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BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the matter of:	)
	)
Convening of the Lithium Valley Commission	)
	)

REGULAR MEETING

REMOTE VIA ZOOM

THURSDAY, MARCH 25, 2021

1:30 P.M.

Reported By:

Elise Hicks

APPEARANCES

Lithium Valley Commission

Silvia Paz, Chair

Rod Colwell, Commissioner

Roderic Dolega, Commissioner

Miranda Flores, Commissioner

Martha Guzman Aceves, Commissioner

James C. Hanks, Commissioner

Ryan E. Kelley, Commissioner

Arthur Lopez, Commissioner

Luis Olmedo, Commissioner

Frank Ruiz, Commissioner

Manfred Scott, Commissioner

Tom Soto, Commissioner

Jonathan Weisgall, Commissioner

California Energy Commission

David Hochschild, Chair

Karen Douglas, Commissioner

California Energy Commission Staff

Kourtney Vaccaro, Advisor to Commissioner Douglas

Eli Harland, Advisor to Commissioner Douglas

Terra Weeks, Senior Advisor to Chair Hochschild

Le-Quyen Nguyen, Advisor to Chair Hochschild

APPEARANCES

California Energy Commission Staff (cont'd)

Noemi Gallardo, Public Advisor

Elisabeth de Jong

Deborah Dyer, Chief Legal Counsel

Anna Ferrera, Assistant Executive Director, Office of Governmental and International Affairs

Lindsay Buckley, Director of Communications and External Affairs

Presenters

Logan Goldie-Scot, BloombergNEF

Michael McKibben, University of California – Riverside

Public Comment

Micah Mitrosky, International Brotherhood of Electrical Workers Local 569

Azita Yazdani

Laurel Lees

Rebecca Zaragoza, Leadership Counsel for Justice and Accountability

Mike Garabedian

Caity Smith, National Renewable Energy Laboratory

Patrick Dobson

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P R O C E E D I N G S

1:31 P.M.

THURSDAY, MARCH 23, 2021

CHAIR PAZ: Good afternoon everyone. Welcome to the Lithium Valley Commission meeting. Before we get started, I am going to hand it over to Elisabeth from the Energy Commission, she's a Project Manager there, and she'll go over some housekeeping and do the roll call for us as well.

So Elisabeth?

MS. DE JONG: Thank you. So before we get started I just want to say thank you. This meeting is being conducted entirely via Zoom. This means that we're in separate locations and communicating only through electronic means. We are meeting in this fashion, consistent with Executive Orders N-25-20 and N-29-20, and the recommendations from the California Department of Public Health, to encourage physical distancing in order to slow the spread of COVID-19.

This meeting is being recorded, as well as transcribed, by a Court Reporter. The transcript will be posted to the electronic docket. The recording of the meeting will be available on the Lithium Valley Commission

webpage.

Members of the public will be muted during the presentation. But there will be an opportunity for public comment on each agenda item, and an additional opportunity for public comment towards the end of the agenda.

To provide public comment, please use the raise-hand feature in your Zoom application to be called on to speak. When you speak, please provide your name and affiliation. If you called in by phone, you will need to dial star nine to raise your hand and star six to un-mute yourself. Before speaking, please say and spell your name for the Court Reporter.

There is also a Q&A window in Zoom which you can use to type your questions. If you want to provide public comment but are unable to raise your hand in the Zoom application or by phone, then during the public comment portion of the workshop you may type your comment into the Q&A window so we can relay your comment.

We'll go over these instructions again during the time for clarifying questions and public comment.

Please remember to stay muted until

you've been called on to speak.

We also have the chat function available for I.T. support.

I will go ahead and lead us through the roll call before handing it back over to Chair Paz.

So we are going to do the roll call for the Lithium Valley Commission Members to determine a quorum. I will call your name. Please respond if you are present, and turn on your camera, if you can. This is in alphabetical order.

Rod Colwell?

COMMISSIONER COLWELL: Present.

MS. DE JONG: Roderic Dolega?

COMMISSIONER DOLEGA: Present.

MS. DE JONG: Miranda Flores?

COMMISSIONER FLORES: Present.

MS. DE JONG: Martha Guzman Aceves? Not present.

James C. Hanks? Not present.

Ryan Kelley?

COMMISSIONER KELLEY: Present.

MS. DE JONG: Thank you.

Arthur Richie Lopez?

COMMISSIONER LOPEZ: Present.

MS. DE JONG: Thank you.

Luis Olmedo?

COMMISSIONER OLMEDO: Present.

MS. DE JONG: Silvia Paz?

CHAIR PAZ: Present.

MS. DE JONG: Thank you.

Frank Ruiz?

COMMISSIONER RUIZ: Present.

MS. DE JONG: Manfred Scott?

COMMISSIONER SCOTT: Present.

MS. DE JONG: Tom -- Thomas Soto? Tom Soto?

COMMISSIONER SOTO: Here. Here I am.

MS. DE JONG: Thank you.

And Jonathan Weisgall?

COMMISSIONER WEISGALL: Present.

MS. DE JONG: Thank you.

I heard all but two Commissioners present, so we have a quorum.

I just want to take a moment to introduce names of CEC Support Staff. We have Commissioner Douglas and Advisors, Chair Hochschild and Advisors, the Public Advisor, who can assist with public participation, Noemi Gallardo.

With that, I'll turn it back to you, Chair Paz.

CHAIR PAZ: Thank you, Elisabeth. And, again, welcome everybody.

So in front of us, we have the agenda. As you can see, we have a packed few hours. And we are going to be going over some administrative items, as well as hearing from some panelists, and also determining and discussing the structure of the report as was requested in our first meeting.

Next slide please.

So the first item is to approve the meeting action items. Everyone should have received a copy of the minutes or action items from the last meeting. And I know Elisabeth is ready to put it -- share it on the screen, if we need to. But are there any questions on the action items from the past meeting?

Hearing or seeing none, no comments, I will assume that everything was reflected accurately. We don't need to make any changes. But before we go through a vote, we're going to open it to public comment.

Elisabeth?

MS. DE JONG: Yes. Thank you. Let me get ready for public comment here.

If you're joining via Zoom on your computer, please use the raise-hand feature. If you called in, dial star nine to raise your hand, and then star six to un-mute yourself. We'll start with the raised hands on Zoom.

I see one raised hand, that's Micah Mitrosky. I'm going to allow you to talk. And go ahead.

MR. MITROSKY: Hi everyone. Can you hear me?

MS. DE JONG: Yes, we can.

MS. MITROSKY: Great. Good afternoon, Chair Paz and Commission Members. My name is Micah Mitrosky. I'm speaking on behalf of over 3,500 members of the International Brotherhood of Electrical Workers Local 569, the Electricians Union representing San Diego and Imperial Counties.

And as you outlined the key components for the Lithium Valley Commission report today, we urge you to incorporate the following into the report.

One, projects need to create high-

road/high-quality construction, operations and maintenance careers for local workers, good jobs that pay well with healthcare and pension benefits.

Item two, projects need to employ local apprentices enrolled in a state-approved apprenticeship program.

And item three, lithium efforts in Imperial County must complement the ongoing work of the Salton Sea to protect public health and restore habitat.

The vast majority of renewable energy projects in Imperial County have been built under project labor agreements. These projects have generated good paying union jobs, employing workers in an economically hard hit region of our state. The growth or a new clean technology industry in Imperial County needs to follow this same high-road job trajectory and needs to be done in a way that is safe, environmentally responsible, and equitable for the community.

Thank you. And we look forward to continuing to engage as stakeholders.

MS. DE JONG: Thank you.

I just want to take a second. I do see

that Commissioner James Hanks was able to join us.

We just went through roll call, so if you could just go ahead and un-mute and let us know that you're able to participate, we'll be able to proceed with the meeting with your attendance.

COMMISSIONER HANKS: Okay. Can you hear me?

MS. DE JONG: Yes, we can. Thanks for joining us.

And we do have one more public comment

COMMISSIONER HANKS: Thank you.

MS. DE JONG: Azita Yazdani, I'm going to go ahead and un-mute you, if you'd like to make your comments on the meeting action minutes?

MS. YAZDANI: I'm sorry. That was a mistake. I did not have any comment at this point. Thank you.

MS. DE JONG: Okay. Thank you.

All right, Chair Paz, that is the only public comments that we can see.

CHAIR PAZ: Thank you.

So at this point, I will need a motion to accept the minutes from the last meeting.

COMMISSIONER WEISGALL: So moved.

COMMISSIONER SOTO: So moved.

COMMISSIONER WEISGALL: I'll second. Jonathan will second.

CHAIR PAZ: Thank you.

Did you capture, Elisabeth, who the first one was?

MS. DE JONG: I did not hear the first one.

COMMISSIONER SOTO: Tom.

CHAIR PAZ: Okay. Thank you, Tom.

MS. DE JONG: Thank you.

CHAIR PAZ: So there's a motion by Tom and second by Thomas. And I think we do this by roll call.

Elisabeth, do you want to do the roll call on the vote?

MS. DE JONG: We do, yes, so when I call your name, please let us know your vote.

Rod Colwell?

COMMISSIONER COLWELL: For.

MS. DE JONG: I'm sorry, I didn't hear what the answer was.

COMMISSIONER COLWELL: Aye.

MS. DE JONG: We can hear someone speaking but it's really bad connection.

COMMISSIONER WEISGALL: Yeah. She was just saying that Jonathan Weisgall, I seconded. It wasn't Thomas.

CHAIR PAZ: Thomas was the first and Jonathan the second? Okay.

COMMISSIONER WEISGALL: Correct.

CHAIR PAZ: Thank you.

MS. DE JONG: Yes.

CHAIR PAZ: Thank you.

MS. DE JONG: Okay. Rod Colwell, sorry, what was your vote, to accept or -- yes or no, accept the meeting action minutes?

COMMISSIONER COLWELL: Yes.

MS. DE JONG: Thank you.

Roderic Dolega?

COMMISSIONER DOLEGA: Yes.

MS. DE JONG: Miranda Flores?

COMMISSIONER FLORES: Yes.

MS. DE JONG: James Hanks?

COMMISSIONER HANKS: Yes. Yes.

MS. DE JONG: Ryan Kelley?

COMMISSIONER KELLEY: Yes.

MS. DE JONG: Arthur or Ritchie Lopez?

COMMISSIONER LOPEZ: I abstain.

MS. DE JONG: Abstain. Okay.

Luis Olmedo?

COMMISSIONER OLMEDO: Yes.

MS. DE JONG: Chair Paz?

CHAIR PAZ: Yes.

Frank Ruiz?

COMMISSIONER RUIZ: Yes.

MS. DE JONG: Manfred Scott?

COMMISSIONER SCOTT: Yes.

MS. DE JONG: Thank you.

Tom Soto?

COMMISSIONER SOTO: Yeah.

MS. DE JONG: And Jonathan Weisgall?

COMMISSIONER WEISGALL: Yes.

MS. DE JONG: Thank you.

COMMISSIONER GUZMAN ACEVES: And, Elisabeth, this is Martha. I've been able to join as well.

MS. DE JONG: Great.

COMMISSIONER GUZMAN ACEVES: And I would --

MS. DE JONG: Thank you so much.

COMMISSIONER GUZMAN ACEVES: -- I vote in support, as well, yes.

MS. DE JONG: Thank you.

CHAIR PAZ: Thank you.

MS. DE JONG: Okay.

CHAIR PAZ: Okay. So the next item on the agenda is for the Lithium Valley Commissioners to consider adopting Rules of Order.

And it might be helpful, Elisabeth, if you can do a share screen with the outline for what we have envisioned. And the purpose of this, again, is just to have some guidance as to how, you know, our meetings are going to be run and governed. There are different -- you can see here, this is only an outline, but if the Commissioners decide that we want to adopt Rules of Order, then the CEC Staff will work on giving us more language under each of these sections or any other sections you think need to be added.

Are there any questions?

COMMISSIONER GUZMAN ACEVES: Chair Paz, this is Commissioner Guzman Aceves again. I'm not sure if this is in the statute, actually, it may already be covering the statute, but is there a discussion on terms of the members and anything in relation to how we will coordinate those terms? Again, this may all be in the statute. I just can't recall.

Thank you.

CHAIR PAZ: Thank you. That's a really good question.

Elisabeth, I don't recall seeing it in the statute terms, but do you have any clarification on that?

MS. DE JONG: You are correct. The statute has pretty minimal language on the terms.

I would like to open the opportunity for Deborah Dyer, the CEC Legal -- Chief Legal Staff, to comment on this if there's anything extra to comment.

MS. DYER: This is Deborah Dyer.

Elisabeth, you've captured it. There are no terms provided for in the text of the statute.

CHAIR PAZ: So I have a follow-up question, Deborah. Would that mean, A, that the Lithium Valley Commissioners stay on until we finalize the report as option A, or B, unless we wanted to decide to establish, transfer, whatever reason; are those the two options?

MS. DYER: Those are the two options. I think that the text, the way that the statute is written, sets out a presumption that the Commission will stay in tact until the report is

finished and would then dissolve.

CHAIR PAZ: Thank you. Thank you for the clarification.

Are there any other questions, anybody Lithium Valley Commissioner?

There are several things here that I want to prep up for a potential discussion.

So under membership, we do have delegates as a potential item. We haven't decided, again, if want delegates, if we do not want delegates. And I think there are several things for us to consider.

And maybe I can invite Deborah to also give us a little bit of background on what the considerations we should keep in mind as we decide whether delegates will be allowed to participate and at what level?

MS. DYER: Absolutely. This is Deborah Dyer.

And the decision as to whether or not to allow delegates and to what extent is entirely up to the Commission themselves. There are a couple of different options. One option could be that delegates could attend for a Commissioner but neither contribute to the discussion, nor vote.

You could allow delegates to attend and provide discussion on behalf of their Commissioner but not vote. Of you could grant the delegates the proxy to vote for that Commissioner. And --

MS. DE JONG: Sorry.

MS. DYER: -- so that is entirely up to the Commission.

MS. DE JONG: I'm going to interrupt, Deborah. You broke up just a little bit there. If you could repeat the last thing you said?

MS. DYER: Yes. The other option is to allow delegates to also have proxy to vote for their Commissioner. But it entirely up to the Lithium Valley Commission as to how they want to set that up, though.

MS. DE JONG: And Chair Paz, I just want to let --

CHAIR PAZ: Um-hmm.

MS. DE JONG: -- Luis Olmedo did raise his hand.

CHAIR PAZ: Thank you.

Luis?

COMMISSIONER OLMEDO: I just want to just throw in the bucket of conversations that I did want to propose a need for a Co-Chair in anytime

that the chair may not be able to participate. I guess that's part of the discussion right here. Would it be a delegate or would it be a member that serves as the Chair? You know, my preference would be that it be a member, a Commissioner that would be serving in the rule of a Co-Chair, take some of that pressure from the Chair, that there may be some situations where she may not be able to attend.

CHAIR PAZ: Um-hmm.

COMMISSIONER OLMEDO: So -- but, again, that's part of the conversation.

The other conversation that I hope we have is that -- and maybe just to put it out there -- is that we should be open to the evolution of this Commission. There may be times that, I mean, we maybe may want to consider being responsive, and call it what we may at such time, but we may have to be more responsive than waiting for an end product. There may be times that we may need to produce some type of a memorandum and communicate that at earlier times in the trajectory of this, of the role of the Commission, at the time that the Commission may not have a finished product. So can you add that

to the list of conversations?

CHAIR PAZ: Thank you.

So just focusing on, first, the Rules of Order, and point well taken, we do have Vice Chair duties, number -- down on the list, number five. And later on, during the discussion, we will have an action item on whether we want to select a Co-Chair, and then we'll be able to vote for one if we decide that we do want a Co-Chair. Should that action pass, then we will retain here the Vice Chair duties. And what I'm hearing from you, Luis, is that in those duties the Vice Chair will always be the -- or should always be leading the meeting in the case that the Chair cannot attend, even if the Chair has a delegate.

So if that's what I heard correctly, then I'm open. I mean, it makes sense to me. I'm open to hearing other suggestions from other members.

COMMISSIONER OLMEDO: Madam Chair, may I correct that?

CHAIR PAZ: Yes.

COMMISSIONER OLMEDO: I --

CHAIR PAZ: Go ahead.

