DOCKETED		
Docket Number:	19-BUSMTG-01	
Project Title:	2019 Business Meeting Transcripts	
TN #:	227885	
Document Title:	Transcript of April 10 2019 Business Meeting	
Description:	N/A	
Filer:	Cody Goldthrite	
Organization:	Organization: California Energy Commission	
Submitter Role:	Commission Staff	
Submission Date:	4/29/2019 8:07:27 AM	
Docketed Date:	4/29/2019	

1	ENERGY COMMISSION		
2	TRANSCRIP	TION OF RECORDED BUSINESS MEETING	
3		APRIL 10, 2019	
4		SACRAMENTO, CALIFORNIA	
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0	Present:	DAVID HOCHSCHILD, CEC Chair	
7		JANEA SCOTT, CEC Vice Chair	
8		KAREN DOUGLAS, CEC Commissioner	
0		J. ANDREW MCALLISTER, CEC Commissioner	
9		DENNIS BALAKIAN, California West Coast	
10		WAYNE LEIGHTY, Shell	
10		JOE CAPPELLO, Iwatani Corporation	
11		ERIK NEANDROSS, Gladstein, Neandross &	
12		Associates	
		NED MCKINLEY, U.S. Marine Corps	
13		MICHELLE CHESTER, Somach Simmons & Dunn	
14		BRIAN PROBST, Edgecore	
15		SAMANTHA G. NEUMYER, Ellison,	
		Schneider, Harris & Dolan	
16		JUSTIN WYNNE, Braun Blaising Smith	
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18		JUAN G. VILLANUEVA, Port of Stockton	
19		JEFFERY WELCH, Aemtis	
20		MICHAEL BROWN, California Grinding Inc	
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22	Transcribed by:	Hannah Stowe,	
23		eScribers, LLC	
24		Phoenix, Arizona	
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TRANSCRIBED RECORDED BUSINESS MEETING

April 10, 2019

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MR. HOCHSCHILD: Thank you and welcome, everybody. We got a lot of items to get through today, so let's go ahead and dive in. Why don't we start with the consent calendar? Is there any public comment on the consent items?

(No audible response)

MR. HOCHSCHILD: Hearing none, is there a motion?

MS. DOUGLAS: Move the consent calendar.

MR. HOCHSCHILD: Is there a second?

MS. SCOTT: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

MR. HOCHSCHILD: That passes unanimously.

We'll move on to item 2, Laurelwood Data Center.

Staff, go ahead.

MR. PAYNE: Good morning, chair, commissioners.

MR. HOCHSCHILD: Good morning.

MR. PAYNE: My name's Lon Payne. I am the project manager for the Laurelwood Data Center project. With me is staff attorney Nick Oliver. We're here today to present a proposed order appointing a siting committee to oversee a Small Power Plant Exemption or SPPE proceeding for the Laurelwood project.

The SPP option is available for thermal power plants between fifty and a hundred megawatts, and pursuant to Public Resources Code Section 25541, the exemption can only be granted if -- and I'm quoting here -- "no substantial adverse impact on the environment or energy resources will result from the construction or operation of the proposed facility".

Applicant MECP1 Santa Clara 1, LLC, which of course

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Applicant MECP1 Santa Clara 1, LLC, which of course just rolls right off the tongue, is represented here today by Brian Probst. And they filed their application for an SPP on March 5th, 2019, seeking the exemption from the Commission's power plant licensing requirements.

The Laurelwood Data Center consists of two server buildings, fifty-six diesel fuel backup generators, and associated equipment and connections proposed for construction in the city of Santa Clara.

Thank you, and we'd be happy to answer any questions you have.

MR. HOCHSCHILD: Any questions from the committee?

(No audible response)

MR. HOCHSCHILD: Any additional comments from the public on this item?

(indiscernible) for Laurelwood. Sorry, go ahead. Yeah.

UNIDENTIFIED SPEAKER: Thank you, commissioners. We

1 won't take up too much of your time. We know you're busy today, but we just wanted to thank you for the opportunity to be here before you today. And we just 3 4 wanted to introduce the project team very quickly. 5 MR. PROBST: Hey, I'm Brian Probst. I'm the senior project manager who'll be handling the construction and 6 7 permitting process for EdgeCore data centers, which is 8 the long LLC name that you heard earlier. I just wanted 9 to second the thank you for allowing us to be here today 10 and for working with us on this project. 11 MR. HOCHSCHILD: Okay. Thank you, both, for 12 joining. 13 Any comments from the public on this? 14 (No audible response) 15 MR. HOCHSCHILD: All right. Hearing none, is there a motion? 16 17 Do we need (indiscernible)? 18 UNIDENTIFIED SPEAKER: I think we should suggest a 19 committee. 20 MR. HOCHSCHILD: Yep. Okay. Sorry. So actually this is on you, Commissioner Douglas, correct? 21 22 MS. DOUGLAS: Yes. And a second -- I think 23 Commissioner Scott might be willing to volunteer, too. 24 MR. HOCHSCHILD: Okay.

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MR. HOCHSCHILD: You've been volunteered.

MS. DOUGLAS: All right. And so with that settled,

then it would be Commissioner Douglas presiding,

4 | Commissioner Scott associate member on this committee.

And I move approval.

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MR. HOCHSCHILD: Second?

DR. MCALLISTER: I'll second that.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

MR. HOCHSCHILD: All right. That passes

11 | unanimously. Thank you.

Thank you for joining us.

All right. Let's move on to item 3.

MS. MARTIN-GALLARDO: Good morning, Chair Hochschild

15 and commissioners. I'm Jennifer Martin-Gallardo of the

16 | Chief Counsel's Office. I served as a hearing advisor

17 || for this matter, which involves California's Renewable

18 | Portfolio Standard (sic) or RPS.

19 Beginning in 2011, the RPS required each local,

20 | publicly-owned electric utility to adopt and implement a

21 | renewable resources procurement plan that requires the

22 | utility to procure a minimum quantity of electricity

23 | products from eligible renewable energy resources,

24 | including renewable energy credits, a specified

percentage of total kilowatt hours sold to the utility's

retail end-use customers.

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For compliance period one, which was January 1st,

2011 to December 31st, 2013, the governing board of a POU

was required to procure quantities of eligible renewable

energy resources equal to an average of twenty percent of

retail sales. That procurement was to be balanced

between three distinct portfolio content categories.

The RPS allowed the governing board of each POU to adopt certain measures commonly referred to as "optional compliance measures". If adopted in conformance with legal requirements, these optional compliance measures would allow a POU to comply with the RPS program, even if it was unable to procure the required quantity of eligible renewable energy resources.

On January 8th, 2018, the Energy Commission
executive director filed a complaint against the Stockton
Port District for noncompliance with the RPS for
compliance period one. In February of 2018, the
Commission appointed a committee of Chair Hochschild,
associate member, and Commissioner Douglas, presiding
member, to consider the complaint.

The complaint alleges that the Port failed to meet its procurement target requirement and its portfolio balance requirement. The complaint also alleges that the Port was not excused from satisfying these requirements

by the application of optional compliance measures, because the Port failed to adopt optional compliance measures and describe these measures in an adopted RPS procurement plan before the end of compliance period one.

The Port admits that it failed to meet its procurement target and portfolio balance requirement but disputes the allegation that it failed to adopt optional compliance measures. The Port asserts that its actions either directly or substantially met the relevant statutory and regulatory requirements to adopt optional compliance measures.

Staff in the Port briefed the legal and factual issues and stipulated to a set of agreed-upon facts. The Port provided additional evidence to support its claim that it directly or substantially met the relevant statutory and regulatory requirements to adopt optional compliance measures.

Staff has argued that, despite the Port's noncompliance with the RPS program, the Energy Commission may excuse the noncompliance based on mitigating circumstances and does not need to refer the matter to the California Air Resources Board for penalties. Staff has urged that, if the matter is forwarded to the ARB, that no penalties should be imposed.

The committee filed a proposed decision on March

29th, 2019. After considering the RPS program legal requirements and the evidence presented, the committee issued a proposed decision which came to the following conclusions.

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One, the Port governing board did not comply or substantially comply with the requirement to adopt optional compliance measures. Had it done so, the optional compliance measures the Port submitted to the Energy Commission would have excused the noncompliance with its procurement obligations.

Two, significant mitigating factors do exist, but under the RPS program, mitigating factors do not as a matter of law operate to excuse the Port's noncompliance. Instead, they are properly considered by the California Air Resources Board at the penalty phase. And three, the committee suggests that no penalty be imposed by the ARB.

The Port filed comments on the committee proposed decision on April 5th, 2019, which you have before you. No other written comments on the proposed decision have been received. The Port and staff are here today, and there may also be public comment. I am happy to provide responses to the Port's comments and any other comments after the parties have spoken.

We prepared the agenda to afford the opportunity for you to deliberate in closed session if you desire.

The committee recommends that you approve the adoption order, which by its terms adopts the committee proposed decision as modified to accurately reflect determinations made today.

I am available for questions.

MR. HOCHSCHILD: Thank you, Jennifer.

Any questions of Jennifer before we move on to Stockton?

(No audible response)

MR. HOCHSCHILD: Okay, Justin?

MR. WYNNE: Good morning. Justin Wynne here on behalf of the Port of Stockton. And thank you for the opportunity to speak before you this morning.

So the Port of Stockton serves an area of the state that faces high unemployment and poverty, and they were particularly hard hit by the most recent economic downtown, one of the slower areas to recover. And one of the key purposes for the Port of Stockton is to serve as an economic driver for its region to attract jobs to the Port. And they have to compete against other regions of the western coast of North America.

Sorry.

And the main reason that the Port began providing electric service was to provide an added economic incentive to attract additional businesses to locate in

the Port of Stockton's area. And consistent with this purpose, its early RPS development efforts were focused on developing solar in its service territory so that it could keep its RPS dollars and the benefits and job benefits of that local.

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And it wasn't until late in the first compliance period that, due to circumstances that were outside the control of the Port, that it became clear that the two different solar projects that it was focusing on developing would not be completed in time to meet its RPS procurement requirements in the first compliance period.

And at that point, the Port had expended significant funds towards those projects. And the additional funds that would have been necessary to meet its RPS compliance requirements in the first compliance period would have likely resulted in a rate spike, and it could have threatened the very viability of the Port's utility.

So there's two RPS offramps that are relevant to the Port's circumstance. There's delay of timely compliance and cost limitation. And the committee proposed decision acknowledges that the Port met all of the requirements for both of those elements, except for the express reference to those offramps in an adopted RPS procurement plan.

And the Port acknowledges that it didn't take that

specific action, but it has argued that its actions in total substantially comply with the RPS requirements and with the intent of the overall RPS program, including the development of new additional RPS resources, particularly those located in disadvantaged communities.

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And applying the RPS offramps is also consistent with the purpose of those provisions, one for the cost limitation preventing disproportionate rate impacts, and then for the intent of the delay of timely compliance, protecting a utility and its customers from penalty where their actions have been in good faith and they've taken reasonable planning efforts and the result of a project's failure is outside of their control.

In this situation, the Port's board and its customers were well aware of and deeply involved in the efforts to develop these solar resources. The customers and board were also well aware of and briefed of the financial situation for the Port's utility and the consequences of a rate increase.

And it's not clear how the overall purpose of the RPS program would be further advanced by a simple adoption or how the purpose of the RPS program would be advanced if a financial penalty was imposed on the Port, which would ultimately flow through to its customers.

Because of that, the Port has urged that the

Commission should dismiss the complaint on the basis of substantial compliance. Alternatively, the Port has supported the recommendation from the executive director that the Commission has the authority to dismiss a complaint on the basis of mitigating circumstances, and in this case that would be justified.

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The Commission has broad discretion in setting its regulations, particularly for the RPS, and that would necessarily include the ability to put reasonable limits on what would be referred from the Commission to ARB.

And the ARB has a much more limited role in this process. Their role is limited to determining the penalty amount within the range that aligns with what would be comparable to a CPUC penalty for a retail seller and also collecting those funds.

If the Commission determines that, due to mitigating circumstances or as in this case where the applicable penalty imposed by the CPC would be a waiver, there would be essentially no penalties, and in that case it doesn't make sense to refer this to ARB.

Doing so would be an unnecessary burden. It would waste resources, and it also exposes the utility to a situation where the primary trier of fact, the overseer of the hearing, has determined that no penalty is necessary, yet they're still exposed to significant

1 | penalties through the ARB's process.

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We don't believe that that creates a fair or reasonable process, and we urge the Commission to reconsider this and determine that it does have the discretion to dismiss the complaint on the basis of mitigating circumstances.

And then finally, the Port included in its recommendations that, if the Commission does approve the committee proposed decision, there are certain findings of fact and conclusions of law that we would recommend amendments.

One of the primary ones is the committee proposed decision's determination that the Port would have met the requirements for waiver under the CPUC's process. That's clearly a legal determination, and it is very relevant to ARB's role in determining what a comparable penalty would be under their process.

MR. HOCHSCHILD: Great, thank you.

Are there any public comments before we turn it over to commissioner discussion?

So staff, you want to respond to that? Yeah.

MS. SMITH: Sure. It'll be --

MR. HOCHSCHILD: Yeah.

MS. SMITH: -- short and sweet. Courtney Smith, chief deputy. I'm joined by Gabe Herrera from our Chief

Counsel's Office. Staff don't have any additional arguments or facts to present to you that have not already been discussed in the matter. Staff support the committee's proposed decision, and we're happy to answer any questions.

MR. HOCHSCHILD: Great, thank you.

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Okay, Jennifer, would you respond to what you -- if you'd like to make a response -- what you heard?

MS. MARTIN-GALLARDO: Sure. I'm happy to.

Thank you. The Port did file comments in the proposed decision, and I will respond to each comment in turn. First, the Port asserts its arguments that the Port substantially complied with requirements to claim optional compliance measures. The committee disagreed with the Port on this point.

At pages 8 and 9 of the proposed decision, the committee explained that the legal doctrine of substantial compliance is not available when a statute's requirements are mandatory.

The legislature explicitly imposed a duty on POU governing boards to adopt optional compliance measures if a POU wanted them available to excuse noncompliance with procurement requirements. The committee found this statutory requirement to be essential to the promotion of the RPS program's overall design and goals.

The Port's governing body never took a vote or passed a resolution to adopt optional compliance measures. Because the committee found that this type of formal action by the governing board is a mandatory requirement to comply with the RPS program statutes, the committee found that the doctrine of substantial compliance is not available here.

I recommend that the Commission uphold the determination made in the proposed decision.

- MR. HOCHSCHILD: Okay, thank you.
- 1 | MS. MARTIN-GALLARDO: I --
- 2 MR. HOCHSCHILD: Any public comments --
 - MS. MARTIN-GALLARDO: I had -- there's a few more.
- 4 MR. HOCHSCHILD: You're still going. There's more, 5 okay.
- 16 | MS. MARTIN-GALLARDO: Sorry, a few more.
- MR. HOCHSCHILD: Sorry.
 - MS. MARTIN-GALLARDO: All right. Second, the Port reasserts its argument that the Commission has broad authority to dismiss a complaint based on mitigating circumstances.
 - The committee disagreed. As explained in the proposed decision at pages 12 and 13, the committee found that mitigating circumstances do not waive or excuse noncompliance. Rather, they are properly considered by

the Air Resources Board at the penalty phase, should a matter be referred to the ARB.

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In this matter, the committee determined that the Port did not meet its procurement obligations, and its governing board did not adopt optional compliance measures to excuse that noncompliance. The committee further determined that significant mitigating factors exist, and because of them, recommended that no penalty be imposed by the Port (sic) because of its noncompliance.

The committee's actions in this regard are entirely consistent with the requirements set forth in the Commission's regulations for adjudicating alleged RPS noncompliance. Also, Section 399.30 states in pertinent part, "Upon a determination by the Energy Commission that a local, publicly-owned electric utility has failed to comply with this article, the Energy Commission shall refer the failure to comply with this article to the state Air Resources Board, which may impose penalties."

While the executive director has discretion whether the facts of a particular situation warrant a complaint, once a complaint is submitted to the Commission and the Commission finds that there was noncompliance, the statute leaves no discretion. The Energy Commission shall refer the failure to comply to the ARB.

Furthermore, the Public Utilities Code does not indicate that the Energy Commission can dismiss a complaint based on mitigating circumstances. In fact, there is no mention of mitigating circumstances in the RPS program statutes.

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Mitigating circumstances are mentioned in Title 20 Section 1240 subsection (g), which states that "the decision may also include findings regarding mitigating and aggravating factors, upon which the California Air Resources Board may rely in assessing a penalty."

For these reasons, I recommend the Commission uphold the determination made in the proposed decision.

Third, the Port requests that the findings of fact should be amended to accurately reflect the financial burden to the Port and its communities. The proposed decision at finding of fact (e) states, "A financial penalty would reduce the Port's ability to procure renewable energy resources in future compliance periods."

The Port requests the Commission add more to this finding to include the statement, "and would increase costs to the Port's customers in an area of the state that faces disproportionately higher rates of unemployment and poverty". The Port's request is largely consistent with the language contained in the body of the proposed decision at page 16.

The Port's request the language state that the area in which the Port is located "faces disproportionately higher rates of unemployment and poverty", but there is insufficient evidence in the record on proportionality to support the specific language requested.

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But it would be appropriate if the Commission so chooses to amend finding of fact 5(e) to read in full, "A financial penalty would reduce the Port's ability to procure renewable energy resources in future compliance periods and would increase cost to the Port's customers in an area of the state that faces high levels of unemployment and poverty."

Finally, the Port requests the addition of three conclusions of law regarding comparable penalties. The first is the regulatory requirement that suggests penalties be comparable to penalties adopted by the California Public Utilities Commission for noncompliance with an RPS requirement for retail sellers. The second is a statutory requirement that specifies the mandatory reasons that the CPUC may grant a waiver to a retail seller.

And the third is a request to add a conclusion that the Port met all requirements for the Section 399.15 subdivision (b)5(B) standard for waiver under the California Public Utilities Commission's adopted waiver

process, and therefore a comparable penalty is a full waiver.

