

Lithium-Ion Car Battery Recycling Advisory Group

Meeting Minutes for 9.28.2021

1. Call to Order, Roll Call, and Establishment of Quorum – Caroline Godkin, Deputy Secretary for Environmental Policy and Emergency Response, CalEPA

- Advisory Member roll call:
 - o Ana-Maria Stoian-Chu (AS)
 - o Mohammed Omer (MO)
 - o Terry Adams (TA) 1
 - o Dan Bowerson (DB)
 - o Todd Coy (TC)
 - o Toshiya Fukui (TF)
 - o Perry Gottesfeld (PG)
 - o Steve Henderson (SH)
 - o George Kerchner (GK)
 - o Bernie Kotlier (BK)
 - o Nick Lapis (NL)
 - o Alison Linder (AL)
 - o Audrey Depault in place of Teija Mortvedt (TM)
 - o Geoff Niswander (GN)
 - o Lou Ramondetta (LR)
 - o Les Schwizer (LS)
- Absent for roll call
 - o Hannon Rasool (HR)
 - o Mark Caffarey (MC)
 - o Jennifer Krill (JK)

*Quorum met

2. Administrative items – Mohammed Omer, Engineer at DTSC

- Meeting is being video recorded and livestreamed
- Public can ask questions and comment via chat or calepa.workshops@calepa.ca.gov
- The minutes are approved
- No updates and questions from the AG members

3. Dan Bowerson – Answering questions regarding the AFAI proposal

- Knowing that the deadline was to get them included with the survey we put something together as soon as possible, but there were still questions and we have been working as an industry to provide an update.
- Previously there was confusion on how the core exchange would work. The red text was not included previously. The first portion explains that the entity selling the battery will have to use some sort of core exchange program to track that the battery is properly disposed of. We maintain that the manufacturer should be responsible for deciding what that looks like, it could be a core charge or something else.
- We wanted to get clarity on how the manufacturer would take responsibility. We modified so that a dismantler who takes ownership of an EOL vehicle is responsible for proper disposal. If the battery is unwanted or not acquired by a dismantler, that is where we would use the full vehicle backstop. There was a question about what percentage of vehicles this could be, and I will show data.
- Core exchanges today are used for items where we want to ensure proper recycling or disposal, or there is an opportunity for refurb. With Pb batteries, if you have the battery, you can swap it for a core charge, if you don't have it, they will charge you an additional fee. When you return the battery, you receive the core charge back. It can work for other items as well, Napa also uses it for water pumps.
- For our proposal it doesn't need to be a charge, but there needs to be some sort of exchange. In incidents where you don't put a charge.
- In the first case an independent shop removes the battery and takes it to a collection center or OEM parts sale and a new battery is given, but there is assurance that the old battery will be properly reused or recycled. The responsibility would be on that middle part. There may also be shops that have relationships with recyclers.
- The responsibility for the record keeping in that case would be on the independent shop.
- This is a small percentage of the vehicles. Over 95% of EOL vehicles are recycled today, so we are addressing the remaining 5%. This will allow current dismantling markets to thrive and continue to take care of that and the rest are covered by the backstop.
- What is definition of complete vehicle? We recommend the ELV EU definition
- Thank you for the opportunity, we will continue to try to address concerns from advisory group members, dismantlers, and the whole value chain

TA: I appreciate the process of focusing on the 5% as the backstop that needs to be addressed. Can you go back to slide two? Why did you take out "remove the lithium-ion

battery?" I can imagine there may be cases where a dismantler plays a middle-man role and transfers the car relatively whole, they can't have responsibility over a car that they no longer have any control over.

DB: A lot of questions we had were about where those vehicles would be. We see them as being at ELV auctions where dismantlers would determine that there was no value left in vehicle. We don't want to be responsible for cars where they have been picked apart. We could probably frame this a bit differently to address that, again we were trying to point where we see the vehicles physically being, but if there are instances where a dismantler is acting as a middle entity and not necessarily dismantling the vehicle they will be able to use the backstop.

TA: Thousands of cars get sold through these auctions and I support having responsible parties be part of screening for bidding but the auction may be a venue for moving from a wholesale to a smaller format. That system has been in place and functioning fine and I don't want to put a new burden on a dismantler who is trying to facilitate a wholesale vehicle transfer.

DB: We are trying not to disrupt the 95%.

