Next slide, please.

10 We recommend approval of these two grant awards  
11 and adoption of staff's findings that these projects are  
12 exempt from CEQA.

13 Before we conclude, we'd like to take a second to  
14 recognize all the great work being done by New Energy  
15 Nexus. They have been a proactive and thoughtful  
16 administrator of the CalSEED Initiative and we'd like to  
17 extend a big thanks to them for their continued efforts.

18 Staff is available for questions. Thank you all  
19 for your time today.

20 CHAIR HOCHSCHILD: Thank you.

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

22 MS. BADIE: Thank you. If you want to make a  
23 comment on this item and you're in the room, please sign up  
24 at the table in the back using the QR code or see the  
25 public advisor at the table. If you want to comment on

1 this item and you are on Zoom, please use the raise hand  
2 feature that looks like an open palm. And if joining by  
3 phone, press \*9 to raise your hand and \*6 to mute and  
4 unmute when instructed.

5 Each person will have up to three minutes. And  
6 we're asking for comments to be limited to one speaker per  
7 organization.

8 We do not have anyone in the room wishing to  
9 comment on this item. Now turning to Zoom, we have Danny  
10 Kennedy. Mr. Kennedy, please state and spell your name for  
11 the record, and your affiliation and make your comment.  
12 Thank you. Oh, Mr. Kennedy lowered his hand. No. Oh no,  
13 wait, here we go.

14 CHAIR HOCHSCHILD: I think he was trying to  
15 comment because he called in earlier, so.

16 MR. KENNEDY: I'm here. I'm sorry, I was  
17 lowering my hand because I was being called. But thank you  
18 guys, it's great to be back in front of the Commission.  
19 I'm Danny Kennedy, spelt D-A-N-N-Y K-E-N-N-E-D-Y. I'm the  
20 Chief Energy Officer at New Energy Nexus. And I just want  
21 to thank you all and thank the team, Justin and all, for  
22 restarting the calcium process this year with a bang. I  
23 think these two new awardees for the prototype stage  
24 CalSEED grants are really exemplary companies, and just  
25 want to spend a couple of minutes celebrating with you that

149

1 success.

2 But also to thank the whole Commission, all of  
3 you, for the ongoing work with CalSEED. Obviously, we have  
4 a sort of hiatus there as we re-contracted and now have  
5 this fifth set of prototype awardees going. And as I'll  
6 say at the end, we're launching into the next big cohort of  
7 the CalSEED Concept Awards in February, so I just wanted to  
8 remind the Commission of that and the audience online in  
9 Sacramento.

10 But just to speak to these fantastic  
11 entrepreneurs at Planet A Energy and Sonocharge. You know,  
12 I asked the project manager, Joy Lawson, what was so cool  
13 about these two prototypes that are going forward from this  
14 cleantech open process and selection. And they're really  
15 kind of bizarre science breakthroughs. I mean, this  
16 endless summer product that Planet A Energy has with the  
17 black sand and the light tubes is a pretty cool response to  
18 the problem that California has and the whole world will  
19 have in spades in the not-too-distant future of  
20 curtailment. And how to capture some of this renewable  
21 energy that we're producing. I think there were too many  
22 problems in California alone with that in the last year.  
23 And so technologies like this can really help us bridge the  
24 gap between renewable generation and the need for this  
25 long-duration storage.

150

1           And then the Sonocharge solution to electrolyte  
2 conditioning and the dendrite formation problems inside  
3 cells. This is kind of the IP that only diverse  
4 entrepreneurs in California come up with in my experience.  
5 And New Energy Nexus runs battery-related innovation  
6 programs all around the world, so to sort of see something  
7 like Sonocharge going to the next stage and potentially  
8 grow with this next phase of CalSEED funding is really  
9 fantastic.

10           Both of the teams benefited greatly from  
11 participating in Clean Tech Open. I want to put a shout  
12 out to the Clean Tech Open, as our ongoing partner with  
13 CalSEED really did a wonderful job with these two in  
14 particular. And developed comprehensive business plans to  
15 go to market with their tech now with this prototype award.  
16 So thank you Clean Tech Open. Thank you for all the crew  
17 managing EPIC funding and CalSEED support inside the  
18 California Energy Commission and CalTestBed as well.

19           And as I said I just wanted to remind you all  
20 that we've got the next cohort number six, would you  
21 believe; this is the sixth go round people, we've got 120  
22 companies out there in the world well, 118 so far on these  
23 two if you approve.

24           And we're going to do it again. February 17  
25 we're opening applications. We've had some information



1 sessions. There's one actually going on concurrent with  
2 this Commission meeting. It'll only be open for a few  
3 weeks. March 5, the application is closed. So if there's  
4 entrepreneurs in the audience, please get online at  
5 "calseed.fund" to learn more and we look forward to  
6 supporting more diverse entrepreneurs this year. Thank  
7 you, CEC.

8 MS. BADIE: Thank you.

9 Next, we have Braden Hines. I will open your  
10 line. Please state and spell your name for the record and  
11 your affiliation, if any.

12 MR. HINES: Can you hear me now?

13 MS. BADIE: Yes.

14 MR. HINES: Okay. This is Brad Hines, B-R-A-D H-  
15 I-N-E-S. I'm the CEO of Planet A Energy. It was suggested  
16 that I say a couple words about our award, and how this  
17 funding is going to help us. So yeah, we're really excited  
18 about the CalSEED Prototype Award. It's going to help us  
19 to achieve a key milestone in our development process. As  
20 Danny mentioned, we're working on solving California's long  
21 duration energy storage problem.

22 And our approach is a little different. We  
23 collect solar energy, and we store it right in our  
24 collection module where it can be saved for weeks or even  
25 months. And we store the energy as heat at high

1 temperature, in a vast bed of ultra-low cost black sand.  
2 We're talking thousands of tons of thermal storage at the  
3 utility scale power plant.

4           What's unique about our technology is how we  
5 collect the energy directly as heat. There are approaches  
6 that exist today for using photovoltaic generate  
7 electricity to in turn generate heat for thermal storage.  
8 But in our system by collecting heat directly, rather than  
9 converting first to electricity, and then back to heat,  
10 we're able to collect three-and-a-half times more energy  
11 for the same size solar generating plant. And we also  
12 avoid the equipment costs of converting first to  
13 electricity and then back to heat.

14           This prototype award is significant for us,  
15 because it provides the funds to perform the first  
16 demonstration of storing energy for a full week. We're  
17 building a full trailer sized operational prototype that  
18 will demonstrate all the key elements of our system working  
19 together, providing us with the competence to proceed the  
20 full scale systems.

21           Our vision is to enable solar energy to become a  
22 baseload resource for California, enabling as long as  
23 seasonal energy storage, and enabling the true retirement  
24 of baseload fossil resources. So this prototype award is a  
25 critical step for us on the path to market and we thank New

1 Energy Nexus and the Commission for the opportunity to  
2 execute on this.

3 And also, I'll mention what Danny said about the  
4 Clean Tech Open. That was very fruitful. One of the  
5 people we met there became -- ended up becoming a board  
6 member for us and has been super valuable going forward.  
7 So we appreciate the efforts of New Energy Nexus and the  
8 Commission in putting this program together and providing  
9 us with such valuable resources.

10 MS. BADIE: Thank you.

11 Next, we have Steve Uhler. Please make your  
12 comment.

13 MR. UHLER: Hello, Commissioners, this is Steve  
14 Uhler, U-H-L-E-R. I support this type of work, being  
15 innovative, based on some pretty solid science.

16 A particular intention would be storing heat. So  
17 heat is often measured in BTUs although some people measure  
18 in watts. But anyway in BTUs you could do direct  
19 comparisons to the amount of natural gas that wouldn't be  
20 consumed.

21 As far as the lithium and the diffusion process,  
22 I used to have a battery charger that I worked on same  
23 principle. It didn't use any kind of acoustic device. It  
24 just simply pulsed the charge current and that made the  
25 electrolyte stir. A lot of devices have equalizations

1 built into the charging. The acoustic one offers maybe a  
2 more precision range. It may be able to be able to reach  
3 in areas because of surface charge and so on so forth in  
4 the battery. They may be able to stir where nobody else  
5 has stirred before.

6 So I appreciate you funding these folks. Thank  
7 you.

8 MS. BADIE: Thank you.

9 And that is our last raised hand. Back to you,  
10 Chair.

11 CHAIR HOCHSCHILD: Thank you.

12 Well, let me just thank all of the team, at  
13 Energy Nexus and at the Energy Commission, who helped make  
14 the CalSEED program possible.

15 I am a big believer in the model of these initial  
16 sort of concept grants at 150,000 and then you pass certain  
17 stage gates and you get 450,000 follow on. I think that's  
18 a really successful and effective model. And I  
19 congratulate the companies that get any awards today and  
20 wish you luck. And I just really want to say let's keep  
21 going, so I'm in full support.

22 Yes, Vice Chair Gunda, please.

23 VICE CHAIR GUNDA: Yeah, just I wanted to thank  
24 the presentation, so thank you so much. I would also just  
25 say when I was going through my grad school I was a part of

1 Clean Tech Open. And so I really understand the value of  
2 the business plan competitions and bringing them to the  
3 scale. So thank you so much. And it really tickled me,  
4 especially the Sonocharge. That was part of my very  
5 similar graduate work on reducing the diffusion layer with  
6 acoustic wave, so I look forward to the results of that.  
7 Thank you.

8 COMMISSIONER MCALLISTER: Yeah. Thanks for the  
9 presentation. And completely, I agree with all that. And  
10 just I'll check out with a note on my Lead Commissioner  
11 Report later just by saying the RPE, the joint event, the  
12 innovation show case that RPE and the CEC did last week  
13 down in San Diego, the value of this approach just was so  
14 clear. And some of the technologies we funded years and  
15 years ago are now going commercial and are scaling. And  
16 it's because of this pathway and the fact that staff has  
17 been so, I think skilled at addressing each of the barriers  
18 that a technology goes through on its development in market  
19 uptakes. Including one that my adviser, David Johnson,  
20 worked on which is now going big. And you know, it's  
21 really quite remarkable.

22 So I'm fully in support.

23 CHAIR HOCHSCHILD: Supportive enough to move Item  
24 13?

25 COMMISSIONER MCALLISTER: Yes, I move Item 13.

1 CHAIR HOCHSCHILD: Thank you. Commissioner  
2 McAllister is moving the item. Vice Chair Gunda, would you  
3 second?

4 VICE CHAIR GUNDA: Yes, I second Item 13.

5 CHAIR HOCHSCHILD: All in favor say aye.  
6 Commissioner McAllister.

7 COMMISSIONER MCALLISTER: Aye.

8 CHAIR HOCHSCHILD: Vice Chair Gunda.

9 VICE CHAIR GUNDA: Aye.

10 CHAIR HOCHSCHILD: Commissioner Monahan.

11 COMMISSIONER MONAHAN: Aye.

12 CHAIR HOCHSCHILD: And I vote aye as well.

13 Colleagues, I'm going to suggest -- it's a long  
14 meeting -- that we take a break, maybe a ten-minute break.  
15 And we'll return at 2:40. Just stretch your legs a little  
16 bit and get a coffee if you want. Is that okay? All  
17 right, let's reconvene in ten minutes.

18 COMMISSIONER MCALLISTER: Just for the record, I  
19 do need to leave at 4:00, probably, so I might have to step  
20 off.

21 CHAIR HOCHSCHILD: Okay, yeah.

22 COMMISSIONER MCALLISTER: So yeah, hopefully  
23 nobody else does so we still have a quorum.

24 (Off the record at 2:32 p.m.)

25 (On the record at 2:44 p.m.)

1 CHAIR HOCHSCHILD: Mona, are we ready?

2 MS. BADIE: We have to wait for the countdown  
3 because the recording is paused.

4 CHAIR HOCHSCHILD: Okay. Thank you. All right,  
5 we're back. We'll turn now to Item 14, Department of  
6 Energy Lawrence Berkeley National Lab.

7 MR. KRELL: Hello Chair, Vice Chair and  
8 Commissioners. My name is Wendell Krell, and I am with the  
9 Fuels and Transportation Division. Today, staff is seeking  
10 approval of a project to create individual electric vehicle  
11 charging infrastructure blueprints for six military bases  
12 in various locations around the state. Next slide, please.