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The first two requests are reasonable and entirely consistent with the language of the proposed decision.

The third, however, is not supported by the decision or law. Under Energy Commission regulations, the

Commission's decision to suggest no penalties must be comparable to penalties adopted by the CPUC for noncompliance by retail sellers.

To comply with that requirement, the committee's proposed decision generally compared the requirements of the delay of timely compliance optional compliance measures to the CPUC's waiver requirements for a retail seller. The decision noted that the CPUC has not yet issued a decision on the waiver request that it has before it for compliance period one.

Because the CPUC's process has never been completed, a thorough comparison between the Energy Commission's delay of timely compliance optional compliance measures and the CPUC's waiver requirements cannot be made.

Moreover, the CPUC's waiver process for retail sellers is not identical to or fully aligned with the requirements imposed by the RPS program for POUs.

Thus, neither the committee nor the Commission can find as a matter of law that, because a POU such as the

Port would arguably satisfy inapplicable waiver provisions upon which retail sellers might rely, that such satisfaction excuses or waives POU's noncompliance with clearly applicable RPS program requirements.

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The RPS imposed different obligations on retail sellers and POUs and provided them different compliance opportunities. Thus, the proposed decision finds noncompliance but recommends no penalty for the Port based on mitigating factors. It properly does not go so far as to state the Port's noncompliance is waived.

In addition to the comments from the Port, I want to point out that the proposed decision includes an improper reference to Title 2 at conclusions of law number 7 and 9. Those need to be changed to Title 20.

That concludes my responses to comments.

MR. HOCHSCHILD: Thank you.

years in implementing RPS regulations.

Would you like to respond to any of that, Justin?

MR. WYNNE: Yes, thank you. So on the final point, between the ARB and the CEC, we've argued that the CEC's in a much better position to evaluate both the statutory RPS requirements because of their experience with the POU regulations and their broader role in the RPS, but also in understanding what the CPUC requirements would be because of their coordination throughout the last ten

And so I believe that it is more appropriate for the CEC to weigh in on whether or not the Port would have met the RPS requirements as applicable to a retail seller than for ARB to determine that, and that this would be the appropriate process because we could comment on that as compared to the ARB's process, which is more along the lines of settlement negotiations, as I understand what it was intended to be.

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And so leaving that as an unconfirmed issue I think is a concern for the Port, particularly because ARB has not adopted any specific regulations for RPS penalties, and so we don't have a clear view right now of what that process will look like.

It's our understanding that there was an effort in 2016 to develop those regulations. Those were never adopted. It's our understanding now that there might be guidance provided, but essentially we're having to go through this process and finalize what the Commission's decision looks like before we understand what ARB will do.

MR. HOCHSCHILD: Thank you.

For the record, that was Justin Wynne speaking on behalf of Stockton. Because we don't have a court reporter, our public advisor reminds me everyone needs to say their name before they speak for the record.

Is there any public comment on this item before we do committee discussion?

(No audible response)

MR. HOCHSCHILD: Hearing none, Commissioner Douglas?

MS. DOUGLAS: Thank you, Chair Hochschild. So I do have a number of comments on this item, and of course the committee on this item -- the chair and myself -- have been through a number of proceedings and listened carefully to all of the parties and the materials that they submitted to the committee.

And I will say that for my part I have some sympathy with what the Port is saying in terms of its position of being a small utility whose primary business model is not providing electricity -- it's running a port -- and which made a very clear effort to comply with the RPS in compliance period one by building renewable energy in its service territory and bringing projects online. And I don't think there's any doubt in the committee's mind that that effort was real and sustained and serious.

And in addition, we see that the Port is in compliance as we look at compliance period two, and we have every reason to expect that the Port will continue to implement the RPS in compliance with state requirements. And that's something that we are happy to see.

So in terms of the committee's decision, though, we have to be very mindful of what our role is and what role the legislature provided to other agencies. And we have to be very mindful of the difference between words like "may" and "shall" in the statute.

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And when the committee looked at the legal requirements in the statute and considered our discretion to apply mitigating circumstances in the way that was requested, our determination was that the statute really, really directed us to send this matter to ARB, and that the statute gave us the option, should we choose, of recommending a penalty amount, which we proceeded to do. And we recommended no penalty.

It's a new program. It was the first compliance period of a new program, and there were a number of factors that we went through and we laid out better in the decision than I will orally right now. But we made that recommendation based on the record that we had and that the Port and staff helped us develop.

I recognize that ARB does not have regulations in place to address matters for enforcement from the RPS that we send to them. And we did look closely because we knew that the ARB would have to consider what level of penalty would be imposed by the PUC. So we did look closely at what the PUC has set out in that area.

But the PUC has not implemented its procurement expenditure limitation program. And while we have a general idea of the way that the PUC has set out to structure its program, we do not have nearly enough information on how they would implement it, given that it hasn't been implemented, nor can we as a matter of law stand in the PUC's shoes to say that they absolutely would have found this or that under their program.

We did what I think is what we could do -- to look at the general operation of their program and say, based upon what we know today, it seems to us that the Port of Stockton would have fallen into the category that would have allowed it to be granted a waiver. And that supports our recommendation of no penalty.

MR. HOCHSCHILD: Thanks.

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I have nothing to add to that, except that I think this strikes the right balance. The legislature cares very much about POU compliance with the RPS, and I think our recommendation of no penalty was sufficient.

Are there other comments?

MS. DOUGLAS: Chair Hochschild, let me make one more --

MR. HOCHSCHILD: Yeah.

MS. DOUGLAS: -- comment, and then --

MR. HOCHSCHILD: Sure.

MS. DOUGLAS: -- we'll go to other commissioners.

And I realize that I didn't address the question of the importance of the POU board actually adopting the RPS plan, which, as we note in the decision, if they had gone through the step of actual adoption, we wouldn't be here today.

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And part of this is looking at the statute and seeing that, from the words on paper, it certainly looks like the legislature placed great importance on the role of the POU governing boards as governing boards, as entities that make these decisions and make them on the record and through official processes, and that taking these matters up to that level is, in my view, an inherent part of the RPS construct.

And that's why, while the arguments for substantial compliance -- while there were arguments for substantial compliance and we looked closely at those arguments, when it came to the question of whether that was enough in the absence of the governing board taking this up at a meeting as intended by the statute, it was our conclusion that it wasn't quite there.

MR. HOCHSCHILD: Okay, thank you.

Commissioner McAllister?

DR. MCALLISTER: Yeah. I just wanted to say I do support keeping this in the deliberative realm. I think

that's critical, and it's part of the RPS -- of having everybody up their game in maintaining transparency. And that's, I think, a valuable outcome of the RPS, right?

And so the decision to refer to ARB is, I think, sending that signal that we're taking that seriously.

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I guess I had a question for the committee. Is there any -- so I want to just acknowledge that we are in some way experts in these issues, and we do run the program, and so I would hope that ARB would rely on us and our record and our expertise to understand the situation in a substantive way and come to a conclusion and at least listen to our recommendation and make their decision.

So I guess I won't ask you to speculate on whether you think that'll happen, but I think, from what I know about the collaborative nature of the agencies, I don't have any reason to expect that that would not happen, right?

MS. DOUGLAS: I think that obviously in the adjudicative framework when we are actually hearing a complaint, we cannot call ARB and say --

DR. MCALLISTER: Yeah.

MS. DOUGLAS: -- what would you think, and we did not. And what we did do is we laid out -- in our role as finders of fact, we laid out the facts and applied them

to the law as clearly as we could in order to create a record that the Commission will vote on and that will go to ARB.

And I do think that there is a realm of interagency collaboration in terms of how this program works, and what ARB does when we are past the adjudicative stage, we may wish to pay some attention to. But we really focused on the role that was given to us, and within our realm it was to hear these issues and write a decision that laid them out as clearly as we could.

MR. HOCHSCHILD: Great. Commissioner Scott?

MS. SCOTT: Sure. I just wanted to weigh in. I received an excellent briefing on this matter and reviewed the materials, and I think, given the complexities of the statute and what's required and when and where in the sequencing, that you've struck the best balance that you can here. So I just wanted to add that.

MR. HOCHSCHILD: Thanks.

Is there a motion?

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MS. DOUGLAS: I will make a motion -- I will make a recommendation, actually, that we make not all but a couple of the changes to the decision suggested by the Port. And that would be -- and I'll just read it in the form of a motion.

So I will move to approve and adopt the committee

proposed decision with the following changes. Change number 1: Modify finding of fact 5(e) to read in full, "A financial penalty would reduce the Port's ability to procure renewable energy resources in future compliance periods" -- that's there already, and here's the change -- "and would increase cost to the Port's customers in an area of the state that faces high levels of unemployment and poverty". So that statement, which the Port asked us to add is in our record and supported by our record.

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Modification number 2: Add conclusion of law number 10 to read, "Title 20, California Code of Regulations Section 1240 subdivision (g) requires that any suggested penalties shall be comparable to the penalties adopted by the California Public Utilities Commission for noncompliance with an RPS requirement for retail sellers." That's suggested by the Port, and we think that's supported.

Modification number 3: Add conclusion of law number 11 to read, "Section 399.15 subdivision b(5) specifies the mandatory reasons that the CPUC may grant a waiver to the retail seller."

And then the only other modifications are to correct typographical errors. Modification number 4: Correct typographical errors in conclusions of law numbers 7 and

1 9 to properly reflect that the reference is to Title 20. So with those modifications, I move to approve and 3 adopt the committee proposed decision. 4 MR. HOCHSCHILD: Thank you, Commissioner. 5 Is there a second? MS. SCOTT: Second. 6 7 MR. HOCHSCHILD: All in favor, say aye. 8 IN UNISON: Aye. 9 MR. HOCHSCHILD: This motion passes unanimously. 10 Thank you to the parties. 11 Let's move on to item 4. 12 Southern California Public Power Authority, Michael 13 Nyberg. 14 MR. NYBERG: Good morning, Chair Hochschild, 15 commissioners. My name is Michael Nyberg, and I am the 16 program manager for the Emission Performance Standard in 17 the Energy Assessments Division. 18 The Emission Performance Standards limits long-term 19 investments and baseload generation by the state's 20 utilities to power plants that meet a carbon dioxide 21 emission limit of 1,100 pounds per megawatt hour. 22 On March 18th, the Southern California Public Power 23 Authority submitted a compliance filing requesting a 24 determination that their power purchase agreement for

geothermal energy is compliant with the Emission

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1 Performance Standard. This compliance filing is for the procurement of up to sixteen megawatts of capacity from the Mammoth Casa 3 4 Diablo IV geothermal facility in Mono County. 5 facility is currently pre-certified under the Renewable 6 Portfolio Standard. 7 Staff has evaluated SCPPA's compliance filing and 8 concludes that their power purchase agreement is 9 compliant with the EPS, as Casa Diablo IV meets the 10 criteria of renewable electric generation facility. 11 Staff recommends the Energy Commission find that the 12 covered procurement complies with the Energy Commission's Emission Performance Standard. Thank you. 13 14 MR. HOCHSCHILD: All right. Is there any public 15 comments on this item in the room or on the phone? 16 (No audible response) 17 MR. HOCHSCHILD: Okay. Commissioner discussion? 18 (No audible response) 19 MR. HOCHSCHILD: Then hearing none, is there a 2.0 motion? 21 UNIDENTIFIED SPEAKER: Move approval. 22 DR. MCALLISTER: I'll second. 2.3 MR. HOCHSCHILD: All in favor, say aye. 24 IN UNISON: Aye.

Motion passes unanimously.

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MR. HOCHSCHILD:

Let's move on to item 5.

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This is on me, sorry.

Petition to request a rulemaking hearing: The Commission will now consider an act to approve or deny the petition submitted by Atlas Copco North America and Quincy Compressors for a rulemaking hearing to amend or repeal portions of the commercial and industrial air compressor regulations adopted by the Energy Commission on January 9th, 2019.

Because commissioners are the moving parties, they will present their arguments first. Commission staff may then respond, and petitioners will have the final say in reply to staff's argument. So let's begin with the petitioners.

MS. CHESTER: Good morning. My name is Michelle
Chester with Somach Simmons & Dunn, and I'm here today on
behalf of Atlas Copco North America and Quincy
Compressors. With me on the phone are Russ Randall (ph.)
and Dave Prator with Atlas Copco. We do appreciate the
opportunity to bring the petition before you today.

Commission staff and Commission counsel's comments regarding the implementation of air compressor efficiency regulations adopted by the Commission at the January 9th business meeting -- it addressed several points of uncertainty for Atlas Copco, Quincy Compressors, and

other market participants.

Specifically, these comments were regarding manufacturers' ability to rely on prior test results in certifying compliance with new compressor efficiency standards, to use a single machine in certifying compliance, and to rely on past results of ISO 1217:2009 testing to certify compliance.

These clarifications provided at the business meeting were responsive to Atlas Copco's comments made prior in the proceeding, but they are not reflected in the plain language of the regulations. And for this reason, Atlas Copco submitted a requested to staff to issue a regulatory advisory and subsequently filed this petition to request a rulemaking hearing.

But prior to today, staff did issue a proposed order containing findings that addressed both three points of uncertainty that I noted. And while unusual, we are here today to request that the Commission deny the petition and enter the order as proposed by staff, because it does contain the findings with clarity to all of our concerns.

MR. HOCHSCHILD: Great.

MS. CHESTER: I would note that while the Department of Energy's model rulemaking does have some points of uncertainty in it and ambiguity, to the extent that the Energy Commission can clarify within its jurisdiction the

1 rulemaking as it exists today, it has done so through staff's recommended order. So for that reason, we don't have anything further. 3 4 We do recommend that you enter staff's proposed order 5 that was posted before the business meeting today. MR. HOCHSCHILD: Thank you, Michelle, and good to 6 7 see you back at the Energy Commission. 8 MS. CHESTER: Thank you. 9 MR. HOCHSCHILD: Staff? MR. BABULA: Hello. This is Jared Babula, staff 10 11 Staff affirms the content of its memo and counsel. 12 continues to recommend adoption of the proposed order 13 denying the petition. Technical staff is here to answer 14 any questions you may have. Thanks. 15 MR. HOCHSCHILD: Okay. Are there any comments from 16 the public on this item? 17 (No audible response) 18 MR. HOCHSCHILD: 19 commissioner discussion.

If not, let's turn it over to

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DR. MCALLISTER: So this is a terrific outcome. Nobody wants to sort of go through a process that turns out not to be necessary, and I'm a strong believer in getting consensus where possible. So I really want to thank you and Atlas Copco and Jared (ph.), certainly Alex (ph.), just -- and staff -- Kristin (ph.) and her team

| led by Alex.

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So I think this is a good outcome. Certainly agree with the persistent kind of vagueness at the federal level, and we'll kind of have to wrestle with that going forward. But I think we're doing what we can do at the State.

And we do need clear rules. We do need testing that matters. That does matter. And we do need consistency in that, and so I think we've gotten to a point where we've essentially gotten to the finish line that we can for now. So I support dismissing the petition.

MR. HOCHSCHILD: Any other comments?

(No audible response)

MR. HOCHSCHILD: Okay. Is there a motion?

DR. MCALLISTER: Great. I'll move this item.

MR. HOCHSCHILD: Is there a second?

UNIDENTIFIED SPEAKER: Just for the -- excuse me -actually you can't just move the item.

MR. HOCHSCHILD: Oh.

UNIDENTIFIED SPEAKER: Because the way that it's
framed --

DR. MCALLISTER: Gotcha.

UNIDENTIFIED SPEAKER: -- needs you to make a
declarative statement that you are in fact denying the
petition and --

1 DR. MCALLISTER: Oh, right. 2 UNIDENTIFIED SPEAKER: -- recommending adoption of 3 the proposed order presented by staff. 4 Okay. Can you do that? MR. HOCHSCHILD: 5 DR. MCALLISTER: Okay. So I move that we deny the 6 petition and adopt the order as proposed by staff. 7 UNIDENTIFIED SPEAKER: Second. 8 MR. HOCHSCHILD: All in favor, say aye. 9 IN UNISON: Aye. 10 MR. HOCHSCHILD: This motion passes unanimously. 11 Thank you. 12 DR. MCALLISTER: Thank you, counsel. 13 MR. HOCHSCHILD: Let's move on to item 6, diversity 14 update regarding the implementation of the Energy 15 Commission diversity commitment. 16 Alana Matthews. MS. MATTHEWS: Good afternoon, commissioners. I am 17 18 pleased to present as an informational item the 2018 19 diversity update, along with each deputy director whose 2.0 divisions have programs that are actively engaged in implementing our diversity initiative and commitment, 21 22 which broadens opportunities in clean energy funding, 23 programs, and policy.

adopted the diversity resolution, which recognized that

As you may recall, in 2015 the Energy Commission

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California's promise, successes, and innovation stem from the rich and diverse qualities and abilities of its people.

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Accordingly, through this resolution, the Energy
Commission formally committed to increase participation
of diverse business enterprises in our funding programs,
which includes minority-owned, women-owned, disabledveteran-owned and LGBTQ-owned businesses; increase Energy
Commission program benefits to all Californians,
including those in disadvantaged and low-income
communities; and additionally, in recognizing the value
and benefits of diversity of thought, talent, and
perspective, we also committed to increase the diversity
of the workforce and procurement opportunities to ensure
our energy planning and policy efforts reflect the rich
diversity of our state.

This commitment was put into action by establishing the formerly Diversity Working Group, now the Diversity Steering Group, which served as the platform for each division to coordinate diversity efforts, share ideas and information, and establish metrics for tracking and measuring our performance.

The metrics for our performance are captured in three areas: number one, funding program opportunities, which includes amounts awarded to diverse business

enterprises and for projects that are awarded that benefit disadvantaged and low-income communities; two, outreach activities, which includes how many outreach activities did each division sponsor or how many did they attend which may have been hosted by an external organization; and thirdly, what are the program or policy changes that have been put in place to ensure that our programs and policy benefit disadvantaged and low-income communities, either target disadvantaged communities or our targeted inclusion of diverse different entities.