COMMISSIONER OLMEDO: -- I just, I meant

to say, well, there are two models; right? There's the Co-Chair model and there's the Vice Chair model. So I just wanted to put it for discussion, I guess, you know?

CHAIR PAZ: Um-hmm.

COMMISSIONER OLMEDO: But if we go with a Vice Chair, I certainly, you know, fully support that. And there is the Co-Chair models that are out there that do exist as well. I know in Imperial, we have the AB 617 Co-Chair model. I don't know what that would look like, but at the very least the Vice Chair for sure.

CHAIR PAZ: Thank you. And I think I was using that interchangeably. But I think what you mean is a Co-Chair would be co-chairing the meetings with the Chair. And a Vice Chair will come in only in the absence of the Chair; is that the difference?

COMMISSIONER OLMEDO: Certainly, a Vice Chair.

CHAIR PAZ: Okay.

COMMISSIONER OLMEDO: A Co-Chair has work in instances where, for example, there's the Air District, who represent a governmental, and then there's the community Chair; right? So --

CHAIR PAZ: Okay.

COMMISSIONER OLMEDO: -- I don't know if that would work in this type of setting but, certainly, just definitely support the Vice Chair --

CHAIR PAZ: Okay.

COMMISSIONER OLMEDO: -- chairmanship as a backup to the Chair.

CHAIR PAZ: Thank you.

Is there anyone else who has any direction, receives, on the items here for the Rules of Order and what needs to be flushed out and how you would like this law to shape up?

MS. DE JONG: I don't see any hands raised.

CHAIR PAZ: Okay.

MS. DE JONG: Oh, Commissioner Martha Guzman Aceves.

COMMISSIONER GUZMAN ACEVES: Yes. Sorry if I'm -- I'm not sure if I'm answering the right question here, but I was going to go back to the delegate question.

CHAIR PAZ: Um-hmm.

COMMISSIONER GUZMAN ACEVES: And it looks like, unfortunately, there will be quite a few of

my PUC voting meetings conflicting with our meetings. And in that case, I wouldn't want to slow down any progress. So I would be fine, personally, with my delegate voting on my behalf.

MS. DE JONG: And I also see Ritchie Lopez raised his hand.

COMMISSIONER LOPEZ: Yeah. I'm in the same situation as the young lady. The delegates, I'm okay with having a delegate representing myself too.

CHAIR PAZ: Okay. Are there any other comments?

I mean, obviously, this is -- we don't have this written where we vote for the delegate alone as a part of it. So I think maybe what would be helpful is if we can hear from the rest of you or the majority of you, just so that the CEC Staff has some direction on what type of language to put under delegates. And then when that comes back to us, then we can vote to accept the language or not. So it would be helpful if I can hear from more of you, just so we can provide that direction.

So far what I'm hearing is that delegates should have voting power.

MS. DE JONG: Tom Soto has a hand raised.

COMMISSIONER SOTO: I don't think that, you know, we're going to be around long enough, under two years, to not have delegates be given that right. I mean, obviously, we have colleagues on the Commission who we respect in their opinion. So I think it would be perfectly appropriate that their designee extend their right to vote as a member of the Commission during those votes. And given the place where, you know, some may be like at the Public Utilities Commission, we can't interfere with that.

So I would agree that delegates should be given that right.

COMMISSIONER FLORES: I agree.

MS. DE JONG: That "I agree" came from Commissioner Flores.

I see Jonathan Weisgall has a hand up.

COMMISSIONER WEISGALL: Same. Makes sense. Makes sense. I agree.

CHAIR PAZ: So hearing that the leaning of the Commission Members is to allow for proxy vote, another item, maybe, that we should consider is whether the delegate will be from the

agency? For example, if you were representing -- if you were appointed to represent a certain agency, should your delegate be from the same agency or do we have the autonomy to just select whomever we want? I think it's one of the considerations.

And the second one, for the purposes of stability, should we allow a different delegate each time we can't be there or should we make sure that it's always the same delegate that's stepping in for any missing member?

MS. DE JONG: We have a hand raised from Luis Olmedo.

CHAIR PAZ: Please.

COMMISSIONER OLMEDO: Yeah. I'm sorry. Thank you for recognizing me.

So I'm in favor of the Commissioners selecting their designee, their delegate, but every Commissioner is -- has its own situation, so I support the idea of each Commissioner identifying. However, I could see that, the importance of having some parameters of what that looks like, so that we don't change, necessarily, completely the characteristics of and the effort put into selecting the Commissioners. So I would

imagine that we would want to set some parameters.

I mean, the easiest seems, just select within your own organization, but that's -- certainly, it's something that we -- that I would be in favor of.

CHAIR PAZ: Thank you. Thanks.

Tom, you're on mute. You're on mute, Tom.

COMMISSIONER SOTO: The integrity of the legislation is really based on the appointing authorities of the agencies. And so my thought is that we probably want, like Martha's -- the PUC. So it's likely that the intent of the legislation is to have a member of the PUC who has that authority on her behalf to represent those views.

In my case, if I couldn't make three or four meetings or -- and I knew that in advance, I would probably go back to the speaker who appointed me and ask if they would be willing to appoint an alternate, a delegate, you know, that I know we could rely on to speak on his behalf at the meetings.

So I think it needs to -- the delegate

should probably be in alignment with the legislation, which is agency representation, speaker representation, and so forth.

CHAIR PAZ: Thank you.

Anybody else?

MS. DE JONG: I don't see any other hands raised.

CHAIR PAZ: Thank you.

And then one item, maybe, that I didn't hear but it might have been implied in the discussion is to have consistency of who that delegate is. So if we're allowing -- if it's going to be Person Y, it's always going to be that person, and we won't be shifting between people; is that correct?

MS. DE JONG: I don't see any hands raised.

CHAIR PAZ: Okay. So I think that maybe gives us a little bit of direction. I don't know if Deborah is going to be the one drafting this. But hopefully this gives the team direction.

I don't know if there's any other portions on this outline that Members of the Commission would like to discuss a little further?

MS. DE JONG: I don't see any hands raised.

CHAIR PAZ: Okay. Thank you.

So before we vote, again, we are going to be opening up for public comment.

And just a reminder to the members of the public, if you can direct your comments specifically to the item we discussed, which is the Rules of Order? If you have other general comments, we do have a section later in the agenda for general comments.

Elisabeth?

MS. DE JONG: Thank you. I do want to let the public know that you are able to access this document, the Rules of Order Outline, in the Lithium Valley Commission's docket, that's 20-Lithium-01.

And if you're joining us by Zoom on your computer, please use the raise-hand feature. If you've called in, please dial star nine to raise your hand and then star six to un-mute your phone line. We will start with the raised hands and then go to the phone.

I don't see any raised hands or any comments from the phone.

CHAIR PAZ: Thank you.

At this time, I will take a motion, and the motion --

COMMISSIONER SOTO: Move to approve.

CHAIR PAZ: -- would be to --

COMMISSIONER SOTO: Move to approve.

CHAIR PAZ: -- consider the Rules of Order.

COMMISSIONER SOTO: I'll move to approve.

CHAIR PAZ: Thank you.

COMMISSIONER KELLEY: I'll second.

CHAIR PAZ: So I think Ryan Kelley to move the motion. And who was the second?

COMMISSIONER SOTO: It was Mr. Soto's motion, R. Kelley, second.

COMMISSIONER SOTO: Yeah. Either way.

CHAIR PAZ: Okay. I keep it -- it's hard to see who speaks first --

COMMISSIONER SOTO: Sorry.

CHAIR PAZ: -- on the monitor. So Mr. Soto makes the motion and Supervisor Kelley seconds it.

And do we want to roll call, please, Elisabeth?

MS. DE JONG: Thank you.

So when I call your name, please indicate yes or no to approve having the CEC continue to formulate the Rules of Order to be presented at a future meeting for approval.

Rod Colwell?

COMMISSIONER COLWELL: Yes.

MS. DE JONG: Roderic Dolega?

COMMISSIONER DOLEGA: Yes.

MS. DE JONG: Miranda Flores?

COMMISSIONER FLORES: Yes.

MS. DE JONG: Martha Guzman Aceves? If you're speaking, I cannot hear you. Okay. You'll abstain on that.

James Hanks?

COMMISSIONER HANKS: Yes.

MS. DE JONG: Ryan Kelley?

COMMISSIONER KELLEY: Yes.

MS. DE JONG: Ritchie Lopez?

COMMISSIONER LOPEZ: Yes.

MS. DE JONG: Luis Olmedo?

COMMISSIONER OLMEDO: I apologize. I had to attend an urgent matter, so I did not hear the entire motion, so I will abstain, unless somebody wants to repeat it for me. I don't want to hold the vote.

MS. DE JONG: This motion is approve or deny having CEC Staff create a Rules of Order document to be approved at a future meeting, so in its full and complete form at a future meeting.

COMMISSIONER OLMEDO: Thank you. I agree.

MS. DE JONG: Okay.

Chair Paz?

CHAIR PAZ: Yes.

COMMISSIONER GUZMAN ACEVES: Sorry. I apologize if I missed that roll call. This is Commission Guzman Aceves. But I am a yes, as well.

MS. DE JONG: Okay. Thank you.

Frank Ruiz?

COMMISSIONER RUIZ: Yes.

MS. DE JONG: Manfred Scott?

COMMISSIONER SCOTT: Yes.

MS. DE JONG: Tom Soto?

COMMISSIONER SOTO: Yeah.

MS. DE JONG: And Jonathan Weisgall?

COMMISSIONER WEISGALL: Yes.

MS. DE JONG: That is a unanimous vote for yes to complete the rules of order for a

future meeting.

MS. DYER: Elisabeth, can I interject on the item?

Since the -- I do not think that the public can see the chat that the Commissioners are talking on. If you do have substantive comments about an item that is being discussed, if you would please state that comment orally. The chat is fine for, you know, other things. But if we can let the public have a full view of what is happening up there on the virtual dais? Thanks.

CHAIR PAZ: Thank you, Deborah.

MS. DE JONG: Okay. Deborah, would you like us to read any messages that came in already for this or do you want us to just do that going forward?

MS. DYER: I think just going forward. The chats were not substantial and wouldn't -- it doesn't look like it would change a vote. It was just background discussion.

MS. DE JONG: Okay. Thank you. So the motion passes.

CHAIR PAZ: Thank you.

So the next item is the possible election

of the Vice Chair.

And I just have a clarification here, Elisabeth. Were we going to do the vote yes or no whether we want the Vice Chair and then the nominations since we --

MS. DE JONG: Yes.

CHAIR PAZ: -- I don't recall if we voted on that.

MS. DE JONG: So, okay, we can certainly do it that way, to vote yes or no on whether to elect a Vice Chair today. And then do the nomination and election of the Vice Chair if that suits the Commission.

CHAIR PAZ: Okay. So let's do that.

So the way we're approaching this is, first, any discussion on the election of the Vice Chair? I know we talked a little bit about it at the last meeting but I still want to give the Members of the Commission some time in case you have any thoughts or comments on electing a Vice Chair.

MS. DE JONG: We have a raised hand from Luis Olmedo.

CHAIR PAZ: Luis?

COMMISSIONER OLMEDO: Yeah. So Madam

Chair, has there been -- is the next step to have discussion and then put forth nominees?

CHAIR PAZ: Yes. First we want to identify that -- and vote that everyone is -- or the majority, right, that is in favor of having a vice chair, so we're having -- have that discussion, open it to public comment, then come back for a vote. And then we'll take nominations, have a discussion, open it for public comment, and then vote.

COMMISSIONER OLMEDO: So may I comment at this time?

CHAIR PAZ: Yes.

COMMISSIONER OLMEDO: So in the previous meeting there was a discussion and nominees put forth. So I just want to recognize that there was a discussion previously and whether we want to pick up that discussion of the two nominees at that time. I don't know if there were more than two. I recall there was two. So I just want to give recognition to that discussion then and if we wanted to pick up that discussion for this Vice Chair conversation?

CHAIR PAZ: Thank you. I do not recall, and I don't think I saw it in the action minutes,

about the Vice Chair. I know we had the discussion about the Chair and there were two nominees and a vote. But, again, unless --

COMMISSIONER OLMEDO: Madam Chair, let me clarify. It's just bringing forth the popularity of the nominees --

CHAIR PAZ: I get it.

COMMISSIONER OLMEDO: -- nominated. So just wanted to recognize that we had had that discussion and that Madam Chair was selected.

CHAIR PAZ: Um-hmm.

COMMISSIONER OLMEDO: But there may have been other nominees. I knew that Ryan --

CHAIR PAZ: Um-hmm.

COMMISSIONER OLMEDO: -- Commissioner Kelley was nominated. I don't recall if there were others nominated. I just want to recognize that we had had a discussion then. And if -- then I'm in favor of recognizing that discussion then and bringing it to a conversation today; right? So that's all.

CHAIR PAZ: Well, thank you. So, yes, you're correct, Supervisor and Commissioner Kelley was nominated at that time for the Chair.

MS. DE JONG: You have a hand raised from

Jonathan Weisgall.

COMMISSIONER WEISGALL: You know --

CHAIR PAZ: Jonathan?

COMMISSIONER WEISGALL: -- I mean, maybe I agree with Luis. That was a relevant discussion. We were deciding then on a Chair. And, actually, I think it was a rather close vote. So, Silvia, if you want to entertain, I mean, I would be perfectly happy putting forward Ryan as a Vice Chair because he seemed to enjoy, as Luis said, support from a number of folks. So let me just make that -- let me put that name forward, if I could?

CHAIR PAZ: Okay. Thank you.

COMMISSIONER SOTO: I would second that. This is Tom.

CHAIR PAZ: Thank you. So there's a motion and a second. And I guess I'm going back on just the process. So we're going to do both at the same time. We're voting that we are going to have the Chair. And then we're nominating Commissioner Ryan Kelley with Jonathan making the motion and Tom seconding. Okay.

Any other discussion?

MS. DE JONG: I want to let you know that

Rod Colwell said in the chat that he agrees for Ryan of the Vice Chair, and that you have a hand raised from Ritchie Lopez and from Luis Olmedo.

CHAIR PAZ: Thank you.

Mr. Lopez, would you like --

COMMISSIONER LOPEZ: Yes. Since we just passed the Rules of Order, we already approved the Vice Chair in that, didn't we?

MS. DYER: This is Deborah.

The last motion was to move forward populating that Rules of Order. And if the Lithium Valley Commission decides that they would like to elect a Chair, we will reflect that in the Rules of Order that we bring back to you at a future meeting. But that -- there was nothing said in stone in that proposed draft.

CHAIR PAZ: Thank you, Deborah.

MS. DE JONG: We still have a hand raised from Luis Olmedo.

CHAIR PAZ: Luis?

COMMISSIONER OLMEDO: Same question that was asked in the previous meeting. I was assuming that we're going to ask that, in this case, the nominee, Commissioner Kelley, if he's interested; correct? Before we take the vote.

CHAIR PAZ: Thank you.

Supervisor Kelley?

COMMISSIONER KELLEY: Yeah. I'd be happy to help.

CHAIR PAZ: Would you accept the nomination?

COMMISSIONER KELLEY: I'd be happy to help.

CHAIR PAZ: Thank you.

Any other discussion before we open it to public comment?

MS. DE JONG: There are no hands raised.

CHAIR PAZ: Thank you.

So can we open it to public comment, Elisabeth, please?

MS. DE JONG: Yes. Hold on one second. Okay.

If you're joining via Zoom on your computer, please use the raise hand feature. If you've called in, dial star nine to raise your hand and then star six to un-mute your phone line. We'll start with the raised hands on the Zoom application. I don't see any comments coming in.

CHAIR PAZ: Okay. Thank you. So we have

a motion by, if I remember this correctly, we have a motion by Jonathan and a second by Tom. And we can take the vote now.

So can you do the roll call for the vote, please, Elisabeth?

MS. DE JONG: Yes. So when I call your name, please indicate yes or no to electing Ryan Kelly as the Vice Chair for the Lithium Valley Commission.

Rod Colwell?

COMMISSIONER COLWELL: Yes.

MS. DE JONG: Roderic Dolega?

COMMISSIONER DOLEGA: Yes.

MS. DE JONG: Miranda Flores?