13 The blueprints will guide the Department of the  
14 Navy project teams by providing a cost benefit analysis to  
15 aid improvements, and leverage innovative technologies  
16 essential to developing plans for installing electric  
17 vehicle chargers in the coming years. Transportation  
18 electrification improvements that will be recommended in  
19 the blueprints will benefit the non-tactical fleet and  
20 personal vehicles for military personnel as well as the  
21 public who frequent the bases. This will accelerate the  
22 overall goal of transitioning both public and private  
23 vehicles to zero emissions and potentially provide useful  
24 information that could be replicated by other military  
25 bases.

1           In the end, improvements to air quality and lower  
2 greenhouse gas emissions are expected and innovations such  
3 as vehicle to grid or electric vehicle charger to grid may  
4 be considered and will increase the benefits to  
5 Californians and, eventually the nation. Next slide,  
6 please.

7           Early last year, CEC Fuels and Transportation  
8 Division and Department of Navy representatives met to  
9 discuss joint goals, specifically the infrastructure  
10 necessary to transition non-tactical vehicles and privately  
11 owned vehicles present in California military bases to  
12 zero-emission technology options.

13           Also last year, the Department of the Navy  
14 released its "Climate Action 2030" strategy, and the  
15 "Military Vehicle Fleet Electrification Act" was introduced  
16 in both chambers of Congress to reduce carbon emissions by  
17 transitioning the Department of Defense's non-tactical  
18 fleet to electric or other zero-emission vehicles. These  
19 events led to the development of this agreement with the  
20 goal of developing 6 electric vehicle charger  
21 infrastructure blueprints at California military bases.  
22 These blueprints will guide Department of the Navy's  
23 transportation electrification infrastructure improvements  
24 to support state and federal goals. Next slide, please.

25           This is a contract with the Department of Energy



1 Lawrence Berkeley National Laboratory. They are eligible  
2 to enter into a Cooperative Research and Development  
3 Agreement, also referred to as a CRADA, with the Department  
4 of Navy, to access each site and gather the data required.  
5 The agreement tasks include the establishment of a CRADA,  
6 data collection and analysis, and 6 separate reports for  
7 the bases listed on this slide to be developed within 15  
8 months. Next slide, please.

9 Staff recommends approving this contract for 1.5  
10 million and adopting staff's determination that this is  
11 exempt from CEQA. That ends my presentation. And Rongxin  
12 Yin with LBNL is online and we would both be happy to  
13 answer questions you may have.

14 CHAIR HOCHSCHILD: Thank you.

15 Any public comments on Item 14?

16 MS. BADIE: Thank you. If you want to make a  
17 comment on this item in anywhere in the room, please sign  
18 up at the table in the back or use the posted QR code at  
19 the back table. If you want to comment on this item and  
20 you are on Zoom, please use the raise hand feature that  
21 looks like an open palm. And if joining by phone, press \*9  
22 to raise your hand and \*6 to mute and unmute when  
23 instructed.

24 And looking at the in-person queue there is no  
25 one for this item. Turning now to Zoom we have Steve

160

1 Uhler. Mr. Uhler, please make your comment.

2 MR. UHLER: Hello, Commissioners. It's Steve  
3 Uhler, U-H-L-E-R. I support this kind of work. I'm really  
4 interested in the data gathering.

5 Perhaps you're aware that when you charge a  
6 battery if there is any non-unity power factor it's most  
7 likely leading. Which is a good thing, because we have a  
8 lot of lagging for inductive loads. It would be really  
9 interesting to see if they could maybe gather a few more  
10 pieces of data on power factor. When the system is  
11 charging does it actually take another part of the circuit  
12 and bring it closer to unity for power factor, which  
13 reduces demand? And whether or not these types of  
14 situations can be part of your demand response, not just  
15 for shutting off but for actually reducing load by  
16 improving power factor.

17 You'll find that I'm heavily a fan of power  
18 factor AC circuits. You really can't figure out what the  
19 demand is in an AC circuit by looking at watts. So I'm  
20 hoping that the folks are going to do this will think about  
21 that and see if they can figure out how to track power  
22 factor and its effect in this situation. Thank you.

23 MS. BADIE: Thank you.

24 That is the only public comment for this item.  
25 Back to you, Chair.

1 CHAIR HOCHSCHILD: And over to Commissioner  
2 Monahan.

3 COMMISSIONER MONAHAN: Well I want to say, Chair,  
4 you were the inspiration for this. So working with the  
5 military trying to find ways that we can support the  
6 transition to zero emission transportation, not just for  
7 the Californians at large, but for our military. And I  
8 think we all recognize the important role that the military  
9 plays, not just in national security, but also in advancing  
10 innovation to support national security and EV charging is,  
11 and EVs in general. Especially with the ability to give  
12 energy back to the grid, especially with the energy  
13 security implications of our oil dependence and the number  
14 of soldiers who are often put at risk just to protect oil  
15 convoys across the world.

16 So this is, I think, an exciting proposal and I  
17 give Wendell and the team credit, because they had to be  
18 innovative about how to work with the military. And how to  
19 move monies quickly, which LBNL gives us that opportunity.

20 CHAIR HOCHSCHILD: Thank you.

21 I would just add one thing to keep in mind, about  
22 a third of the US Navy is in California, and it's something  
23 similar with the Marine Corps. And what's going on now is  
24 a massive strategic realignment, where we're deploying  
25 assets that had been in Africa and elsewhere and are now

1 facing the Pacific. So there's a whole bunch more  
2 personnel coming in to California, and to our bases, and  
3 particularly the Navy in the San Diego area. And so this  
4 has been very well timed.

5           And this is very much a case having -- we have 30  
6 military bases in the state. I've visited maybe 10 of  
7 them. It's very much a case of if you build it, they will  
8 come. You know, the charges being there, the soldiers and  
9 sailors and marines will be much more likely to buy an  
10 electric vehicle and use an electric vehicle if they can  
11 charge it. So really glad to see this. Thank you for your  
12 work.

13           And I will just say once again, you know, the  
14 military has been a great partner for us on not just this  
15 kind of stuff, but also energy storage and efficiency,  
16 water efficiency, a bunch of other things. I think we've  
17 done projects now on nine bases in the state or something  
18 like that. So I thank you for your work and your  
19 leadership on this.

20           Unless there's other comments from my colleague,  
21 Commissioner Monahan, would you be willing to move Item 14?

22           COMMISSIONER MONAHAN: I move this Item.

23           CHAIR HOCHSCHILD: Commissioner McAllister, would  
24 you be willing to second?

25           COMMISSIONER MCALLISTER: Second.

1 CHAIR HOCHSCHILD: All in favor, say aye.

2 Commissioner Monahan.

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: Commissioner McAllister.

5 COMMISSIONER MCALLISTER: Aye.

6 CHAIR HOCHSCHILD: Vice Chair Gunda.

7 VICE CHAIR GUNDA: Aye.

8 CHAIR HOCHSCHILD: And I vote aye, as well. Item

9 14 passes unanimously.

10 We'll turn now to Item 15, Renewable Hydrogen

11 Transportation Fuel Production.

12 MR. HOM: Hello Chair, Vice Chair, and

13 Commissioners. My name is Andrew Hom, Air Resources

14 Engineer with the Fuels and Transportation Division.

15 Today, staff is seeking approval on two items for this

16 project. The first is to adopt CEQA findings for the

17 project site in the City of Victorville. And the second

18 item is to approve a grant agreement with StratosFuel, Inc.

19 This project was awarded \$3 million dollars in

20 Clean Transportation Program funding to expand construction

21 to produce an additional 5,000 kilograms/day of 100 percent

22 renewable hydrogen. Next slide, please.

23 Benefits of this project include the increase of

24 in-state production of 100 percent renewable hydrogen

25 through electrolysis with renewable electricity.

1 StratosFuel was previously awarded to build 5,000 kilograms  
2 per day of renewable hydrogen production. And this project  
3 aims to increase this production capacity by an additional  
4 5,000 kilograms per day. This increase in production aims  
5 to help alleviate some of the issues that the state's  
6 hydrogen refueling station network has experienced with  
7 fuel shortages and providing greater reliability in the  
8 fuel supply, annual emission reductions of nearly 24,000  
9 tons of carbon dioxide equivalent, and also contributing to  
10 another step leading us towards a zero-carbon hydrogen  
11 future as we increase the production and utilization of  
12 green hydrogen. Next slide, please.

13           This map illustrates the project site location,  
14 marked with a yellow star in the top right corner, in  
15 relation to the potential customers of hydrogen refueling  
16 stations, which are marked by all of the red and green  
17 shapes. The production facility is strategically located  
18 with less than a 75-mile radius of about 90 percent of the  
19 open or planned hydrogen stations in southern California.  
20 Next slide, please.

21           The current estimated fuel cell electric vehicle  
22 population on the road is over 12,000 vehicles, equating to  
23 a fuel demand of about 8,500 kilograms per day. This  
24 project's additional production capacity of 5,000 kilograms  
25 per day of renewable hydrogen would help serve a portion of

1 the current and future demand. With estimates that the  
2 demand for hydrogen fuel reaching around 24,000 kilograms  
3 per day by 2025, we will need more production projects like  
4 this one in order keep us moving towards a zero-carbon  
5 hydrogen future. Next slide, please.

6 A breakdown of the project's current and  
7 potential customers is depicted here. Stratosfuel plans  
8 and expects 90 percent of their customers to be from the  
9 hydrogen refueling station market. 5 percent of customers  
10 which will use the fuel for heavy-duty or off-road  
11 purposes, and 5 percent would be available for green  
12 industrial customers. There seems to be and remain a  
13 significant potential for growth in these last two markets.  
14 Next slide, please.

15 Stratosfuel's renewable hydrogen production  
16 facility was evaluated by the lead agency, the City of  
17 Victorville, which adopted a Mitigated Negative  
18 Declaration, a Mitigation Monitoring Program, and  
19 resolutions approving a site plan and conditional use  
20 permit.

21 Commission staff have reviewed and considered  
22 these documents in their own analysis, and determined that  
23 this project presents no new significant or substantially  
24 more severe environmental impacts beyond those already  
25 considered and mitigated by the lead agency.

1           For this agreement, staff is seeking your  
2 adoption of the CEQA findings and approval of the grant  
3 agreement with StratosFuel for item number 15.

4           Jonathan Palacios-Avila, Vice President and Co-  
5 Founder of Research & Marketing with StratosFuel, is here  
6 and would like to provide a comment and can answer any  
7 questions. Thank you for your consideration, this  
8 concludes my presentation.

9           CHAIR HOCHSCHILD: Thank you so much, Andrew.

10          MR. PALACIOS-AVILA: Thank you -- thank you,  
11 Andrew. Good afternoon, Commissioners and CEC staff. My  
12 name is Jonathan Palacios-Avila, Vice President of  
13 Marketing and Research at StratosFuel Inc. During this  
14 time, I would like to thank the Commissioners and Energy  
15 Commission staff for all their hard work and dedication to  
16 reducing greenhouse gas emissions within our beautiful  
17 state of California.

18          At Stratosfuel it is our vision to make hydrogen  
19 and everyday fuel. We are accomplishing that vision by  
20 implementing projects that produce renewable hydrogen and  
21 provide alternative forms of transportation through  
22 hydrogen cost sharing.

23          Stratos has been a recipient of multiple CEC  
24 grants that all involve hydrogen. We are grateful for the  
25 Energy Commission's continual investment in our vision and



1 increasing the proliferation of hydrogen fuel cell vehicles  
2 across the state. Through this proposed project Stratos  
3 will be building a large-scale hydrogen plant in the City  
4 of Victorville. This plant is designed to supply hydrogen  
5 to a multitude of customers from various industries within  
6 California.

7           Once complete, the plant will have the ability to  
8 fill close to 10,000 light-duty fuel cell vehicles on a  
9 daily basis.

10           Overall, Stratos is committed to the hydrogen  
11 industry by providing safe and reliable hydrogen production  
12 mobility platforms. Thank you, Commissioners and staff.

13           CHAIR HOCHSCHILD: Thank you.

14           Any public comment on Item 15?

15           MS. BADIE: If you would like to make a public  
16 comment and you're in the room, we're asking folks to sign  
17 up using the QR code in the back or seeing the Public  
18 Advisor's Office at the back table.