Accordingly, each division's 2018 diversity update will present on their performance in the following areas: first, the program funding opportunities; second, the outreach activities if applicable; and third, any program or policy changes.

This is just a brief overview of what the Commission has done in 2018, which includes investments of over 337 million dollars in disadvantaged communities and low-income communities.

Outreach activities include community meetings, stakeholder workshops focused on disadvantaged communities, monthly communication such as an eblast or newsletter, interagency collaborations with other agencies such as the CPUC or ARB that focus on disadvantaged communities, and then also making sure that

we include our tribal communities.

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And lastly, our program policy changes as an overview includes targeted investments, expanding program benefits, and having diversity-focused tracking or metrics within different programs.

So we will start first with the Fuels and Transportation department with Kevin Barker.

MR. BARKER: Thanks, Alana.

Good morning, chair, vice chair, commissioners. I'm
Kevin Barker with the Fuels and Transportation Division.

Oh, next slide, please. Oh, thank you.

This slide captures at a high level our funding of key activities in 2018. As you can see, we roughly funded about forty-five million of 2018 funds in disadvantaged communities. These funding come from the Alternative and Renewable Fuel and Vehicle Technology Program or ARFVTP.

We also had major outreach efforts throughout the state, both for ARFVTP and -- a subset of that -- for the California Electric Vehicle Infrastructure Program or CALEVIP.

In 2018, the Fuels and Transportation Division released a solicitation to identify and replace the oldest, dirtiest diesel school buses in California.

Buses were selected based on the combination of bus age,

the district's disadvantaged community score, and the number of students in free or reduced meal plans. Based on the strong interest we received, we believe that we had the opportunity to replace old diesels with new electric school buses in the locations where we need them the most.

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This includes, for instance, ten buses at the

Fontana Unified School District in San Bernardino County.

It also has five buses in Lynwood-Inglewood area in L.A.

County. Both of these areas have more than eighty

percent of the students enrolled in free or reduced meal

plans.

While most of the funding available will be for electric school buses as well as infrastructure, compressed natural gas replacement buses are also awarded to districts where route profiles are not suited for electric school buses.

CALeVIP provides the Energy Commission the ability to target disadvantaged and other communities to ensure access and benefits for electric vehicle charging to accrue to all Californians. The program includes a twenty-five percent carveout for disadvantaged communities.

In 2018, CALeVIP's first infrastructure project, the Fresno project, continued to grow with funding reserved

for over 200 connection ports. Last year, we also released the Southern California Incentive Program, an infrastructure program including chargers in Los Angeles, Orange County, Riverside, and San Bernardino.

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Approximately, of those two projects, forty percent of all funds went to disadvantaged communities, beating our requirement of twenty-five percent.

In 2018, staff participated in career fairs statewide to raise awareness of career opportunities in the advanced transportation arena. Under a contract with ARFVTP, Cerritos Community College District kicked off a project for twelve California high schools to introduce electric vehicle technologies to the existing automotive programs. And a side note -- we've increased the funding this year to include twelve more high schools.

Similarly, an agreement with the California

Community College has provided funds to fifteen colleges,

many serving underrepresented communities, to train

automotive technicians.

In 2018, we also implemented awards for zeroemission vehicle mobility projects, including 750,000
dollars awarded to a project to provide ride hailing
services to students traveling to Fresno City College
from nearby rural areas. The participation cost is very
affordable for students in this area at a flat rate of

1 | forty-two dollars per student each semester.

Additionally, the project educates and demonstrates electric vehicle technology in underrepresented communities.

The last thing I'll mention -- in 2018, we began a process to identify the amount of ARFVTP funding that has gone to diverse business entities, such as businesses that are women-owned, minority-owned, or disabled-veteran-owned. We've collected ARFVTP budgets for more than 250 primary funding recipients and more than 250 unique subcontractors.

Knowing our current funding levels can help us identify how to improve our outreach and also will set a baseline for measuring diversity engagements going forward in the future. Thank you.

Next, we have Energy Research and Development Division.

Laurie.

MS. TEN HOPE: Good morning. I'm Laurie ten Hope, and I'll be providing the overview for Energy Research and Development.

Here on the first slide is an outline of the investments, the outreach meetings that we've conducted, and the policy and program changes that have been incorporated into the program and that I'll go through

one by one in the following slides.

So first, our strategy for outreach is really threepronged. The first is really to increase the engagement
with communities through face-to-face meetings. We've
been to multiple communities around the state to really
get a better understanding of what the needs are in
disadvantaged communities and then incorporate those into
our solicitation opportunities.

And we've incorporated input into our solicitations in a couple of ways. On some of our solicitations, we've designed preference points or set-asides, where the certain amount of the funding would be set aside for projects in disadvantaged communities or low-income. And in others, we've taken the input to design a solicitation specifically around the needs of the community, for example, looking at what the efficiency opportunities would be for retrofitting multi-family, low-income rental units.

The first part of our strategy is really to make sure that we comply with Assembly Bill 523, and that bill requires that twenty-five percent of our demonstration projects be in underserved communities and that ten percent of the projects be in low-income communities, and that we also take into consideration to the greatest extent possible what the health impacts of the projects

would be to the community.

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So that's a new element, in addition to the goals that the Energy Commission set for itself, that we needed to really think about and engage with the communities on how to incorporate that.

We've done our outreach through a couple of different strategies. First was to engage with workshops in Fresno, in Diamond-Bar, specifically to take input on the criteria that we would consider as we're scoring proposals in compliance with 523. So like, what are the definitions for low-income, what are the definitions for disadvantaged communities? How would we evaluate health impacts or health benefits, plus or minus, in our proposals?

We also partnered with a public advisor to do outreach and really hear from communities what are the community needs and how might they best want to participate in our programs and increase the awareness of this opportunity and the opportunity to be part of these projects in a significant way. Those workshops in 2018 were held in Fresno, Diamond-Bar, San Diego, Bakersfield, and Madera.

To provide just a couple of examples of projects that have provided some benefit in these communities, the first one I want to highlight is OhmConnect. And

OhmConnect is a software platform that allows customers to participate in demand response events. They've developed a very engaging platform, and they have hundreds of thousands of participants in their platform.

But for our particular EPIC project, they specifically did outreach to engage representatives from disadvantaged communities, and about fifteen percent of the participants in our projects represent those groups. And on average, the energy savings has been about fourteen percent when a demand response event is called. And then the participants are compensated for their reduction.

The second project to highlight is Build It Green.

And Build It Green is evaluating several different lowincome, multi-family projects that are incorporating
electric water heaters and electric space heating and
then building in displays that provide real-time
information on how much energy is being used by the
customers, and providing it in a very visible
green/yellow/red way that provides a really clear, quick
assessment of energy use.

And they'll be evaluating customers -- whether this is effective in changing behavior, how customers feel about it, and what the savings are.

The last project I wanted to highlight is a project

that represents the diversity that we really want to incorporate into our awards (indiscernible), which is a women-owned business that was funded by EPIC. And now many other people have recognized the kind of brilliance of their technology, and it's been recognized by industrial awards, significant multi-million-dollar federal awards, and recently an award from Bloomberg Pioneers in New Energy Finance.

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They have an air tracker that really reduces the materials that are required in the tracking system and significantly lowers the installation and operation cost.

In summary, we've exceeded our legislative goals, and over a third of our demonstration projects in EPIC are in disadvantaged communities. We have 104 demonstration sites, and we're continuing -- I mean, we're not really resting on our laurels. We're pleased with what we've done so far, but there's a lot more really to do to hear from each community. Each community has unique needs and really wants to be part of the dialogue of research projects in their community.

And finally, I just wanted to highlight a project that we're building that's a platform that allows engagement between communities, researchers, technology developers, and investors and allows for future collaboration that would allow communities to be part of

the dialogue and then the submittal of proposals to the Energy Commission.

Thank you. And next is Siting -- Shawn.

MR. PITTARD: Thank you, Laurie.

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Good morning. My name's Shawn Pittard. I'm here for STEP today, the Siting, Transmission, and Environmental Protection Division. And as you know, it's our responsibility to encourage meaningful public participation when we conduct our CEQA reviews, propose new generating facilities, changes to existing facilities, and exemptions to the Commission's process.

So we coordinate closely with the Public Advisor's Office, reach out to local elected officials, community groups, and tribal governments. We conduct tribal consultations through our tribal liaison in accordance with our own CEC policy and with CEQA requirements. We identify disadvantaged communities using the CalEnviroScreen model, and we use this model as part of our screening level analysis when performing human health risk assessments.

We use U.S. Census data to identify environmental justice communities, which include minority populations and low-income populations. We also use U.S. Census data to identify populations experiencing linguistic isolation. These are people who self-identify as

speaking English less than very well. If five percent or more of the population self-identify as speaking English less than very well, multilingual notices and newspaper ads are published, and interpreters are made available at workshops and hearings.

Two quick examples. In 2018, we completed our CEQA review of the Stanton Energy Reliability Center application for certification. Key documents were translated into Spanish, Korean, and Vietnamese.

Interpreters were made available at public meetings.

And now, today we assigned a committee for the Laurelwood Small Power Plant Exemption. We're reaching out to the local environmental justice groups, and we've identified populations for whom we will be translating documents into Mandarin Chinese. Thank you.

Energy Efficiency.

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MS. DRISKELL: Good morning, commissioners. Kristen Driskell for the Efficiency Division.

The Efficiency Division is responsible for investments in disadvantaged communities primarily through its Proposition 39 K through 12 program, resulting in 247 million dollars in approved energy expenditure plans in 2018. We also recently adopted the Clean Energy in Low-Income Multi-Family Buildings or CLIMB Action Plan in November 2018, and I'll talk a

little bit more about each of these programs.

Of the one and a half billion dollars approved in energy projects under the Proposition 39 program, about sixty-nine percent of those projects or a little over one billion dollar -- sixty-nine percent of the funding or a little over one billion dollars went to disadvantaged local education agencies or LEAs.

The Proposition 39 program defines disadvantaged communities based on participation in the free and reduced meal program, similar to the school bus replacement program.

This program is winding down, and remaining funds in the program are being rolled over to the school bus replacement program that Mr. Barker described earlier, as well as to a competitive Energy Conservation Assistance Act education no-interest loan program.

In November 2018, the Energy Commission adopted the CLIMB Action Plan. Forty-seven percent of low-income residents of California live in multi-family housing, the majority of which is aged predating modern energy codes, meaning they're pretty energy inefficient.

These communities lack access to distributed energy resources, such as energy efficiency, renewable energy, and an electric vehicle infrastructure. And a lack of coordination across the state's programs that target

these communities make it more difficult to get these distributed energy resources to low-income multi-family buildings.

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To address this inequity, the CLIMB Action Plan established five goals that are designed to increase access to clean energy resources for the owners and residents of multi-family buildings. And we are now in the implementation phase of this plan, so hopefully at next year's update I'll have something to update you on. Thanks.

Next, we'll have Natalie from the Renewable Energy Division.

MS. LEE: Good morning, chair, vice chair, commissioners. Natalie Lee with the Renewable Energy Division, and I have the pleasure of providing you a brief summary of some of our programs that seek to ensure that we're addressing all Californians and California's most vulnerable communities.

The Renewable Energy Division strives to address diverse communities in all programs. Among our programs, we administer three funding opportunities where we can track our impact to reach these communities. These are the New Solar Homes Partnership or NSHP program, the Renewable Energy for Agriculture Program or REAP, and the Geothermal Grant and Loan Program.

As you see in this summary, each of these programs has provided funding that benefited disadvantaged and low-income communities in 2018. Our outreach activities across all three programs also supported participation and communication with our program stakeholders. And in one case, the REAP program, the outreach conducted led to specific program design changes to facilitate increased participation.

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I'd like to talk about each of these with just a bit more detail. The New Solar Homes Partnership program, which has been providing funding for a decade now, reached its encumbrance deadline in early 2018. We saw a large increase in reservations in advance of the deadline, and NSHP staff conducted specific outreach to affordable housing project developers and solar installers to encourage their participation in advance of the deadline.

And these efforts paid off. Coupled with our earlier program changes to minimize and streamline participation for affordable housing and to provide additional incentives for disadvantaged communities, we were able in the first five months of 2018 to encumber over sixteen million dollars in funding for affordable housing projects.

Eight million of this funding was in disadvantaged

communities. This represented a 200-percent increase in a five-month period as compared to twelve months in 2017.

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Over the life of the NSHP program, we've been able to encumber funds for nearly 400 affordable housing projects, bringing solar to thousands of low-income households.

Moving on to our second program, in 2018 staff had the unique opportunity to design and implement an entirely new program for the Energy Commission. The REAP program, Renewable Energy for Agriculture, provides funding for renewable energy projects for a previously underserved community, agricultural operations throughout the state.

Rural agricultural communities tend to have a high representation of low-income areas and households and have previously had limited access to incentive or grant programs with a focus on renewable energy. To reach this new audience, staff partnered with key agencies and individuals that are points of influence in their communities.

With the assistance of the California Farm Bureau and the California Department of Food and Agriculture, we conducted workshops in agricultural communities up and down the state. The feedback received helped us to design a streamlined application, a new budget process,

and a project schedule that aligned best with a farmer's calendar.

The program was designed to include participation goals for priority populations, and staff's program design and extensive outreach efforts, supported by our internal teams from media, graphics, government affairs, and the public advisor, led to an extremely successful first solicitation.

This solicitation, which was conducted in early 2019, was oversubscribed. We recently posted the notice of proposed awards, encumbering all of the available nine-and-a-half million in forty-five projects across twenty-two different counties.

Of the proposed awardees, sixteen are in disadvantaged communities with a request of funding of over three-and-a-half million dollars, representing forty percent of the program awards and exceeding our program goal of twenty-five percent. Twenty-two proposed awardees are located in low-income communities, with a request of funding of roughly 5.6 million, representing nearly sixty percent of program funding.

If a majority of the projects are completed as proposed, the REAP program will be one of the state's most successful climate investment programs in reaching priority populations. I look forward to providing you

updates on this program next year.

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And turning to our Geothermal Grant and Loan Program, we funded a technical assistance project with the Department of Conservation's Division of Oil, Gas, and Geothermal Resources in 2018. Many of the state's geothermal areas exist in rural or remote areas that are very near low-income and disadvantaged communities.

As shown on this map, the Department of Conservation team identified roughly thirty undeveloped low temperature geothermal wells that could potentially pose a risk to public health and safety if not properly closed. This contract was created to support the development of abandonment and plugging plans for these wells.

We ultimately developed plans for thirteen of the wells, twelve of which lie in low-income communities with median incomes at or below eighty percent of the statewide median income. One lies within a disadvantaged community. Staff are currently exploring funding the actual abandonments of these wells.

In addition to the technical contract, Geothermal staff are working with Chair Hochschild to coordinate a workshop -- or we did coordinate a workshop in late 2018 to explore the opportunity to increase recovery of lithium and other minerals from geothermal brines in the

Salton Sea region of the state. The Salton Sea area has experienced significant environmental degradation, and the region is also economically disadvantaged, with large areas meeting the State's criteria as disadvantaged communities or both disadvantaged and low-income.

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Increasing the recovery of lithium and other minerals from the geothermal brines could potentially provide environmental and economic benefits to this region and to the state as a whole. Efforts on the lithium recovery from geothermal brines initiative are continuing into 2019, with an inaugural task force meeting planned for May in Imperial County.

Again, I look forward to bringing you more information on these efforts in the coming months, as well as the Division's efforts to ensure all of our programs serve every community in the state.

And with that, I'll turn this over to Rob Cook from the Administration Financial Management Division (sic).

MR. COOK: Good morning, chair and commissioners.

I'm Rob Cook with the Administrative and Financial

Services Management Services Division (sic), and I'm here
to talk to you about a couple of things that we do in

Admin.

First up is, for the agreements and goods and services that we acquire to support the operations of the

Commission, we're obligated to -- there's a statewide goal of twenty-five percent of that spend be done with small business and three percent of that spend to be done with disabled veteran business enterprises.

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In 2018, we spent about 17.8 million dollars supporting our programs and operations, and some of our large contracts unfortunately go to organizations that are simply not eligible for -- they don't qualify as small businesses or DVBEs. So we have to make up ground in other places.

So fortunately for us, our business services operation was very aggressive and achieved forty-three percent of their spend with small business, and our IT goods and services -- we achieved about a thirty-two percent small business spend and a seven percent disabled veteran business spend. So for the first time in three years, we actually met both goals, which was great progress.

Now, one of the other contributions that my division helps with is staff diversity. The first effort I'll talk about is our effort with U.C. Merced. And U.C. Merced is -- one, it's the newest of the U.C. campuses. It's also highly ethnically diverse. It is substantially California residents that attend the university, and they represent the diversity of California.

Also, with this campus, ninety-one percent of the students are eligible for some form of financial aid, and seventy-one percent of the students are the first member of their family to go to college. That's why we chose this school.

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And one of the key elements we had -- we had great ground support at the school. They're very welcoming, and they love to help put their students in front of us. Also, our divisions represented themselves very well. I asked each division to provide me with a very relatable, outgoing individual, and they all delivered.

We had a great crew that we took down there, including one of our Renewables representatives, who's a former -- well, an alumnus of U.C. Merced, who two years ago was sitting in the audience at a similar event.

And so what we did was a wraparound -- what I call a wraparound effort -- at U.C. Merced. We went in with an Energy Commission solo event, where we had very casual conversations with a number of students. We also signed up some of them for our energy analyst exam. We then followed that up with representation at a career fair. We were one of hundreds of representatives there at the career fair.

And then later we took our energy analyst exam to the school, and we had fifteen students sign up for the

exam. Twelve actually took it. Based on our usual numbers, that's a great outcome. When we host the exam here, we typically have about a fifty-percent drop-off in the number of students who take the exam, and so our hit rate was really guite good.

And if you think about it, a student at U.C. Merced who may be struggling financially -- it might be a little bit difficult for them to make a Saturday morning exam here at the Energy Commission, but it's much easier to take -- we worked with their schedules and proctored the exam over the course of a full day, and we were able to accommodate them on their home turf.