COMMISSIONER FLORES: Yes.

MS. DE JONG: Martha Guzman Aceves?

COMMISSIONER GUZMAN ACEVES: Yes.

MS. DE JONG: James Hanks?

COMMISSIONER HANKS: Yes.

MS. DE JONG: Ryan Kelley?

COMMISSIONER KELLEY: Yes.

MS. DE JONG: Arthur Lopez?

COMMISSIONER LOPEZ: Yes.

MS. DE JONG: Luis Olmedo?

COMMISSIONER OLMEDO: Yes.

MS. DE JONG: Chair Paz?

CHAIR PAZ: Yes.

MS. DE JONG: Frank Ruiz?

COMMISSIONER RUIZ: Yes.

MS. DE JONG: Manfred Scott?

COMMISSIONER SCOTT: Yes.

MS. DE JONG: Tom Soto?

COMMISSIONER SOTO: Yes.

MS. DE JONG: And Jonathan Weisgall?

COMMISSIONER WEISGALL: Yes.

MS. DE JONG: That is a unanimous vote yes for Ryan Kelley as the Vice Chair.

CHAIR PAZ: Thank you.

Congratulations Ryan.

COMMISSIONER KELLEY: Yay.

CHAIR PAZ: Okay. So the next portion of our agenda is to have a discussion around what we would like to see beyond those items that are written out in the legislature. So as you recall, the legislature has very clear parameters about the things that this Commission is going to be investigating and making recommendations on. And what I wanted us to have a conversation about right now is trying to see a vision; right? And in order -- I know that those instructions or a

question was sent via email to us.

But just to get us in the space, I mean, if you can imagine it's the Year 2035; right? We completed the report and, you know, the extraction of lithium is a success. What will it look like? What will it look for the local-regional environment? And what will it look like for the people living around the lithium resource?

So again, this is just an opportunity for us to start framing what we would like to see, what our intentions are, and capturing those items to guide the report.

So Commissioner Soto?

COMMISSIONER SOTO: You know, that's a really broad and robust question and I think it deserves a lot of thought. And there's a number of people online that, you know, we've had conversations prior to this for many years on not only this Commission and the goals that we're discussing could do to help the people of Imperial and Salton Sea areas, but really become a focal point globally on how to properly, responsible, and sustainably create economic valley while mining a natural resource.

And granted, there's probably a number of people on this Commission and in the audience who are not necessarily advocates for, you know, the extraction of resources. You know, certainly I've led efforts in the past to stop mining in some areas. But here we have an opportunity to take a very, very rare mineral that is mainly, you know, a byproduct of an existing natural resources, which is heat and geothermal activity, that could be converted into true economic value for the people of the United States, California, and certainly the area of Imperial Valley.

So if five, ten years from now we can look back and see what we've done, I think the first and foremost priority is that whatever it is that we do helps to improve and increase the quality of life of the communities that we're serving within this area immediately in the surrounding, let's call it the beneficial zone.

Two, that we use this as a vehicle to bookend the fostering and the incubation of this resource so that it could achieve that end of improving quality of life, bringing good economics, bringing healthcare, bringing access to improved education and so forth, and we

bookend it by supporting innovative regulatory frameworks and legislature.

You know, Assemblymember Garcia now has his Lithium Economy Act which is a content standard for California-based or produced lithium. That is a nice bookend. That gives a floor or economics for investors to come in and invest in the area knowing that the state is mandating that for every storage unit, every electric vehicle, 35 percent of that storage capacity will be the result of lithium produced in California. That's a huge mandate that will give reason for folks to invest.

The other bookend is to de-risk it further by getting the State of California and the people of California to provide industrial development bonds in debt and grants that could help to give a greater multiple for those folks that are leaning investments into this area. And the is no small, you know, dollar value. We're talking about hundreds of millions of dollars, perhaps billions of dollars, to come into the area to help to develop all of this.

And, finally, we have to recognize that we have to do this now. We can't wait any longer

because, as some of the data that's going to be shown later on, there's no slipping back with respect to the amount of lithium that is needed to keep the fourth industrial revolution, the information technology movement, the rise of electrification and mobility going. It's going to continue to move forward. It's going to continue to move forward at a higher velocity now that there's some form of recovery occurring with the vaccines out, the pandemic becoming more manageable and something that we're learning to live with. This recovery is going to accelerate the demand for more storage capacity. And we're going to see even more so on the stationary side for industrial, commercial, and residential.

So all of that said, we have great models in history that we could look at with other sectors and other industries. And we have a lot of mistakes that were made then. We could look back on that history and say, this is not how we're going to do it, we're going to do it this way, responsibly, sustainable, and with the level of compassion and concern for the communities that we serve so that we can generate high-wage, high-skilled jobs and increase access to better

healthcare and education, all while doing so.

So that's why I'm here. This is one of the things that -- many of the things that I would say, you know, we want to embed into the culture of this discussion.

Thank you for allowing me this time.

CHAIR PAZ: Thank you.

And I see Commissioner Colwell.

COMMISSIONER COLWELL: Yeah. Thank you, fellow Commissioners and all. I'd just like to reflect. I think Tom well and truly covered what I had planned to say, so thanks for that Tom.

Look, I think beyond just lithium recovery/extraction, we're talking about an industry here that, you know, we have an opportunity to create the world's first clean energy hub as such. It's not just, you know, the most sustainable form of lithium mining, if you like, or recovery. It's actually cathode to battery to auto, providing clean energy to provide, you know, energy to those industries, et cetera.

And when I say clean, I know that I had a few questions here that, you know, it's -- there's no correlation between the Salton Sea as

such as to say it's water and receding, say to lithium extraction. It's from 6,000 to 7,000 feet below the sea. It's clean. There's no byproducts or hazardous materials used in that process. And that water is reinjected into the field.

I think, you know, reflecting on Tom, jobs is what it's about. And this is a long-term resource. It's not, you know, respectfully, a project, say, where there's big construction jobs and everyone walks away. This is a high employment, you know, as geothermal, as Jonathan is probably going to mentioned, the highest employer, private employer in Imperial Valley is geothermal now. When you consider cathode and battery and the thousands of jobs, we're talking about our kids and grandkids and so on, this is a 50- or up to 64-year resource and beyond. It's a very robust opportunity.

So to move forward, I think the focus of the fed -- you know, the California government has done a great job, and the agencies, federal government now really actively involved. We're pretty keen to hear about Earth Day coming up. I think the U.S. supply chain is absolutely -- is

focusing on Imperial Valley. There's a wonderful opportunity to do these green, clean, environmental-sustainable development.

Thank you.

CHAIR PAZ: Thank you.

Commissioner Weisgall?

COMMISSIONER WEISGALL: Just a couple of points. I think that both Rod and Tom covered it. You know, I'd like to look back, you know, in 2035 at two other points.

Picking up on Rod's would be this larger supply chain flow, you know, a real battery industry ecosystem that will have started with lithium production.

And then, secondly, I'd like to look back and say that lithium became (indiscernible) Imperial County's decades-old geothermal power industry that would create, also, new jobs, like the battery industry ecosystem. And by having this additional source of revenue would lower the product-based load geothermal power for the benefit of California customers.

So, really, new local economic benefits and revenues and opportunities, a local workforce expansion, together with more geothermal power

expansion, in addition to everything we're looking at for lithium itself.

CHAIR PAZ: Thank you.

I think it's important that these principles and ideals of what we can see beyond just the extraction of the lithium but the actual results and impacts in our communities, in the industry and the clean energy world, that all of those are at the forefront as we consider approaching this report.

Commissioner Olmedo?

COMMISSIONER OLMEDO: This is, obviously, a very broad conversation and a really great opportunity that we have before us.

And let me just start off by saying that I think we all want the dream, right, of a sustainable, thriving economy, jobs, everything that has been discussed, some of that that was discussed on the public comment as well. The reality here is that we have seen international trade promises that have yet to be delivered, solar promises that have yet to be delivered, water promises, many things that are yet to be delivered, housing, geothermal, wind. There have been a lot of promises that were supposed to have

been delivered to the most economically-depressed, disadvantaged areas. Perhaps that promise is still there and those opportunities are there.

And, really, pleased and grateful to those who had invited me to this Commission to be part of this table because I think now we can have a direct conversation with the many stakeholders that sit at this table. Because some of you may not know this, because a lot of times the negotiations only go as far as those who claim and, perhaps, really hold the key to permits, hold the key to political influence, investment opportunities, and so on; right?

But in reality it's we need to pivot that to make sure this is a negotiation with communities, to assure that these promises that perhaps some of you may feel, hey, we put that promise on the table but that promise was kept in a very small percentage of beneficiaries. Some of you may think we did our part. But I do want to push the obligation further and say, we're all in this together so that business and the opportunity, and the opportunity of lithium, and the opportunity for geothermal to expand to

lithium, and any new business that comes that look beyond; right?

We're living at a time where we talk about inequities have been exposed. Well, we all kind of know that. We've always known about them. We just know that we can no longer be sustainable by ignoring them. And the pandemic has hit our economy tremendously hard and it's going to cost us in years to come. Some of the businesses won't be able to come back because of that.

So this is a great opportunity to make sure that that promise that some of you may have already made for those investments actually, verifiably, are becoming returns to the broader communities. What does that mean? Good jobs, good paying jobs.

It was mentioned earlier in the public comment, apprenticeship programs, and making sure that investments are actually visible in our economically-depressed communities.

I don't want to put, on the spot, geothermal. But because geothermal is a major component to the lithium extraction, geothermal has existed here for decades. And so, again, I

think in all fairness, geothermal might feel, hey, we've done our part. Again, I think this is an opportunity to recalibrate and see, hey, perhaps you did, but those benefits aren't reaching the neighborhoods, aren't reaching the most economically-depressed areas, aren't even reaching the neighborhoods that are the closest to where these operations are happening.

So it's going to be important that we have those conversations. Does a community want jobs, benefits, so on? Yeah, I think we all want that; right? But we've got to make sure that we, again, are recalibrating and addressing through this great opportunity, because a lot of times we don't have that opportunity.

And I think it's going to be important to talk about the waste streams. Is enough being done? I've always publicly and, you know, very generously have mentioned that our local policies at the local level have not caught up in the last 100 years to make sure that they are protecting our ecosystem, our environment, the public. And so those have also been situations where industry is not sustainable because it operates in lower standards that were designed, perhaps, for small

operations, for historical, you know, not large-scale operations. And because they haven't caught up, they seem like, on the front end, a good deal but in the back end result in tremendous cost.

So I think it's going to be important that that becomes part of the conversation. And some of that was, I think, in the more eloquent language that Commissioner Soto brought up as well.

And again, you know, there's state and federal policies, I know that some of theses sometimes are burdening policies and it would be great if they didn't exist, right, for -- you know, if we had much greater responsibility. But the truth is that a lot of these policies, it's really the best tool that disadvantaged communities have or environmental justice communities have for protections because a lot of times they don't have the resources. They don't have the CEQA or the NEPA attorneys. They don't have the necessary capacities and abilities to be able to represent themselves in the normal process that exists.

So again, you know, again, there's a menu

of conversations and -- but, you know, that's -- certainly, we'd like to have opportunities to have those conversations as part of the discussions and goals.

CHAIR PAZ: Thank you.

Commissioner Kelley?

COMMISSIONER KELLEY: Thank you.

In goals, hey, you know, I hear Luis and Rod and Mr. Soto. I can agree in all aspects that whatever we do we need to promote this. The opportunity is now. I've seen opportunities like this rise and fall. I do want to protect our community and ensure that we're going to be doing this in a safe and efficient manner. But there can be too much attention and it can drive away that opportunity.

So I am eager to work with all of you to make that happen. But the goal has to be that we set the climate for this to be successful. And I've seen this on the cusp of having that kind of attention before, not so much lithium, although the conversation has circulated and now focused on lithium. But this is one more opportunity that I don't think we should come up with something that's going to be delayed or

restrictive beyond what we already have in place. I think that we can all work out to make sure that this is going to be a safe and secure development for California, the nation, and the world.

But I am concerned about time. And my goal would be a smart objective that would have time limits on it.

CHAIR PAZ: Thank you, Commissioner Kelley.

I don't see any other hands. But I do appreciate how much you've leaned into the beginning of this discussion. And I say the beginning because, as we move forward, we will better be able to, you know, clarify and identify what it is that's bringing us together.

And just to echo some of the things that I heard in terms of, you know, maybe adopting principles, right, about what we intend for the outcome to be under the principles of equity, sustainability, responsible practices being some of them that came to mind as I heard you all speak.

And also having the intentionality. I mean, yes, we're going to create jobs, but we

are -- our communities have certain barriers; right? And being aware of what those barriers are, whether it's language barriers or other access barriers to the types of jobs that are going to be providing, and ensuring that there's pathways for them so that they can fully realize economic advancement and mobility through this.

I think at the end of the day I'm an optimist. And I believe that we can have win-win, and with open communities, understanding of who our target beneficiary is, I believe we can achieve this.

So, again, thank you. And we hope that this, these values and principles and goals, can help us move forward and with actionable steps along the away so we don't have to wait until the end to start creating action and building that momentum. So thank you, everyone.

And we will now also hear from the public. I see a hand. Before we do that -- no? Okay. Thank you. We will now open it to public comment on this item.

MS. DE JONG: All right. Thank you.

So if you're joining us via Zoom on your computer, please use the raise-hand feature. And

if you called in, please dial star nine to raise your hand, and then star six to un-mute. We'll used those raised hands first and then go to the folks on the phone.

I don't see any hands raised or other comments trying to come in. Okay. I think we can go on to the next item.

CHAIR PAZ: Thank you.

And so I think this is maybe -- the conversation before was a good segue into tackling and envisioning more what the general structure of the report that we're tasked to complete can look like, and then what the approach to tackling the items in the report might be. Generally, I think we have flexibility in the report structure. If we can provide a report that's detailed, easy for the legislature to read and understand, and that's actionable, I think we will have done our job.

But again, I wanted to open it to conversation from any of the Commissioners who see -- if you have any ideas on what you would like to see in the report or how you think the report should be structured at this point.

And just as a reminder, that the CEC will

be providing some technical assistance in putting the report together, so we're not alone in this.

So we can open it for discussion now.

Commissioner Soto?

COMMISSIONER SOTO: Sure. I think, you know, what you had asked before is a really great opening for the report. You know, you start with a vision of what we want and what we believe the community deserves and how we execute it properly with minimum environmental impact, maximum benefit for the community, and you know, that's kind of like the opener.

But I think that there are certain -- there's a framework that maybe we should consider. One would be the economics.

Uh-oh, I just lost you guys. Can you hear me still?

CHAIR PAZ: Yes, we can hear you.

COMMISSIONER SOTO: Okay. Hold on a second. I moved my mouse and that was all she wrote. Here we are.

CHAIR PAZ: Okay. You're back.

COMMISSIONER SOTO: You know, I have this brand new electronic mouse and I haven't gotten it yet.

And so it would be a regulatory framework that would have to take into account the economics, as well as, you know, not just the economics of whom the industry is going to give benefit to, i.e. the OEMs, anybody that uses or any sector that uses lithium-ion as storage. You know, my cell phone, the iPad that I'm watching this on, my Apple computer that's sitting here, all of it is lithium-ion.

So I think that there has to be a clear understanding from the what the market demand is and how it's going to continue to grow. I just think that part of our mandate is to dispel any notion or myth that this is an interim play, oh, that there's going to be something around the corner and why are we spending so much resources on it? That's not going to be the case. This is, you know, three generators of culling to finally get to the point where we can have electric vehicle range and talk-time range and so forth that is making the difference to allow us to do what we want to do here.

So I think, you know, it really has to go to market while not compromising but, indeed, bringing benefit to the quality of life and the

people of Imperial Valley, and then outlining the legislature and regulatory framework that incentivizes one to invest.

And the reason why Rod could do this with thermal resources is because he believes with strong conviction that not only is there a market there, but he could get folks to back him capital-wise to invest. You have one of the most wealthiest individuals in the world that owns Berkshire Hathaway committed to partnering with California. So there's reasons on both sides of the wealth spectrum that are pushing this.