19           If you want to make a comment and are on Zoom,  
20 please use the raise hand feature to let us know. And if  
21 you're on the phone, press \*9 and then \*6 to mute and  
22 unmute when you are called on.

23           I do not see anyone else in the queue for in  
24 person. Now looking to the list on Zoom I am not seeing  
25 any raised hands. Back to you, Chair.

1 CHAIR HOCHSCHILD: Thank you.

2 We'll turn to Commissioner Monahan.

3 COMMISSIONER MONAHAN: Well I want to thank  
4 Jonathan for -- is Jonathan still there? Oh, there you  
5 are, back there, for making the trip out. And I just want  
6 to say personally that Jonathan is a visionary in this  
7 space. And a number of years ago when I first started the  
8 Energy Commission I actually went to UC Riverside to kick  
9 off the StratosShare program, which is a fuel cell car  
10 sharing program. And they were partnering with UC  
11 Riverside to get zero carbon hydrogen production as well.  
12 And just really innovative. And Jonathan's whole family  
13 has been involved in this. It still one of the best  
14 baklavas I've had in my life was at that kickoff event.

15 And we have been trying as the Fuels and  
16 Transportation Division, and Andrew has been really leading  
17 on this, to expand clean sources of hydrogen in the state.  
18 One of the barriers has been that when one hydrogen  
19 facility goes down it causes chaos in the system. So the  
20 more we can have production of clean hydrogen, the better.  
21 It also supports the work that we're trying to do to get a  
22 hydrogen hubs.

23 So just I'm supportive of this project and of  
24 Jonathan's vision.

25 CHAIR HOCHSCHILD: Thank you, Commissioner.

1 Unless there are any other comments, would you be willing  
2 to move Item 15?

3 COMMISSIONER MONAHAN: I move Item 15.

4 CHAIR HOCHSCHILD: Commissioner McAllister, would  
5 you be willing to second?

6 COMMISSIONER MCALLISTER: Second.

7 CHAIR HOCHSCHILD: All in favor, say aye.

8 Commissioner Monahan.

9 COMMISSIONER MONAHAN: Aye.

10 CHAIR HOCHSCHILD: Commissioner McAllister.

11 COMMISSIONER MCALLISTER: Aye.

12 CHAIR HOCHSCHILD: Vice Chair Gunda.

13 VICE CHAIR GUNDA: Aye.

14 CHAIR HOCHSCHILD: And I vote aye as well. Item  
15 15 passes unanimously. We'll turn now to Item 16, Zero  
16 Emission Transportation Manufacturing.

17 MS. BADIE: The microphone is on.

18 MR. BOBADILLA: Hello Chair, Vice-Chair and  
19 Commissioners. My name is Jonathan Bobadilla, with the  
20 Fuels and Transportation Division.

21 Today, staff is seeking approval of four projects  
22 that were proposed for funding under grant funding  
23 opportunity GFO-21-605 titled "Zero-Emission Transportation  
24 Manufacturing." Next slide.

25 Before I present the four projects, I wanted to

1 provide an overview of GFO-21-605. This solicitation  
2 sought proposals to increase in-state manufacturing of Zero  
3 Emission Vehicles or ZEVs, ZEV components and batteries,  
4 and ZEV infrastructure.

5           Projects proposed for award under this  
6 solicitation will attract new and expand existing zero-  
7 emission vehicle (ZEV) related manufacturing in California.  
8 Increase the number and quality of manufacturing jobs in  
9 California, particularly in the ZEV market. Bring positive  
10 economic impacts to the state by attracting private  
11 investments in manufacturing capacity. And contribute to  
12 California's goals of zero-emission transportation.

13           These projects are funded by the California  
14 Budget Act of 2021, the California Budget Act of 2022, and  
15 the Clean Transportation Program.

16           I will now present four of the projects that are  
17 proposed for funding under this solicitation. Additional  
18 awards from this solicitation will be proposed at future  
19 business meetings. Next slide.

20           The first agreement is with Zimeno Inc. doing  
21 business as Monarch Tractor. Monarch's headquarters is in  
22 Livermore and has a platform that combines mechanization,  
23 automation, and data analysis to enhance farmers' existing  
24 operations. This project will establish the manufacturing  
25 of a range of equipment models for Zero Emission Monarch

1 Tractor MK-V variants predominantly sold in the  
2 agricultural sector. The manufacturing facility will be at  
3 Monarch Tractor's Livermore headquarters.

4 The proposed award for this project is \$13.1  
5 million with match funds of \$13.2 million. Next slide.

6 If approved, the new manufacturing line will  
7 allow for new battery electric tractor models to be  
8 manufactured and commercially sold in California. At full-  
9 rate production, Monarch Tractors estimates between 700 to  
10 1,440 battery-electric tractors produced annually depending  
11 on customer configuration demands.

12 At full production, the deployment of zero  
13 emission tractors is expected to abate 13,100 metric tons  
14 of carbon dioxide or CO2 equivalent and 105 metric tons of  
15 nitrous oxide or NOx annually. In addition, Monarch  
16 Tractor is taking extra steps to train a skilled labor  
17 workforce able to work with the more sophisticated pieces  
18 of equipment and directly creating over 50 jobs. Next  
19 slide.

20 The second agreement is with American Lithium  
21 Energy Corporation or ALE. ALE has been manufacturing  
22 high-performance lithium-ion batteries since 2006 and will  
23 expand manufacturing of ZEV batteries to accelerate  
24 adoption of ZEVs across the State of California.

25 If approved, this project will set up a fully

1 automated battery cell assembly line capable of producing  
2 1.5 million high-performance ZEV battery cells per year.  
3 This will increase the use of US and California-based raw  
4 materials and equipment suppliers.

5 The proposed award for this project is \$10.2  
6 million with match funds of \$10.2 million. Next slide.

7 The project will support California's economic  
8 competitiveness in battery technology and ZEV battery  
9 manufacturing. The use of these batteries in ZEV  
10 Transportation could reduce GHG emissions by over 1,080  
11 tons of CO2 per year. This project will directly create 52  
12 well-paying battery manufacturing jobs during the project  
13 term and support ZEV workforce development in California.  
14 Next slide.

15 The third agreement is with Wiggins Lift Company,  
16 Inc. or Wiggins, a third-generation woman-owned and  
17 operated company. Wiggins is the only manufacturer in  
18 California to manufacture high capacity, highly specialized  
19 battery-operated forklifts for their customers.

20 This project is to upgrade, modernize, and expand  
21 the current manufacturing facility. If approved, this  
22 project will set up 10 more zero emission forklifts  
23 assembly lines. Additionally, Wiggins and the project team  
24 will train and hire sufficient workforce to address demand  
25 for its products and expand high roads training partnership

1 programs.

2           The proposed award for this project is \$8.1  
3 million with match funds of \$8.3 million. Next slide.

4           If approved, this project will support an  
5 anticipated 5-10x growth in the electric forklift and  
6 material handling equipment market in California by 2028.  
7 The increase of electric forklifts will reduce 1,000 tons  
8 of carbon dioxide per year. The project will also develop  
9 a workforce training program to attract and hire an  
10 additional 31 to 68 workers for its manufacturing  
11 operations. Next slide.

12           The fourth and final agreement is with  
13 ChargePoint, Inc. or ChargePoint. ChargePoint offers Level  
14 2 and direct current or DC fast charging to provide  
15 seamless charging options for a variety of residential,  
16 commercial, and fleet applications.

17           This project is to build and scale manufacturing  
18 operations for ChargePoint's Level 2 charging stations and  
19 DC fast charger equipment in Milpitas and Campbell,  
20 California. The project will create a new manufacturing  
21 line for Level 2 EV chargers that will achieve an annual  
22 production capacity of 10,000 chargers and scale  
23 manufacturing capacity for DC fast chargers to an annual  
24 production capacity of 10,000 units. This dramatic  
25 increase in manufacturing capacity in California will

1 directly help carry out the state's ZEV and charging  
2 infrastructure goals, including Executive Order B-58-18 and  
3 N-79-20.

4           The proposed award for this project is \$14.6  
5 million with match funds of \$14.6 million. Next slide.

6           This project will support the increased  
7 production capacity for Level 2 and DCFC charging equipment  
8 market in California. The increased production capacity of  
9 electric vehicle supply equipment will reduce up to 1.6  
10 million metric tons of CO2 during the project term. This  
11 project will develop a workforce training program to  
12 attract and hire an additional 264 workers for its  
13 manufacturing operations. This project will also generate  
14 about 1,293 in-direct jobs and will help ChargePoint grow  
15 its California based-supply chain. Next slide.

16           Staff is seeking your adoption of staff findings  
17 that each of these projects is exempt from CEQA as well as  
18 your approval of each grant award.

19           The following individuals are attending this  
20 meeting and are available to answer any questions: Mr. Jake  
21 Winters with Monarch Tractor, Dr. Jiang Fan with American  
22 Lithium Energy, Mr. Micah McDowell with Wiggins, Ms. Tina  
23 Yu with ChargePoint.

24           And that is the end of my presentation, and I am  
25 happy to answer any questions you may have. Thank you.



1 CHAIR HOCHSCHILD: Thank you so much, Jonathan.  
2 Before we go to public comment one request I would have for  
3 items like this is to always list the location in  
4 California. I see ChargePoint, you mentioned Milpitas and  
5 Campbell. And Monarch, we know is in Livermore, but  
6 American Lithium or Wiggins. Maybe we don't yet know the  
7 locations, but if we do it's really helpful I think for  
8 Commissioners to have a sense of where the facility is.

9 MR. BOBADILLA: Understood.

10 CHAIR HOCHSCHILD: Yeah. So, with that we'll go  
11 to public comment on Item 16.

12 MS. BADIE: Thank you.

13 If you would like to make a comment on this item  
14 and you are in the room, please sign up at the back desk  
15 using the QR code. If you want to comment on this item and  
16 you are on Zoom, please use the raise hand feature. And if  
17 you are joining us by phone, press \*9 to raise your hand  
18 and \*6 to mute and unmute when instructed.

19 We're asking for folks to limit their comments to  
20 three minutes and one speaker per organization.

21 Looking to our in-person, we have Jake Winters  
22 would like to make a comment. If you can approach the  
23 podium, please. Please state and spell your name for the  
24 record and your affiliation, if any. Thank you.

25 MR. WINTERS: I'm Jake Winters, J-A-K-E W-I-N-T-

176

1 E-R-S. And I'm with Monarch Tractor for those who have not  
2 met me before.

3 Thanks for the opportunity to deliver a brief  
4 comment, and Jonathan did a great job encapsulating the  
5 project. So I just wanted to extend our thanks to the  
6 Commission, to all of the folks at the staff in the  
7 California Energy Commission, and all others that are  
8 advancing the energy goals for the State of California.

9 Monarch Tractor is humbled by the Notice of  
10 Proposed award for GFO 21-605 in context of the zero  
11 emission transportation manufacturing. This funding will  
12 serve as an accelerant towards the broad deployment of zero  
13 emission agricultural equipment in California's robust off-  
14 road and agricultural sectors.

15 The funding is also instrumental in the  
16 establishment and associated training of up to 50 jobs  
17 specialized in the manufacturing and maintenance of off-  
18 road electric vehicles.

19 We, once again, want to communicate our sincere  
20 appreciation for the leadership the California Energy  
21 Commission has demonstrated through this grant funding  
22 opportunity, and the many other initiatives moving us  
23 closer to California's equitable energy goals. Thank you.

24 MS. BADIE: Thank you.

25 And now, turning to Zoom we have William Hadala.

1 Mr. Hadala, please unmute on your end and state and spell  
2 your name for the record.

3 MR. HADALA: Yes, it's William and Hadala, H-A-D-  
4 A-L-A. I'm with American Lithium Energy Corporation. I  
5 want to thank Jonathan for the presentation as well as  
6 thank the Commission. We are based in Carlsbad, California  
7 down here in San Diego.

8 For more than 10 years, American Lithium Energy  
9 has been developing its proprietary nano silicone 1860 --  
10 or 650 cells. The cells were originally developed under  
11 funding from the US Army, and then the United States Army  
12 and the United States Air Force. We were able to produce  
13 the world's highest 4-amp hour 18650 cell.

14 Some of our current customers include the United  
15 States Department of Defense across the Army, Navy, Air  
16 Force, Space Force, as well as commercial companies such as  
17 Raytheon, Northrop, etc.