The other effort has to do with our diversity career fair. We're coming up on our fourth annual diversity career fair on April 25th. And some of the improvements that we put in place for 2018 were to help simplify and make ourselves a little bit more accessible.

Our human resources staff were on hand to counsel and encourage folks into classifications that their backgrounds would support, and then we provided on-the-spot exams for people. So we can actually get a conversion factor. We can actually make it easy. One of the unfortunate aspects of the civil service process is it's difficult for everybody, and we're trying to simplify and make it more accessible.

And with that, I'd hand things over to Alana.

MS. MATTHEWS: Thank you.

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And I just want to highlight three additional efforts that we have to implement our diversity initiative. One is the energy equity indicators. So in 2018 -- I know that they worked on the 2019 update; I don't know if it's out yet -- but then also providing opportunities for public input.

We also kicked off our joint advisory Disadvantaged Communities Advisory Group, and that's actually the next item on the agenda. So they provided recommendations to both the CPUC and our Energy Commission clean energy program. They're an ambitious group. They held six meetings and probably would have had more if we had more months in the year. And then they also created a document which is the energy equity framework.

And I really wanted to highlight that, because I think internally -- both commissions -- we have this technical expertise, but not necessarily the disadvantage and diversity. And so they really laid out what an equitable program should look like and what are the components that it should include.

And similar to S.B. 350 legislation that said there should be an economic piece when you're looking at barriers to renewable or energy efficiency investments,

they really also included that feature as well, so looking at workforce development.

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And then lastly, we have the summer institute in energy law and policy internship program. Previously we had twelve students, and they come into the institute and got an overview of key issues. This year we actually were able -- we had less students, but we had more opportunities. We were able to provide them with real work experience, and they're actually motivated so, if they all graduate this year, are pursuing college degrees in some form of energy-related field.

And so with that, one of my other roles as the public advisor is to make recommendations to the Commission. And so the recommendation that I have -- excuse me; my voice is a little groggy -- the recommendation that I have is that, next year, instead of having a business meeting item, I think it would be good to have a special en banc.

Because the work of our diversity commitment is so important, we really need to take the time to see not just what projects we have in geographic locations and not have a geographic-based equity program, but really human beings that live in those disadvantaged communities. And it was nice to see some of the projects call out how it's actually benefitting, but I think that

would be a really good idea.

And perhaps we can have input from the commissioners. We can invite advocates and organizations so that they can have exchange, and then include a presentation perhaps from our executive office to give that high-level view of how they are really supporting this initiative.

So with that, I will say thank you.

MR. HOCHSCHILD: Well, Alana, let me thank you. I just want to acknowledge you have really distinguished yourself on this. I mean, this is an A-plus effort. I really just want to say thank you for all this.

And to all the deputies -- really proud of all of you and just the work you're doing.

This kind of inclusion -- we're trying to build an Energy Commission and an energy industry that looks like California. Okay, that's what we're trying to do. This is a foundational issue for the governor and for all of us, and so this is a priority. And I just want to thank you for really putting your heart and soul into this.

And with respect to the en banc, I am now engaged with Steve Burbrick (ph.) and President Picker in discussing actually a number of issues, that I would like to do actually an en banc not just with the (indiscernible) but also the ISO, where we bring up --

there's a bunch of issues that I think we need to be talking about together, including how to better prepare for the fire season and so forth. And I think this is absolutely one we should include in that, so thank you for that suggestion.

Were there any other comments from the public on this item or from fellow commissioners?

MS. SCOTT: Me.

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MR. HOCHSCHILD: Yep. Were there --

MS. SCOTT: No public comment? Okay.

MR. HOCHSCHILD: Yeah, no public -- yeah.

MS. SCOTT: Yeah, Alana, I also want to say thank you so much to you for your leadership and your engagement and your enthusiasm, and also to all of our division directors across the organization for their leadership here.

I feel like we're really not just talking the talk, but we're walking the walk in this space. And it just can't be overemphasized how important it is to have low-income communities and communities that are

CalEnviroScreen disadvantaged communities to be part of this clean energy transition. And not only are they part of the clean energy transition, they're helping lead it in many ways.

And so it's exciting to see the projects that folks

were talking about across the Commission, and so I really just want to commend everyone. It's just terrific to see -- to me -- the projects, and I'm really proud of the work that the Commission is doing.

And I think we're always open to thoughts and ideas and ways to improve and to keep getting better at this, and so it's a really nice transition, I think, from this presentation to the presentation from our Disadvantaged Communities Advisory Group, where they've put great suggestions together for us for how to do this. So I just want to say thanks again to everybody. I think this is really good work.

MS. DOUGLAS: Great. And I'll just second that.

I appreciate your work, Alana.

I appreciate the work of all the deputy directors to really implement this vision and perspective in their own programs and divisions, and I look forward to much more of this as we move forward.

DR. MCALLISTER: I want to also thank Alana. I agree this is completely fundamental. And in fact, not only is it the right thing to do to really reach as far as we can into the communities and have the Commission and our work reflect California's diversity, but just from a self-interest point of view, we're not going to reach our goals if we don't completely engage with all

Californians and enable them to participate.

And the upside of that could be a serious jobs driver. I mean, the U.S. Energy and Employment Report came out a few weeks ago, and there are 400,000 clean energy jobs in California. And we could double or triple that.

And many of those new jobs are going to be in disadvantaged communities, and they're going to be good jobs. They're going to be installation jobs. They're going to be technical jobs. They're going to be local jobs. They're going to be non-exportable jobs. And so there's so much upside, but we have to actually do the work and do the lifting.

And I want to just make one more plug for language diversity in what we do. Forty percent of California speaks Spanish, and so I just think it's critical, because a lot of those construction jobs are actually going to be in the Latino community, more than -- I think disproportionately so, actually -- and the African American community and just in these communities we're trying to reach.

And so I think we're doing a lot, and we're doing really well, but I think we could actually do better and be more inclusive on the language front. And I really like it when we're doing siding work, or we did a

workshop -- we kind of do a roadshow of workshops around the state for the Efficiency Action Plan, and I really like when we show up and we can actually legitimately and directly communicate with those communities who don't have English as the first language. So that's really important.

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MR. HOCHSCHILD: Great. Well, thanks, Alana.

Let's move on to item seven.

MS. MATTHEWS: And if I can just say -- I also want to thank all the deputies and to my staff, because it's not easy, and we're always -- there are a lot of times you kind of have to, like, push in the envelope, and sometimes it's going from the abstract. So I really appreciate everyone's effort to be open and receptive and to continue to work with us.

So moving on to item 7, I would like to bring up Mr.

Tyrone Williams, who is chair of the Disadvantaged

Advisory Group (sic), and he will present their first

annual report.

MR. WILLIAMS: Well, good morning, commissioners.

I'm Tyrone Roderick Williams, and I am the chair of the California Disadvantaged Communities Group (sic) this historic year that we had in launching and laying the foundation for what we believe will assist all of the efforts that Alana and her team and you've acknowledged

to become reality.

Over the last year, we've had a chance to hold meetings here in Sacramento, in Los Angeles, in San Francisco, and in the San Joaquin Valley. So we've been able not only to hear from the constituents which we serve -- and we're across the whole state -- but in those areas as well.

And so we've presented to you for your review what we have come to really take on as our first year as a foundational year. We've looked at how to lay a solid foundation for which the Advisory Group can carry out its responsibilities in reviewing and making recommendations to this commission and the California Public Utilities Commission.

First, I'd like to say that we take this very seriously. Although we aren't a commission and we are an advisory committee, we are equally as committed.

And as Alana referenced, we've expanded our required four quarterly meetings into what seems now almost monthly meetings amongst the advisory committee and outreach, because we believe that the work that we've been charged to do is so important, and the programs that we have an opportunity to review are so expansive that we want to be able to be properly informed, adequately to be exposed to opportunities from the public and the staff to

understand what the programs and the impacts are.

I'd like to say thank you to the commissioners who've been able to attend some of our meetings. They have been meaty, and we really are appreciative of that.

During this year, we've laid what I called the foundation, and we've looked at really two primary areas. One is looking at our priorities, which are outlined in the report. And the second is the equity framework, looking at social justice and its impact on our residents.

What is clear to us is that across this state there are individuals and communities who are being significantly impacted by energy issues and environmental issues, and we want to make sure that as we move forward and as you move forward, that the issue of diversity, equity, inclusion, and its impacts on these communities is first and foremost. And so our recommendations reflect that.

I'd also like to address the concerns that we have regarding outreach. You've heard a great presentation on the programs, but outreach in the community is at the heart of being successful. And our commitment is that we will be partners with you in going into those communities that traditionally have been left out, locked out, and the last to find out about anything that applies to them.

We want those communities to be at the forefront, because sometimes it's more challenging to get people engaged who traditionally have not been engaged.

Sometimes it is more challenging to get people who have English as a second language to be actively informed and engaged, and we want to support that effort.

Last but not least, I would like to say that we look forward to the possibility of issuing a joint press release with the Energy Commission and the Public Utilities Commission to announce our work, what we do. We want people across the state in those disadvantaged communities to be aware that we've not only met our obligation of providing the report, but that we are committed to the responsibility of representing their voice and their interest.

Finally, we could not have done this without the incredible staff. This is an Alana love fest. As the chairman of the Advisory Group, she has just been phenomenal. She's guided me -- and I often needed guiding -- and the legal team and the support staff. We've had numerous meetings that required a lot of technical assistance, and they all provided it with a very supportive spirit.

And so on behalf of my colleagues who all represent communities across this state, we humbly and happily

1 submit to you our first annual report. Thank you for the opportunity to serve. MR. HOCHSCHILD: Thank you so much. Great. There's no action -- is there an action required? 4 UNIDENTIFIED SPEAKER: Yeah, I think there's a 6 couple comments. 7 MR. HOCHSCHILD: Oh, yeah. Okay, go ahead. There's one thing I just want to MS. MATTHEWS: 9 mention -- that the report is available on the Energy 10 Commission's Disadvantaged Advisory Group (sic) page, and 11 so if anyone is interested in getting a copy of that, 12 they can go to that page. 13 And then I do want to -- as you mentioned staff --14 Galen Lemei, who is here, is the legal person who helped 15 us through those technical difficulties, as well as 16 Kristy Chew, who's been very instrumental in keeping the 17 staff updated. 18 And also Vice Chair Scott, your leadership has been 19 tremendous. And Rhetta deMesa with your office, your 20 advisor, has been really key in being supportive and 21 providing guidance to the Commission.

So they all deserve thank you, and of course the CPUC counterparts as well.

MR. HOCHSCHILD: Great.

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All right, Madame Vice Chair.

MS. SCOTT: Yeah. I just want to say thank you so much, Tyrone, for this enthusiastic and engaged presentation, and also for taking time to chair the group.

And I want to say thanks to all of our Disadvantaged Community Advisory Group (sic) members for lending their time and their expertise. Their commitment, their dedication, their enthusiasm for this is -- it's just great to work with them.

As you've mentioned, we can't overstate how important it is to have this feedback and to make sure that we're continuing to improve the work that we do with disadvantaged communities and low-income communities.

So former Chair Weisenmiller and I were (indiscernible) buddies on this previously. I want to mention that Commissioner Douglas is going to be my (indiscernible) buddy on this going forward, and I'm really looking forward to working with her on this.

And any way that we can help with the outreach and making sure that people see the report and understand what's in it and then we keep implementing and going forward -- happy to do. So I will engage with you guys in more detail offline so we can make sure that we make that happen. But thank you very much.

MS. DOUGLAS: Super. And I will just say I'm really -69-

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looking forward to getting more engaged in this and getting to know the members of the advisory committee and getting much more familiar with its working and helping it move forward.

I am the point right now for the Energy Commission's tribal outreach and consultation and policy and the different overlaps we have with a number of programs now in our tribal work, so I'm looking forward to bringing that in. And of course, I already work closely with Jan Naganyan (ph.) on multiple fronts.

And I, as I have looked at the recommendations, also have a particular interest in the recommendation number five, which gets to metrics and energy equity indicators and where we go with that. And I hope to get not only guidance but to have a really collaborative process with the Advisory Group and with other stakeholders to move that to the next level, among many other things. So thank you very much for your service on this committee.

DR. MCALLISTER: Yeah. So thank you, both, for taking that on.

And I also just want -- so efficiency in particular but really everything we do affects all the way across the state, and I think we really need to make sure at the staff level that our programs reflect across the Commission that these priorities are incorporated

throughout, and at the local government level.

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I mean, local government is so important, and often they touch these communities -- these communities are part of local government constructs. And there's a lot of responsibility on the local jurisdictions as well to make sure that these priorities carry down.

And I think, to the extent that we need local government to help us achieve the overall energy and climate goals, we have to sort of lean on them to respect the kind of necessary rules of the road going forward with the programs that we work with them on. So I think keeping coordinated on this and making sure that we're consistent across the Commission is going to be really important.

Thank you so much for everything you've done today and everything you're going to help us do in the future and for your engagement.

MR. HOCHSCHILD: Thank you, all.

Let's move on to item eight, Rio Alto Water District.

MR. MICHEL: Good morning, chair and commissioners.

My name's Dave Michel with the Efficiency Division.

We are proposing a resolution adopting CEQA findings for Rio Alto Water District's Solar Photovoltaic System

Project and approval of an ECAA loan to the Rio Alto

Water District.

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Commission staff reviewed the CEQA documents prepared by the lead agency, Rio Alto Water District, and determined that the mitigation measures different from and in addition to those analyzed by the lead agency in its CEQA documents would lessen the potential impacts to biological resources and cultural resources, and would reduce the potential environmental impacts of this project to a less than significant level.

These mitigation measures will be implemented by the Rio Alto Water District and are included as conditions in the proposed agreement.

We are also requesting an approval of an application for a 1.6-million-dollar ECAA-funded loan to install four photovoltaic systems on three sites totaling 420 kilowatts. Energy Commission staff has determined that this loan is technically sound, cost effective, and meets the loan payback requirements, and is well within the requirements under the ECAA program.

We respectfully request your adoption of the CEQA findings and approval of the loan agreement to the Rio Alto Water District. I am prepared to answer your questions. Thank you.

MR. HOCHSCHILD: Okay, thanks.

Any comments from the public?

(No audible response)

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varying.

MR. HOCHSCHILD: If not, Commissioner McAllister?

DR. MCALLISTER: Yes. So thanks, Dave, for this one.

And I guess it's interesting. I've gotten a number of briefings over the last couple years about the photovoltaic projects that have been funded by ECAA, and we see overall largeish scale PV prices coming down tremendously. And the sort of paybacks and prices of the PVs that were funded by ECAA vary quite a bit, a little bit more than we sort of think of the marketplace as

And there's always an explanation, so staff knows how to evaluate these programs. And there are lots of different configurations that the public entities who do so install these systems within, and at the local level I've just gained a lot of confidence that they know what they're doing and that our staff knows how to evaluate these projects as well.

So we do see systems that have quicker payback times, but it's within a bigger context, the local government, and it has always been justified in a clear technical sense.

So anyway, I support this, and shall I --

MR. HOCHSCHILD: All right, unless there's other

1 comments, would you like to make a motion? 2 DR. MCALLISTER: Yeah, I'll move this item. MR. HOCHSCHILD: Is there a second? 3 UNIDENTIFIED SPEAKER: So I think --4 5 DR. MCALLISTER: So both the negative declaration 6 and the -- is this just a negative declaration? MR. MICHEL: There's two items: the CEQA 7 8 findings --9 DR. MCALLISTER: Yep. 10 MR. MICHEL: -- and the approval of the loan. 11 DR. MCALLISTER: Okay. So I'll move this entire 12 item. 13 MR. HOCHSCHILD: Is there a second? 14 UNIDENTIFIED SPEAKER: Second. 15 MR. HOCHSCHILD: All in favor, say aye. 16 IN UNISON: Aye. 17 MR. HOCHSCHILD: All right. This motion passes 18 unanimously. 19 Let's move on to --20 MR. MICHEL: Thank you. 21 MR. HOCHSCHILD: -- item 9, EPIC annual report. 22 MR. STOKES: So good afternoon, commissioners. My 23 name is Erik Stokes with the Research and Development Division. We did have one small correction to the 24

agenda. It reads as the Energy Program Investment

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Charge, and it should read Electric Program Investment Charge, so just wanted to note that.

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So I'm requesting a Commission approval today for our 2018 EPIC Investment Program 2018 annual report.

Just a little bit of context about the EPIC program -- we fill kind of a unique space in the overall California energy policy landscape. Most of the state policies are really aimed at incentivizing adoption of commercial stage technologies. With EPIC, we supply the technology push to try to bring new inventions to that commercial stage, and we do that to the tune of about 130 million dollars each year in new funding.

Our current portfolio of EPIC projects active and complete is around 300. In the report, we do kind of a deep-dive profile of about a dozen or so of our projects, and we've kind of organized these projects in the annual report around five themes that mirror our tracking progress report from a year ago. And I want to provide examples from three of those themes in the next few slides.

So the first project we want to highlight is a microgrid project. Microgrids are seen as a key strategy both for decarbonizing energy use, as well as increasing the resiliency of our energy system in our communities.

However, microgrids have been limited by a couple of

factors. One of those has been the capital cost of installing a microgrid system. The second is concerns and questions about how these systems will function in an actual emergency.

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So for this project, we provided funding to the Blue Lake Rancheria campus to install a microgrid system.

Blue Lake is a tribal community located in Humboldt

County, and one of the uses of the rancheria is it

provides the emergency Red Cross center for the

community.

Shortly after the microgrid was installed, a wildfire broke out about a quarter of a mile away from the campus, and fire crews were actually using the center to combat the wildfire. So loss of power to the center could have had some pretty impactful consequences.

What they didn't realize was there actually had been a power outage for about an hour and a half. The microgrid -- its response to the outage in how it islanded from the larger grid was so seamless that they didn't even notice it until they went back and checked the log.

So this project really helped provide a validation of how far microgrids have come and kind of shows that they're ready for primetime as far as being part of the strategy for some of these resiliency challenges.