So I think it's market demand, economics, legislative and regulatory framework, and then above all the community benefit which is the priority. All of this needs to go and lead up to how does this transform, in a meaningful way, in a beneficial way, people in the state of California and people in the Imperial Valley as a resource to rely on to continue to build not just a survivable community but a thriving community where you can build community wealth as a result of this unique resource and, hopefully, the leadership of this Commission?

That's all.

CHAIR PAZ: Thank you.

Are there any other comments?

COMMISSIONER WEISGALL: Are we talking here -- oh, go ahead Rod.

COMMISSIONER COLWELL: All right, Jonathan.

Yeah, I think just backing up, Tom's statement there, I think the structure itself, it's really regulatory. Community engagement, I think the points that Luis and Silvia brought up are very, very, you know, very important, so a structure around that. Maybe I'm getting to the workgroups.

But, you know, and moving on to the workgroups and so forth, the report, or both is really sort of streamlining something that's in place. You know, permitting is very important.

The tax credit situation, I think, to Tom's point, you know, for us to get a battery manufacturer here, and we're all collectively working and want this to happen, we're competing with Georgia and the Gulf Coast, really, you know? And we've got to be competitive to entice someone, so that might mean, you know, a five- or ten-year-type tax exemption to get -- attract

business.

And then we've got to look about the broader, sort of community side of it, meaning that future accommodations, you know, if you think about a battery plant, you're talking up to 2,500 to 3,000 workers; right? You know, so you've got to think sensibly about accommodation, how all that works, the, you know, bringing in the training, the jobs, the local community, bringing in, you know, new communities, I guess. It's a very complicated process that we need to carefully consider.

CHAIR PAZ: Thank you.

Jonathan?

COMMISSIONER WEISGALL: Yeah, I'll jump in. Well, let me just give one specific idea on workgroups.

I think we need a workgroup because I -- specifically on enterprise zone incentive kinds of issues -- Rod touched on that -- you know that I think that a couple of us could work on and then just present to the full Commission.

But there are just so many different ideas out there. There are enterprise zones. There's the California New Employment Credit,

California Competes Credit. There's -- oh, and there are all the acronyms, the EIFD, the, goodness, the Enhanced Infrastructure Financing District. There are CRIAs, Community Revitalization and Investment Authorities. And that's just California examples. There are other federal examples, as well, and federal opportunities.

So I would say that any final report should have not just a laundry list but a roadmap of all of those potential incentives, together with kind of how to get from here to there. And quite frankly, given the fact that Assemblymember Garcia has already -- already has a select committee on lithium, as we proceed, even this year, there's no reason we can't feed those ideas to the legislature if specific legislation is needed.

But you know, anyway, a specific subgroup on incentives, I think, would be important. And I would limit it right now to lithium production. I think if, you know, if it's broad -- if it proves to be broader, that's great, but that would be one area I would suggest.

CHAIR PAZ: Thank you.

Commissioner Guzman Aceves?

COMMISSIONER GUZMAN ACEVES: Thank you.

I was kind of looking back through the statute to make sure this isn't already in there, but perhaps a working group that can inform the other working groups as a group, or perhaps an exercise of the Commission as a whole, is to establish some goals, maybe on a five-year and ten-year horizon, by which our recommendations could be focused to meet?

And, certainly, Jonathan mentioned one goal which is the most targeted, which is what is our lithium production goal that we're attempting to meet over the next five years and ten years? And, obviously, the lens that I'm participating in this, I come at it because I would assume, once we have that production goal, we're then able to derive many other goals, generation of geothermal necessary to meet those production goals, as an example. But many other goals could be tied to the production goal, like workforce and training needs tied to meeting that production goal.

So I'm not sure if, perhaps, that exists already somewhere or if it's something that was

left open. But, you know, I know some of the other states have set targeted goals on production, so I guess that's one way to organize ourselves and really be focused on what is it, what's our annual lithium production over the next five years and ten years as a potential way to organize ourselves?

CHAIR PAZ: Thank you. That's a great idea.

Commissioner Olmedo?

COMMISSIONER OLMEDO: Yeah. Thank you, Madam Chair.

I just wanted to follow up on some of the previous comments and just offer a more general response, that I truly believe that all of us who are here, and I don't speak for anybody but, certainly, for myself, I think we're here because we want to see this industry become a reality, and we want to be able to see those benefits returning into the economically-depressed community.

A couple of things I wanted to highlight is, historically, opportunities have come to communities and disadvantaged communities, again, or environmental justice communities, and I'll

use that interchangeably, have been asked to compromise quality of life for jobs. I certainly don't want to necessarily make this the foundation of the conversation as to I understand the goal here is how do we get to the finish line; right? And how can we -- you know, what's the path to getting there? And how can we do it better than it's been done in the past and, at the same time, responding to the urgency of the opportunity that is there now?

One of the things I'd like to, again, bring back to, again, bring back to the discussion that I brought earlier is we may, at times, need to issue memorandums. And I'd like us to consider what that looks like, whether we have the authority to do that within the legislation? Is it broad enough that we may want to consider that, at times, to be able to keep up with those urgent matters while, at the same time, not compromising the goal of and the task of this Commission?

The other thing I do want to acknowledge, and it's a hot topic because we are in critical distress when it comes to the health impact of the Salton Sea, and that's going to be an

important conversation because we don't -- I certainly would not want speculation to be the driver of or to be a barrier of progress in making sure that every inch of that playa has been exposed that we know is at risk -- is a health risk, that speculation be the driver of whether we allow for health-responsive projects to move forward, and not allow speculation to be the driver as to how much, how and when those projects move forward.

That's it. I mean, I'll double-down my commitment to be here to see this through but to see it through in an economical and an equitable and just way.

Thank you.

CHAIR PAZ: Thank you.

I don't see any other hands, so maybe I missed one.

Commissioner Hanks?

COMMISSIONER HANKS: Thank you. I'd just like to jump in, just for a second here.

I'd just like to go back in time a little bit. You know, when we talked about geothermal, it's -- we had talked about it like it's something new, you know, on the cusp that's time

has arrived. But I'd just like to share this with you, it's been 50 years in the making. And it took a lot of effort from a lot of people. Yeah, there was some incentives early, but there was also commitments of long-term leases to help those that invested the time and the money and their creativeness to make it happen. So there is a foundation that is very critical in moving forward.

And I'd kind of like to piggyback on what I heard from Mr. Olmedo. We can't lose focus of where we're going. We're going to have a lot of workgroups. And, quite frankly, some of the workgroups that we discussed, I probably won't have much value on some of those, especially the marketing and so forth because that's outside my area. But I think as these workgroups come together, if we keep in mind that our goal is to find the optimal path within each workgroup to make this Lithium Valley happen, we can all point to hundreds of reasons why maybe we should advance as quickly or so forth, but our goal should be to find one optimal path forward and it should all come together.

Now time, for a lot of us, is not a lot

of time. I've watched that area out there since I was a child, the mudpots before there was any geothermal, and wonder, why in the world would God make such a place, you know? What value would this place ever have? And it has been a remarkable trip to watch it move from mudpots boiling up out of the ground with the sulfur smell and so forth to mining, exploring for oil, finding steam, and moving on to geothermal, and then the resources, so there is a foundation there.

So from my standpoint, yes, I'm with a public utility, energy utility and irrigation, so I try to look at it, my role in this Commission and these workgroups, okay, here's the foundation where this thing is going to spring up from. How can I assist in making that happen?

And so just let me share with you just a couple of things there, the things that, up to this point, we've run into. We've run into permitting, regulatory issues. We have environmental issues to look at. We have, as the geothermal comes together which will, basically, be the (indiscernible) coming up out of the ground, we'll be looking at power transmission

lines to get the energy out. You know, we are a public utility. We'll be working with private groups. We'll be working with marketing groups to find purchase power agreements to assist these geothermals in being efficient and productive.

As an Irrigation District, virtually all of them will be in our irrigation service area, and there will be a need for water. So we'll be looking at ways to conserve water to make it happen.

And so I just name a few of these just to show you that there's a lot of things that we look at and say, well, that's just too much to overcome. No. We have to look at the optimal path. And we all, when I look at this Commission, we all have skill sets that are very broad-based. And when we get into those subsets, it's going to be very critical that we focus, stay focused on making this happen, how, as a subgroup, we can contribute to make it come together?

A lot of these people I know personally. Some of them I don't know. And I'm very impressed with a lot of creative minds to make this happen. And regardless of how you look at

us, we're the foundation. We're the ones who are going to make it happen. We're going to build the foundation and we're going to have to pass that on up to the legislatures, and they're going to have to look at how they can accommodate some of the permitting, the regulatory issues and, at the same time, satisfy our environmental groups that will be working, looking out for people's health, the economic situation that we're in, and pull together.

But none of it happens if we lose focus, none of it. And I heard Supervisor Kelley. He's just like me. He has seen these opportunities come and go. They just kind of slipped through our fingers over the years. And this is one that is so critical, not only to the Imperial Valley and the Coachella Valley and the Salton Sea regions, but to our state and to our nation as a whole, to help us recover, to help us move on.

And not only is the lithium important for vehicles but for storage of energy. How are we going to make our energy sources reliable? We're struggling already because we're missing a couple of components. And geothermal can fill that row while we're also developing the lithium

production, and also with the storage.

So I just want to -- you know, when you were asking earlier, I held back. I'm not too proficient on this technical stuff. But I just wanted to give everybody that challenge, to just stay focused. This is huge, people, and I'm not talking just from an economic standpoint. All the things that I've heard, all the answers that has been shared here, it's big in every aspect. And I don't care whether you're looking at environment, I don't care whether you're looking at the economic side of it. I don't care if you're looking at the educational and the benefits to an are. That has, quite frankly, been forgotten.

So I just want to encourage everybody just to stay focused with it on these groups. I know that at times it will kind of take off in its own direction and you wonder, well, how is this going to come together? And at some time there's got to be that leadership that can reach out to each one of these subgroups and pull it together and make it happen.

So let's stay focused on this Lithium Valley. Let's make it happen and not get too

sidetracked with all of our silos or subgroups and make it a reality.

Thank you.

CHAIR PAZ: Thank you, Commissioner Hanks. And I do want to acknowledge that we're probably running a little bit behind the time for the panelists. But I think this conversation -- we need to go slow to go fast, and this is foundational. So I do appreciate we might not get to the vote on -- or, you know, establishing the workgroups at this meeting. But I think, just from what I'm hearing, there's a lot to take, both in the structure and the report and what it could look like, as well as the workgroups that can help us get through those sections in the report. So I really appreciate all of your comments.

And I believe, Commissioner Ruiz, I believe you're the last person here that I see with a request to speak.

COMMISSIONER RUIZ: Thank you, all, and thank you, Madam Chairwoman.

I think, you know, the opportunity it gives is unique right here. As an environmentalist, I've been paying attention to

the social, political, environmental implications of this region, and the opportunity to create a roadmap right here that will provide multiple benefits. And I've been concerned for a long time that all the different sectors working in silos work almost independent from each other.

Already we have, you know, at least, you know, I can say -- I can name at least three of the main huge issues here in the region, one being public health, we're talking about, you know, in correlation to the Salton Sea, the economy, and the environment. And I think, you know, the opportunity to come here and bring the expertise and bring in all the backgrounds, you know, from many years of experience, and I think, you know, here in the room, you know, we have so many different professionals from so many different backgrounds, and create a roadmap that will not only provide benefits to the people, which is, I think, you know, the main -- one of the main components. But also to create benefits for the environment that has been highly damaged and hurt by the traditional approaches; right?

So here we have the opportunity to create energy to clean energy, clean renewable energy,

and to provide so many different benefits from it. Let us not forget that the environment is so sensitive. And we need to look at it in a holistic perspective and not just, you know, as a collateral benefit.

As an environmentalist, you know, I see, and I can give you many reasons why, by investing in the environment protection, we're investing in public health, we're investing in the economy, we're investing in so many aspects of the community and the livelihoods of so many people.

So I want to reflect on the comments of Commissioner Hanks. Let us focus here and let us not work independently but, you know, let's bring the -- let's find the common denominator. Let's find those common grounds. And let us be dialectic in our approach. Let us see both sides.

And I hope, you know, it is my wish that we, especially for the environmental potential, it may not be a collateral benefit but it may be at the hub, you know, just like it will be the public health and the economy of the region, I hope, you know, that we can find this energy and the common ground, that experience and expertise,

you know, years from many of you and all of you, will be so beneficial as we take on this endeavor.

Thank you though.

CHAIR PAZ: Thank you.

So let me summarize just what I'm hearing, both in terms of the structure and the workgroups, just so we can have a running list that we can pick up at the next meeting, maybe when we establish the workgroups.

So in terms of the report structure, what I heard is having the following sections, a vision statement, maybe some principles, right, that's going to guide us in this work, keeping in mind what the community benefits or the vision for the community is, having -- and these sections are not in order, I mean, we'll decide what order they are presented -- but a legislative and regulatory framework, market demand, economics, community benefits -- what else? -- a roadmap. So those are the things that I heard from all of you.

And what I would add is sections on the infrastructure needs for the building out of the supply chain, for example, or even just for the

actual extraction of the lithium and putting it -- commercializing it. I would add another section on the environmental impacts, then to mitigation strategies. And a section that complements work that's happening at the Salton Sea, the mitigation and restoration of the Salton Sea.

I did also hear communities engagement and goals. And I think those could be throughlines. And goals, for sure, can be a throughline across all of the sections of the report, what are the milestones, and by when, you know? We want to hit those. And community engagement, I mean, I think that could also be, maybe, a practice; right? As we're developing the vision and the community benefits, maybe having a workgroup that focuses on engaging the community and developing or co-designing those with us, informing.

So transitioning to the workgroups, what I heard we should consider are, let's see, well, workgroups on community engagement, maybe a workgroup on each of the portions of the report. And some of these I'd overlap already with some of the eight components that the legislation

lined out for us. I don't know if there was -- yeah, I think they outlined pretty well, other than the community engagement, maybe, workgroup.

So that's more or less what I'm hearing. And did I miss anything?

Elisabeth, do you think this would be helpful for us to prepare for the next meeting and just having them outlined?

And people, between now and then, if the Commissioners can start thinking about which workgroups they would like to serve on and participate, that would also be helpful. And it will help us get moving in this direction by the next meeting.

MS. DE JONG: So, yes, to respond to you, we can workshop that and propose a list for the next meeting.

CHAIR PAZ: Thank you. All right, so I think then we -- I don't think we need to vote at this point. Can you verify that, Elisabeth? We'll just leave it at that and open this section for public comments.

MS. DE JONG: Correct. And just to clarify, we do have some legal presentation that we can present. We can defer that to the next

meeting before voting on the subgroups?

CHAIR PAZ: Yes.

MS. DE JONG: Okay. So if we don't have any more comments then from the Lithium Valley Commissioners, we can turn to public comments. I do have one comment that came in from Laurel Lees.

And let me go ahead and un-mute you in just one second. Okay, I have given you that ability to go ahead and speak.

MS. LEES: Hi. Thank you. This is Laurel Lees. I am employed with Controlled Thermal Resources. And I'm also on the State Board or Directors for the Association of Environmental Professionals. That means I'm a CEQA-NEPA practitioner and an environmental compliance expert.

And my question is: How will the Lithium Valley's general report structure not overlap with existing environmental compliance regulations under CEQA and NEPA, such as identifying mitigation measures? Because those are already covered. These environmental laws are very, very restrictive against negative environmental impacts. But there's no incentives

for projects that propose positive environmental impacts.

So in short, how will the Lithium Valley Commission's general report ensure a conscious action will be taken efficiently and effectively to streamline development that has a positive impact on the environment, society, and economy?

CHAIR PAZ: Thank you, Laurel. We will keep that in mind as the report and the recommendations are flushed out, but I appreciate your comments and questions.

Is there any other public comment?

MS. DE JONG: We did have a comment from Rebecca Zaragoza.

Would you like to speak that now? Okay, hold on one second. I see your hand raised. And, okay, go ahead and speak.

MS. ZARAGOZA: Hi. Thank you. My name is Rebecca Zaragoza. I work with Leadership Counsel for Justice and Accountability in the Eastern Coachella Valley.