18 This funding is exciting for us and an  
19 opportunity to allow us to bridge this amazing technology  
20 that the United States has developed with us for national  
21 security, as we will leverage this work that is perfect for  
22 the electric vehicle markets.

23 Our technology has the world's highest density  
24 has unparalleled patented shut down electrodes and fire-  
25 retardant electrolytes for safety, and they can be used at

178

1 high in extreme temperatures. Again, I want to thank you  
2 for your time and your consideration.

3 MS. BADIE: Thank you.

4 Next, we have Michelle Wiggins. Ms. Wiggins, I'm  
5 going to open your line. Please spell your name for the  
6 record and make your comment. Thank you.

7 MS. WIGGINS: I'm Michelle Wiggins, M-I-C-H-E-L-  
8 L-E W-I-G-G-I-N-S. I'm the third -generation CEO of  
9 Wiggins Lift Company, and we thank you for the opportunity  
10 to contribute. And by the way, we are in Oxnard and the  
11 new facility will also be in Oxnard.

12 CHAIR HOCHSCHILD: Thank you.

13 MS. WIGGINS: We would like to take a moment to  
14 share our gratitude and thank the Energy Commission for its  
15 leadership, support and vision for advancing zero emission  
16 vehicle manufacturing in California.

17 We're grateful for the benefit of these public  
18 resources and for being a trusted partner in California's  
19 energy transition and clean energy economy. Generous  
20 public investment, like the Clean Transportation Program  
21 underpins the state's global leadership in zero emissions  
22 and sustainability. It allows businesses like ours to play  
23 an integral role in the state zero emission goals.

24 This project and all the projects funded under  
25 GFO-21-605 represents an opportunity to more readily meet

179

1 the growing demand for ZEV manufacturing.

2           Wiggins Lift is excited to work with the Energy  
3 Commission and hopes to expand and modernize our existing  
4 facility to meet the growing demand for electric forklifts  
5 and other product lines. This grant to Wiggins, the only  
6 high-capacity forklift manufacturer in California, would  
7 increase our ZEV manufacturing output by two-and-a-half  
8 times its current capacity, potentially adding over 60  
9 local jobs to the Oxnard and Ventura communities, a  
10 community we have called home for over 70 years.

11           We would like to specifically thank our  
12 Commission Agreement Manager, Taiying Zhang, who has been  
13 helpful in guiding us through this process. She is a  
14 knowledgeable, responsive and informative partner and we  
15 really look forward to continuing to work with her  
16 throughout the project.

17           We would also like to thank the Commissioners for  
18 their consideration of this project. The Commissioners'  
19 leadership sends a clear and unequivocal message to the  
20 industry that California is all in on economy-wide  
21 decarbonization. As the fourth largest economy in the  
22 world, there is no greater vote of confidence.

23           We are excited for the opportunity and look  
24 forward to working together with the Energy Commission and  
25 the state for years to come.

1 MS. BADIE: Thank you.

2 Next we have Tina Hu. Tina, your line has been  
3 opened, please spell your name for the record and make your  
4 comment. Tina, are you there?

5 MS. HU: Yes, hello. My name is Tina Hu and my  
6 last name is spelled H-U. I'm the Project Manager for the  
7 ZEV manufacturing grant on ChargePoint.

8 ChargePoint, I'd like to represent ChargePoint  
9 and thank Jonathan for the presentation and Artham Hu  
10 (phonetic) for the continued guidance and support.

11 We'd like to thank the Commission for your  
12 continued support and investment in clean transportation.  
13 And we very much look forward to working with the CEC to  
14 expand our manufacturing within the State of California,  
15 engage with a local workforce on zero emission vehicle  
16 manufacturing, and bring about job growth to our local  
17 community at Campbell and Milpitas. Thank you.

18 MS. BADIE: Thank you.

19 We also have Danny Kennedy on the line. I have  
20 opened your line.

21 MR. KENNEDY: Thank you.

22 MS. BADIE: Thank you, commenter.

23 MR. KENNEDY: I just wanted to make a public  
24 comment for the record, to support these projects and just  
25 endorse what everyone said about how important this is as a

1 statewide and industry-wide signal. It's really wonderful  
2 to see. I've already spoken so you have my name for the  
3 record. I'm the CEO of New Energy Nexus. We run the  
4 CalSEED fund.

5           But I've got to say, you know, those  
6 entrepreneurs travailing under the very early stage work of  
7 trying to create and seed these companies that will bring  
8 the energy transition into the light of day, are really  
9 inspired by successes like this to see Monarch and Wiggins  
10 go forward in the EV manufacturing. To see the balancing  
11 act that ChargePoint creates through the ZEV infrastructure  
12 plan that was presented and how we can make the grid clean  
13 while electrifying a lot of transportation.

14           And most significantly, for me, I think seeing  
15 ALE succeed in California since 2006 when really it wasn't  
16 cool to be making batteries in California. And they've  
17 made it through the clean tech the military pathway, and  
18 now can scale up to serve all these EVs including tractors,  
19 and agricultural equipment and forklifts and the like, as  
20 well as personal vehicles. It's just fantastic to see it  
21 all coming together, so I just wanted to join those dots.

22           This is the pipeline, you know. And California  
23 is doing it and should continue to celebrate the successes  
24 so that we can also accelerate that timeline. It shouldn't  
25 take from 2006 to 2022 for the next cohort of battery

1 manufacturers to come up in California. We've got  
2 everything we need: the lithium, the IP, the know-how, the  
3 money, the demand, all of it. So, thanks for your  
4 leadership getting this done. And we wholeheartedly  
5 endorse it as the progenitors seeding the field ,so we can  
6 see the field grow in innovation and electrification across  
7 the energy system. Thank you.

8 MS. BADIE: Thank you.

9 That was our last comment for this item. Back to  
10 you, Chair.

11 CHAIR HOCHSCHILD: Well, I just want to say I  
12 love this package. This is \$46 million (phonetic), a  
13 fantastic step. I want to thank you, Jonathan, all your  
14 colleagues, and everyone who is working on this stuff.

15 This, there's a straight line from this to the  
16 early part of our agenda on Lithium Valley. This is  
17 Lithium Valley, okay? These are all part of the same  
18 ecosystem. We'd like to see these electric vehicles being  
19 served with California lithium, ultimately.

20 And just looking at this mix of projects we're  
21 decarbonizing agriculture. We're decarbonizing passenger  
22 vehicles. We're decarbonizing industry. And we're doing  
23 that by building things here and that is checking so many  
24 boxes. It's just really exciting to me.

25 And I want to, again say these companies are



1 taking a lot of risk to do this. There's a lot of  
2 headwinds in California, but there's a lot of promise and a  
3 lot of possibility. And I absolutely believe we can scale  
4 these successfully. We're making the biggest investment  
5 the United States on the incentives for the market, and the  
6 charging infrastructure. And so, to see the manufacturing  
7 piece begin to line up is really exciting.

8 So I just wanted to -- hats off to the whole  
9 team.

10 And Commissioner Monahan, over to you, if you  
11 want to add some perspective on that.

12 COMMISSIONER MONAHAN: Well, just to add on what  
13 you were saying, Chair, \$250 million of investments is what  
14 the state is putting forth to encourage ZEV manufacturing  
15 here in California. And a lot of people don't know that  
16 right now California is the number one source of ZEV  
17 manufacturing jobs. And we want to keep it that way. And  
18 it's hard to keep it that way. And so these grants I think  
19 are really our sort of welcomed to the industry.

20 And Jonathan, you have been just an amazing  
21 thought leader in moving these forward. We really had to  
22 think ambitiously, we've never given out such large grants  
23 for manufacturing. The previous ones were in the range of  
24 a million or 2 million or small amounts compared to this.

25 I did have the pleasure of visiting two of the

1 facilities. One with the Chair in Monarch Tractor. And  
2 Wiggins, actually through one of the IEPR workshops in  
3 Oxnard. Our then Public Advisor took us there and we got  
4 to meet Michelle, got to drive her vehicles. I got to say,  
5 Noemi Gallardo was quite -- I have some pictures if anybody  
6 wants to see, there's evidence of her driving fast in those  
7 vehicles.

8           So it's just really inspiring to see, you know,  
9 in Oxnard, a place where there is a lot of economic  
10 struggles, as Michelle was saying, a third generation  
11 Wiggins producing vehicles of the future. And that's what  
12 we want to do here in California with these grants.

13           CHAIR HOCHSCHILD: Please, Vice Chair?

14           VICE CHAIR GUNDA: Yeah, I just wanted to make  
15 one collective comment on all the things transportation. I  
16 think we just went through, again just recognizing the  
17 historic nature of these amounts. We're just talking about  
18 10, 20, 30 million. They're clearly kind of powering the  
19 economy.

20           And I wanted to recognize, Commissioner Monahan.  
21 You know, I'm not involved in grant making as much in the  
22 work that I do. And every time I think of grant making it  
23 just scares me, right? I mean, it's like there's this huge  
24 ecosystem that you have to think through how best to do it.  
25 And all the checks and balances that you have to make to

1 ensure that it's equitable distribution across technology  
2 sectors and geographical areas. So I commend your  
3 leadership on this. I think you're rightly positioned for  
4 this moment of incredible infusion of money, so thank you  
5 for you.

6           And then entire (indiscernible) I think the FTD  
7 (phonetic) is an incredible team. You continue to build an  
8 incredible team and just thank you for all of your work.

9           One element I do want to elevate, Wiggins. I  
10 know we were in Oxnard again, thanks to Noemi. You know,  
11 Oxnard became kind of very dear, geographically for us, due  
12 to the IEPR process and I just want to elevate what  
13 Commissioner Monahan just mentioned. I think, you know,  
14 there are so many areas in California that have really  
15 faced the brunt of the emissions and the inequities. And I  
16 think Oxnard is one of those locations that could really  
17 benefit to be a part of the future in shaping the future of  
18 California. And love this entire story. Thank you,  
19 looking forward to supporting it.

20           MR. BOBADILLA: Thank you.

21           CHAIR HOCHSCHILD: With that, I welcome a motion  
22 from Commissioner Monahan on Item 16.

23           COMMISSIONER MONAHAN: I move to approve Item 16.

24           CHAIR HOCHSCHILD: Commissioner McAllister.

25           COMMISSIONER MCALLISTER: Second.

1 CHAIR HOCHSCHILD: All in favor say aye.

2 Commissioner Monahan.

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: Commissioner McAllister.

5 COMMISSIONER MCALLISTER: Aye.

6 CHAIR HOCHSCHILD: Vice Chair Gunda.

7 VICE CHAIR GUNDA: Aye.

8 CHAIR HOCHSCHILD: And I vote aye as well. That  
9 item passes unanimously, congratulations.

10 MR. BOBADILLA: Thank you.

11 CHAIR HOCHSCHILD: And let me say one thing,  
12 which is that we had gotten a tour, a clean vehicle  
13 manufacturing tour going before COVID kind of got it slowed  
14 down. I really want to get that up and running again,  
15 because I think it's really valuable to see these  
16 facilities first time. So let's continue that conversation  
17 and get that set up when able.

18 So with that we will turn now to Item -- what are  
19 we on, 17, Petition To Request a Rulemaking, Aleecia  
20 Gutierrez.

21 MS. GUTIERREZ: Good afternoon, Commissioners.  
22 My name is Aleecia Gutierrez and I'm the Director of the  
23 Energy Assessments Division. I'm here to provide staff's  
24 recommendation on action to be taken regarding the petition  
25 for rulemaking submitted to the CEC on January 6 by the

1 Western States Petroleum Association. Next slide, please.

2           The petition requests that the CEC initiate a  
3 formal rulemaking to clarify terms, including the term  
4 "gross gasoline refining margin" in Public Resources Code  
5 section 25355. On September 16, 2022 Governor Newsom  
6 signed SB 1322 by Allen, known as the California Oil  
7 Refinery Cost Disclosure Act, which included findings  
8 regarding retail gasoline prices in California compared to  
9 other states. And added Section 25355 to the Public  
10 Resources Code.

11           The findings state that retail gasoline price  
12 margins were higher in California than in other states, and  
13 that California branded retail margins were higher than  
14 those of their competitors in California.

15           Public Resources Code Section 25355(a) defines  
16 the term "gross gasoline refiner margin" as "the  
17 difference, expressed in dollars per barrel, between the  
18 volume-weighted average price of wholesale gasoline sold by  
19 a refiner in the state and the average price of crude oil  
20 received by the refinery."