The next project I'd like to highlight is a project really aimed at supporting municipalities and specifically wastewater treatment facilities. Energy's a major operating expense at a lot of these wastewater treatment facilities.

And the big opportunity is if you can treat more of the organic material in the primary treatment phase before that water moves towards the more energy-intensive second treatment process, you can really identify some pretty big energy saving opportunities.

And so for this project, Kennedy Jenks was the recipient, and they piloted this new technology that they call (indiscernible) cloth depth filtration technology.

And what this technology does is it's a much more effective way at removing a lot of the biosolids in that primary treatment stage and moving them out of the wastewater treatment system.

And they showed some pretty promising results from this new technology, including a twenty-five to thirty-percent reduction in the energy use in the secondary treatment phase. One of the benefits, too, is it also increased their biogas production, because they're able to capture a lot more of that organic material and direct it to the anaerobic digester they had on site.

The last project we'd like to highlight is really

kind of a subset of programs that we collectively call the California Energy Innovation Ecosystem. A few years ago, the (indiscernible) kind of got out of the clean tech game due to some high-profile failures, and so it kind of forced us a few years ago to really rethink the model and how we deliver new energy inventions to the market in a way that can meet some of the private sector requirements.

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So phrase one was really to try to build up California's infrastructure to support clean energy entrepreneurship. And so we established four regional innovation clusters to really kind of be the compass for startup companies and help them navigate a lot of the pitfalls and where to find the best resources as they start to develop and scale up their invention.

And we complemented that with a new small grant program we call CalSEED that provides a little bit of that runway when companies are first getting going to help them at least start to move past the proof of concept stage and into the protype stage.

In 2018, we started to see some of the first results of these efforts, and so far companies that have gone through the Ecosystem have received over sixty million dollars in private sector investment. And we expect that to increase over the next couple of years quite a bit.

The other thing is the Ecosystem partners have been able to secure additional federal funding using their EPIC award, and one of the key things this has let them be able to do is really start to expand the services they offer, primarily in rural and underserved communities where we don't see as much clean tech entrepreneurship.

I'd like to switch gears real quick and just talk a little bit about our administration of the EPIC program. Within our administration, we've embedded several strategies to really try to maximize the value of the program. I just want to touch on a few of these strat -- we talk about each of these strategies in detail in the report, but I just wanted to touch upon a few of those and give some examples along with some of the metrics we use.

So one of the things we try to do in our administration of EPIC is provide validation to private and public sector stakeholders on the new technology's merits, including private sector investment companies.

We did a quick analysis this last year using a sample of twelve companies with some new tools we have available to us to look at private sector investment companies have received before they received an EPIC award and after, because one of the things we've heard anecdotally over the years from recipients is just

getting an Energy Commission award's a nice little feather in the cap to try to secure private sector investment.

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And what we found through these twelve sample companies is a pretty significant increase in private sector investment after they've received their EPIC award -- about a two-to-one ratio.

One of our strategies is how do we increase stakeholder capacity to develop as well as to pull in new technologies. I talked a little bit about, with our Ecosystem, we've really tried to increase California's capacity to support clean tech entrepreneurship. We also have a concerted effort on trying to increase stakeholder capacity to deploy new technologies.

When new technologies start to move into that demonstration stage, you really start to engage a whole new set of professions that weren't involved in development. And these typically tend to be permitting agencies, construction firms, utilities.

And so there's a lot of learning that happens through these demonstration projects, and a lot of that learning tends to be local. So one of the things we're really focused on is kind of geographic distribution of these project sites across the state.

And so these maps kind of show where that

distribution's happening, and it's one of the metrics we kind of use to make sure that we're getting good geographic coverage, especially in IOU service territories. The chart on the right shows a lot of the same efforts, just specifically in disadvantaged communities where we're really focusing on that technological learning as well.

One of the primary benefits of a public research program like EPIC is the knowledge that's generated, but then that's shared so that people are really building on not just what worked but what didn't work and avoiding a lot of those common pitfalls. And so there was two mechanisms we used to really try to disseminate new knowledge that's generated through these projects.

One is online through our online project database we call the Energy Innovation Showcase. We launched this in 2016, and in 2018 we really started to hit some critical mass with the number of users. And we've increased both the page views and the number of users six and sevenfold in those two years.

The other mechanism we use to really distribute and disseminate a lot of the knowledge that's generated through these projects is our annual EPIC symposium.

Over the last couple years, we've gotten a lot more sophisticated in putting on these symposiums. And it's

1	really helped increase attendance, from that first year
2	when we were about 100 people that attended in person, to
3	2018 where we hit about 660, and then this most recent
4	year we surpassed 700 in attendance.
5	And attendance is a nice metric. I think what
6	doesn't get captured is a lot of the enthusiasm and
7	energy that was at that event. So with the help of our
8	media, we cut a little two-minute video to kind of
9	highlight some of that day's events that we'd like to
10	play for you.
11	(Video played)
12	MR. HOCHSCHILD: Drew, I think you were about to
13	leave one of the keynotes early there.
14	Great video, Erik. That's terrific. That's
15	terrific. Yeah.
16	MR. STOKES: With that, I'm happy to answer any
17	questions.
18	MR. HOCHSCHILD: Yeah, tremendous job.
19	Any comments?
20	Any public comment?
21	(No audible response)
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	MR. HOCHSCHILD: No? Okay.
23	MR. HOCHSCHILD: No? Okay. Comments from vice chair and commissioners?
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MR. HOCHSCHILD: Okay, thank you. Great work to

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   your whole team.
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        DR. MCALLISTER:
                         Thanks, Erik.
        MR. HOCHSCHILD: Yeah. All right.
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        DR. MCALLISTER: That was a great event, so kudos to
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   all you guys.
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        MR. HOCHSCHILD: All right. Let's move on to item
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        UNIDENTIFIED SPEAKER: Actually, this is a request
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   for approval of -- wasn't this? Item 9?
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        MR. HOCHSCHILD: Oh, do we need to approve the --
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        UNIDENTIFIED SPEAKER: Yes.
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        MR. HOCHSCHILD: -- report? Oh, I'm sorry. My
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   apologies. Is there a motion to approve the 2018 annual
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    report for EPIC?
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        UNIDENTIFIED SPEAKER: And -- oh, go ahead.
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        MR. HOCHSCHILD: Yeah, sorry. Did you want to do
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   it?
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        UNIDENTIFIED SPEAKER: Sure. I will move approval
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   of item 9.
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        DR. MCALLISTER: Second.
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        MR. HOCHSCHILD:
                        All in favor, say aye.
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        IN UNISON: Aye.
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        MR. HOCHSCHILD: That passes unanimously. Thank
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   you, Courtney (ph.).
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        Let's move on to item 10.
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MS. GONZALEZ: Good morning, commissioners. My name is Lorraine Gonzalez from the Research and Development Division. I'm here today requesting approval of a three-year contract with Gladstein, Neandross & Associates LLC, or GNA, for a variety of technology transfer activities for the EPIC program.

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One of the key benefits of public research programs such as EPIC is the knowledge generated from our projects being made available to the public. The technological learning or learning-by-doing that occurs from conducting clean energy research allows the benefits from the research to be replicated in future projects in additional locations.

And distributing the knowledge gained from our research helps accelerate development and adoption of new technological advancements by ensuring future activities build on the successes and failures of previous efforts.

In addition, project results can inform state and local policymakers of the technical and commercial readiness of new technology solutions for meeting nearterm policy goals.

For this contract, a team was selected with industry-related expertise in technology transfer, event production, targeted outreach, and web development. GNA and their team of subcontractors bring a wealth of

knowledge and experience in these required areas, having undertaken similar efforts in facilitating large events such as the ACT Expo and the Rethink Methane Symposium.

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Under this contract, the GNA team will focus on three main areas: first, a new digital technology transfer strategy for our energy innovation showcase, which currently houses information on existing R&D research projects. The work done by GNA will improve the effectiveness and usefulness of the showcase, making it more intuitive and user-friendly so that stakeholders can easily find what they're looking for when visiting the site.

Second, GNA will plan and conduct up to nine forums across California, presenting EPIC research and addressing trends and top issues impacting the energy sector.

And third, GNA will plan and produce two symposiums in 2020 and 2021 to showcase EPIC-funded research projects, disseminate research findings, and help connect researchers and technology developers with investors, policy-makers, and other stakeholders.

This work will help the California Energy Commission maximize the success of EPIC-funded technology investments by ensuring that the knowledge gained through our projects is shared amongst a wide audience.

Thank you for your time. I'm available to answer any questions.

MR. HOCHSCHILD: Great. We do have a request for public comment on this item.

Erik Neandross?

MR. NEANDROSS: Well, good afternoon, chair and commissioners. My name is Erik Neandross. I'm the CEO of GNA, and I just came to say thank you. We're excited to have the opportunity to engage with the team. As we saw from the video, there's a lot of great things happening with the EPIC program. We think it's a great brand, and the investments that are being made are really important.

We look forward to jumping right in and getting started to help really spread the good word and continue to help grow that brand and grow attendance, grow participation, and ultimately grow the adoption of these technologies that are being invested in, because that's mission-critical at this point. We have to see much greater success in terms of deployment beyond the development.

So we're excited to have the opportunity. I just wanted to come say thanks, and look forward to getting started.

MR. HOCHSCHILD: Great. Thanks so much.

Madame Vice Chair?

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MS. SCOTT: Yes. I got a detailed briefing from staff on this, and I am pleased to move item 10.

MS. DOUGLAS: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

MR. HOCHSCHILD: Let's move on to item 13, San Diego Community College District.

MS. HAAS: Good morning. Good morning, chair, vice chair, and commissioners. I'm Tami Haas with the Fuels and Transportation Division. I am the lead over workforce training and development for the ARFVTP. I'm seeking approval for a new agreement with San Diego Community College District, in tandem with Advanced Transportation and Logistics Center, for nearly 1.4 million dollars.

This agreement will fund alternative fuel training for seven community colleges. As clean transportation market continues to grow and evolve in California, there is still a shortage of automotive technicians trained in alternative fuels and advanced vehicle technologies.

Funding for these training programs includes vehicle training, curriculum development, and purchase of equipment and instructional aides.

This particular agreement will take inventory of

current training availability and perform a gap analysis to focus the funding for seven new community college awards in areas of need. Of particular interest is the inclusion of the community colleges in the Central and Imperial Valleys, and wherever possible, awards will be made to colleges either located in or serving underrepresented communities in the state.

Under a previous award with the Energy Commission, the Advanced Transportation and Logistics Center established similar training for fifteen community colleges and their automotive programs throughout the state. The agreement proposed today will build upon the work previously conducted and will leverage the success achieved.

And with that, I'm ready to answer any questions you may have. Thank you.

MR. HOCHSCHILD: Thank you.

Is there any public comments?

(No audible response)

MR. HOCHSCHILD: All right. Questions from the commissioners?

MS. SCOTT: I'll just say, as you all know, I'm always cheered when we have an opportunity here at the Energy Commission to help support a well-trained workforce that can make living wages in this clean

transportation transformation that we're trying to make.

So thanks for working on this. I'm excited to see how

all of the courses come out and learn how many people are

trained through them. And with that, I'll move approval

MR. HOCHSCHILD: Thank you.

Is there a second?

of item 13.

MS. DOUGLAS: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

MR. HOCHSCHILD: That motion passes unanimously.

Let's move on to item 14, light duty vehicle hydrogen refueling infrastructure operation and maintenance support grants.

MR. JOHNSON: Good morning, chair, vice chair, and commissioners. My name is Mark Johnson. I'm with the Fuels and Transportation Division. I am presenting two grant agreements for possible approval. The agreements would provide operation and maintenance funding to Iwatani Corporation of America for two hydrogen refueling stations for 300,000 dollars each.

In August 2017, the Alternative and Renewable Fuel and Vehicle Technology Program released the first come, first serve light duty vehicle hydrogen refueling infrastructure operation and maintenance support grants.

The solicitation provided operation and maintenance support funding for publicly accessible hydrogen refueling stations that previously received none or only a portion of the operation and maintenance support funding.

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The purpose of offering operation and maintenance support is to ensure that hydrogen refueling stations remain operating during the rollout of fuel cell electric vehicles.

The grant agreements presented today are for stations located in San Ramon and Mountain View, which qualify for operation and maintenance funding. These agreements will require Iwatani to report details of the stations' operation and maintenance to the Energy Commission, including rent, electricity consumption, maintenance, dispensing, and hydrogen deliveries for three years from the effective date of the agreement.

Thank you for your consideration of this item, and I am happy to answer any questions you may have.

MR. HOCHSCHILD: Okay. We do have a request for comment from Joe Capello.

MR. CAPPELLO: Good morning. Thank you, chairman and vice chair, commissioners, for the opportunity to meet with you this morning to offer a few brief comments on this important request from us.

My name is Joe Cappello, and I'm here representing

Iwatani Corporation to personally express our

appreciation for your consideration of our two grant

requests and for the tremendous support that the CEC has

helped us with through our early days of entering this

new market for us.

We thought a little additional background on Iwatani might be helpful as you contemplate our request. Iwatani Corporation is a Japanese company that will be celebrating its ninetieth anniversary shortly.

Iwatani is the leading hydrogen supplier in Japan, where we operate three liquid hydrogen plants, nine gaseous hydrogen plants, twenty-three hydrogen fueling stations, with plans to add more stations later this year in advance of the 2020 Olympics. Our company was founding member of the Hydrogen Council and has a deep commitment to contribute towards creating a CO2-free hydrogen supply chain.

Early last year, Iwatani approved a brand new strategic initiative that I am leading, which is to create a brand new U.S. business platform with hydrogen playing a prominent role. Following extensive assessment, Iwatani determined that California's interests aligned very closely with our company's experience set, and we decided to make our first major

investment here in California and to establish our Western U.S. headquarters in Santa Clara.

Iwatani acquired the four hydrogen refueling stations that were originally developed by Linde. Those include the Mountain View and San Ramon locations, which are the stations that we would appreciate your consideration of our grant request. These grants are very helpful in the early years to help defray the operating and maintenance costs as we ramp up volume to meet the growing demand of customers.

Our intentions are to continue to invest in these stations, to absolutely achieve the highest quality customer experience, to participate in the upcoming GFO, and build out many more new hydrogen fueling stations.

We also aspire to become a fully integrated supplier of CO2-free hydrogen in support of California's desire to create a CO2-free infrastructure, and we intend to build out a world-class team right here in California.

With respect to these two grants, both stations have the ability to supply 350 kilograms of hydrogen per day. Both stations are at the large end of the supply capability spectrum amongst the current installed hydrogen fueling station base, and they're located in regions that have been considered higher-demand areas.

Again, these types of grants would help us defray

the costs very much. We understand and fully accept the obligations and the fiduciary responsibilities that come along with receiving grant funds, and we acknowledge, should this request be approved, we'll uphold all of those.

We commit to be a model business partner and to maintain the highest safety, quality, and ethical standards, and to manage the CEC funds responsibly, and to meet the requirements set forth.

In closing, thank you, commissioners, for your consideration and for the tremendous support that Jean Baronas and the CEC team have given to our team as we've started to enter this market. I'm happy to answer any questions. Thank you.

MR. HOCHSCHILD: Well, thank you for being here.

Any other public comment in the room or on the phone?

(No audible response)

MR. HOCHSCHILD: Hearing none, commissioner
discussion?

MS. SCOTT: I'll just briefly note that it is really great to see additional players in the hydrogen market, so thank you for being one of those. Thanks for being here today. And with that, I will move approval of item 14.

MR. HOCHSCHILD: Is there a second?

DR. MCALLISTER: I'll second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

MR. CAPPELLO: Thank you very much.

MR. HOCHSCHILD: It passes unanimously. Thanks.

Let's move on to item 15, light duty vehicle hydrogen refueling infrastructure.

MR. SERRATO: Good morning, chair, vice chair, and commissioners. My name is Sebastian Serrato. I'm with the Fuels and Transportation Division. I'm presenting an amendment to an existing agreement and a new agreement for possible approval today.

We propose Amendment 1 to an agreement with Equilon Enterprises LLC, doing business as Shell Oil Products US. The amendment will decrease the grant amount from 2.3 million dollars to 1.4 million and reduce the scope of work to equipment acquisition only.

The original grant agreement proposed to construct a hydrogen retail station in Walnut Creek. However, the station site has become nonviable. Therefore, the equipment purchased under this grant agreement is proposed to be used by the recipient for a different hydrogen fueling station under a newly proposed agreement.

The new grant agreement being proposed is for an 888,000 dollar grant to develop a hydrogen refueling station at 101 Bernal Road, San Jose, California. Under this grant agreement, Equilon Enterprises LLC, doing business as Shell Oil Products US, will install and commission the hydrogen refueling station equipment acquired under the previously mentioned agreement for the Walnut Creek site as amended at the new San Jose site on Bernal Road.

The station will serve the increasing number of hydrogen-powered zero-emission vehicles deployed in California and increase the reach of the hydrogen refueling network in San Francisco Bay Area. The station would dispense thirty-three percent renewable hydrogen, add regional redundancy, and expand existing Bay Area hydrogen network southward.

We recommend approval of this amendment to the existing agreement and the new agreement, listed as (a) and (b) in item 15 respectively. Wayne Leighty from Shell is on the phone today and would like to make a comment. We are happy to answer any questions you may have. Thank you.

MR. HOCHSCHILD: Okay. Any public comments on the item?

Yeah, go ahead.

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MR. LEIGHTY: Can you hear me?

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MR. HOCHSCHILD: Yeah. Is this Wayne Lightly (sic)?

MR. LEIGHTY: It is Wayne Leighty, business development manager for Shell. Good afternoon, chair, vice chairs, and commissioners. Thank you for your consideration. Your support for the hydrogen refueling infrastructure is critical, and the consideration for this change in the relocation of a hydrogen station is important.

I wanted to just briefly recognize the tremendous collaborative effort that went toward the hydrogen station as originally proposed in Walnut Creek. Without going into detail, I want to express my thanks to all who were involved with and supported that effort.