And I wanted to bring my comment up now because I can't stay for the full meeting, but I did make a public comment at your first Commission meeting about conducting a community

workshop or a community info session, just to provide a space and inform community residents about the work that you all are doing with this Commission and just, you know, introduce yourselves as Commission Members and sort of explain, you know, what the purpose of this Commission is, you know, how residents can stay informed, and give an overall review and overview of what lithium is, what lithium extraction is, how that connects to the existing geothermal activity that's already happening and, you know, clarify if there are any like potential impacts to the Salton Sea, or air quality, or the environment, those types of issues.

So I just wanted to bring that back up and see if there has been any follow-up to those comments?

Thank you.

CHAIR PAZ: Thank you, Rebecca. I can certainly really discuss this prior to the next meeting and get some direction, also, from Legal about how this could happen without violating Bagley-Keene or whether it would have to be a formal meeting, so we'll follow-up on that. Thank you.

MS. DE JONG: I don't see any other --

CHAIR PAZ: Any other?

MS. DE JONG: -- hands raised or written questions.

CHAIR PAZ: Thank you. Okay.

So we can -- we now have a presentation on the lithium market. So again, I think the purpose of the presentations and the panels also come from some requests from the first meeting about getting us all sort of on the same level and same page before we move too far ahead. So we hope that these two upcoming presentations and panels meet that request.

So do we want to introduce Logan Goldie-Scot from Clean Power Research, Bloomberg. And they're going to be giving us a presentation on the lithium market. I think we can get started.

MR. GOLDIE-SCOT: Perfect. Well, thank you. Thank you very much, Chair, and for all the other Committee [sic] members, and for all the members who -- all the sort of other sort of attendees today. My name is Logan Goldie-Scot. I head up the BloombergNEF, which is a strategic market research sort of company focused on the new energy transition.

Next slide please.

Now what I would like to -- what I'd like to do is give an initial view on demand, where we see, basically, demand for batteries, in particular, going and how that affects our global lithium demand? I'll talk about a few of the dynamics that currently exist in the lithium market today. And then think about how the market is changing and how there are sort of opportunities here in California and in the U.S. more broadly for lithium development.

Next slide please.

So the starting point is the -- we expect the largest segment of lithium-ion battery demand to be for passenger electric vehicles. And you can see, this market is really beginning to take off now where in 2021, so this year, we're expecting 4.4 million passenger electric vehicles to be sold globally.

China, which is the red series here, has been the largest market for passenger electric vehicles in recent years. But, actually, if you look at the green series what's really notable is how quickly this can change. So stricter fuel economy standards and sort of government supports

in Europe has actually resulted in a surge in passenger electric vehicle sales. And in 2021, we expect Europe to overtake China as the largest market.

At the moment, North America is sort of lagging somewhat behind in terms of passenger electric vehicle sales. But we have expected, sort of, regulatory and policy changes over the coming years, partly associated with the change in administration. We believe there's a significant sort of upside there.

Next slide please.

So what does that mean ultimately? In a conservative scenario, you're looking at roughly a tenfold increase between 2020 and 2030 in lithium-ion battery demand. As you can see here, the biggest single segment in our outlook is passenger electric vehicles, so that light blue segment, although this is complemented by demand from commercial electric vehicles, ongoing demand from sort of consumer electronics, so the iPad that was mentioned before, as well as stationary storage.

Now I mention, this is a conservative scenario. That's because it is not tied to

recently policy developments. It's actually tied to sort of a pure, pure, pure, pure economics. Clearly, the change we've seen in Europe, expected change in North America, could see actual battery demand significantly sort of greater than this over this period.

Next slide please.

So we've gone from electric vehicle demand to battery demand. Now, just in terms of what this means for battery matters, you can see that that sort of conservative estimate is still in a tax as a change in lithium demand over this period. And then you also have significance for the increase in demand for other battery matters as well.

Next slide please.

So the focus of the Commission and today's session is clearly on lithium. And so if we take a look at the next slide, I just wanted to highlight a few sort of, I'd label them risks but it's really dynamics that are currently sort of present in the global lithium market, because it's worth understanding how this market has developed over the last few years.

So the first is supply control. Then

we'll talk about sort of high costs and low prices, high debt and project delays. And let's start with supply control.

Next slide please.

So these two charts here show the metric tons of nameplate manufacturing capacity for lithium metals, so not lithium carbonate equivalent, so different unit, but we're talking about, essentially, the same thing. And we'll show the other unit on the next slide. But for me -- oh, no, no, sorry.

So from a supply standpoint, a global lithium market is one that is dominated by a relatively small number of countries. So you've got significant activity in Australia, in Chile, in China, and sort of Argentina, as well, in terms of sort of actually sort of production capacity at the moment, so relatively, sort of, geographically concentrated, and very little activity in the U.S. so far.

Next slide.

And from a supply-demand perspective, what you can see on this chart, and it's a slightly busy chart, but the columns are demand, and then the dotted lines are sort of our global

de-risk supply. So what you can see is demand is increasing. That's what we've sort of talked about earlier in this presentation. And on the different supply scenarios, really as a result of the uncertainty around the economic recovery off the back of COVID, the different supply scenarios, you do see a relatively tight market but a market that is sort of in balance in the near term. But in some years, definitely, sort of falls into deficit if -- depending on the scenario.

And so from a supply control standpoint, what you're looking at is a few countries where most activity is happening, they're rapidly increasing demand, and sort of the resultant need for, actually, a very sort of a steep optic in lithium supply globally.

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Now one of the sort of issues, I guess, that has been very present in the lithium market over the last few years is, even though many sort of -- many companies who are active in the market have been looking at that or sort of predicting that sort of a battery demand and that surge in lithium demand, sort of that it's coming and that

it is now beginning to materialize, that has not -- that sort of expectation has not yet being -- or has not, until recently, really started to be sort of priced in.

And what you've seen -- what you can see in this slide is for lithium carbonates, and we could share the same data for lithium hydroxide, actually, since 2018, lithium prices have been relatively low. So you've had this prolonged period of low prices, despite that significant sort of increase in expected demand. And that, clearly, has put pressure on whether resources or whether new lithium resources can be brought online in time and whether that's their sort of price signal to sort of -- to secure sort of investment for those resources.

So that's often a common theme that you will have heard about of we won't have enough lithium supply to meet demand because not enough investment has been sort of going into the space. Now our expectation, and I sort of confirmed this with the CEO of Lithium Americas on a sort of video interview recently, our expectation is that meeting that demand over the next sort of five, ten years globally is attainable, but it would

require monumental change. It would require more resources being developed incredibly quickly and investments sort of coming online or investment feeding into the space. And so -- and that is not the backdrop that we -- the market has been operating in because of these low prices.

Next slide.

And the other consequence, I guess, of sort of this prolonged period of low prices has been that many lithium producers have sort of accumulated debt. And what you can see on this slide is a leading sort of a lithium company, Tianqi. It actually sort of back in sort of 2018 acquired -- took on significant debt in order to make an acquisition in another leading lithium company called SQM, so this is a Chilean company. And actually, amid this backdrop of low prices, that has resulted -- or that did result in some challenges for Tianqi in terms of sort of a pending loan maturity debts, I guess. And actually, that was just sort of an acquisition relatively recently that helped sort of alleviate that.

And so the reason why I mention that and why I've gone, actually, quite deep into a very

company-specific piece here is just to illustrate the challenges that can be caused in a market off the back of sort of recent low prices. But the good news, if you noticed it on the previous slide, is at least early this year it does look like there's at least an initial sort of uptake in lithium prices, which gives more confidence and might reflect that growing consensus around battery demand and the need for lithium resources more globally.

Next slide please.

So that backdrop of like, actually, probably remarkably tricky last couple of years, but a fairly sort of optimistic outlook in terms of demand, in terms of need for materials, it also poses this question around where will those resources come from? And here, I've titled this section Strategic Investments, but really this is around sort of geographies and where the U.S. sort of may fit in here.

Next slide please.

And I think one thing that has been mentioned, and sort of Rod talked about this early on in the call, is this need for -- need, when understanding the opportunity, to also have

a sort of a bit of a clear view on the whole production value chain, so starting off, as I did in this presentation, understanding where will electric vehicles, where will batteries be sold? Where will batteries be made? Where will the components be sourced from that go into those batteries and, ultimately, where the raw materials come from? So we don't need to dwell on the details here. But, really, it's just to reinforce a point that was made earlier in this session of when trying to map out the opportunity in Salton Sea and the Lithium Valley, understanding, taking a holistic view is clearly going to be important.

Next slide please.

And I think what we can see, just in terms of understanding what the other parts of that value chain look like at the moment, it's -- well, this is, hopefully, sort of useful context. So these two charts show commission and expected commission capacity in 2020 and 2030 for lithium-ion cell manufacturing. And it's broken down by geography.

So in 2020, you're looking at just sort of the 500 gigawatt hours of global cell

manufacturing capacity, the vast majority of which is located in China. It's very much sort of a China play at the moment. And then a relatively even split between activity in Europe and the U.S.

But if you fast forward a decade, this is not a forecast. This is purely based on company announcements. Reality will clearly be different as different companies sort of announce new plans or fail to deliver or to execute on existing ones. But looking forward you can see the potential way in which this market is changing. So as passenger electric vehicle demand has soared in Europe, so has the supply chain. The supply chain has begun to respond and so you see a flurry of announcements, most recently by Volkswagen, to have its own cell manufacturing capacity. So lots of announcements there.

If you think of the U.S. which, based on current announcements, has sort of ceded market share or cedes market share over this period, actually, we do expect that to change. As you see fuel economy standards, as you see President Biden, sort of President Biden and at the state level, broader support for electric vehicles, we

expect the supply chain to sort of -- to catch up there. And so this is -- this slide, I guess from a cell manufacturing perspective, is an expected call to action for manufacturing in the U.S. And it also does show how quickly things can change.

Next slide please.

But as I mentioned, it's important, when thinking about the opportunities for lithium development, to also understand everything from that sort of end customer through cell manufacturing, also, to sort of -- to the different components.

And just to highlight, on the two main components here, so cathodes and anodes, in both cases the story is remarkably similar where this is a segment of the market where activity today is heavily concentrated in Asia-Pacific, so China playing a very, very large role, but then also activity in Japan and Korea which goes alongside your sort of -- your understanding of leading battery players in these markets, such as LG Chem), Samsung, SCI, or Panasonic.

Next slide please.

Very much the same message here. The

previous slide was on cathodes. This is on anodes.

Next slide please.

So the point of all of that detail, I guess, is to say at the moment most value in sort of -- and they're, actually, they're called batches sold in the U.S., most of that value is actually being sort of accrued outside of the U.S. And I guess this is why we're having this discussion today. And this is something that is sort of very much on state level and federal level sort of policymakers minds at the moment.

Here I've just shown two examples of what that looks like. Both are illustrative, just based on sort of expected supply chain mapping for sort of different configurations.

One, you can see how in a -- if you're manufacturing cells, in the cells in the U.S. in the sort of Tesla/Panasonic-type configuration, actually, your source, you're accruing around half of the value in the U.S. here. But clearly, because you're sourcing your lithium from elsewhere, because you're sourcing your raw materials and your components, I mean, a lot of this -- a lot of the value is actually being

accrued elsewhere. That's sort of a significant goal for Japan and China still. And a similar setup for illustratives for Korean manufacturer who would sell manufacturing operations in the U.S.

And so this is the current state of play. And I guess the topic of the day is how to increase that blue series in these charts, how to ensure that you have more value being accrued in the U.S. and, yeah, how do you show more jobs in the U.S., I guess, is a different way of thinking about this?

Next slide please.

So this slide seems to have been chopped up in the transfer, I think, to the master deck. But never fear, you can see this slide in a press release or in the main document, it will be listed. Essentially, what this shows is the results of a battery supply chain ranking where we've ranked countries across the world based on 2020 activity and 2025. And the U.S. in 2020, based on a mix of different factors, ends up coming in sixth place, so lagging some of these sort of Asia-Pacific countries.

Next slide please.

And that is based on sort of what raw materials are available, and also being sort of access in North America so far, what components in cell manufacturing is currently located sort of in different regions, environmental considerations, sort of regulatory and infrastructure considerations, and crucially, demand. And at different events with the CEC I've sort of stressed this point, and it's just worth really flagging again, of it's incredibly important in terms of value, accrued value across that supply chain, if you're end demand is local.

So America is one of a few major automotive markets here which puts in a natural position of strength. But it really does require sort of policy intervention, which we expect to come over the next couple of years, to change that, to stop electric vehicle sales and battery sales in America lagging. And so that is incredibly important in terms of aligning everything from lithium extraction all the way through to the end customer.

Next slide please.

And so we have these going, sort of U.S. companies going sick. But this rapidly growing

demand does create sort of clear opportunities for lithium extraction and other materials of extraction in the U.S. that are certainly worth exploring. You can see there are some sort of clay resources here. And then, of course, the Salton Sea piece that we're discussing today. And so, again, the U.S. is in a natural position of strength in terms of its ultimate sort of demand potential as a major automotive market. And it also actually has some fairly interesting sort of resources, notably the -- or certainly including the Salton Sea one.

Next slide please.

So again, I think this, for those on the call, is probably worth checking the original presentation that I've sent across because the formatting has been slightly lost here. But the message actually, fortunately, is still -- can still be conveyed.

Here you can see the cash-cost curve for lithium-clay resources in America. So the (indiscernible) project and then the Reach (phonetic) projects. And what we've found, that we have a model way you can look at your operating costs, and then your cash costs, which

also considers sort of local royalties, taxes, et cetera. And if you just focus on where I've sort of outlined U.S. clay here, what you can see is that on a cash-cost basis, like even for this unconventional resource, we do believe that as sort of a path to be competitive.

Now we haven't done this analysis for Salton Sea resources. I defer to others on the call here. If you have information that would allow us to do this analysis, then you have my email address, and we'll definitely be sort of adding it to the model as soon as feasibility studies are done and as soon as this information becomes available.

But, essentially, the point is the U.S. does have resources. And from the studies we've seen so far, they can be competitive, especially once you start linking the synergies of some more vertically integrated supply chains in the country. Clearly, lots of factors to consider. And these have been mentioned earlier on the call around environmental permitting, sort of figuring the sort of best practice around sort of indigenous and community rights, and understanding sort of what type of jobs are

available and how does this actually sort of pan out? But there is lots to be sort of -- lots to be excited about.

Next slide please.

Okay, and so this slide actually does seem to have somewhat survived the formatting. But the final slide from my side is, essentially, the outlook for the creation of a U.S. battery supply chain is fairly positive. I mentioned before, 2020 rank in the U.S. is in sixth, is lagging sort of China, Japan, but also sort of South Korea and other nations. But when you combine what we expect to change over the next, what, now four years in terms of regulatory changes, in terms of sort of raw material production and batteries, sort of cell manufacturing and component manufacturing, actually, there's a lot to look forward to here.

So a very interesting situation to be in. Clearly, we're sort of at the start of a journey here. But, certainly, if the one key -- if there's one takeaway from this presentation is that we are -- we expect electric vehicle -- well, actually, we expect lithium-ion battery demand to be increased rapidly over -- in the

near term, medium term, and long term as batteries, essentially, underpin the decarbonization of both power and transport. Eight out of twelve global economies now have near-zero goals. If the U.S. sort of joins them, this will accelerate even further. Even if the U.S. doesn't, then you're still looking at clear progress over the next few years in terms of decarbonization.

None of this happens without batteries. Batteries are heavy and expensive to ship. At scale, it will often make sense to manufacture them locally. And then there are advantages, if you can close to your component manufacturing and your raw material manufacturing.

So next slide.

And thank you. Thank you very much everyone.

CHAIR PAZ: Thank you, Logan.

Now we will open it up for questions from any of the Lithium Valley Commissioners. If you can please raise your hand on the screen so that I can call you?

MS. DE JONG: You have a hand raised from Rod Colwell.

CHAIR PAZ: Thank you.

Rod?

COMMISSIONER COLWELL: Hey, Logan. I just wanted, yeah, I just wanted to say thank you. That was a very comprehensive slice and dice of what's going on in the market. You know, I agree, the U.S. has probably been, respectfully, you know, holding back before they industrialize. I think there's a feeling of sort of watching it unfold, is this real or not? But you really should look at the self-corporate governance of, you know, big auto and others who have their own mandates. So it's not as strict as, say, Europe in the sense.