21           Section 25355(b) requires California refineries  
22 to provide, within 30 days of the end of each month, five  
23 data items related to volume of specified gasoline-related  
24 products, information on various costs paid, prices, and  
25 sales received for products bought and sold by the operator

1 of the refinery, and information related to other costs  
2 such as taxes and fees. Refiners will need to submit the  
3 required data to the CEC by March 2, 2023. Next slide.

4 On December 5<sup>th</sup>, Governor Newsom called for a  
5 special session of the Legislature to address California  
6 gas prices. On the same day, Senator Nancy Skinner  
7 introduced legislation proposing gas price gouging  
8 penalties on operators of refineries.

9 That proposal, Senate Bill 2023-2024 1st  
10 Extraordinary Session or SB X2 for short, is currently  
11 pending in the legislative process. SB X2 contains a  
12 proposal to adopt an additional section to the Public  
13 Resources Code that relies on and refines the term "gross  
14 gasoline refining margin." The bill also adds substantial  
15 content to -- related to costs and prices, informational  
16 reporting related to the petroleum industry and markets,  
17 and proposes penalties on operators of refineries for a  
18 "gross gasoline refining margin" in excess of an  
19 unspecified level. Next slide.

20 CEC staff recommends denying the petition and  
21 waiting to determine whether to initiate a rulemaking until  
22 the pending legislation has been resolved, because a  
23 rulemaking at this time may conflict with changes to  
24 pending legislation on gasoline supply and pricing that may  
25 address the issues raised in the petition.

1           This concludes my presentation. I am here today  
2 with Kari Anderson from the Chief Counsel's Office to  
3 respond to your questions.

4           CHAIR HOCHSCHILD: Thank you so much.

5           We'll go to public comment on Item 17.

6           MS. BADIE: Thank you.

7           If you are in the room and wish to make a  
8 comment, please sign up at the table in the back or use the  
9 QR code also posted in the back of the room. If you want  
10 to comment on this item and you are on Zoom, please raise  
11 your hand by clicking on the open palm. If you're joining  
12 by phone or \*9 to raise your hand and \*6 to mute and unmute  
13 when instructed.

14           Please limit your comments to three minutes and  
15 one speaker per organization.

16           We will go to the in-room commenters first. We  
17 have Sophie Ellinghouse from Western States Petroleum  
18 Association. Please come to the podium and make your  
19 comment. Thank you. Please also spell your name for the  
20 record as well. Thank you.

21           MS. ELLINGHOUSE: Will do. Good afternoon,  
22 everyone. My name is Sophie Ellinghouse, S-O-P-H-I-E E-L-  
23 L-I-N-G-house. I am the General Counsel of Western States  
24 Petroleum Association.

25           Working in good faith and upon consultation with

1 your staff we did file the rulemaking petition on January  
2 6. Before I get into the details I do want to express our  
3 appreciation to your staff. They did provide some great  
4 advice and guidance on the process.

5 In fact in a December letter to us, WSPA, your  
6 staff even communicated their intention to, "propose that  
7 the Commission adopt an order instituting rulemaking to  
8 initiate a proceeding to evaluate how best to interpret and  
9 make specific requirements of SB 1322." The reason being,  
10 as we understood it, was the potential for misalignment and  
11 inconsistent interpretations of reporting information and  
12 thus the need for clarification. So we ultimately filed  
13 that petition, which is in front of you. And that does  
14 reflect input from refinery operators, regulatory  
15 specialists, finance officers, and legal counsel.

16 It speaks to several things including it  
17 recognizes that the information being requested is not only  
18 unclear, but highly sensitive in nature. It also  
19 explicitly notes that our industry must adhere to strict  
20 antitrust laws, and that the information required under SB  
21 1322 must be robustly protected by PIIRA.

22 It also provides several examples of issues that  
23 could arise from the differing interpretations of SB 1322,  
24 such as production of inconsistent, inaccurate and  
25 potentially misleading information. For example, SB 1322



1 requires calculation of gross gasoline refining margins,  
2 which we just discussed a little bit. But it fails to  
3 accurately represent what actual profit margins are,  
4 because it excludes significant costs incurred by refiners  
5 to produce gasoline. This artificial depiction would run  
6 counter to providing the public with facts as SB 1322  
7 intends to do.

8           Based on guidance from your staff and discussion  
9 with Commissioners, we agreed that a rulemaking would be  
10 the best approach to ensure uniform compliance and  
11 application. And to provide maximum protection against  
12 potential anti-competitive conduct. WSPA's petition was  
13 then certified as complete just one week after it was  
14 submitted.

15           However, after publicly noticing it for consent  
16 agenda approval, we were then surprised to have been asked  
17 by your staff to withdraw our petition just a week ago with  
18 no explanation. Given the importance and sensitivity of  
19 the issues involved, for the reasons outlined in our  
20 petition, and in a good faith effort to comply with this  
21 law, we again request that you move to a formal rulemaking.  
22 Or if you intend to delay your rulemaking responsibilities  
23 due to the pending legislation then it should also delay  
24 the obligations under SB 1322 to prevent the potential  
25 conflicts your staff has identified.

1           If not, we request that you all immediately  
2 provide interim guidance, including report forms to ensure  
3 timely compliance with the upcoming reporting deadline.  
4 Thank you so much.

5           CHAIR HOCHSCHILD: Thank you.

6           Any other public comments on that item?

7           MS. BADIE: Thank you.

8           That was the one for the in-person. I'm turning  
9 now to Zoom. We have one commenter, Steve Uhler. I have  
10 unmuted your line, please make your comment.

11           MR. UHLER: Hello, Commissioners. I support this  
12 petition. You should not stifle a petition. I am an  
13 individual who has made a successful petition to the Energy  
14 Commission for a rulemaking, but then was later informed by  
15 the OAL there was no particular time period before you  
16 start that rulemaking.

17           There should be no problem in cutting a path for  
18 these individuals and their industry based -- and you  
19 should definitely not use a situation that the Legislature  
20 is going to talk about something else, because they might  
21 be quite interested in what you've already discovered  
22 through this petition. So you should grant this petition.

23           And the folks who have made the petition should  
24 be aware, based upon a reference attorney at OAL, Energy  
25 Commission doesn't have to act on that petition. There is

1 no time period for them to start. So cut the path for them  
2 and approve this petition. And you can easily do that by  
3 just simply saying you're going to table this item, 30 days  
4 will pass, which is how mine was handled. You didn't  
5 address my petition, so my petition was successful.

6 But please do so for these individuals. Thank  
7 you.

8 MS. BADIE: Thank you.

9 That was the last commenter on Zoom. Back to  
10 you, Chair.

11 CHAIR HOCHSCHILD: Okay, thank you. I will go to  
12 Commissioner discussion starting with Vice Chair Gunda.

13 VICE CHAIR GUNDA: Thank you, Chair. I was just  
14 wondering if Aleecia or Kari, either of you could provide a  
15 response to the comments made by Sophie.

16 MS. GUTIERREZ: Yes, so thank you for your  
17 comments.

18 So staff feels that the section is clear as  
19 written, and the information that is required under 1322  
20 can be complied with. And that the regulated community  
21 understands what is being requested. And we will work in  
22 good faith with the regulated community to make sure that  
23 the information that is being requested is done so in a  
24 consistent format. And then if there is a need to clarify,  
25 we will work with them to do that at some point.

1           But we do need to implement the legislation as it  
2 is written, and so wish to wait to see the outcome of the  
3 pending legislation.

4           VICE CHAIR GUNDA: Is there anything else that  
5 you want to add or -- so just kind of making sure. So I  
6 think the specific comment was about putting it in the  
7 consent calendar and kind of deciding later on to move it  
8 out for a vote. I just wanted to see if there's any  
9 specific response to that.

10           MS. GUTIERREZ: Well, it was placed on the -- so  
11 I think that was a matter of timing. There are very  
12 specific timeframes we had to produce the consent agenda.  
13 But after some further deliberation and looking at the  
14 potential for overlap with the pending legislation we  
15 decided that the recommendation was to deny the petition.

16           VICE CHAIR GUNDA: And then I think you noted in  
17 your comments when you were speaking earlier that the  
18 denial is at this moment -- you know, so the way I  
19 understand is once the legislative cycle is complete, and  
20 if there is no clarifications, then what would we do at the  
21 time?

22           MS. GUTIERREZ: Then we would revisit the need  
23 for a rulemaking and then work with the regulated entities  
24 to make sure that process includes their input, and further  
25 defines terms that they're designating, come clear.

1                   VICE CHAIR GUNDA: And so kind of one final  
2 question on that in terms of the way that 1322 is written  
3 today. In terms of all the data that the refinery and  
4 community are going to submit, is the lack of understanding  
5 on pretty much every term, or some of the data is pretty  
6 clear today?

7                   MS. GUTIERREZ: So staff feels that the terms are  
8 clear. I think, yeah we feel that the terms are clear and  
9 it can be implemented as written. I think the biggest  
10 concern is that any rulemaking could get crosswise with the  
11 pending legislation if terms are redefined there.

12                   VICE CHAIR GUNDA: And what are the -- I don't  
13 know, Kari, maybe you could answer this one -- on the legal  
14 requirements of responding to a petition and what our  
15 process calls for?

16                   MS. ANDERSON: Sure. The Title 20 1221(c)  
17 requires the Commission to not either deny the petition in  
18 writing within 30 days or order a rulemaking be instituted.  
19 And there's no timeline to that requirement or a writing  
20 requirement. So but the reason it was put on the Consent  
21 Calendar was because of the 30-day requirement to rule.  
22 And the short time to evaluate it before we knew where we  
23 should go or considered other factors that staff was  
24 concerned with.

25                   VICE CHAIR GUNDA: Good, and so just a last

1 question on this one. So in terms of optionality when we  
2 get a petition like that from a stakeholder, you know, and  
3 we have a response time of 30 days and we can only either  
4 deny or approve, then what happens if we deny instead of  
5 re-petitioning process? You know, just kind of the other  
6 options.

7 MS. ANDERSON: Yeah. The denial has to be in  
8 writing and it has to be filed with the office of  
9 administrative law. That would conclude that proceeding,  
10 but anyone can file a petition for rulemaking at any time.  
11 So the Petitioner could file another one. And it doesn't  
12 preclude staff from revisiting any of issues that may have  
13 been raised in the future.

14 VICE CHAIR GUNDA: Good. Thank you.

15 I don't know if you have questions, but I have  
16 some comments to make.

17 CHAIR HOCHSCHILD: Are there any other comments  
18 or questions? Yeah, over to you, Vice Chair. Oh yeah, go  
19 ahead Commissioner McAllister.

20 COMMISSIONER MCALLISTER: So just I want to make  
21 sure I understand. So in terms of the path forward if we  
22 do deny then basically the reporting has to move ahead.  
23 And it sounds like you're confident that you can work with  
24 the reporting entities to be clear about what it is that  
25 they have to report?

1 MS. GUTIERREZ: So we -- the legislation is in  
2 effect. The data is due to us in the next month or so.  
3 And we will have to be reporting that out in aggregate. So  
4 we are confident that it can be implemented as written.  
5 And we'll be tracking the pending legislation as well. And  
6 if there is a need once the pending legislation is  
7 resolved, then we will reconsider a petition to open  
8 rulemaking.

9 COMMISSIONER MCALLISTER: Okay, so they would  
10 have to refile a new petition or --

11 MS. GUTIERREZ: That is my understanding.

12 MS. ANDERSON: They can refile, or we can -- the  
13 staff can recommend a rulemaking be made.

14 COMMISSIONER MCALLISTER: Okay.

15 MS. ANDERSON: If -- you know, whatever happens  
16 in March with the filings.

17 COMMISSIONER MCALLISTER: Okay. And I mean it  
18 just sounded to me like the commentor for WSPA and you were  
19 not totally in agreement with the clarity of the statute.  
20 So maybe that's the issue I'm really asking about. But so  
21 are there forms that you're going to be giving them or just  
22 sort of working with them in real time?

23 MS. GUTIERREZ: So we are planning to issue a  
24 letter, but it doesn't have forms and instructions. So  
25 that is something that we will need to define if useful.