I also want to recognize the open and positive approach from the city of Walnut Creek, which gives me hope that customers in that important area will have hydrogen fuel developed, and finally to acknowledge the disappointment from those customers who were expecting this hydrogen fueling station to open. Please know that we made every possible effort to implement that station.

And then what you're seeing today, thank you for your consideration in the flexibility to relocate to San Jose. My view is that ability to do so is by virtue of the CEC's process.

In working from the original and revised notice of proposed awards, the station location at 101 Bernal Road in San Jose was proposed for award in a revised NOPA, and the ability to do so is by virtue of the Shell retail network in California, which enables us to quickly move forward at the new location. So the result is continued development of the hydrogen refueling network in this rare case where a proposed station becomes nonviable.

I'm happy to answer any of your questions, and thank you for your consideration.

MR. HOCHSCHILD: Great, thank you.

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Any further comment from the public on the phone or in person?

(No audible response)

MR. HOCHSCHILD: Okay, let's move to commissioner discussion.

MS. SCOTT: Sure. I don't have too much to add to what you just heard, but I will thank the staff and the folks that we worked with for this smart and flexible buildout of this initial network. It requires a little bit of give and take, and the team does a great job with that. So with no questions, I will move approval of item 15.

MR. HOCHSCHILD: Is there a second?

MS. DOUGLAS: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

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MR. HOCHSCHILD: Item 15 passes unanimously.

Let's move to item 16, school bus replacement.

MS. VATER: Good afternoon, chair and commissioners.

My name is Michelle Vater, and I'm with the school bus

program in the Fuels and Transportation Division.

Staff is seeking approval of eight new compressed natural gas or CNG grant agreements resulting from the solicitation entitled "School bus replacement for California public school districts, county offices of education, and joint power authorities".

The solicitation announced up to 78.7 million dollars for school bus replacement grants to public school districts, county offices of education, and joint power authorities operating the oldest school buses in disadvantaged communities, with a majority of students eligible for free or reduced-price meals.

While electric school buses were emphasized in the solicitation, not all eligible applicants have the bus route profile suited for an electric school bus. So to allow for flexibility, applicants under the solicitation were able to apply for CNG school bus replacements up to 165,000 dollars per bus, limited to ten buses, as well as request up to 500,000 dollars per application for CNG

fueling infrastructure.

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In total, the Alternative and Renewable Fuel and Vehicle Technology Program allocated just over four million dollars for CNG school bus replacements and an additional 2.1 million dollars for related CNG fueling infrastructure.

Applicants applying for CNG school buses had to demonstrate through a route profile evaluation performed by a third party that an electric school bus would be insufficient to meet the needs of the applicants' regular school bus route.

Applicants had to meet two of four criteria to be eligible for a CNG replacement school bus, which may have included an average route distance of over ninety miles, routes on roads with speed limits of forty-five miles per hour or greater, routes that had a fifteen-percent grade or twenty percent of service days with extreme temperatures during the bus operating hours.

Today, staff is seeking approval to award all of the CNG school bus replacement funds to eight agreements for CNG buses and fueling infrastructure. Combined, these grant agreements total over six million dollars and will remove twenty-five diesel school buses from service.

Replacing these old diesel school buses with new CNG school buses will benefit local communities by reducing

matter, since CNG-powered vehicles emit less pollutants than diesel-powered vehicles. Additionally, the cost to fuel CNG school buses is less than the cost to fuel diesel school buses, allowing these school districts to save money.

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While I am here to seek approval of our CNG grant agreements, I'd also like to take this opportunity to provide an update on the electric school bus portion of our solicitation.

The Energy Commission's school bus program released a second solicitation at the end of December 2018 targeting electric school bus manufacturers and dealers to solicit proposals to establish a bulk purchase price for the electric school buses. The deadline for that solicitation was March 29th, so staff are currently scoring the proposals received.

Once a manufacturer or dealer has been awarded and a bulk purchase price has been determined, staff will determine how far down the ranked list of electric school bus applicants can be funded. Staff expects to release a final notice of proposed award for the electric school bus manufacturer or dealer in late spring, followed by a final notice of proposed award for the electric school bus replacements shortly after.

Thank you for your consideration of these agreements. I'm happy to answer any questions.

MR. HOCHSCHILD: Great, thank you.

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Any public comment on the item -- or the phone? (No audible response)

MR. HOCHSCHILD: All right. Let's move to commissioner discussion.

MS. SCOTT: Great. I don't have too much to add to your excellent presentation. I will just note that through Prop 39, the Energy Commission and our staff here have developed really strong relationships with literally every LEA -- local educational agency -- across the state.

And so it was really nice to be able to build on that with the clean school bus program. And when you kind of put that together, right, we have schools that are more energy-efficient. They may have solar, and now they're going to have clean school buses as well.

So it's just really exciting. I think this team has done a great job, and there's really nothing more compelling, I think, than getting children out of dirtier, higher-polluting school buses and getting them into zero and near-zero school buses. So I'm -- with no questions -- pleased to move item 16 forward.

DR. MCALLISTER: Can I --

Is there a second? 1 MR. HOCHSCHILD: 2 DR. MCALLISTER: I actually want to --3 MR. HOCHSCHILD: Oh, yeah, go ahead. 4 -- just kind of really quickly -- I DR. MCALLISTER: 5 mean, so back in the day there was really a dearth of research on this stuff. And it turns out that not only 6 7 did they pollute in the community -- they belch diesel 8 out the back end -- but actually some of the air quality 9 in these older diesel buses inside the buses in the back 10 towards where the engine compartment is and stuff is 11 among the worst air quality that these kids will ever 12 breathe. And so just getting rid of that is a massive, 13 massive positive thing for them and their communities. 14 MR. HOCHSCHILD: One other point I'd just make with 15 respect to electric school buses -- one advantage for the 16 grid is that they typically are plugged in during the middle of the day, and that's an opportunity that 17 18 aligns --19 DR. MCALLISTER: Yeah. 20 MR. HOCHSCHILD: -- really nicely with solar 21 generation. So --22 DR. MCALLISTER: Yeah, it's great. And also just 23 highlighting or emphasizing the point that the vice chair 24 made about our program sort of implementation skills, I

think that transferred really well from Prop 39 in the

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1 school form to the buses, and it's really great to just be knocking these programs out of the park in terms of just the administrative ability and the skill set that we 3 4 have at the Commission to be able to channel these funds 5 and get them out into the world. So --6 MR. HOCHSCHILD: Great. So I think we have a 7 motion. 8 -- thanks for the great work. DR. MCALLISTER: 9 Yeah. 10 MR. HOCHSCHILD: Do we have a second? 11 DR. MCALLISTER: Second. 12 MR. HOCHSCHILD: All in favor, say aye. 13 IN UNISON: Aye. 14 MR. HOCHSCHILD: All right. This motion passes 15 unanimously. 16 Let's move on to item 17, community-scale and 17 commercial-scale advanced biofuels productions 18 facilities. 19 MR. HOM: Good afternoon, chair and commissioners. 20 Andrew Hom with the Fuels and Transportation Division. 21 I'd like to point out an error on the agenda for item 22 17(a). The agreement number should read ARV-18-019, not 2.3 19-019. 24 Okay, thank you. MR. HOCHSCHILD:

MR. HOM: I'm here to present to the Energy

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Commission two projects that were proposed for funding through our most recent community-scale and commercial-scale biofuel production solicitation. This solicitation provided over nineteen million dollars in funding for projects which would increase the in-state production of low-carbon biofuels at new or existing production facilities. The following two projects represent the first projects being recommended for funding under this solicitation.

The first item is an agreement with Aemetis Advanced Products Keyes for nearly five million dollars to build a new cellulosic ethanol production plant that will convert local almond and walnut wood waste into 7.5 million diesel gallon equivalents of ethanol per year, with an estimated carbon intensity of negative forty-three grams of CO2 equivalence per megajoule. This project will create approximately 50 fulltime operations jobs and 500 construction jobs in the surrounding region of Riverbank.

Staff is also recommending approval of CEQA findings and a statement of overriding considerations for this project based on the lead agency City of Riverbank's CEQA documents, which include a final environmental impact report, mitigation monitoring and reporting program, notice of determination, and statement of overriding considerations.

Staff has reviewed and considered the lead agency's CEQA documents, as well as other relevant environmental review documents in the record, and determined that the proposed project falls within the scope of the lead agency's CEQA documents and that the proposed project will not result in any new environmental impacts other than those already considered by the lead agency.

Staff has also determined that the mitigation measures identified will eliminate or mitigate any significant impacts associated with the project to less than significant levels, except for the impacts to air quality, cultural resources, noise, and traffic and transportation.

As to these significant and unavoidable impacts, staff has determined that the economic, legal, social, technological, or other benefits of the project outweigh these unmitigable environmental impacts. These benefits include revitalizing the former Riverbank Army Ammunition Plant, creating economic opportunities, and reducing regional GHG emissions and criteria pollutants.

For the second item on item 17, the second agreement is for three million dollars to the City of Roseville to expand and convert digester gas at their Pleasant Grove wastewater treatment plant into almost 270,000 diesel gallon equivalents of renewable natural gas. This fuel

production will also allow the City to convert their

solid waste truck fleet from diesel to CNG, utilizing a

fuel with an estimated zero carbon intensity. This

project would create approximately four permanent City

staff and twenty-seven temporary construction jobs.

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This energy recovery project was evaluated by the lead agency, the City of Roseville, which in 2017 prepared and adopted an initial study and mitigated negative declaration. In November of 2018, the City adopted an addendum to the initial study and mitigated negative declaration. Commission staff determined that this project causes no new significant or substantially severe environmental impacts beyond those already considered by the lead agency.

For both of these agreements, staff is seeking your adoption of the CEQA findings and approval of the grant awards in item 17. I believe Todd Waltz and Jeff Welch for Aemetis and William Pevec for the City of Roseville are all here today, and Aemetis would like an opportunity to provide comment. Thank you for your consideration.

MR. HOCHSCHILD: Thank you. Yeah, let's hear from Aemetis.

MR. WELCH: Hello. My name's Jeff Welch. I work for Aemetis. I'd just like to take this opportunity to thank the Energy Commission for this proposed award.

Since our inception, we've been working to develop the lowest carbon intensity fuels while creating jobs in California. To date, we have sixty-five million gallons of ethanol production in California. And with this proposed award, we will be able to take almond and walnut wood -- which is otherwise being burned in the Central Valley of California, causing an air pollution crisis -- be able to turn this into low carbon ethanol fuel.

So we just want to thank the Energy Commission so much for this award. This will allow us to begin construction and see us through commissioning for this twelve-million-gallon facility. So I just wanted to thank the Energy Commission. Thank you.

MR. HOCHSCHILD: Thank you.

Other public comments on this item, either in person or on the phone?

(No audible response)

MR. HOCHSCHILD: Okay, let's turn to commissioner discussion.

MS. SCOTT: All right. Well, another great presentation with good information provided. I think, again, that ability to put the wood waste and turn it into low-carbon fuels is really important, and especially to get those low-carbon fuels into the vehicles that we have today while we're making the transition to zero-

1 | emission vehicles. And I will move approval of item 17.

MR. HOCHSCHILD: Is there a second?

DR. MCALLISTER: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

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MR. HOCHSCHILD: That motion passes unanimously.

Let's move on to item 18, demonstration-scale biofuels production facilities.

MR. HOM: Hello again, commissioners. Andrew Hom with the Fuels and Transportation Division. Item number 18 is for two projects proposed for funding through our most recent demonstration-scale biofuel production solicitation.

This solicitation provided a little over twelve million dollars in funding for projects that would prove an innovated technology or process in biofuel production at demonstration-scale level. The following two projects represent the first two out of five total projects awarded under this solicitation.

The first item is an agreement with California

Grinding for three million dollars to demonstrate a new pretreatment technology using anaerobic digestion, increasing food and green waste conversion to renewable natural gas.

The project will convert 250 tons per day of green -108-

waste to produce 2.4 million diesel gallon equivalents of renewable natural gas annually and be located in Fresno.

Demonstration of this new technology will have the potential to increase biogas production by as much as eighty-five percent for anaerobic digestion facilities throughout the state.

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As described in staff's CEQA memo for this project, staff has reviewed and considered the CEQA documents prepared by the lead agency for this project, the City of Fresno, and determined that the proposed project falls within the scope of the lead agency's CEQA documents, and the project will not result in any new environmental impacts than those already considered by the lead agency.

Staff has also determined the mitigation measures adopted by the City are within its jurisdiction, and there are no additional mitigation measures or alternatives within the Energy Commission's jurisdiction that are feasible for this project.

The second item is for an agreement with the

Southern California Gas Company for three million dollars

to scale up an innovative technology that converts

wastewater solids at the Central Contra Costa Sanitary

District's Wastewater Treatment Plant into renewable

natural gas and bio-crude. The bio-crude will also be

further processed into renewable diesel by Pacific

Northwest National Laboratory and leverage grant funding by the Department of Energy.

Demonstration of this project would address the wastewater industry's challenge of cost-effective disposal of wastewater solids, while producing two valuable renewable transportation fuels with an estimated carbon intensity of 13.5 grams of CO2 equivalence per megajoule. This project will be located in Martinez.

Staff is seeking adoption of the CEQA findings and approval of both grant awards for item number 18.

Michael Brown for California Grinding and Ronald Kent and James Oyler for SoCalGas are here today to answer any questions and, I think, would also like to provide comment.

MR. HOCHSCHILD: Great. Would Michael Brown like to say a few words?

MR. BROWN: Yeah. This is Michael Brown on the telephone. Can you hear me okay?

MR. HOCHSCHILD: Yes, we can.

MR. BROWN: Okay. I'm Michael Brown, speaking on behalf of California Grinding, Inc. For almost twenty years, we have helped the (indiscernible) industry and more recently the City of Fresno properly manage their organic waste in the Central Valley, covering many low-income and disadvantaged communities. We thank you for

the consideration of awarding this important and timely demonstration grant to California Grinding.

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The technology that we are seeking to demonstrate solves a critical problem for communities and organic waste producers trying to comply with our state's tough laws requiring food and green waste diversion from landfills and conversion to useful energy and products. According to CalRecycle, at least one hundred new anaerobic digestion facilities costing several billion dollars are needed statewide to comply over the next few years.

The problem this demonstration program addresses is the significant difficulty in digesting highly cellulosic waste like grass, leaves, manure, and certain food waste. Our proposed program demonstrates an innovative feedstock pre-digestion system utilizing a thermophilic bacteria called (indiscernible) to pre-digest these highly cellulosic organic wastes prior to introduction into the anaerobic digester.

Laboratory and pilot testing have demonstrated that this process both speeds the time it takes to complete this digestion process, as well as significantly improving the amount of methane that traditional anaerobic digesters are able to make for use as transportation fuel and renewable power production.

These combined improvements will result in significantly lower energy production costs and the required tipping fee payments from communities and organic waste producers struggling economically to comply with landfill diversion and greenhouse gas reduction requirements.

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It is time for this technology to be fully demonstrated for commercial implementation throughout the state, and your grant, supplementing our matching funds, will accomplish this. We hope that you concur with your staff's recommendation and award us this grant. We thank you, and I'd be happy to answer any questions.

MR. HOCHSCHILD: Thank you. Let's hear from Dennis Balakian.

If Dennis is not there, if there's any other comments in the room?

(No audible response)

MR. HOCHSCHILD: All right. Let's move to commissioner discussion.

MS. SCOTT: Sure. So I think you've seen kind of through item 17 and item 18, this is just nice demonstrations of both kind of the green and food waste and wood waste, and then the second is kind of on the wastewater treatment facility area.

And basically, this round here, number 18, is to

make the low-carbon fuel production even more efficient and figure out how to do that better. And then item 17 was really pushing that out to make it up at scale. So I'm excited about these projects as well and will move approval of item 18.

MR. HOCHSCHILD: Is there a second?

DR. MCALLISTER: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

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MR. HOCHSCHILD: That motion passes unanimously.

Let's move on to item 19, Energy Commission partnership with the navy and DOD.

MR. GRAVELY: Just one second, sir.

So good afternoon, chair and commissioners. I'm

Mike Gravely from the R&D Division and energy -- I mean,

military advisor to Chair Hochschild. Today, I just want

to give you a brief update on our relationship with the

Department of Navy and the Department of Defense and some

of the activities we've had with the bases over the

years.

Next chart.

Oh, okay. You're right.

The Energy Commission has a long history of working with the military and building the military into our plans. If you go back almost a decade when the state was

ramping up our renewable sites, there was a large coordination with the military. The military has a large amount of training land in California, and we wanted to be able to see what was available but not impact with their military mission.

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That discussion continues today. Jim Bartridge from our commission is a coach here of the Western Regional Partnership to continue discussing with the military our future plans and coordinate with them so that as we grow we're able to use land that's available but doesn't impact their military mission.

Also, over the years, both programs for EPIC and PIER -- we've done demonstration projects on energy efficiency and demand response technologies on bases and encouraged them to use some of these technologies in the future in their procurement system.

Also, some of the problems they've had in the past with interconnection renewables and other areas, we work with the different bases in our PUC and ISO to help them coordinate their issues and do what we can to help resolve issues so they can move forward in a manner acceptable with the state and the military.

Also, during the water crisis, we did quite a bit of coordination with them on the plans and procedures that they used to follow the State's directive for the

drought. And in today's environment, reliability and resiliency is a big element for the military, and we've been doing quite a bit of work over the years and continue to do work in that area to help the bases meet their future needs.

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The relationship that we have with the military kind of expanded. Jackie Pfannenstiel, who was a prior chairman of the Commission, took over as the citizen secretary around 2010, and she developed an initiative to bring microgrids to California, particularly the San Diego area, and that began to develop our partnership and relationship. Secretary McGann (ph.) took over from her in 2013, and the relationship expanded.

And then when the (indiscernible) closed into (indiscernible) being located on the marine facilities, there was a large number of working group activities.

And as a result of that, the navy and the Commission decided that we would more formalize our process.