And you know, the comment of sort of supply chain is real. I think, you know, Jonathan probably can attest to this. But we -- you know, Salton Sea feels unique in a way where we'll produce a battery-grade lithium hydroxide onsite. It doesn't need to go offshore; you know what I mean? And I think the opportunity here is going for cathode, rather than crystalizing that and then sending it off to rehydrate it to make -- you know, and a 20,000 kilometer carbon footprint for shipping, those cost factors, I

think, are being quickly worked out now for that supply chain opportunity. So the technical process is quite, you know, reasonably straightforward.

Cash costs, I think, were in with clay, I would say without saying it; right? I think we're very -- and all-in opex all-in cash costs. And the advantages is that we produce (indiscernible) steam to run the lithium facilities. It's about, you know, a 20 percent excess steam in former various energies. So that's in electricity, of course, and everything else that goes with that. And I totally agree with the alignment of the Biden-Harris Administration with the California government. It's just wonderful to see that unfold. And then, again, Jonathan is probably more wide on that.

But look, thank you so much, Logan. That was really, really helpful.

MR. GOLDIE-SCOT: Thanks very much.

CHAIR PAZ: Any other questions?

MS. DE JONG: I don't see any other. Oh, no, I don't see any other Commissioner hands raised.

CHAIR PAZ: Okay. So we can go to public comments at this point.

MS. DE JONG: Okay. So just a heads-up for public comments, if able, we can answer the questions. We may or may not be able to answer your questions during the meeting right now. But if you are joining via Zoom on the computer, please use the hand -- the raise-hand feature. And if you've called in, please dial star nine, and then star six to un-mute yourself. First we'll go those hands that are raised in the Zoom application, and then the phone. I see one comment -- or one hand raised.

Mike -- oh, you're -- oh, there it is -- Garabedian, if you want to go ahead and speak?

MR. GARABEDIAN: Hi. Thank you. Mike Garabedian. I'm in Lincoln, California. But in an earlier part of my life I was a volunteer fireman in upstate New York. And the factor that needs to be taken into consideration, though it's -- and it's not really premature, are lithium battery fires in cars that I think most or a lot of the first responders aren't -- haven't been trained in it to understand how to deal with them. Because there have been a

handful of cases where the fire -- the car is towed somewhere and the fire erupts, you know, a few days or a week later.

So that's -- I don't have any idea if that's a significant issue that would affect the market or not. But there may be a growing awareness of that. And if that isn't looked at in the analysis, I just suggest that it should be.

Thank you.

MS. DE JONG: Thank you.

I don't see any other hands raised at this time.

Well, thank you, Logan.

We'll go ahead and move on to the next item on the agenda.

CHAIR PAZ: Thank you. Yes. So we will now have a panel of developers and experts to discuss the following topics related to lithium battery development projects, company status, timeline, milestones, hurdles, comparison to other lithium resources, and other related topics. So we have invited Michael McKibben from UCR, Jonathan Weisgall, who you all know, and Rod Colwell, who you all know as well. And we will

take them in that order, so --

MR. MCKIBBEN: Thank you, Silvia.

So I've been studying the geology of the Salton Sea geothermal field since the 1970s. And I'm going to give you a geological perspective on the resources there and then place that in a bit of a global context.

I do feel compelled to disclose that I have been and am a consultant to some commercial parties who are looking to extract metallic resources from the field.

So next slide please.

So if you've been down to the Imperial Valley, you may have seen this strange linear feature along the mountain range. And that's a bathtub ring of tufa, or limestone, from the high stand of Ancient Lake Cahuilla. And it's important to know that this infilling and evaporation of the northern part of the Imperial Valley has occurred hundreds to thousands of times over the last several million years.

And so this has led to an accumulation of a very deep basinal sodium chloride brine beneath the valley, and that's shown on the next slide. So Robert Rex mapped out this bring pool. It's

normally down at about five kilometers depth. And every black dot within that colored area is a well that encountered a hyper-saline brine.

Around the Salton Sea geothermal field, because of the igneous activity there, that brine actually gets heated up and expands and comes near to the surface. So you can find it as shallow as a half a kilometer deep in the middle of the Salton Sea geothermal field because the magna at great depth has heated it up.

Next slide.

So as that brine has moved up through the sediments, it's interacted with them. It's changed them to a metamorphic rock. It's leached a lot of the metals out of the sediments. And you now have this very saline metamorphic brine that's loaded with valuable metals, including lithium.

And so the picture on the right shows the reservoir rock. It's actually not an aquifer. It's metamorphic rock. You can still some remnant sedimentary structures but it's very dense. It's highly fractured because of the faulting and tectonics and the seismicity of the entire valley. And so it's not an aquifer, it's

a fractured metamorphic reservoir.

Next slide.

And the brine sits in those fractures.

So the obvious question is: How much lithium is there?

And to do that, you need to estimate the volume of brine in the reservoir. And you can do that in a conservative or pessimistic way and just take the current installed capacity and calculate how much brine down to a commercial production depth of about two kilometers, or you can be a real optimist and take the ultimate capacity that field has, which is close to 3,000 megawatts, and calculate the brine volume that would be down to a commercial production depth of 3,000.

So if you do that, you end up with a range of brine volumes from a little over 5 cubic kilometers to a little over 33. And you could call that the pessimistic to the optimistic range.

Next slide.

So you can then take that brine volume and take the lithium concentration and come up with an estimate of how much lithium is there.

And there's somewhere between 1 million to 6 million metric tons of lithium metal sitting in those brines. I'm quite confident that, actually, 3 million is probably the minimum. And you can multiple these numbers by 5.32 if you want lithium carbonate equivalent. And you can multiple them by 6.05 if you want lithium hydroxide on a hydrate equivalent.

But these are huge numbers. That's more than the total U.S. reserves of lithium from traditional sources, which is shown in the right-hand column, about three-quarters of a million metric tons. And the value of lithium, the amount of lithium in the Salton Sea, is comparable to the reserves of each of the four major global producers, so Argentina at 2 million, Australia at 4.7, Chile at 9, and China at 1.5.

Next slide.

So, in fact, the Salton Sea geothermal field has the largest tonnage of any known lithium brine deposit. So this is a plot of grade, on the vertical access, grade parts per million of lithium versus total tonnage of brine on the horizontal access. And you can see that

the Salton Sea geothermal field actually lies off this right-hand scale of this diagram. So it is the largest lithium brine deposit in the entire world.

Next slide.

So we can now start thinking about depletion of this brine if we start pulling lithium out. And these are just sort of back of the end calculations and we need to refine them. But I took Besseling's production data from the CalEnergy plants at their current capacity and their future capacity, so that's 17,000 metric tons per year and 40,000 metric tons per year, and compared that to the total reserves that are in the field.

And if you favor the optimistic end of the estimate, like I do, the depletion rate is less than a percent per year. And what that means is you potentially have hundreds of years of lithium production that's feasible out of this field. So it appears sustainable but we need a more dynamic and detailed lithium reservoir model.

So the next slide shows that several of us from UC next week are going to actually pitch

to DOE an improved lithium reserve estimate for the geothermal field. This is being led by Pat Dobson up at Lawrence Berkeley Lab. And we want to try and figure out, really, how much lithium is present in detail, how much is recoverable, how rapidly that lithium concentration might decrease as we produce and reinject brine? And then another question is: If we're reinjecting brine that's been stripped of lithium back into the reservoir, which is where it's going to go, will it pick up new lithium and be replenished? So these questions we could answer with some research.

Next slide.

So I think the Salton Sea lithium can clearly help fill in a looming supply gap that the previous speaker pointed to, that by the end of this decade we might have a problem between lithium demand and supply.

And if you see, the lower figure shows that right now there are 30 lithium extraction facilities on the globe. By the end of the decade, Benchmark Minerals is predicting that number will more than double. A lot of these that are coming online are direct lithium

extraction brine projects. And some of the producers that have been using more traditional evaporation and precipitation techniques, such as up in Clayton Valley, have announced that they're now going to convert over to direct lithium extraction to replace those.

Next slide please.

So things to watch, and the previous speaker alluded to these, are what's going on in the Smackover Formation in Arkansas, and then in the Alberta oil fields up north of Calgary. These are oil field brines that are either being processed for grooming now or will soon be processed. And companies are proposing to add on lithium extraction, direct lithium extraction circuits, to those. And then they're talking about target production rates of 13 tons per annum of lithium metal and 25,000 tons per annum of lithium metal.

These facilities are already surrounded by existing oil field and chemical processing infrastructures, as well as a skilled workforce population, so they do have some advantages in competing with the Salton Sea in its current state.

So in conclusion, I think it's pretty obvious that there's a large lithium reserve in the Salton Sea geothermal field, at least 3 million tons of lithium metal. They appear to be sustainable over several power plant lifespans of production.

And so I urge the Commission to think about things that have been already talked about, like tax credits and other incentives that both the local and state and even federal levels that will be helpful in making the Salton Sea lithium project competitive with some of these other brine and clay resources that have been talked about.

Thank you.

CHAIR PAZ: Thank you, Professor McKibben.

Next up we have Jonathan Weisgall, who is the Vice President of Berkshire Hathaway Energy.

Jonathan?

COMMISSIONER WEISGALL: Thanks Silvia. Yeah, let me -- I quickly want to address some of the questions that you wanted, the status of air project timelines, milestones, hurdles, comparison to other lithium resources.

So let's start with that first slide, if we could?

Here's just an aerial shot of our geothermal facilities. We've got ten geothermal plants that produce about 350 megawatts of electricity. We sell to Imperial Irrigation District, Riverside, Sacramento Municipal Utility District, and others.

And if you would go to the next slide, please, you can get a view of one of our plants, the Elmore facility. And this simply shows you the proximity to the Salton Sea. These plants are pretty much on the southeast corner of the sea.

We've been operating these plants for over 35 years. We've got a workforce of about 225 people who work in Imperial County and pretty much reflect the demographics of the county and paid about $45 million in property taxes in the last eight years.

So what you see in those facilities, we've got 23 production wells that range from about half a mile deep to well over a mile and bring up that geothermal brine, as you heard from Professor McKibben, very hot temperatures up to

500 degrees Fahrenheit. So that's a little bit of the background on our facilities.

If you could go to the next slide?

Let me just review status and timelines. We are working on two separate grants for demonstration projects. So we are very much -- we're beyond the proof of concept, the laboratory phase, but we are far from commercial.

So we are at the demonstration phase with two projects, one from the California Energy Commission that we received in May of 2020. And the purpose there is to show that we can recover successfully that lithium that you've heard about from our geothermal brine. That's a $6 million grant under the EPIC Program. And we need to match that with at least $4 million of corporate funds. Any overage is pretty much our nickel if we can't do this for that price tag. The goal there is groundbreaking in April of 2021, which will be just, really, we hope, in the next couple of weeks. And to be in service by January of 2022 with that demonstration plant.

Part of the contract is a knowledge and transfer component. That's a requirement of the Energy Commission grant to, essentially,

socialize what we are going to be learning with the grant. And we are partnering with other folks at the University of California Riverside and with Lawrence Berkeley National Lab to help on that. Now that project will give us lithium from the brine in the form of lithium chloride. The final feedstock that goes into a lithium-ion battery is either lithium carbonate or lithium hydroxide.

So that led to our second application for a research and development grant. And again, in a competitive solicitation, much like the first one, we filed with the U.S. Department of Energy, oh, roughly June of last year. And we won that award in January. And that is a $14.9 million grant with two purposes, number one, to demonstrate, as I just explained, that we can convert that lithium chloride into battery-grade lithium hydroxide.

And then another part of the grant is actually to fund the engineering for full-scale commercial operations. That grant, also, is a matching grant. So we will be matching that with $14.9 million of corporate funds. We hope to finalize the contract with the Department

sometime next month or in May. And we want that demonstration project to be in service in the Fall of 2022.

I'm not going to go through -- and you wanted me to handle all of this in a couple of minutes, so let me skip over technology and really get to the next important point that you wanted covered here -- yeah, you can go to the next slide -- which is really to compare -- comparison to other lithium resources.

So what I want to do here is show you how lithium is produced in these other countries that you heard from, from Logan with his various charts.

As you can see here, in Australia, hard rock mining is the technique that is used. Huge rocks with lithium and other minerals are extracted from these open-cut mines which leaves gigantic scars in the landscape. A lot of water is needed. And it actually releases about 15 tons of carbon dioxide for every ton of lithium that's mined.

So you can see the huge physical footprint. You can see those, maybe, 40 or 50 homes there on the left side of the slide to give

you some perspective. But the alternation, physically and ecologically, of the landscape is kind of staggering. And that rock, then, is shipped overseas, mostly to China, for further processing. And about 95 percent of all of it is discarded.

If you could go to the next slide?

This just give you another view, just to see how intrusive this process is.

Now the other part of the world which supplies most of the lithium -- if you could go to the next slide? -- Chile and Argentina. So here's an aerial view of the Atacama Desert in Chile. Lithium there is extracted by pumping large amounts of brine from under the surface into these so-called evaporation ponds, although measuring them, some are about half the size of San Francisco, and these are thousands and thousands of acres of ponds where that briny water is left to evaporate, leaving behind lithium chloride, much like we'll be obtaining from our geothermal brine.

This takes place in the Atacama Desert, the driest place on earth with severe water shortages. It requires a huge amount of water,

about 500,000 gallons per ton of lithium.

And if you go to the next slide you get a sense of the footprint. You see in that lower left-hand corner there is someone standing up on a ridge. And you could imagine the impact on the groundwater or the land subsistence, the destruction, really, of the desert ecosystem as local residents and farmer are getting less and less access to water. And it's actually having an impact on companies that are hoping to extract more lithium from those ponds.

It's causing some very serious problems with the huge, huge impact on the desert ecosystem, not to mention the fact that these ponds also expose the lithium and other chemicals directly to the wind, potentially impacting air quality, kind of a little bit like we're seeing a the Salton Sea with this residual salt waste simply out there, subject to the weather, and the impact, not just on humans but flora and fauna as well.

I do want to -- that's, I think, all I have in my presentation. What's that next slide there? I guess that's -- okay.

I do want to quickly -- Silvia, you had

asked a couple of questions, so let me just take one more minute and address the three questions you've had. And I do want to say that we've already had, and this response, Luis, to some of your points and others that we've heard, we've had one townhall meeting. It was on March the 9th, I believe. We had about 150 people tuning in. And we've had another one on March the 15th under the auspices of Assemblymember Garcia's office with a number of local groups.

We really do want to stress community outreach and community involvement with environmental groups or others to let you know about the project as it goes forward. Now, we want to be transparent. I will tell you, we are in the beginning stages, but it really is important for us to let folks know what we are doing.

And, Silvia, that leads to your three questions. I can cover them very quickly. You wanted to know any impact on the water levels of the Salton Sea?

And the answer, really, is none at all. The geothermal brine we use, both for the geothermal operations and the lithium recovery,

is completely disconnected from the Salton Sea. We draw that brine, as you saw from Professor McKibben's slides, it's from a separate source altogether, a subsurface reservoir that beings at least half a mile, well, maybe a little bit less, below the base of the Salton Sea.

Your second question, in the process of injecting the brine back, where does it go, and does any of it stay in the Salton Sea water or enter the aquifer?

Lithium recovery will involve processing that geothermal brine, of course, before it is injected back into the reservoir where it originally came from. So that lithium recovery process is designed to return more than 99 percent of the fluid in the brine back to the geothermal operations for injection into the reservoir. It's obviously in our interest to keep that reservoir going, a little bit like a pot on a low boil, if you will, but we want that reservoir to stay solid. In fact, we've seen no decrease in pressure in that reservoir in 35 years. The fluid is completely nonhazardous. And this process also has nothing to do with the Salton Sea. It has no impact on the Salton Sea.

Your third question was will other ingredients be used as a catalyst for the extraction and production of lithium that may leave a hazardous byproduct and what happens to those?

And the answer is, yes, hydrochloric acid and sodium hydroxide will be utilized as chemical reagents. But they are recycled in the process, so there will be no hazardous byproducts.

Let me stop there. And, obviously, glad to answer any questions.

Thanks very much.

CHAIR PAZ: Thank you so much, Jonathan, for the presentation and for the very succinct answers to the questions I had posed. I appreciate that.