1 COMMISSIONER MCALLISTER: Okay. Okay.

2 CHAIR HOCHSCHILD: Okay, Vice Chair?

3 VICE CHAIR GUNDA: Yeah, thank you Chair. And I  
4 think just thank you for those clarifications, Aleecia and  
5 Kari.

6 First of all, thank you to all the staff who  
7 worked on this business item, especially Kari, you and  
8 Aleecia who have been working on these issues for the last  
9 several months.

10 So I think, you know, I just want to directly  
11 address the good faith nature of working together on these  
12 issues. I mean, I think I see the staff's recommendations  
13 being reasonable as a way to just determine -- like  
14 starting a new rulemaking at this very moment, while the  
15 work with the Legislature is happening.

16 So I would request the refining community to try  
17 and work in good faith on the data that you could submit in  
18 the first timeline. And if the legislation does not  
19 clarify some of these items, which the Legislature is  
20 currently taking up, I think we should revisit either  
21 through the staff or you on petitioning for that  
22 rulemaking.

23 I think it's just I'm trying to figure out the  
24 best way to move forward. I think it's just not helpful  
25 for us to start a new proceeding at this moment when the



1 Legislature is actively discussing the very terms that we  
2 want to clarify.

3 So I would request again, I understand all the  
4 points you made, Sophie, about the nature of the data. But  
5 to the extent that we can work at the staff level to figure  
6 out clarity we would like to move forward with that. And  
7 then revisit if the legislation does not clarify some of  
8 these terms.

9 With that I would recommend moving forward with I  
10 don't know exactly, Linda, how we move on this one. Is it  
11 to approve the staff recommendation, is that how we go?

12 MS. BARRERA: That's correct. To approve, to  
13 deny. That's what I believe is the recommendation,  
14 Aleecia, is that right?

15 CHAIR HOCHSCHILD: So what -- no, that's my  
16 question, is it there's a petition that we're voting on, or  
17 the staff recommendation to deny? Because that wasn't  
18 clear in the language here of the --

19 MS. BARRERA: No. There's no order that is  
20 recommended.

21 COURT REPORTER: Who is speaking, please. This  
22 is the Court Reporter, who is speaking?

23 CHAIR HOCHSCHILD: This is David Hochschild, the  
24 Chair of the Commission.

25 COURT REPORTER: I'm sorry, Chair. I have you.

1 The feminine voice?

2 CHAIR HOCHSCHILD: Okay.

3 MS. BARRERA: I'm sorry.

4 CHAIR HOCHSCHILD: Oh, no. That's our Chief  
5 Counsel.

6 MS. BARERRA: Linda Barrera, the Chief Counsel.

7 COURT REPORTER: Thank you.

8 MS. BARERRA: I just quickly, the backup  
9 materials for this item is an order denying the petition.  
10 So that's what we're voting on.

11 CHAIR HOCHSCHILD: Okay, so that's what you'd  
12 like to advance? Is that what you're --

13 VICE CHAIR GUNDA: Okay. So then we move the  
14 order to deny the petition.

15 CHAIR HOCHSCHILD: Okay. Vice Chair has made a  
16 motion. Is there a second --

17 COMMISSIONER MCALLISTER: I'll second.

18 CHAIR HOCHSCHILD: -- by Commissioner McAllister?  
19 All in favor say aye. Vice Chair Gunda.

20 VICE CHAIR GUNDA: Aye.

21 CHAIR HOCHSCHILD: Commissioner McAllister.

22 COMMISSIONER MCALLISTER: Aye.

23 CHAIR HOCHSCHILD: Commissioner Monahan.

24 COMMISSIONER MONAHAN: Aye.

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

1 17 passes unanimously.

2 We'll turn now to Item 18, Minutes of the  
3 December 14th, 2022 Business Meeting.

4 Vice Chair, I have to step out to take a short  
5 meeting, if you could just run the meeting? If I'm not  
6 back just it's fine to conclude without my comments, but  
7 I'll try to be back quickly.

8 (Pause for off-mic colloquy.)

9 COMMISSIONER MCALLISTER: So I'll move the  
10 minutes.

11 MS. BADIE: Oh, sorry, there's public comment  
12 first. Thank you. Right now's the time for public comment  
13 on the minutes, approving the minutes from the December  
14 2022 business meeting.

15 If you are in the room and wish to comment please  
16 sign up using the QR code or visit the table in the back.  
17 If you want to comment on this item and you are on Zoom,  
18 please use the raise hand feature. If you're on the phone  
19 press \*9 to raise your hand and then \*6 to mute and unmute  
20 when instructed.

21 We don't have anyone in the room wishing to make  
22 a comment on this item. And going to Zoom we have Steve  
23 Uhler. Mr. Uhler, I am opening your line.

24 MR. UHLER: Hello, Commissioners. Now you have a  
25 real quandary. Neither on the business meeting website,

202

1 nor the docket for the business meeting, are the minutes  
2 that you are going to approve. In fact, the business  
3 meeting website says minutes are available after they are  
4 voted on and approved by the Energy Commission. So how do  
5 I comment on these minutes?

6           Perhaps we should go to the maxims of  
7 jurisprudence. Law never requires an impossibility. I  
8 suggest you table this. And you ensure that your staff  
9 realize that you at least have to have somewhere for the  
10 public to see the minutes, so that they can comment on  
11 that.

12           This is more of the 1208 problem. What is the  
13 problem with simply telling everybody put it in the docket,  
14 and stop having some clown like Steve Uhler come here and  
15 tell us that we should be putting it into the docket? Stop  
16 wasting the public's time.

17           I'm serious about this. You need to consider  
18 this. You need to consider that your Public Advisor should  
19 be telling me what I should be doing and has not, supposed  
20 to be informing me, supposed to be a balance to your Chief  
21 Counsel. And that's not happening. Table this. You do  
22 not have the required materials available to the public.  
23 Thank you.

24           MS. BADIE: That concludes the public comments.

25           VICE CHAIR GUNDA: Thank you, Mr. Uhler.

1 Linda, could you just --

2 MS. BARRERA: Yes, if I may have one minute. I  
3 just want to double check that. Thank you for your  
4 comments, Mr. Uhler.

5 VICE CHAIR GUNDA: Chief Counsel is just checking  
6 whether the minutes were docketed.

7 MS. BARRERA: Thank you for the minute. I  
8 appreciate that. I did double check and the minutes for  
9 the December business meeting were posted on the business  
10 meeting website. It's in the backup materials. We're not  
11 required to file this in the docket. We file the agenda in  
12 the -- excuse me, the business meeting minutes on the  
13 docket after the Commissioners approve the minutes. So  
14 it's our custom and practice to always post the minutes of  
15 the previous business meeting on our website, as a backup  
16 material.

17 So you may, if you wish, to vote on the minutes  
18 of the December business meeting.

19 VICE CHAIR GUNDA: Okay. Thank you, Linda, for  
20 confirming that. With that clarification, we'll move  
21 forward. But I would like to Linda, please recommend you  
22 or the Public Advisor's Office, to follow up with Mr. Uhler  
23 on able to find the location of the material that he's  
24 looking for and just make sure we have the clarification.

25 MS. BARRERA: Will do, thank you.

1 VICE CHAIR GUNDA: Yeah, thank you.  
2 With that, I second the minutes.  
3 COMMISSIONER MCALLISTER: Yeah, moving the  
4 minutes? Or yeah, I moved up before but yeah. Yeah, move  
5 Item is this 19?  
6 COMMISSIONER MONAHAN: It's 18.  
7 COMMISSIONER MCALLISTER: Oh, 18. Move Item 18,  
8 sorry.  
9 COMMISSIONER MONAHAN: I second.  
10 VICE CHAIR GUNDA: Yes. All those say yes to the  
11 motion, please.  
12 COMMISSIONER MCALLISTER: Aye.  
13 VICE CHAIR GUNDA: Commissioner Monahan?  
14 COMMISSIONER MONAHAN: Aye.  
15 VICE CHAIR GUNDA: I say aye as well. It's 3-0.  
16 Thank you.  
17 I know Commissioner McAllister has to leave at  
18 about 4:00 o'clock and I'm concerned about having a quorum,  
19 so I would request that we skip the Lead Commissioner and  
20 Presiding Member Reports for this meeting. And we'll go to  
21 Item Number 20, Executive Director's Report.  
22 MR. BOHAN: No report this afternoon. Thank you.  
23 VICE CHAIR GUNDA: Thank you, Drew.  
24 Turning to Item 21, Public Advisor's Report.  
25 MS. BADIE: No report.

1           VICE CHAIR GUNDA: Thank you. Now to Item 22,  
2 Public Comment.

3           MS. BADIE: Thank you. This is the open comment  
4 period for any person wishing to comment on any agenda item  
5 including nonvoting items and informational items. Each  
6 person has up to three minutes to comment and comments are  
7 limited to one representative per organization. We may  
8 reduce the top comment time depending on the number of  
9 commenters.

10           For those in the room, we ask you to sign up at  
11 the table in the back using the QR code or talking to the  
12 Public Advisor Representative.

13           If you are on the phone, please press \*9 to raise  
14 your hand. And if you are on Zoom, please use the raise  
15 hand feature to sign up to make it a public comment.

16           And we do have one commenter in the room, Claire  
17 Warshaw. If you can please approach the podium and spell  
18 your name for the record and make your comment, please.  
19 Thank you.

20           MS. WARSHAW: Hi, my name is Claire Warshaw, C-L-  
21 A-I-R-E, and then W-A-R-S-H-A-W. And what I'm about to  
22 tell you I'm embarrassed about, and I hope this has nothing  
23 to do with me at all, but I have been in a few situations.  
24 And I wanted to mention this, because I listened to the  
25 length of parts of the very lengthy meeting that you had

1 with gas and oil representatives late last year at home,  
2 off and on, trying to absorb what was going on and trying  
3 to figure out what you guys were trying to figure out about  
4 why California gas prices were increasing and what was  
5 causing it. And the panel that you had evaluating that and  
6 the presentations that were happening.

7           And like I said I'm embarrassed to bring this up  
8 and it may be entirely irrelevant, but I have quit a couple  
9 of union jobs in my life. And one I quit a long time ago.  
10 I was working for a newspaper and when I quit it, I don't  
11 think this had to do with me, but there was a really large  
12 strike that happened by a totally separate union. And the  
13 one that I was in was very small and it's just coincidences  
14 like that. I have noticed some just, really -- news things  
15 that I hope have nothing to do with me.

16           But you know, this mysterious gas tax that was  
17 brought up in Severin's presentation really bothered me,  
18 because when I quit SMUD I left on FMLA in February of  
19 2015. And that's right around the time where their spike -  
20 - his spikes in his chart show. And I mentioned this to  
21 him on LinkedIn via messaging, because I don't have any  
22 idea. But I can't predict reactions, and especially other  
23 unions and people and madness, and I have been involved  
24 with oil and gas people. I don't know the business, but I  
25 have been very close to some of them. I've had coworkers

207



1 that are oil and gas people. And I do know there's mad  
2 reactions of other people that happen.

3 And so I just wanted to mentioned that seemed odd  
4 to notice. And it just seemed like I should mention it,  
5 because he kept making such a big deal about that time and  
6 why did this happen?

7 MS. BADIE: Thank you.

8 Turning now to Zoom we have Steve Uhler. Steve,  
9 I am opening your line for your comment.

10 MR. UHLER: Hello, Commissioners. This is Steve  
11 Uhler. In October you voted on a Load Management Standards  
12 Rulemaking. And you -- and December 6th you sent that to  
13 the OAL for review. Now, in order for the OAL to accept  
14 that rulemaking file you would have had to have had a Final  
15 Statement of Reasons in that file. Your website for the  
16 rulemaking, the docket, neither. And unless it's shown up  
17 today neither have the Final Statement of Reasons.

18 I requested the Final Statement of Reasons from  
19 the person, the staff member who's supposed to be able to  
20 tell me where to find that. The request was not complied  
21 with. So I thought how can I get a Final Statement of  
22 Reasons? Well I can make a public records request to the  
23 OAL. And I did and I got the Final Statement of Reasons.  
24 I got the response to comments to which I find they didn't  
25 consider one of my comments, because it didn't quite --

208

1 didn't comply with a 1208.1 section. Now they don't have  
2 jurisdiction as far as I can tell. The docket makes that  
3 decision.