(Indiscernible) we actually filed an MOU between the two agencies so that we could share information and work on projects and opportunities that provided value to both the State of California and the military and Department of (indiscernible) in particular.

Just a quick review of some of the current activities that we have with the military. As I

mentioned, resiliency -- we recently last year had a microgrid solicitation. There were eight bases that applied. Overall we had sixty proposals, and three of those bases were selected.

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In the marine facility there at Miramar, they're looking at a base-wide facility to support their military operations, their flight operations under a large microgrid. At Port Hueneme, there is a critical facility there — a twenty-four-hour military facility there — that they're providing renewables and storage for and a microgrid to help it ride through any contingency operations so that it can continue to operate.

And then in Camp Parks for the army, there's a facility in the Oakland area that's a big training area for the army, and they're doing a microgrid for the base. And they're also doing a series of small microgrids in the different training areas that they operate independently, or they can all operate as one.

So this is helping us understand what resiliency means to the military and how these microgrids can give us information in the future to help all of California understand how to meet their future resiliency needs.

We had a large project with the Department of Defense at the L.A. Air Force Base to do a vehicle-to-grid I'll talk about a little bit later. But there were

vehicles left over, and we had about three years of operating those vehicles. Their lease in the vehicle-to-grid -- this was actually funded through the transportation program.

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So what we're doing now is we're evaluating those batteries and how vehicle-to-grid operation impacted the life of the battery. One of the challenges the industry has is when you use a vehicle for vehicle-to-grid the warranty for the battery is voided.

And now, with the research we do and continue to do, we've pretty much determined that the real impact on the battery is very minimal, and we're trying to get the manufacturers to allow these vehicles to in the future participate in these services and not void the warranty.

And the other thing we're doing -- again, this is transportation funded -- is we're doing vehicle-to-grid for the microgrid in addition to the grid itself. We have six vans that are being installed at Miramar to support the base and also the microgrid, and we'll be learning more and more about the military operation in these facilities and also being able to participate in a vehicle-to-grid where they provide the primary service to the microgrid and secondary service outside the microgrid.

Another area that's unique with the partnership we

have is we have research projects both in PIER and EPIC. When we're done with the research, we have equipment left over that's very valid to be used and may not be wanted at the site.

In this case, we have two battery systems that were completed and needed a new home. Then the navy at their expense picked up both of those and put them into their test facility at Port Hueneme, and they're going to ship those.

One of the areas they're looking for in their islands is they're trying to make them -- they operate on diesel generators, and they're trying to install more and more renewables and solar and storage so they can use the storage to eliminate or at least use the diesels as minimal as possible.

So what happens for us is we get to continue to evaluate the performance of the batteries. One of the things that we're learning in the battery industry is the long-term life of batteries is an issue we don't know.

So the fact that we can take this project that lasted for three to four years and make it a ten-year project -- it gives us that performance information we need on those batteries so we can better understand the lifetime performance of these technologies.

Just a couple of key past ones that were of -118-

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interest. Pendleton, the marine corps station, was one of the first adopters back in the 2012 timeframe. They did a couple of series of small microgrids. They learned so much from it that they on their own went out and did some additional microgrids, and they've done microgrids in another marine base based on the information learned here. So this was a very successful project that was under the PIER program.

We also have -- again under Transportation

Division -- several projects where they've worked with

the bases to do biofuel, in particular diesel conversion.

And these were two examples for the army and the navy

where they actually did projects on the base with the

ultimate goal of converting that diesel to a clean

solution.

We did a big project with Beale Air Force Base. So a while back, we looked at the smart grid initiative with them and did a complete study on their base. And in fact, that study has been help -- the base has used that study in their long-term plans for similar upgrades. And we also learned quite a bit about how to -- in this case, we demonstrated several PIER technologies, and the base was able to actually procure those PIER technologies in their five-year plan that they do for future investments.

And then the last one here $\operatorname{--}$ I mentioned before

that at L.A. Air Force Base we had the largest vehicleto-grid demonstration in the world. We have over forty vehicles that were involved. They were certified by the ISO. They participated in the market.

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There were four bases in the U.S. that were part of this, and L.A. was by far the most successful. And again, as I said, we learned quite a bit from this. And we learned some of the challenges, and we also learned some of the successes. And again, many of these vehicles are now rolled into this secondary project where we're trying to continue to check the data and see what's happening.

The other thing about research is not all research works out when you're working with small business. We had a very interesting project where we were using CO2 washing machines, and the navy was interested because when you wash a Kevlar vest or when you wash a fire-retarding vehicle in water it takes away the protective gear, so you can't do that.

So they don't wash these devices. And it turns out with the CO2 we were able to actually wash them and do no damage. The navy actually took some of the Kevlar vest and shipped it back east to do some live fire testing to see if the vest in fact kept its retention.

And the unfortunate part was at our surprise the

company unfortunately -- one order doesn't make a company, and they folded. And then we just recently removed that equipment from the navy. But there has been a follow-on company that's interested, but in this case we learned quite a bit. We tested for about a year and a half. But unfortunately in the market that particular company is no longer around.

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So going forward, as we mentioned, as part of our MOU we have quarterly calls to keep track of these projects, and that's been bringing new projects. Every six months, we have a face-to-face meeting. The last one we had was in December 3rd and 4th at Miramar, where the group got to tour the microgrid there and also just discuss some of the activities down there.

The Governor's Military Council events come every year, and (indiscernible) this year -- in a few minutes he wants to give a few comments from the Council.

And also, one of the interesting things for us is we've been trying very hard to get Department of Defense bases to think about the EPIC program on a competitive basis versus a sole source basis. So we've been very successful. I mentioned before we had eight bases apply on the microgrid. We have bases applying in other storage projects and other ones that are high-priority for the military. And five years ago we wouldn't get

anybody to apply for those projects (indiscernible). 1 And with that, I'll be glad to answer any questions, sir. 3 4 Mike, look. I just want to say MR. HOCHSCHILD: 5 this publicly. You have been hitting homeruns on this, and the Commission is lucky to have you. Your insights 6 7 and experience and relationships and enthusiasm -- I mean, it's been instrumental. So thank you for 8 9 everything you've done. 10 MR. GRAVELY: Okay. MR. HOCHSCHILD: Were there some other comments? 11 12 Ned, did you want to say a few words? 13 MR. GRAVELY: Yeah. Ned and --14 MR. HOCHSCHILD: Yeah. 15 MR. GRAVELY: -- and Garth (ph.) want to make a few comments, sir. 16 17 MR. HOCHSCHILD: Yeah. Come on up. 18 MR. MCKINLEY: Good afternoon. Just a couple of 19 quick comments. Ned McKinley, Marine Corps Installations 20 West. I just have huge appreciation for the leadership 21 of the Commission and for the staff, especially Mike 22 Gravely, but all your staff that's worked so hard. 2.3 We're very committed to this partnership. We've

things we can do. So many overlapping areas where the

done some great things. Look forward to what new great

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state's goals and the goals of the military services overlap, so really looking forward to that.

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MR. HOCHSCHILD: And I will say some good things happen in these meetings. I was with Wade Crowfoot six and a half years ago at a Military Council meeting. That was where he mentioned there was an open seat at the Energy Commission. So had I not gone to that, I wouldn't be here.

Any other comments on this item?

(No audible response)

MR. HOCHSCHILD: Okay. Thank you. Thank you, all. Oh, yeah, and Vice Chair Scott. Let me thank also Vice Chair Scott for her incredible work on this issue, along with former Chair Weisenmiller. It's just a real gemstone of a collaborative with us. And I know the governor's really excited about building on the work that's been done going forward.

MS. SCOTT: Yeah. Mike, I wanted to add how much I appreciate your invaluable guidance and your expertise that you bring both to the Commission and then when you learn about microgrids and other components back out to the military and others. It's really been a lot of fun to work with you on these topics. And I have to say I always know it's going to be a military-related day because of the tie that Mike wears. So that always makes

me happy.

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And I also want to say how much I appreciate the military for being such a great partner. I mean, a lot of these things are things that we're testing out, we're trying it out, we're kind of kicking the tires to see how it works, and you need a little flexibility in that space. And the military has been a great partner to the Energy Commission in working on this, so thank you very much. And thanks for being here today.

DR. MCALLISTER: I just want to also just use this moment as a recognition of a legacy of former Chair Pfannenstiel, because she was just a rock star in this in very early days.

MR. HOCHSCHILD: Yeah, that's a great point. Thank you for remembering her.

All right. Let's move on to ports, item 20.

MS. DEMESA: Good afternoon, chair, vice chair, and commissioners. My name is Rhetta deMesa, and I'm an advisor in Vice Chair Scott's office. And I wanted to take a couple minutes this afternoon to provide an overview of the Energy Commission's Ports Energy Collaborative.

As you just heard from Mike, the Energy Commission has a longstanding partnership with the Department of the Navy, predicated on common goals across the navy and the

state. Here in California, the freight sector is a major economic engine for the state and also accounts for about half of the diesel particulate matter, forty-five percent of the NOx, and six percent of the GHG emissions, a good amount of which are occurring at California seaports.

The ports are actively working to reduce emissions from port-related operations, so a strategic partnership with the ports similar to what we have with the navy seemed like a logical next step. In 2016, under Commissioner Scott's leadership, we initiated the Ports Energy Collaborative, a working group in (indiscernible) both to engage with the various ports throughout California as they develop and implement sustainable practices. Through the Collaborative, we hold bimonthly phone calls and meet in person twice a year.

The Collaborative started with the Ports of Oakland, Hueneme, Long Beach, Los Angeles, and San Diego, and we were later joined by the Port of Stockton. So we have good representation, both in terms of a geographic spread throughout the state, as well as diversity among the ports themselves.

The Collaborative has been great, because it has proven to not only serve as an opportunity for the Energy Commission to better understand the unique needs of the various ports, but it also allows for the ports the

opportunity to collaborate and discuss upcoming projects and lessons learned with each other.

When we initially kicked off, we started with a brainstorming session to identify where we had similar goals and prime opportunities to partner on projects.

Key areas identified included resiliency, transitioning vehicles and equipment to zero/near-zero technologies, and efficiency.

We've explored opportunities to fund projects across several programs here at the Energy Commission, including ARFVTP, EPIC, and ECAA, and to date we've successfully partnered with the ports on ten different projects with over sixty million dollars in Energy Commission investments.

Through the EPIC program, we've been able to fund microgrid projects at two of the ports, one at the Port of Long Beach to provide islanding capabilities to their critical response facility, the Joint Command and Control Center, and one at the Port of San Diego, which is designed to support increased electrification at the port.

Through ARFVTP, we've funded projects that focus on clean transportation, with a demonstration of a variety of zero and near-zero emission vehicles and equipment.

This includes battery electric yard tractors, battery

electric plugin hybrid dredge trucks, zero emission cargo handling equipment such as top handlers and forklifts, and low-NOx natural gas yard trucks, as well as the enabling infrastructure for a number of these demonstrations.

Through the Collaborative, we've been able to work directly with the ports to better scope projects that will accelerate the deployment of clean technologies into the market, always working through the lens of what can help move technology from demonstration to widespread deployment.

A great example of this would be a project we have with the Port of San Diego. The San Diego Port Tenants Association will be demonstrating ten advanced technology vehicles to verify the performance of the technologies. The demonstration included three battery electric forklifts, three class A electric dredge trucks (ph.), and four battery electric yard trucks.

What's unique about this particular project is that the vehicles and equipment that are being demonstrated are going to be made available to the various port tenants so that they can get firsthand experience in seeing how these vehicles fit into their daily operations, which can help them form their future purchasing decisions.

Another project I thought I would highlight is the ED Blueprint being conducted by the Port of Long Beach. For this effort, the Port of Long Beach received a 200,000 dollar grant from ARFVTP to develop a comprehensive framework for identifying the most costeffective suite of technologies, financial incentives, infrastructure upgrades, and workforce needs for creating a sustainable, zero-emission port ecosystem.

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In our most recent Ports Collaborative in-person meeting a few weeks ago, the Port of Long Beach folks acknowledged that 200,000 dollars is a relatively small grant in sort of the world of grants in which they're accustomed to working. But they really emphasized how extremely valuable it has been to have dedicated funding to go towards planning, and they noted that that tends to be a gap in a lot of funding programs. So it was great that we were able to help there.

The framework that they're developing is intended to be replicable and will serve as a template for other ports. In fact, they'll be sharing the template with the other ports through the Collaborative probably sometime this summer.

So that's a high-level overview of the Ports Energy Collaborative and the type of projects we work on together. Moving forward, we'll continue to use the

Collaborative as a forum to come together to discuss
important energy issues, mutual challenges, and
coordination opportunities as we move towards our common
goals.

So with that, I would be happy to answer any questions.

MR. HOCHSCHILD: Thank you so much, Rhetta and Vice Chair Scott. I asked for this item on the agenda just because there hasn't been -- gotten enough attention, but again, really strategic. And I just want to thank everybody that's worked on it.

Do you have some additional comments you want to make?

MS. SCOTT: I do.

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MR. HOCHSCHILD: Yep.

MS. SCOTT: I want to say, one, thank you to Rhetta for her incredible leadership on this. She's the one who makes the day-to-day happen, and that's what matters, right, the implementation. I really appreciate your commitment and dedication and vision there.

As you mentioned, the ports are oftentimes in or near low-income communities or disadvantaged communities. They tend to be pollution hotspots, right, because there's a lot of activity going on there, and so racketing down the emissions is really important.

And the ports have been, like the military, great partners. They're willing to try things out, really -- I call it take it on the shakedown run, because that's what you do with a boat when you're kind of getting it -- the first time you take it out. And so they're really helping us to test out this equipment, see what works, what doesn't work, what do we need to update, what do we need to tweak and why.

And then as Rhetta mentioned, then we can take that and then replicate it and scale it, and you've already worked out the kinks before you really try to push this out to all of the ports or in a mass market way.

So it's been great to work on. I'm glad we had a chance to highlight it. I want to thank the ports for their partnership and thank Rhetta for making it all happen.

DR. MCALLISTER: That's great. And I really love that San Diego example, having actually sat back in the day on the San Diego Port Environment Commission (sic) or department or working group -- whatever they called it. But that's a place where the military and the ports just are almost the same thing. I mean, they overlap tremendously, and the port tenants and the navy really work together well on this stuff. So I'm glad to see that progress happening.

MR. HOCHSCHILD: Great. Well, great work, everybody.

All right. Let's move on to item 21. Is there a motion to approve the minutes?

UNIDENTIFIED SPEAKER: Move the minutes.

MR. HOCHSCHILD: Second?

DR. MCALLISTER: Second.

MR. HOCHSCHILD: All in favor, say aye.

IN UNISON: Aye.

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MR. HOCHSCHILD: All right. Let's move to lead commissioner reports. With the permission of my colleagues, I may go first if that's all right, just because I don't want to be late for my own confirmation hearing.

So I just first really wanted to thank all of my colleagues here for being flexible and patient in what is always a bit of a hectic transition. We've had I think what is a totally unique circumstance of having the same five commissioners for six years with basically the same roles, and there's some reshuffling and so forth. And this has coincided with an enormous amount of activity in the governor's office on a whole bunch of issues and some initiatives we're doing here.

So I just want to walk through a few highlights. We have made a bunch of positive changes here at the

Commission. Just on some simple things, we have a new email signature that all staff are using, which includes our logo and our website. The new website's coming out in June. That's going to be, I think, a huge step forward. New ID cards for everyone are coming with the new logo. New letterhead is done. It should be distributed shortly.

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We have made some improvements to the common area, some couches and chairs to make it more inviting for staff and stakeholders. We're doing improvements in what used to be the cafe. I've engaged personally on these issues and with DGS on getting our twenty-two leaks fixed.

If it affects staff morale, it's a priority for us -- all of us on the Commission. And this is an issue. Actually, it's a recruitment issue, because people come and they see trashcans collecting water. So I've met directly with Secretary Batjer and with Dan Kim of DGS on that. We're making some improvements on Commissioner Row as well. So lots of good stuff there.

I've done walk-throughs of the entire Energy

Commission to meet all 600-and-something employees here

personally and just thank them on behalf of all of us for

the work they're doing. That's been super fruitful, just

to see how everything's arranged and also just to realize

the incredible international diversity that we have here.

It's extraordinary, and we'll be doing some more

activities later this year to highlight that. But it's

been a real treat.

And I've been doing these deep-dive division reviews (indiscernible) with all the divisions. Almost done with that. But my high-level feedback is that I think our deputies and the work of the divisions is stronger than it's ever been, and we've really figured out how to give away funds responsibly with appropriate diligence. So I think this puts us in a great position to do much more of that.

A couple big initiatives we're launching today -sending out the invite letters for this lithium recovery
initiative to promote lithium development in California
to a big group of stakeholders. Working with
Commissioner Douglas on that, because that's down in the
Salton Sea area, as well as Secretary Crowfoot.

And Commissioner Douglas and I also did a trip to Diablo Canyon, so they have now -- the big move there is from wet storage to dry cask. So they have to do 138 casks. Fifty-eight are done. We did a deep dive into that, along with Justin Cochran, the chair's advisor on nuclear issues, which was super fruitful.

The other interesting thing there -- there's about -133-

roughly 400 million dollars of infrastructure that is currently planned to be decommissioned that, if we were to do offshore wind, you wouldn't need to decommission. So there's a pier and a breakwater and a 230 kV transmission line.

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And that's an interesting option, so we were actually exploring if you did offshore wind -- so we've been digging into that and are going to really do everything we can to explore that option. (Indiscernible) I think there'll be a lot of interest in the community on that.

And a couple other highlights. I also did a trip to Oklahoma that I'd planned earlier for a wind tour. So wind prices in Oklahoma are now down to 1.3 cents a kilowatt hour. Little incremental changes -- like it used to be a two-person crew twice a year for two days each time, so four days a year does maintenance on the nacelle.

That's down to one day a year, right, so these little things -- and I'm just saying this -- I mean, we are going to get to one cent a kilohour out of our wind and one cent a kilohour out of our solar. That's where we're headed in my view. And it's super exciting.