We will now invite Rod Colwell, who is the Chief Executive Director of Controlled Thermal Resources.

COMMISSIONER COLWELL: Thank you, Silvia.

And next slide please.

So a little bit about all the Hell's Kitchen Lithium and Power project. We're located just slightly north of Berkshire's plant and adjacent to Energy Sources plant. The photo

there, that indicates the mudpots of the volcanic activity that's happening that Commissioner Hanks mentioned earlier.

So our first stage of development is a 49.9 megawatt plant in which we have contracted that power to IID, coupled with a 20,000 metric ton per annum LCE or, actually, lithium hydroxide facility, with power delivered in '23, end of '23, and lithium coming online Q1 2024. The resource capacity, as Professor McKibben and Commissioner Weisgall mentioned, it's a large homogenous resource. We could produce, ultimately, with our leases in contiguous lanes, 300,000 tons LCE fully developed, which is equivalent to approximately 1,100 megawatts of power.

You know, there's been a long operation of life, as Jonathan mentioned. And there's other minerals in there, rare earths included, potassium, zinc, manganese, iron, rubidium, and also opportunities to enhance development. You know, the brine comes from a deep source. It's already at the surface. And the pretreatment and processes is done, so there's a real opportunity there.

Next slide please.

This is just a visual, a very simple, maybe very oversimplified visual, but basically to getting to Jonathan's and Silvia's questions, yeah, the hot brine, if you see on the left where the hot brine comes up, it's coming from 6,000 to 7,000 feet below, way below, super-heated brine. So we flash the steam off it. It's still in liquid form. We flash the steam and it basically, you know, turns the steam generator, which has been going on for like 38 years now, and longer. And that excess electricity is sold into the grid 100 percent, 24/7 renewable energy.

The minerals recovery, I won't go into too much, the preprocessing, cleaning up the brine to a point where it just runs through a traditional exchange, in simple terms. That brine then is reinjected back into the formation. They manage that by some dilution water and top up and make sure that the reservoir is managed correctly, as Berkshire has done for all of these years.

The opportunity I mentioned before, the (indiscernible) between lithium recovery module and the LCE production is a real opportunity

here. As I mentioned before, they sort of bring in the auto, you know, (indiscernible) as LCE production as cathode is battery manufacturers to the EV storage. Now the supply chain can happen effectively. And I think, really, that's one of our focus points on the Commission.

Next slide please.

So I won't go into this too much. Jonathan really, really nailed this. It's great. You know, the small physical footprint, I think this image sums it up. And Jonathan's images, I mean, you're covering, effectively, you know, 200 acres of say 5,000 acres of surface area. So it makes sense. You're basically, you know, drilling directional. You're drilling, getting a, you know, very small footprint. But that enables, you know, certain restoration work to be done. You know, we're out on the playa and it's hardly in the sea, so to speak, so a little bit closer to the shoreline than, say, Berkshires.

But you know, it does -- it opens up this discussion which we're going to look forward to. The rest of the salars and open pit, Jonathan really, really touched on that quite well.

So next slide please.

So you know, the key benefits, I mean, it creates new jobs. We're a union site, so we've been working very closely. You see representatives on the call earlier. We're working closely with the labor unions in coordination with local job and training, et cetera.

You know, we are a critical mineral. And beyond just lithium, there are other critical minerals that are on the list. We'll provide those to U.S. Minerals.

Dust abatements in the area, and I think, you know, the Salton Sea, in fact, I think that, you know, if you look at the image here, it says it itself. I mean, the summer load or the recession of the sea, where we're located, we've measured up to, you know, 30 yards a month in big summers. So it's accelerating very, very fast in the shallow delta. So there's a real opportunity to be able to get in and, you know, master plan this more like a subdivision and do environmental work and co-location work and really think about this as a bigger picture.

So jobs, you know, in our project alone, fully built out, is sort of close to 2,000 jobs.

These are long-term jobs, auxiliary jobs. The power. The indirect effects to the community. And working with the community, of course. As the group has mentioned, you know, the community outreach, environmental repair, you know, there's a wonderful opportunity for all of us to tie together.

Next slide please.

So this just indicates from when we signed the lease, we had leases with the IID. You know, we've been actively involved since 2012, so leading up to 2016, there was a lot of work done. But since then, you know, we, CTR, we've followed strict mining guidelines and heat to a very, very strict guidelines under 43101, which is an assessment process that, yeah, selects technology, the risks of that, measures the resource and all sorts of things, and done a lot of work.

So as mentioned earlier, we're on track to deliver our first megawatts of power Q3 2023 and, say, Q3-Q1 2024 for our first stage of lithium. And then, you know, we'll figure out how much demand there is. But with all things equal, you know, I think that we'll be planning

our next stage, probably in the coming months.

Next slide please.

So the challenges, you know, there's a photo there. No one wants to look at these, they're not the prettiest, but that's one of the shots from out on the playa where we're located. I mentioned earlier the, you know, 30-so yards a month. You know, this is fresh playa. This is land that's being made, effectively, in the last 22 years since the transfer agreement. So you know, the challenges are investment in large-scale mining, you know, the length of time, and permitting approvals.

You know, there's, you know, there's certain challenges with this. There's no point in listing them all out. But there are certain solutions and opportunities. You know, we've already touched on these. You know, getting Lithium Valley is a high priority with the federal government. Aligning with the state can be very, very helpful at, you know, getting designated as a major infrastructure project. These projects alone will bring a lot of people back to work on the other side of COVID.

So it's a great opportunity for the

country in its current location, you know, and enabling, sort of streamlining with CEQA, pushing some of the legislation currently in play and just encouraging, again, the state and federal governments to sort of work together and figure this out to become the first, world's first, clean energy and whatever.

Next slide please.

With that, I look forward to questions. And thank you very much for the opportunity.

CHAIR PAZ: Thank you, Rod.

So I prepared a few questions that could open up a discussion. And then we can open up a question and answer period for the Lithium Valley Commissioners.

And I will start. The basis of my question was from some of the language in Professor McKibben's presentation when you were talking about the potential competition for lithium and, especially, the direct lithium extraction. You mentioned that in some of those projects there are -- or there is, already, an attractive workforce. Can you talk about what you mean by an attractive workforce?

And then the rest of the panelists, if

you can join in on how could we design a more attractive workforce for the projects that we're envisioning at the Salton Sea?

MR. MCKIBBEN: Yeah. And I think that's a good, good thing for the Commission to be thinking about and addressing that in their report is helping develop that workforce.

So Smackover Formation is in the middle of the Gulf's hydrocarbon production region. And all I was alluding to was you already have lots of companies and lots of employees down there who are trained and skilled in brine operations and other operations related to energy development. And the same is true up in Alberta, in Calgary, in the oil fields up there.

So what I was referring to is you already have in place up there an experienced, skilled workforce dealing with these kinds of brine operations. And that's not necessarily the case you have in the Imperial Valley.

So getting the colleges involved down there to retrain people to work for these new jobs that Jonathan and Rod are talking about I think would be critical. And it should be a big component of your report to the legislature. And

in fact, increasing the capability of those colleges, community colleges, or even trade schools down there could be developed to help in that regard would be really important.

CHAIR PAZ: Thank you. What kind of partnerships do you think -- and maybe Rod or Jonathan -- from the private sector, right, like what kind of partnerships would help build the workforce, besides relying on the community colleges? Like what's the good sort of balance between the private-public partnership? And how could we work together on this?

COMMISSIONER WEISGALL: Well, I'll jump in.

We actually had a meeting, really just a couple of weeks ago, with the Imperial Valley Economic Development Corporation and the Lithium Valley College to talk about planning an apprenticeship program for, obviously, folks in Imperial County. But this is a very sophisticated program under the California, I believe it's the Department of Industrial Relations.

But you know, we're going to need a period of time to train that workforce. Plus,

we're going to have attract a workforce if the numbers really get bigger.

I think that for our lithium production, Rod, you had a figure, I guess I saw it quickly, it looked like 2,000 jobs or something. We don't anticipate anything quite that high for lithium production but, you know, it will be at least a doubling, if not more, of our current workforce of 225.

But I think the training will be critical. And we -- and that's exactly where a group, like the IVEDC, comes in, as well as possibly, you know, San Diego State, UC Riverside could be helpful.

One other idea, kind of a recent one, is, you know, we're going to be taking samples daily of brine. And we're going to be measuring in parts per billion of some of these metals you've been seeing, of not just the lithium but the other, either impurities or possible metals, to recover. Right now we have to send those samples hundreds of miles away and wait weeks to get answers.

So another possible idea here, and maybe this actually goes into our report, what about a

high-tech lab in Imperial County, maybe affiliated with UC Riverside, which probably has some of that ability? But a lab, you know, Lithium Valley with technicians trained, working there. This is an example of what more we can do.

So those are just a few ideas, Silvia, of workforce development. But it's got to be done the right way. And it's got to be done in conjunction with the existing human resources infrastructure that Imperial County has which, I think, is pretty good right now. So we're looking forward to working with these various groups.

CHAIR PAZ: Thank you.

MR. MCKIBBEN: And it's not just, I mean, for the lithium extraction. I would argue for training for battery production, as well, in the long run. And maybe that's where some of Rod's numbers are coming from, thinking long term.

COMMISSIONER COLWELL: I agree, yeah, Jonathan and Professor, that, yeah, I guess the approach, number one, you know, we've been here for eight years. We've been up there when it's been 120 degrees and 90 percent humidity. And

what I'm getting at, you know, the growth and the workforce needs to be organic and needs to be grown here. You know, just to be tough enough to handle -- you know, if you're welding pipe out there in the middle of summer, I mean, it's a pretty harsh place; right?

So cognizant of that, you know, our approach has been, similar to Jonathan, you know, working with IVEDC, Imperial College, looking at programs with various uses, I think we can capture sort of Southern California in a drawer. And even south of the border, there's some pretty serious and some great talent there, and it's beyond just lithium extraction. You know, our numbers are based on power plant. You know, we've got a rail site, and industrial site. There's all sorts of broad -- and the numbers, they're the numbers that we do know, it's the ancillaries, as well.

So you know, whether it's civil works, electricians, hydrometallurgist or whatever, you know, it's a very broad-brush workforce. It's not sort of like, respectfully, with salary, you'll get in there and build something and take off. This is -- running a building, it's one

thing running it but also, maintaining it is -- I mean, remember, these plants can run for 50 years, so there's a very different approach to it.

So I would reflect that approach to jobs to the climate. And I think there's a lot of talent there. But you know, absolutely, as Jonathan has already alluded to, and Professor McKibben, you know, training programs ahead time. We'll engage in those in the coming months. I think to lead up to construction into next year, we need to start to lead up, but the construction for us is local. You know, performance mechanical contractors, et cetera, have local workforce. And we'll start to build on that as we sort of get into, you know, COD dates, or commercial operation dates, and operations. And that's where the real sort of long-term workforce does come in.

MR. MCKIBBEN: And by the way --

(Crosstalk.)

MR. MCKIBBEN: Oh, go ahead, David. Please. Please.

CHAIR HOCHSCHILD: Yeah. Well, first of all, I just wanted to thank all the panelists,

really terrific presentation. And Logan, as well, from Bloomberg, really terrific datapoints there.

You know, when we look at the history of fossil extraction, you know, it's often a pretty destructive thing over time for the community. And one of the things that's exciting about this, you know, in addition to being the greenest way to recover lithium in the world, is the chance to maybe put some of the royalties and revenues back into restoration.

And you know, this is something, Rod, you had presented this concept to me some time ago of a set-aside of some of the lithium revenues to support a Salton Sea recovery. And I wonder if you could expand up on that, and a little bit around the jobs you can see from a fund like that? Rod, I was hoping you could add a little color to that.

COMMISSIONER COLWELL: Yeah. Thank you, Chair.

So, yeah, we've been actively talking to CNRA and the Energy Commission for some time on future stages of energy. And the conversation started because the slide, if you remember, it

just shows a wasteland of playa.

So look, we don't, number one, we don't want to be out there in the middle of nowhere with dust and everything anyway. We want to take what we have. And respectfully to the state, there's been, certainly, study after study after study and really, again, with all due harsh respect, not too much action going on. So it's good to see something going on now.

So we said, look, what if we could come up with a scheme that's bondable from the state, whether it's a price per megawatt hour or price per ton, you know, some sort of contribution that the state could bond and utilize, and let private enterprise, like ourselves or the state or do a JAB (phonetic), you have to be determined. But, fundamentally, the revenues, and to sort of answer lots of questions here, can be accumulating, you know, with the scale up here. You've seen the minimum footprint to lithium. You've seen what the playa looks like there. And for that, I know a lot of you guys on the call have been there and know what it's all about; right?

But you know, private enterprise, we can

get out there. We could do ag. We could do, you know, back to natural habitat. You know, and as the sea recedes we can utilize, maybe, drain water and work with IID and whatever.

So the Chair is right. I mean, this is, you know, a simplistic approach to a broad, broad amount of acreage. There's an unbelievable amount of exposed playa that's -- you know, I get out there and walk it myself, so I'm witness to it. I know what it's like.

But there's a wonderful opportunity here to balance out the win-win and let private enterprise do what it does best and assist with this growing situation.

CHAIR PAZ: Thank you.

So I will now open it up for questions from any of the other Lithium Valley Commission Members. If you can raise your hand so I can see who has a question or a comment? I do not see any hands but I do have another question.

Based on your response, Rod, about the potential -- dedicating potential revenues from royalties back in Salton Sea recovery, do we have an idea of what the economic value it is that we're talking about that can be tapped into?

COMMISSIONER COLWELL: So what we proposed was -- this is on the energy side and it could be converted -- was $1.00 a megawatt hour as a figure. Now, if you're talking about 1,100 megawatts or 300 megawatts, it's still a very significant accumulative number.

Beyond that, Silvia, we haven't -- it was a concept. But the idea was, again, a fund, maybe DWR may be able to do projects under that accumulative revenue which could be, you know, hypothetically bonded, you know, and then pay for pretty major projects. But you know, fully developed, to give you an idea, that's probably $10 million a year roughly.

CHAIR PAZ: Um-hmm.

COMMISSIONER COLWELL: You know, so it's a significant number fully developed.

CHAIR PAZ: Yeah. And I think you gave me an answer that's more specific than I was looking for. But I guess my question is more, when we're looking at the potential for lithium and producing the lithium for commercial uses, is there an idea yet of like how much profit and the economic impact? Like is there a value to that

number as we're looking at whole of geothermal resource area?

COMMISSIONER COLWELL: I mean, there's -- I think there's a commercial margin that would -- you know, we're getting close to be able to finance these projects, which was sort of talked about earlier. I can't give you an exact number. Now the market is still not mature enough. We haven't secured our lithium offtakes. And I think in the previous presentation about the market, there's still a fair way to go with that. The market at the moment -- well, the previous years, if you like, was quite marginal, you know, you're sort of break-even point.

CHAIR PAZ: Um-hmm.

COMMISSIONER COLWELL: And you probably want to rely on a 20, 30 percent, you know, margin, you know, just to get these things, you know, the big dollars, you know, billion dollars to get financed.

So I think we're a little ways from that. But we're very happy to share those numbers as they come forward with the Commission.

CHAIR PAZ: Thank you. I appreciate it.

COMMISSIONER WEISGALL: I'll just jump in

there, Silvia.

I mean, you saw on, I think, Logan's chart, although it was a little messed up, as he said, you -- I think Logan was showing potential clay production --

CHAIR PAZ: Um-hmm.

COMMISSIONER WEISGALL: -- lithium. And it was in the order of magnitude, if I recall the slide correctly, about $4,0000 to $5,000 a metric ton. We need to be at that level.

Let's be blunt about this. I mean, our goal is to produce lithium that is both, you know, produced in an environmentally responsible way but in a technical and economically feasible way. If all we accomplish is the ability to recover lithium from the geothermal brine of the Salton Sea and the price is well above the world market, we haven't accomplished anything.

CHAIR PAZ: Um-hmm.

COMMISSIONER WEISGALL: Which is why I would be cautious about spending money in other places. We've got to make this industry work first. And I must say, if there are going to be taxes and royalties and allocations of profits going to a lot of other places, to may never

happen. We've got to make this work first.