4 Now through this, through this one I'm talking  
5 about is a situation of no statements of mailing are in the  
6 docket. The rulemaking file that you have in the docket is  
7 not what you gave the OAL. Straight up, simple. The OAL  
8 has been courteous and has provided me with the entire  
9 whatever you sent them. I will be going over that. But  
10 one thing I note, you've chopped off all of the references  
11 to the items being docketed. Yet you make references to  
12 the items, the comments, through the transaction number. I  
13 will be reviewing the rest of it probably over the next  
14 while.

15 But you definitely need -- there is no  
16 justification. Would a judge consider something that's not  
17 in the docket? Because you're judging whether or not you  
18 should vote yes or no. You should just simply end this  
19 practice. If it's not filed per 1208, you do not consider  
20 it. You do not have the public hunt and search, or have a  
21 notice that the minutes will be available after approval,  
22 on your pages, leaving the public to believe there's no  
23 sense in looking at this backup material to find out that  
24 there are minutes there. Everything goes in the docket.

25 You also need to move the public comment period

1 to before the first informational agenda item, so you  
2 comply with the Bagley-Keene. Because you are required to  
3 allow the public to comment before or during --

4 MS. BADIE: Mr. Uhler, your time has ended.

5 MR. UHLER: Okay, in --

6 MS. BADIE: Next we have Leadership Counsel. I  
7 will unmute your line. Please identify your name and spell  
8 your name for the record and make your comment.

9 MS. LOERA: Good evening, Commissioners. My name  
10 is Mariela Loera; it's M-A-R-I-E-L-A L-O-E-R-A. And I am  
11 commenting on behalf of Leadership Council for Justice and  
12 Accountability on Item Number 3.

13 We were active participants in the Lithium Valley  
14 Commission process with the primary goal of ensuring the  
15 communities across the Salton Sea region were meaningfully  
16 included in the development of the Commission's report to  
17 ensure that community concerns regarding Lithium Valley  
18 were adequately addressed. And the LVC was successful in  
19 creating a space for diverse stakeholders to express  
20 concerns and ideas in a collaborative manner. However,  
21 meetings were still inaccessible to the majority of local  
22 communities in the region who primarily speak Spanish and  
23 face technological barriers.

24 So because of this we do not believe the report  
25 adequately represented concerns or recommendations raised

210

1 by the community members including those in the Eastern  
2 Coachella Valley. So we urge the CEC and the Legislature  
3 to lead a stronger process that involves community  
4 residents on the development of Lithium Valley and the  
5 subsequent industries in the Salton Sea region moving  
6 forward.

7           Additionally, it remains unclear how the report  
8 will be used to inform next steps regarding lithium. And  
9 as we speak the lithium industry continues to make progress  
10 in its demonstration projects. And Imperial County is  
11 moving forward with the development of the programmatic EIR  
12 for Lithium Valley. So this begs the question of the  
13 purpose of convening the Lithium Valley Commission, while  
14 progress towards the extraction of lithium and other  
15 minerals continues to accelerate on the ground.

16           Thank you for your time and consideration.

17           MS. BADIE: Thank you.

18           And I just want to tell folks when you raise your  
19 hand sometimes the Zoom glitches and it will lower your  
20 hand. So if you see your hand lowered and you haven't  
21 spoken, please raise your hand again.

22           And next we have Nikola Lakic. Apologies if I  
23 mispronounced your name. And please spell your name for  
24 the record and make your comment. Thank you.

25           MR. LAKIC: Hello, can you hear me?

1 MS. BADIE: Yes.

2 MR. LAKIC: Yeah, great. My name is Nikola, N-I-  
3 K-O-L-A, Lakic, L-A-K-I-C. I wasn't able to log on in on  
4 the beginning. And this is regarding Item 3, Blue Ribbon  
5 Commission, if you can include my comment there.

6 Thank you for the opportunity to say a few words.  
7 And I made a number of comments during the Blue Ribbon  
8 Commission and on the Salton Sea Management Program trying  
9 to explain that the current course of action is drive in  
10 wrong direction. Why is right -- drive in the wrong  
11 direction? Because it consists of the two main projects.  
12 One is extraction of the lithium is based off shrinking the  
13 lake, losing the lake. Restoration of the Salton Sea,  
14 second project is based on importing seawater. So those  
15 two projects are not co-existent.

16 I'm an architect. I have solution over the 13  
17 years -- 10 years, since 2013 how we can unite it. We can  
18 restore Salton Sea, provide clean environment, harness  
19 lithium. My project of harnessing lithium, it does not  
20 interfere with harnessing lithium from geothermal brine.  
21 I'm harnessing lithium from salty water from the Salton  
22 Sea, using solar energy. I am, again inventor, architect,  
23 40 patents. Everything that you discuss today I'm  
24 covering. Unfortunately, I haven't been invited to make  
25 presentation during work of the Blue Ribbon Commission and

1 that's unfortunate. That's Chairman Silvia Paz and the Co-  
2 Chair Kevin (sic) Kelley, thanks to them.

3 And I would like just to mention two minutes is  
4 not enough time for anything. I sent you, Commissioner, I  
5 know that Chair already left, but so a few Commissioners  
6 already left. I sent you an important letter, about 62  
7 pages, regarding asking for abolishment of the report of  
8 the panel of independent reviewers from University of Santa  
9 Cruz, because it was a travesty. I'm asking that please to  
10 read it. Read that again if you didn't. All this scam is  
11 happening under your watch. You Commissioners of the  
12 California Energy Commission.

13 And I see my time is expiring, but please read it  
14 and include my comments into Number 3. And then thank you  
15 very much.

16 MS. BADIE: Thank you.

17 Next, we have Jeremy Smith. I'm going to open  
18 your line. Please spell your name for the record and make  
19 your comment.

20 MR. SMITH: Hi, thank you. Can you hear me?

21 MS. BADIE: Yes.

22 MR. SMITH: Good. Jeremy Smith, J-E-R-E-M-Y S-M-  
23 I-T-H, here on behalf of the State Building and  
24 Construction Trades Council on Item Number 3. Thank you,  
25 first to the Commission and to the Lithium Valley

1 Commission and the Energy Commission for your hard work on  
2 this issue.

3           So far we represent at the State Building Trades,  
4 450,000 construction workers in 157 affiliated unions.  
5 While the report that we've seen discusses the need for  
6 requiring that any jobs in this industry be high road jobs,  
7 we are disappointed that the recommendation for high road  
8 jobs failed and remains on Table 2 recommendations  
9 considered, but not adopted.

10           As a worker advocate I can assure you that  
11 (indiscernible) getting high road principles to the extent  
12 possible is critical. And we were chagrined to hear  
13 complaints about the inclusion of the term at the hearing  
14 in October. It is not enough to rely upon a few kind words  
15 and assurances to simply trust profit-driven companies and  
16 the representatives that they will look after workers on  
17 these projects. The profit drive often leads to the low  
18 road.

19           The reason the State of California created the  
20 high road concept, and uses it in their workforce  
21 development grant programs, is because they've responded to  
22 the use of the social safety net by too many workers who  
23 need it because they work for low-wage, high-profit  
24 employers who don't share those gains with the workers they  
25 employ. It is unfortunate that the term "high road" was

1 not a recommendation in the final report to hold the  
2 industry accountable to local workers before, during, and  
3 after construction.

4 I would be remiss if I didn't note that while the  
5 recommendations for high road jobs and how to share the  
6 bounty that the lithium industry claims will occur with  
7 workers and the community members failed to make the  
8 recommendation list. Items 7, 9, 10 and 12, all of which  
9 talk about the investment of public money to create new and  
10 bolster existing infrastructure, all were included. This  
11 means the industry reaps the reward of public investment  
12 without a recommendation that they share the profit from  
13 the industry that investment will help create.

14 Secondly, a word about project labor agreements,  
15 which are not mentioned in the adopted recommendations.  
16 But do help meet the "economic benefits" topic contained in  
17 AB 1657.

18 Multi-craft PLAs, project labor agreements, have  
19 been around since the Hoover Dam was built under one.  
20 During that time most project labor agreements have been  
21 used in the private sector. Over the last five decades  
22 companies such as Disney, Toyota and General Motors  
23 utilized project labor agreements along with every single  
24 major oil refinery in California, all of whom have a  
25 project labor agreement for construction and maintenance.

215



1 These can help guarantee, sometimes down to the zip code  
2 level, that local workers will work on and benefit from the  
3 construction of facilities.

4 We are disappointed that the Commission could not  
5 muster enough votes to include Item 2 from their list of  
6 recommendations consider but not adopted, which would have  
7 established incentives for developers to enter into project  
8 labor agreements.

9 What is also needed to meet the spirit and  
10 direction of AB 1657 are community benefits agreements.  
11 These are negotiated between various stakeholders such as  
12 community groups, labor organizations, and environmental  
13 groups, and developers. And require specified local  
14 benefits to maximize the positive impact of public  
15 investment. If we all say we share the goal of ensuring  
16 that the lithium extraction and refining industry be one  
17 that provides benefits to local communities, we should  
18 support community benefit agreements and project labor  
19 agreements that ensure a true partnership with the local  
20 community and incentivize their use.

21 Finally, it is incumbent upon construction  
22 workers on these projects -- it is incumbent that  
23 construction workers on these projects be treated with  
24 respect and dignity in this burgeoning industry. That they  
25 be paid the prevailing wage with benefits they can raise

1 their families outside the social safety net. And that the  
2 surrounding community needs are met and not swept under the  
3 rug. Thank you.

4 MS. BADIE: Thank you.

5 Next, we have Cristina Marquez. I'm unmuting  
6 your line. Please spell your name for the record and make  
7 your comment.

8 MS. MARQUEZ: Thank you. Cristina Marquez, C-R-  
9 I-S-T-I-N-A M-A-R-Q-U-E-Z. Good afternoon, Commissioners.  
10 My name is Christina Marquez on behalf of IBEW Local 569  
11 and it's 3,600 Power professionals and electricians of  
12 Imperial and San Diego Counties. I'm commenting on Item  
13 Number 3.

14 AB 1675 required the LVC to investigate and  
15 analyze eight topics, one of which included economic  
16 benefit. Not one of the key themes in the final report  
17 mentions economic benefits to the local workforce. In  
18 February 2022, the Lithium Valley Commission held a  
19 workforce development workshop and concluded and I quote,  
20 "We find that it is imperative that projects prioritize  
21 development and hiring of a local workforce. And provide  
22 resources to support the planning and development of  
23 necessary training and educational opportunities. And  
24 commit to requirements for strong workforce and labor  
25 standards, including project labor agreements to create

1 high quality jobs and support state certified  
2 apprenticeship opportunities." Fifteen recommendations  
3 were then made to the Lithium Valley Commission.

4           Ultimately, in the drafting and redrafting of the  
5 final recommendations, some of which were posted right  
6 before the Lithium Valley Commission, leaving the community  
7 left out essentially, and not being able to comment, when  
8 these are posted the day before. The recommendations were  
9 whittled away in favor of possible economic incentives to  
10 developers as opposed to the workforce in the local  
11 community.

12           In particular, the Commission recommended  
13 establishing a Southeast California Economic Zone and to  
14 create STEMs curriculums. IBEW Local 569 and other locals  
15 in that area have been working hard to try and represent  
16 the local workforce and the communities of Imperial, which  
17 we all know has been underrepresented, and are some of the  
18 lowest income communities in California. And we want them  
19 to have a voice and the opportunities to have a pathway to  
20 a middle-class green energy career for the rest of their  
21 lives, so that they can take care of their families.

22           And we want to make sure that you guys are aware  
23 of this and hope that you can assist us in these endeavors.  
24 Thank you so much for your time and have a good night.

25           MS BADIE: Thank you.

1           Next, we have SeanKeoni Ellis. I'm going to open  
2 your line. Please spell your name for the record and make  
3 your comment.

4           MR. ELLIS: Good afternoon, Commissioners. My  
5 name is SeanKeoni Ellis. That's S-E-A-N-K-E-O-N-I, last  
6 name E-L-L-I-S. I'm the Organizer for the United  
7 Association of Plumbers and Pipefitters in Imperial County  
8 and San Diego County. We've been serving these counties  
9 for well over 100 years and have over 2,000 members in both  
10 regions.