There's by the way a big anti-wind campaign funded by the fossil fuel industry in Oklahoma. But at the end

of the day, it's hard to compete against low prices. And every wind turbine in Oklahoma is giving 10,000 dollars every year to every rancher, and so there's real support for it, too. And still a lot more cost reduction in the technology to come.

I also did a talk along with folks from the ISO,
California Clean Energy Fund, RMI (ph.), and others in
Navajo Nation down in Arizona. They have a monster twogigawatt 1970s vintage coal plant, and we went to talk to
them about the future of coal.

And basically my message was, first of all, renewables are beating coal in price today. But if you stay on that path, you're also going to lose on policy, because a hundred percent is the law in California, it's law in New Mexico, it's law in Hawaii, law in District of Columbia. Another eight states have introduced hundred-percent legislation, and another four on top have introduced study bills, right. And so the trend is there.

Had a really terrific dialogue with the vice president of Navajo Nation and a bunch of the decision-makers. The next day, they announced that coal plant's closing the end of the year, and they are launching a big new renewable energy initiative.

And I actually think there's a real market just for

that, because it's renewable power coming out of a disadvantaged community that's also shutting down a coal plant. I think there's interest in the California market in that as well as Salt River Project and (indiscernible). So terrific dialogue on that.

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I wanted to just take a minute to in particular thank and acknowledge my friend and colleague, Vice Chair Scott, for her work on transportation. I have been amazed how hard you worked. I know how hard you work with -- it's a hell of a deal trying to get on your calendar; you're always -- and I'm just really proud of the work you put in and the progress we've made. It's been incredible.

And as we welcome our new commissioner at the end of this month, Commissioner Monohan (ph.), who's going to be taking the baton on that, she's inheriting a program in a really healthy condition because of you. And I'm particularly grateful not just that you agreed to be vice chair, but also that now the other issues you're going to be engaging on -- part of it is strategic communications, how do we tell our success stories better.

Even if we get to a hundred percent clean energy and zero carbon in California, if other states don't follow suit, other countries, we're not going to win. So your incredible talents on that, your experience at the

Department of Interior's extraordinary, and I'm excited to partner with you on that, as I am to partner with you on the EPIC program.

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This is the crown jewel of the Energy Commission.

We need to reauthorize that program next year to get
another billion and a half dollars. It's imperative that
we succeed in that. The stakes are really high. And so
you're engaging on that at just the right time from my
perspective, and I want to thank you for all that.

The last thing I would say is I do want to do an en banc with PUC and ISO, and I'd love for us to just be thinking about issues where it makes sense for all three agencies, all fifteen commissioners, to meet jointly. What are the things that we want to talk about?

I think disadvantaged community, diversity is a great one. I think actually an update on renewable technology development, including offshore wind, is another. I'd welcome other thoughts as we dig into that, but that's on my list to discuss.

And then finally, I've been spending a lot of time at the governor's office on the sixty-day report, which is coming out this week. And that'll have a lot more direction from the governor on where we go with this (indiscernible) situation and our energy policy generally.

And with that, I'm going to sneak out. I apologize. Thank you.

DR. MCALLISTER: Yep. I think we all wish you good luck in your hearing, and you'll do great. But it'll be fun to watch, so --

MR. HOCHSCHILD: All right. Thanks.

DR. MCALLISTER: -- good luck.

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Okay. Well, great. So, well, now that the time pressure's off --

UNIDENTIFIED SPEAKER: (Indiscernible)

DR. MCALLISTER: Yeah, exactly, a real thorough update. Anyway, so I feel like this is really only the third or fourth day since the last business meeting that I've actually been in the office, because I've really just been traveling a lot and engaging with a lot of different stakeholders. And I'll just run down a few of those activities.

So Brian and I actually -- and Brian has been traveling almost as much as I have, because I've been dragging him along and he's just been providing a huge amount of value just logistically and substantively on the issues to almost all of the meetings I'm going to describe.

So a few weeks ago, we went down to Guadalajara.

The Autonomous University of Guadalajara is actually a

private university, but it's really a pillar of the community there. They are building a lighting research center along the lines of the one that's at U.C. Davis.

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And we participated not with financial resources but just with sort of ideation and proposal evaluation and kind of really engaging with the state of Jalisco on -- really the whole country of Mexico on this.

And so it's really great to have that project landing in Jalisco. There's so much opportunity in Mexico for LEDs, kind of to leverage the LED revolution for the Mexican context and really get the technology's cost down and manufactured locally and do a lot of great things down there. And the idea is that this leads to a renovation of our MOU with Jalisco.

There's a little bit of politics, because the national government and the state of Jalisco government are different parties, and so we're kind of trying to tiptoe around that a little bit. But I think we're all going to work together well as both new administrations kind of settle in.

Let's see. I then shortly thereafter, the following week, did a trip to Denver, where the NARUC and NASEO -- so the NARUC being the National Association of Regulatory Utility Commissioners and NASEO being the National Association of State Energy Officials -- so are sister

entities and historically haven't worked together all that much.

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But the state energy offices in any given state and the PUC or the public service commission in each state really are overlapping tremendously increasingly, especially as local planning issues and distributed energy resource issues kind of become part and parcel of the same conversation.

And so I'm currently the chair of the NASEO board, and we've developed this collaboration with NARUC on electricity system planning. So the idea is to sort of focus on the distribution system, but all the states are so diverse and they're focused on different things that we sort of pulled in the transmission. And so we're really just looking at electricity planning.

But we recruited sixteen states and met for the first time, all sixteen of us, with a member of the PUC and a member of the state energy office from each state in the room for a couple of days to talk about, okay, what do we need, what tools, how do we confront this challenge of distributing energy resources or just whatever the evolution -- wherever the evolution of the electric grid is taking us. And climate change obviously front and center now. The states, even red states, are stepping up and acknowledging that we have to do

something. And so it's really pretty cool.

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So the sixteen states, I think -- they're very diverse, and certainly politically and just in industry structure. We're in a cohort with Minnesota and Virginia, which have sort of similarly structured in some ways electric systems but obviously in very different places in terms of their evolution of resources and their mix and their policy environment.

So that's a two-year project or two-year collaborative between NASEO and NARUC, and hopefully it's going to come out with some good tools and some, from my perspective, really socializing a lot of the ideas that we already almost kind of take for granted in California, but getting those out and demystifying them for other states I think is really important and could be huge.

It may be institutionally difficult, but I'm very hopeful now, too, that building these collaborations is going to bear a lot of fruit down the road. So that's really good stuff.

And by the way, we're hosting the NASEO annual meeting in September down in Manhattan Beach, and so I'm going to get going in earnest on that, trying to really put California's best foot forward and welcome all fifty states and six territories and sort of all of the allies that work with them, a lot of federal people, Department

of Energy and others, EPA, that'll be convening in Manhattan Beach in September.

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So we're really looking forward to that, and we'll sort of keep everybody up to date on how it evolves and how the Commission itself and potentially commissioners and PUC folks can be involved in that.

So then from Denver, went straight to L.A. for their annual sustainability summit, which is a really great event they hosted at the Getty. It's worth going just because you get a free entrance -- well, it's always free, but you always get a couple hours right at the end to walk around and see some incredible art.

But that is just a great event, because now that the mayor of our city is not running for president, he is all hands on deck for the Olympics and all of the -- they announced the amazing goal to retire all of (indiscernible) gas-fired fleet, and they are just (indiscernible) down there.

And I always say the future happens first in L.A., and they're just doing some great stuff. And they've got Scale, and they've got a really interesting sort of innovation ecosystem. So that was a good time, and actually you can go and watch the whole thing online. They're really good with the media piece of it as well.

Then, let's see, we've hosted -- I guess I'll just

talk about a couple of meetings this week, really. So on Monday we had a really great event with Commissioner Scott (indiscernible) and President Picker and the new PUC commissioner as well down in L.A. at LACI, at the Cleantech Incubator on decarbonization, building decarbonization. And not only was it sort of focused on 1477 issues, the decarbonization bill that Senator Stern carried last year -- and he was there and opened it up, made some really substantial comments.

And it was really a taste of what's to come, because this is a conversation that we have to have: What is the interplay between electricity and natural gas? What are all the various impacts of it? There was a really large turnout of gas industry labor force who are legitimately, I think, concerned about what happens to their industry when we really focus on decarbonization, particularly if that is centrally electrification, right?

And so a lot of questions about renewable natural gas and kind of how far it can take us and what that trajectory might look like, which I think is still fairly unclear. Lot of bandwagon, lot of advocacy for electrification. It's just the number one policy. And so without sort of passing judgement on any of that, I think that is a healthy conversation that really -- I think of it as like a nuclear decommissioning. If you

think about -- it's a large sunk investment that we are going to have to figure out how to evolve. And so it's sort of nuclear decommissioning times three or four in terms of the scale of it.

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And what does the future of the natural gas system look like? How much of it is non-fossil? Most of it, if not all of it has to be non-fossil. So it's a big challenge for the state.

So I strongly believe that the Energy Commission needs to marshal that conversation in (indiscernible), or maybe the legislature asks us to take that on in some other form. But we already do a lot of that work, but we really have to kind of present an objective structure to bring all the stakeholders together, try to create some middle ground, and figure out where to take that conversation, because that's a big, big deal and very, very important for California and really the world.

So we got a taste of that at LACI. I guess that's why maybe you have a different opinion about that, but I think it was an interesting discussion. And the format there was really nice to have that kind of an exchange -- really open exchange.

And then yesterday we -- oh, and I want to just call out (indiscernible) and the PUC staff as well as Brian and the Energy Commission for -- we had folks down there

as well as staff down there for that conversation at LACI. And 1477 is a joint activity, really, between the PUC and the Energy Commission, and we have a good working relationship with them.

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And then the same applies for the workshop we had yesterday at the PUC, which is really the kickoff of the development of the updated California Energy Efficiency Action Plan. So that's the -- you'll remember the AB-758 action plan on existing building efficiency, and SB-350 doubling goal for efficiency, and last year we had AB-3232, Laura Friedman's bill that asks us to write a building decarbonization strategy. So we're sort of wrapping much of those into the update of the overall efficiency plan.

So we're doing a little roadshow. The first one was in San Francisco at the PUC. We're going to Redding, Fresno, L.A., and San Diego in the next few weeks and really hoping to get good participation and just show our faces out there and really get boots on the ground to talk to stakeholders in their context and highlight the issues that we need to dig in further on when we develop this report.

So staff Michael Kenney is leading that effort in the division, and I'm really hopeful that we're going to ask some tough questions and really lay it out there. I

think it's going to -- we're not achieving our goals. I mean, I'll just say.

We spend a lot of time saying how we're doing all this wonderful stuff, which is absolutely true, but across the nation, across the world the last month, the news hasn't been that great for climate, for emissions, particularly in transportation, just because we keep using fossil fuels.

I mean, I think a lot of jurisdictions just aren't sort of being successful dealing with that. And our buildings -- it's the same thing. Doubling efficiency and getting retrofits to all our existing buildings -- it is a huge, huge lift that's going to take a lot of money.

And so the goal is to do as much of it in a market-based structure as possible, but particularly the forty percent of Californians that are low income -- we have to find some resources to help those people do that work if we're going to be successful. And it's going to take a lot of political will.

So I think this conversation about the action plan update is really -- it is that, and there will be a report. But it's actually going to require some introspection, I think, to figure out how far California really needs to go, how far we think we can go with market-based instruments, and if we're going to ask the

legislature to do more, because it's going to be a big, big lift.

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And we can look to places like the Netherlands and other places that are adopting decarbonization goals that are along the lines of what we also need. But anyway, so the conversation got started yesterday, and I'm excited to keep developing that.

And I want to just give kudos to the media team for getting the word out about that and Luke (ph.) stirring up attendance and just making sure that when we -- like the LACI event, so I think we got a lot of good media about that, and it was a conversation that needs public vetting. It's a difficult conversation that needs public vetting, and that's just -- our outreach strategy is key for that.

I think that's about it. Thanks.

MS. SCOTT: Great. And I just wanted to briefly acknowledge that Chair Hochschild left right before Commissioner McAllister started his update. But you still have a quorum with Commissioner McAllister, Commissioner Douglas, and myself.

Thank you for that great update.

Commissioner Douglas?

MS. DOUGLAS: I'll just have a very brief update.

The chair already mentioned our trip to Diablo Canyon on

May 4th, and that was a really helpful and informative visit. So I think with that I'll pass on any other update. Thank you.

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MS. SCOTT: All right. And then my brief update -I've had an opportunity over the last little bit to go to
a few different conferences and venues up in Seattle,
Washington for the National Governors Association
meeting, where they convened folks to talk about electric vehicles, infrastructure, and strategy.

And it was fantastic. There were about fourteen states, including the Virgin Islands, and so they kind of came quite a ways to participate in the meeting and just really hear where everyone is, what they're doing, what lessons are learned, what are things we can work on together.

Had an opportunity to present on the work that the Commission is doing at the Clean Cities Conference in Oakland a few weeks ago and also to talk to the California Lawyers Association with some vision of different folks about how we get to a hundred percent carbon-free energy. So that was great.

We also had our in-person Ports Collaborative meeting at the Port of Hueneme a few weeks ago, and that was fantastic. The Port of Hueneme is a fantastic host. It's really neat to see what they have there and also to

convene all six of the ports together and trade information. One of the things that they did was took us on a little tour of the Port of Hueneme, and they do a bunch of bananas and other produce.

And they also do cars, and so it's very interesting to watch these cars come off the ships. And what's interesting apparently is that -- or I think this is interesting -- is that the cars have just enough gasoline or just enough charge to get off the boat and then get into the parking lot before they get put on those big trailer trucks that take them to the different places, which I don't know, I was like, how do they do that? So it was really neat to see the operations there.

And while I will miss working on transportation, I'm really pleased to have the opportunity to work with our R&D team and be part of EPIC and PIER natural gas and really dig in and engage there. So looking forward to that. That is my update.

Yes, we will move to item number 23, which is the chief counsel's report, please.

UNIDENTIFIED SPEAKER: Nothing.

MS. SCOTT: Okay. We will move on to item 24, which is the executive director's report.

UNIDENTIFIED SPEAKER: In the last couple weeks, we had hearings before the Senate and assembly subcommittees -149-

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on our budget proposals. All of our budget proposals passed, so we've added 1,000. We still have two spring finance letters that will be entertained soon, but we're doing well. Thanks.

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MS. SCOTT: Next is item 25, the public advisor's report.

MS. MATTHEWS: So very quickly, I had a great opportunity to work with the Research and Development Division on some community meetings that they planned, and it was really awesome. We had community members. A lot of times when we do meetings, we'll do north Central Valley and then Southern California.

Well, this time we really listened, and so instead of going to Fresno we went to Madera and Bakersville because we realized some community members even in the planning we lose those individuals at the north or southern part of the Central Valley.

So as Commissioner McAllister was speaking about linguistic access, there is not only just actual language access, but it's the way we use language. And so if you are communicating to rural community members, even though you're all speaking English, there might be another language that you need to use. And so we're really trying to be innovative and strategic when we do the outreach meetings, that we're making sure that we are

presenting information that's accessible.

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And I really encourage you to have these meetings outside the box of our traditional kind of workshop and PowerPoint presentation. We actually did what we call the energy icebreaker, and it was just a matching game. And it was a very creative way to introduce terms like microgrid or customer support solutions, which community members who traditionally are not engaged in our processes wouldn't really understand. So those were two very, very successful meetings.

And then I just want to thank my staff, Rosemary

Avalos -- who's not here -- but then Dorothy Merini

(ph.), who have been very instrumental in making that

happen, reaching out to communities where we were able to

provide food as well as translation services for both of

those community meetings and give good ideas.

The last thing I will say is that we have our diversity career fair that's coming up at the end of the month, April 25th, and we want to encourage everyone to share in getting the word out so we can let anyone interested know that they're welcome here at the Energy Commission. And I thank Dorothy again for being the lead on that. Thank you.

MS. SCOTT: Great.

DR. MCALLISTER: I want to -- can I just say -151-

something about the linguistic thing? I mean, it's not only just a linguistic thing. It's also a cultural thing, right?

MS. MATTHEWS: Yes, yes.

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DR. MCALLISTER: Because our processes are like -they're like a foreign country just themselves even if
you speak English, right? So I'm just thinking about
some of the rural communities we serve -- southern

Central Valley -- immigrants from wherever, if they come
to those meetings, even if it's fully in their own
language often they're not going to quite understand
what's going on because it's just a very -- the
bureaucracy and the structure and the formality of it is
something that isn't very accessible just per se, right?

So particularly if you are a relatively recent immigrant and your educational level is not through a university -- maybe it's high school, maybe it's less than high school. So I think there is a cultural aspect of this, and the numbers in California are large. There are a lot of people in that situation. So I guess it's probably worth a discussion about how many resources we sort of put into it and what our strategy kind of ought to be to be most effective.

MS. MATTHEWS: So one quick update that I can give
you -- that on the diversity steering group committee, we

always reach out to the divisions, to deputies to let
them know. And this last community meeting -- we're not
calling it workshop because of that technical
connotation -- but we totally abandoned what we would
normally do.

We didn't do it at all. We really had a community meeting where we sat down and we really listened. And the most important thing in planning that is to listen to the community first in planning it, because they can tell you what the cultural competency is and how best to provide information to that community.

DR. MCALLISTER: Thanks so much, Alana.

MS. SCOTT: Yeah, thank you.

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Okay. Public comment, item 26.

UNIDENTIFIED SPEAKER: We don't have public comment, but I would like to announce that we have opened up a docket. So anytime a member of the public -- we currently did not have a place to take that if anyone has general public comment, and so we will be able to take that.

So if anybody is listening in and is not able to make a public comment, if they want to submit a written comment, we have worked with chief counsel's office to establish that. And so in perpetuity now, there will always be a place to have general public comment.

MS. SCOTT: Great. That's great to hear. And let me just look to Cody (ph.) to make sure we don't have anyone on the phone there.

Okay. So with no public comment, we are adjourned. (End of Recording)

-154-

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