I think that we can be competitive with those clay numbers in terms of cost. I think we can out-compete Australia and China. I don't think we can quite yet compete with Argentina and Chile but we can be very much in the ballpark and very close.

Now then, your question is profit, well, you saw Logan's slide of price of lithium, and it's been anywhere from -- and, again, I stand corrected and the slide will speak for itself, but I recall a high of $17,000 a ton and a low of, maybe, $8,000 or $9,000. So, obviously, where you go -- I mean, minerals, I have to say, commodity prices historically, it's a tough business. And that's why larger margins are required.

It's a very volatile field, minerals generally, commodities generally. And there's really no transparency to speak of in the lithium market. So many of these deals are just bilateral deals. It's very hard to determine what prices are. But we've got to be competitive, no question about it.

CHAIR PAZ: Thank you for that.

So if there are no other questions from Lithium Valley Commissioners, we can, Elisabeth, turn it up for public comment.

MS. DE JONG: Yes, happily.

So if you're joining us on the computer, please use the raise-hand feature. And if you've called in, please dial star nine, and then star six so that you can un-mute yourself. First, we'll go to the hands raised in the Zoom application, and then on the phone. I see one hand raised from Micah Mitrosky.

I'm going to go ahead and un-mute you. And go ahead.

MS. MITROSKY: Hi. Good afternoon, Commissioners. Micah Mitrosky with IBEW 569. I spoke earlier. And I thought I would chime in on some of the workforce comments.

I know some of the industry folks are familiar with this info. But for the benefit of the broader Commission, as you're gathering your workforce info for the report, I thought I would highlight that IBEW Local 569 does operate a state-certified electrical apprenticeship facility in Imperial County. And IBEW members there in the county have built 2,000 megawatts of

renewable energy. And we were able to achieve, across all projects, roughly 80 percent local hire.

So you know, this is a really -- in terms of workforce training and creating quality career paths, you know, this certainly represents a real opportunity to leverage the state-approved apprenticeship network. And I know the local Imperial County Building and Construction Trades Council is really enthusiastic about partnering on these projects and helping to advance quality local employment opportunities with skilled training for local residents.

Thank you so much.

MS. DE JONG: Thank you.

And we have another hand raised from Michael Garabedian -- or sorry, Mike Garabedian.

MR. GARABEDIAN: Hi. Mike Garabedian again. Thank you. I have two general questions. I'm not looking for technical or engineering answers, just informational.

I'm wondering what the comparison of brine wells are to oil and gas wells? I mean, if you know a little bit about oil and gas, do you know something about brine or is a whole

different thing in terms of drilling and recovery, so forth?

And the other question is about the natural history. I wonder how the brine formed?

Thank you.

MR. MCKIBBEN: I can address how the brine formed.

So that valley has opened up over several millions of years. And the Colorado River deposited its delta into that valley over that time period. So most of the material excavated out of the Grand Canyon has been deposited into the Imperial Valley. And that river has flowed alternately north and south hundreds to thousands of times over the past several million years. And each time, it's filled up the northern part of the basin north of the delta apex.

It's then started to flow south after that lake filled, and then that lake evaporates. And so every time that lake evaporates it leaves behind salt beds. And so every time the Colorado River then flows back into the northern part of the valley, it redissolves that salt and percolates it into the ground.

And so that process taking place hundreds

to thousands of times over the past several million years has literally pumped salt into the bottom of that valley. And that's the origin of that brine. It's evaporated Colorado River water. It's not seawater.

That, in a nutshell, is its origin.

MR. GARABEDIAN: Fascinating.

CHAIR PAZ: Thank you, Professor McKibben.

And this, if there are no other public comments, this will conclude the panel discussion. So I want to thank our three panelists for all the information and the discussion you provided.

And now we are -- we have some CEC Staff who are going to be giving us updates on media and legislation.

MS. DE JONG: We do. And first, we'll hear from Anna Ferrera.

MS. FERRERA: Okay. Good morning -- or, no, good afternoon. This is how days are going with legislative work these days.

In case you didn't know, we have -- we're at the beginning of the legislative session. And so we have the largest amount of bills moving

through the system right now. They're being assigned to policy committees. And so -- and we have the budget process moving at the same time. So it's an extremely busy time for legislative folks, like me, who are trying to keep track of all the bills.

But as far as lithium is concerned, there are five lithium-related bills that are moving through at this time; two of them are by Senator Henry Stern. And we're watching those because there is a CEC component to them.

The first one is SB 423. And that will would require the CEC to incorporate emerging renewable energy and firm zero-carbon resources into its energy and resources planning process.

So in consultation with PUC, CAISO and CARB, on or before, if this bill passes, on or before December 31st, 2022 we would submit to the legislature an assessment of emerging renewables -- emerging renewable energy and zero-carbon resources that support a clean, reliable, and resilient electricity grid in California. And the bill mentions lithium in the findings and declarations, saying that,

"California is a global leader in solar

energy and lithium-ion battery storage deployment, and these resources are increasingly and urgently needed to boost electrical grid reliability" -- we know how important that is -- "and support the state's transition to clean energy in a cost-effective manner."

So that's 423, SB.

And then the other Stern bill is SB 551. And that bill seeks to establish an electric vehicle authority within the Governor's Office. And as part of that authority, one of the many responsibilities that the authority would be given, it lists lithium from the Salton Sea as a consideration in developing recommendations for electric vehicle design, development, and manufacturing to create export business opportunities, exporting, and as well as those in the state. So that is also out there right now.

We're also watching AB 1397, I think Mr. Colwell mentioned it earlier, and that Eduardo Garcia's California Lithium Economy Act. And I don't know how far he went into it but it would require at least 35 percent of the lithium used in electric vehicle batteries, under the Act, to

be produced in California.

Then SB 244, Bob Archuleta, lithium-ion batteries uses has to do with the disposal of those batteries and fire prevention. So it would require a system for acceptance and collection of used rechargeable batteries.

Also in the battery category, SB 289, Josh Newman, enacts the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act, which would require producers, either individually or through the creation of one or more stewardship organizations, to establish a program for batteries and battery-embedded products.

So those are the bill right now. I think, you know, the ones that I mentioned earlier are probably more in play as far as the purposes of the Commission. And I'm happy to answer any questions that you may have on those.

And I think Lindsay is going to talk about media.

MS. DE JONG: Yes. Thank you.

MS. BUCKLEY: Yes. Greetings Commissioners. My name is Lindsay Buckley and I am the Director of Communications and External

Affairs here at the Energy Commission. I wanted to start out by letting you know that my office is available to support you in your work here, providing talking points or background information, as well as support if you're contacted by reporters and want any support for interviews or just any background information. So feel free to reach out directly to me or through Staff at any point.

I also encourage the Members to send us news and updates for tracking and sharing, whether it's a press release or a mention in another article or something happening in the I.V. We want to know about and just add it to our records, so please be encouraged to send along information to us as well.

In 2021 we've had significant coverage of the Commission. I know many of you have been out there and busy as well. So just a quick update.

We had the Chair give three different interviews to *Washington Post*, *CalMatters*, and *New York Times*. That's resulted in an article in the *Washington Post* on electric vehicles and battery storage overall in the United States, the big *CalMatters* piece that came out before last

month's Lithium Commission meeting, and then the *New York Times'* piece which, I understand, is still forthcoming.

Following and in advance of last month's Lithium Valley Commission, we did have quite a few inquiries, just curious about the Commission and the Commissioners. So I'll be continuing to send information to members of the media who are interested in the progress of the Commission.

And then last week, if you didn't see it, there was a highlight in Sammy Roth's Boiling Point Newsletter. He's a reporter with the *L.A. Times*. "The race is on to strike white gold at California's Salton Sea." I believe that also ran in the print addition. So if you haven't seen it, definitely worth the read. And I know some of the members of the Commission were also highlighted there, as well as their photography.

Nice shutterbug there, Rod.

Activities ahead, we are working on a fact sheet with Staff, just on the basics of the Commission history, background, goals, members. And we will circulate that when it's ready for review and circulation.

And our office will also help to support

the rollout of the final report for the Commissioners, including graphics and layout of the report, a news release, and media outreach as well.

And so that is it for me. Again, here to help support and provide information. And we'll be following along and looking to support at the end of this road, as well, and that's it.

CHAIR PAZ: Thank you, Lindsay and Anna.

Are there any questions from the Commissioners?

COMMISSIONER COLWELL: Lindsay, could we get your contact details, maybe through Elisabeth or someone? Thank you.

MS. DE JONG: Yeah. If I could jump in?

MS. VAN BEBBER: Yeah. Yes.

MS. DE JONG: Yeah, you're welcome to email us at lithiumvalleycommission@energy.ca.gov. We can then channel you over to Lindsay with any of these media requests or support that you'd like.

COMMISSIONER COLWELL: Thank you. Thank you.

CHAIR PAZ: Thank you.

If there are no other questions, we can

now invite public comment for anyone who might have thoughts or questions on the media and legislation presentation.

MS. DE JONG: Thank you.

So if you're joining us on your computer, please raise your hand. And if you've called in, please dial star nine. I do have one hand raised from Caity Smith.

I'm going to ahead and you should be able to speak now.

MS. SMITH: Yeah. Great. Can you hear me?

MS. DE JONG: Yes.

MS. SMITH: Thank you. Hi. My name is Caity Smith. I'm with the National Renewable Energy Laboratory. Thank you to the Commission, as well as the CEC, for this opportunity to speak today.

I would like to bring to the attention of the Commission, as well as the audience, the NextGen Geo event, which will be held on Wednesday, March 31st. This virtual event, which organized jointly by the U.S. Department of Energy, as well as the National Renewable Energy Lab, will be highlight geothermal industry

advances, as well as cash prize competitions for innovators at every stage of their career.

The event will include conversations with clean energy thought leaders who will discuss game-changing technologies, new and growing opportunities in the workforce, and then next hottest topics in the industry, including direct lithium extraction from geothermal brines.

There will be live announcements, including finalists for the Geothermal Collegiate Competition, semifinalists for the Geothermal Manufacturing Prize, and of particular interest to this group, I would think, the unveiling of a new prize aimed at extracting lithium from geothermal brines.

In addition to these, we will have Kelly Speakes-Backman, who is the Principal Deputy Assistant Secretary and is Acting Assistant Secretary for the Department of Energy's Office of Energy Efficiency and Renewable Energy. She will be providing closing remarks for the event. And then after the event there will be an inclusive industry networking event to connect with geothermal experts, prize competitors, and students.

So I would like to invite all of you to attend this free event next week. I will drop the registration link into the Zoom chat. You can also find the information on the Department of Energy's Office of Energy Efficiency and Renewable Energy website.

Thank you so much.

MS. DE JONG: Thank you.

I do see a hand raised from Commissioner Tom Soto.

COMMISSIONER SOTO: Thank you. I just wanted to comment on the legislation. And, Anna, thank you for the report.

You know, no one should be shy about getting letters of support to Mr. Stern or Garcia for any of this because it goes back to the effect that I had described earlier about having to de-risk investments in lithium by creating the floor or economics, one, with Garcia's bill which is creating a content requirement so that every electric vehicle that is bought by the State of California has to have 35 percent California-sourced lithium. And that will help to create the economics we need to make this conversation reality.

Also, the EV Authority, that is being sponsored by the L.A. Cleantech Incubator, which I'm Founder of and Vice Chair of. And that, too, will help to coordinate activities within the lithium sector and help to enhance electric vehicle manufacturing and so forth.

So you know, County Board of Supervisors, IBEW, Chambers, it would all be good to show your support to these members so that we could get it to a signature.

Thank you.

MS. FERRERA: Yes. And there's way that's you can, you know, go online and look up the senate or assembly address and tell them who you are and, you know, why you support the bill, and submit it. And we can post that information on how to do that as well.

COMMISSIONER SOTO: Thanks Anna.

CHAIR PAZ: Thank you. Okay.

MS. DE JONG: I don't see any additional public comments at this time.

CHAIR PAZ: Okay. So now we're in the part of the agenda where we can hear from Commissioners on any agenda topics they would like to see discussed, speakers, presentations.

Commissioner Guzman Aceves?

COMMISSIONER GUZMAN ACEVES: Sorry. I just realized I unplugged my voice thing here. Just one second. Okay.

Sorry if I missed this, if there was already a commitment to this, but earlier in the day there had been a reminder to us of a request for there to be some community engagement, different forms, and really kind of making sure that there is something more structured for the communities benefit on what this is all about and what the potential opportunities are, et cetera. And I know others have spoken more specifically to it.

So mostly my question is: Do we want to do a working group around that and kind of have a recommendation come back to the Commission on what sort of public -- more focus in the community, obviously engagement, that we want to consider, or if we consider these meetings that and maybe have a high -- I don't have a real recommendation here, just to acknowledge that it's been suggested a couple of times. And I wonder if we should act on it?

Thank you.

CHAIR PAZ: Thank you. Yes.

COMMISSIONER WEISGALL: Yeah.

Jonathan?

COMMISSIONER WEISGALL: Response there.

Yeah, it's a terrific point, Martha. I had mentioned during my presentation, we think community outreach is absolutely critical here. We gave a town hall presentation on March the 9th. I checked with Deborah at CEC staff. You know, there was a limit to the number of Commissioners we could invite because of Bagley-Keene. But you know, if we -- I think having a Commission-sponsored community meeting would be terrific, because as it was just Berkshire Hathaway Energy, although, we attracted about 150 people.

So I think it's a terrific idea. And our goal here is transparency and outreach as we move forward. So you know, I, for one, think that that's a good idea.

I guess I'd ask CEC Staff, maybe, to take that up as an issue. You know, how can our Commission get out into the community as a Commission to talk about these issues? I think that's critical. And that would augment what

we've done as a company. But I'd be all in favor of that.

CHAIR PAZ: Thank you, Jonathan.

Rob?

COMMISSIONER COLWELL: Thank you.

Yeah, just in regard to topics, presentations, and I guess speakers, but if the Commission was up for it, I mean, we could organize. You heard from Laurel Lees. She's, you know, an expert on environmental issues. We could organize a short presentation for the Commission for the next Commission meeting, if that was appropriate.

And maybe just a suggestion, it would be good to have someone from, say, California GO-Biz or someone like that, that could maybe present to us on the topics of tax exemptions, you know, things like, you know, land tax, et cetera, that we've been talking about, or an enterprise zone, maybe a presentation. Just a suggestion.

CHAIR PAZ: Thank you.

Anyone else? Okay.

So we can now open it up for public comment.

MS. DE JONG: Yes. So this will be a

general public comment period or in response to that future meetings discussion.

If you're joining us via Zoom on your computer, please use the raise-hand feature. And if you called in, please call star nine to raise your hand and then star six to un-mute your phone line. We'll start with the raised hands on the Zoom application. I don't see a hand raised but I did see a comment from Pat Dobson.

Pat, if you are available, I have given you the ability to speak if you want to un-mute? And if not, I can go ahead and speak your comment.

MR. DOBSON: Sure. I just wanted to bring to folks attention that at Berkeley Lab we have a group called LiRRIC that's focusing on sort of the whole sort of source to the whole supply chain related to lithium. And we have a seminar series that's open to the public. And you can find more details at www.lbl -- sorry -- lirric.lbl.gov. I've pasted the link in the chat box. And so that might be of interest for people if they see a topic. And the talks are also recorded, so you can see past seminar presentations as well.

MS. DE JONG: Thank you.

CHAIR PAZ: Thank you.

So this concludes --

MS. DE JONG: And I don't see --

CHAIR PAZ: Go ahead.

MS. DE JONG: Oh, sorry. I was just going to say, I don't see additional public comments.

CHAIR PAZ: Rod, were you going to say something? Okay.

So this concludes, I believe, our meeting, and we're ready to adjourn.

Just a reminder that we have already sent out -- actually, Elisabeth has sent out calendar invites for future meetings. And we're trying to keep them consistently on the fourth Thursday at the same time so you can plan ahead.

But thank you everybody. And this adjourns our meeting. We'll look forward to seeing you soon.

(The meeting adjourned at 4:52 p.m.)

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

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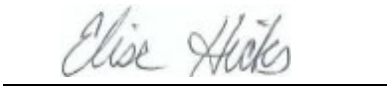

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April 16, 2021

MARTHA L. NELSON, CERT**367