11           I'm here today to speak about Item Number 3, the  
12 Blue Ribbon Commissioning of Lithium. And really just  
13 standing here in solidarity with the California State  
14 Building Trades, IBEW 569, and every affiliate that has  
15 been working tirelessly in this region to make geothermal  
16 energy lithium extraction the next industry with great  
17 middle-class careers, middle-class jobs.

18           Look, I'm supposed to stay with these talking  
19 points, but I'm just going to speak as an organizer would  
20 normally speak to people on a job site. This region has  
21 been abandoned. These geothermal energy plants have been  
22 here for well over 40, 30 years. And PLAs are hard to come  
23 by in these regions. These regions have been forgotten  
24 about. These workers simply come in and do the work and  
25 leave.

1           Project labor agreements, multi-craft project  
2 labor agreements with the California State Building Trades  
3 and all of our affiliates, will ensure that these people in  
4 this region not only get a high road, high quality career  
5 and can one day have a great opportunity in the union and  
6 have that middle-class life, but it guarantees the zip  
7 code. And that's what's important here, is that we  
8 shouldn't have people from other states and other regions  
9 building this new, green infrastructure. These new green  
10 systems that will eventually replace a lot of the systems  
11 that so many great leaders in our state would like to see  
12 transition.

13           So as plumbers and pipefitters, the oil workers  
14 who build these refineries, we build oil extraction  
15 systems, we want that opportunity to carry over these  
16 middle-class jobs into the new lithium extraction industry.  
17 And to these new green systems and have the opportunity to  
18 bring so many working poor plumbers and pipefitters in that  
19 region into the middle class and providing them that  
20 opportunity they so much deserve and being part of this  
21 process of lithium extraction.

22           MS. BADIE: I'm very sorry I did that, Sean?

23           MR. ELLIS: No worries, I'm still on.

24           MS. BADIE: Okay.

25           MR. ELLIS: So, I'll just finish up with this.

1 You know, let's speak the facts, everybody. We have  
2 project labor agreements in San Diego, all the all the  
3 Unified School Districts. Our projects come in on time.  
4 We make sure that the most vulnerable communities in the  
5 San Diego and Imperial County that has PLAs are literally  
6 given that ladder of opportunity into our great middle  
7 class. That my sister Cristina, my brother Jeremy spoke  
8 earlier before me, you know what we fight for. And so you  
9 know it's proven, PLAs have proven to work, have proven to  
10 exist in so many regions, on time, on budget.

11 And let's be honest, as we move forward and we  
12 set precedents on these new systems, let's do it right the  
13 first time. Let's do it correct. Let's do this thing  
14 right.

15 So, Commissioners, thank you for your time. I've  
16 been on this meeting all day and watching all the hard work  
17 you've done. Thank you for having that moxie. Thank you  
18 for working so hard. And you guys have a beautiful  
19 evening. Thank you.

20 MS. BADIE: Thank you. Sorry about that.

21 Next, we have Michael Monagan. I'm opening up  
22 your line. Please spell your name for the record and any  
23 affiliation. You may make your comment. Michael, are you  
24 there?

25 MR. MONOGAN: Yeah, this is Mike Monagan, M-O-N-

1 A-G-A-N, also with the State Building and Construction  
2 Trades Council. And my brothers and sisters have already  
3 stated our positions and we support everything they said as  
4 well as a tip of the hat to Assemblymember Garcia and Chair  
5 Paz for all the hard work they did. Thank you.

6 MS. BADIE: Thank you.

7 We have Hector. I'm going to open your line.  
8 Please state your name and spell your name for the record  
9 and make your comment. Hector, are you there? Your line  
10 is open, Hector. Okay, Hector is the last commenter and  
11 the sound is not coming through.

12 MR. MESA: Can you hear me now?

13 MS. BADIE: Yes, thank you.

14 MR. MESA: Okay. My name is Hector Mesa. I'm a  
15 resident of Imperial Valley from the City of Brawley. I'm  
16 also a business agent and organizer for IBEW 569.

17 Good evening, Commissioners. I just want to tell  
18 you that PLAs with building trades are what we need. As an  
19 electrician there's plenty of electricians like me, that  
20 that we end up driving two to three hours to head up north  
21 to San Diego to go work on the daily. And a PLA with the  
22 building trades will help us a lot. So we could stay here,  
23 be close to home, work and basically keep our dollars in  
24 town. Thank you.

25 MS. BADIE: Thank you.

1           So that was the final comment. And I believe we  
2 have some remarks from our Chief Counsel.

3           MS. BARRERA: If it's okay, I'll give my remarks  
4 during my Chief Counsel's Report.

5           MS. BADIE: Thank you.

6           CHAIR HOCHSCHILD: Sorry, just remind me, we  
7 skipped Item 20 while I was out, yes? Okay, so where are  
8 we now? On Item 23? Okay. Did you have an update?

9           MS. BARRERA: Yes.

10          CHAIR HOCHSCHILD: Okay.

11          MS. BARRERA: I'm sorry, I was looking at my  
12 papers. It's been a tough day. I just don't have -- I  
13 have a quick response to some of the public comments we  
14 received today. And I just want to assure the public and  
15 Mr. Uhler that I take all of his comments to heart. And  
16 there's always ways to improve in how we provide our  
17 information before the business meeting, to the public.  
18 And I just want it for the record to explain that we do  
19 follow all relevant requirements in the California Code of  
20 Regulations Title 20 and the Bagley-Keene Open Meetings Act  
21 in managing both our noticing, our considerations and  
22 approvals of items before the business meeting. And so we  
23 exceed those requirements based on our current electronic  
24 system.

25           We use both a combination of dockets and web



1 pages to maximize public engagement. The dockets act as a  
2 record for documents related to specific rulemakings like  
3 the one we heard earlier, the Air Filters Rulemaking. And  
4 the business meeting webpage serves to provide a quick and  
5 centralized forum for those interested to learn about  
6 agenda items up for consideration, specifically the ones  
7 that do not have dockets. So in that business meeting  
8 website, we post the backup materials for each item on the  
9 website, but do not have specific dockets. And for the  
10 ones that have specific documents, we link to that relevant  
11 rulemaking document or specific docket.

12 With regards to resolutions, which are a part of  
13 almost all orders or resolutions, they are attached to each  
14 agenda item. We post those as backup materials to the  
15 business meeting website prior to the meeting; 10 days  
16 prior to the meeting. And then we inform the public what  
17 you, Commissioners and Chair, are about to consider at the  
18 business meeting. Once you approve and order a resolution  
19 then we docket those orders or resolutions in their  
20 specific dockets or in the business meeting docket. And I  
21 just want to make that clear for the record.

22 And despite the fact that we are definitely  
23 compliant with the laws, Mr. Uhler, I'm hearing you. If  
24 there's ways to move things around on our website to make  
25 it more conspicuously clear, we welcome your suggestions.

1 Please call me, call the public advisors. We're happy to  
2 have that meeting with you to discuss how we can make our  
3 information more clearly available on our website. Even  
4 though we do post them, I'm happy to hear your suggestions.  
5 Thank you.

6 CHAIR HOCHSCHILD: Thank you, so much. And  
7 sorry, refresh my memory what we did was the Executive  
8 Director's Report.

9 So should we return to Commissioner Updates or  
10 did you -- okay, but we could -- (indiscernible) I mean we  
11 could just do super brief if you would like?

12 COMMISSIONER MONAHAN: Oh, let's see, super  
13 brief. We had a Fuels And Transportation Division retreat  
14 at my house with Communications, Government Affairs, with  
15 FTD leadership, Chair's Office. And it was just really  
16 helpful to kind of see people map out the plan for the  
17 year.

18 We also, Commissioner McAllister and I visited  
19 the Rincon Band with Deputy Public Advisor Katrina, Leni-  
20 Konig who organized it to discuss hydrogen. They're very  
21 interested in hydrogen production.

22 And this week we welcomed NASEO and AASHTO  
23 Meeting of Western States to plan out EV charging, DC fast  
24 charging, for the federal monies. The federal government  
25 came as well and I provided opening remarks for that. So

1 just a lot of planning and movements in terms of making  
2 sure that we're spending our money wisely. And  
3 coordinating.

4 CHAIR HOCHSCHILD: Vice Chair Gunda?

5 VICE CHAIR GUNDA: Yes. Thank you, Chair. Just  
6 a couple of quick items I think, for Commissioner Monahan,  
7 you and Commissioner McAllister specifically. So we had  
8 our 846 workshop last week on Friday, which is two specific  
9 items. One is the determination of CEC whether it's  
10 prudent to continue the extension of Diablo Canyon, which  
11 we are going to vote on March 1. So I think it's we'll  
12 have staff preview on the workshop. But the top line was  
13 staff recommended that it's based on where we are in terms  
14 of reliability outlook, and all the uncertainties in the  
15 build out. You know, it is prudent to continue with the  
16 extension of Diablo at this moment while a lot of  
17 information is pending. And I just want to note for you  
18 that CPUC, if we were to determine that it's prudent as a  
19 Commission, then it would -- (indiscernible) would still  
20 need to vote on how long to extend in December. So I just  
21 wanted to elevate that you're tracking that, because you  
22 would be needing to vote on an important item.

23 And the second one, I just wanted to make sure --  
24 a quick success story to Aleecia and everybody on SB 100.  
25 There has been a new transmission resource and transmission

1 planning MOU that was signed between ISO, PUC and CEC,  
2 which will be really helpful in long-term planning. It's  
3 really outdated and we just got it updated. So I just want  
4 to thank Liz, you know, Heidi and Aleecia from the EAD  
5 team, and also Erica Brand and Eli Harland from  
6 Commissioner Vaccaro's Office. So it worked really well,  
7 so thank you.

8 CHAIR HOCHSCHILD: Great. Well I want to  
9 congratulate you, Vice Chair, on a really successful  
10 hearing last week. I heard great things about that.

11 And I want to just extend my thanks to the  
12 Lithium Valley Commission. You know, it's a 14-member  
13 Commission, all volunteer, that worked for a year to  
14 produce this report. You know, I do want to be clear that  
15 was a Lithium Valley Commission report, not an Energy  
16 Commission report. And so some of the comments that I  
17 heard, I mean I do want to be clear that's really our  
18 purpose is just to serve and support the Commissioners on  
19 the Lithium Valley Commission led by Chair Sylvia Paz. You  
20 know, these are unpaid positions and it's a lot of work.  
21 Yes, it's an honor to get appointed by the Governor, the  
22 Legislature, to that. But it's an awful lot of work.  
23 Many, many meetings. And I just want to recognize that  
24 achievement.

25 Commissioner Monahan and my Chief of Staff, Noemi

1 Gallardo, had a chance to go down to Lithium Valley for  
2 almost four days beginning with the Critical Minerals  
3 Symposium organized by GO-Biz. And had meetings with  
4 tribes, with Labor, with environmental justice  
5 organizations, with Department of Energy, and many, many  
6 other stakeholders, and are just really heartened by the  
7 progress there.

8           And I just want to point out again this process  
9 is new. There's never been something like the Lithium  
10 Valley Commission. This is both a new industry and a new  
11 process. And I think from our perspective the commitment  
12 is really to do both of those well.

13           And again my gratitude to Assemblyman Garcia for  
14 having the vision to pass the legislation that made that  
15 possible so.

16           And then I'll just share on offshore wind,  
17 Secretary Crowfoot convened a big briefing I spoke at last  
18 Friday, I guess it was 600 people. Tons of interest in  
19 offshore wind right now. And we're really moving into  
20 implementation mode.

21           And I will be meeting with the -- there's an  
22 incoming Director of the Bureau of Ocean Energy Management  
23 and who has just started this week, Liz Klein. And I'm on  
24 the calendar to meet with her and look forward to  
25 partnering on implementation there.

1           So, we'll stop there unless there's anything  
2 else? Okay. Thanks everyone. We're adjourned.

3           (The Business Meeting adjourned at 4:23 p.m.)

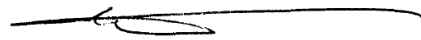
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**REPORTER' S CERTIFICATE**

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

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 8th day of February, 2023.



---

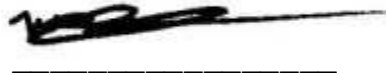
PETER PETTY  
CER\*\*D-493  
Notary Public

**TRANSCRIBER'S CERTIFICATE**

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

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 8th day of February, 2023.



---

Myra Severtson  
Certified Transcriber  
AAERT No. CET\*\*D-852