TA: I see that and appreciate you are focusing on the orphan batteries, just don't want to create unintended consequences.

PG: I wanted to make a comment that when you talk about a core charge, in pb battery context we call that a purchase discount. I am curious about how you reached the 5% figure, it seems arbitrary and there is no definition of when vehicles should be brought back to the manufacturer. So we are spending a lot of time talking about a narrow case. The other question I have is how is this different than existing law? Currently if you have a hazardous waste the owner of that is the owner of the waste and it doesn't change over time. There seems to be a proposal here that is mostly tracked by existing law which is that the owner of the battery is the owner

DB: The owner could be the consumer and we are trying to get at that. The 95% is cited here and comes from the amount of vehicles that are currently recycled.

PG: So this is assuming EVs will be the same as traditional cars.

DB: Yes.

PG: Is there a provision in your proposal that accounts for exports?

DB: No, we will look into that. I don't have a good sense of what is happening to that 5%. The legislative text or final policy from the committee could also have those provisions included.

AS: Can you please go to the slide with the red additions? Can you please clarify what "with an OEM certified battery" means?

DB: Great question, this is an area where we still need to refine this because there cases where batteries are not manufactured or certified by the OEM. We recognize that OEM certified is vague and will need to be specified with a policy proposal, we hope to improve on the text when we get into actual recommendations.

AS: What if the manufacturer is no longer in business?

DB: We are talking and trying to stack failure modes here, with a vehicle that is not wanted by a recycler or dismantler, and within that a manufacturer that is out of businesses, and within that their assets have not been purchased, that's a very small percentage. If their asset has been purchased, that entity takes responsibility

MO: Next Alissa will present the results of the survey. Today is critical for endorsing the results of the survey. We are not asking you to agree with the specific policy proposals, just agreeing that these were the results, and we are giving UC Davis the blessing to go ahead and work on the report. Further preferences and discussion will be solicited as the report is drafted and through your edits to the draft. We will not discuss the policies further today but there will be opportunity later. During the drafting you will be able to provide that feedback. Today is to give our blessing as a body to move forward with the results.

DC: My question is about process and how the committee intends to endorse or vote on the survey proposals, is it simply a majority of those support or oppose and that gets reflected in the report or are we trying to achieve consensus? What is the decision making process? Is there an opportunity for dissenting opinion to be reflected in the report?

CG: Thanks Dan great question. All of those questions are exactly what UC Davis will lay out. Can we park your question until after the presentation and if we haven't gotten to it we will come back to it then.

DC: Sounds good

MO: Thanks, Alissa please go ahead

4. Dr. Alissa Kendall – Policy recommendation survey results

- Thanks Mohammed, and thanks to Jessica and Meg who have been working to put the survey together. The goals are to publicly announce the survey results and empower our team to start the reporting process, it's not a vote on the policy recommendations.
- A reminder of where we are at—we have a rough draft of the report that is due in November, which doesn't give us a lot of time. This is not the final report, this is so we have something to work from and can add nuance and dissenting views as required.
- Starting with results I want to remind everyone what the sections were. The first was defining responsibility and financing mechanisms, the second was access to

battery information, the third was supporting industry development, fourth circular economy and quality recycling, 5 safe and efficient reverse logistics.

- Each group received very different levels of support. I'm hoping those that received broad support are those we can move quickly through and spend more time on the others. I also want to define majority. Majority = affirmative majority of quorum. So more than 50% of AG stated an opinion and of those 50% or more are in support of policy. We also split up majority opinions based on levels of support, so 75% or more and so forth to distinguish between strong and weak support.
- Start with defining responsibility for EOL management and financing mechanisms. The policy with the highest level of support was Dan B's core exchange and backstop proposal. A number had weak support, which included the EPR and fee programs. We had two that received less than majority support which included the EHF and defining current owner as responsible party. That received the least support and that's essentially what's happening now so it's good to see that we are on the same page about our goal. The rank order results also do not align with the level of support which is interesting—yearly fee split between OEM and owner at vehicle registration was ranked last but received 53%

PG: Could you give us the total number of responses and I'm confused about responses, you said there was a no opinion and how was that calculated into support/oppose?

AK: We had a 100% response rate but respondents could select no opinion. The number of responses with no opinion is listed here. Support, strongly support, and support with modifications was listed as support and oppose or strongly oppose was listed as oppose.

PG: So how many people's opinions are reflected?

MO: There are 20 people on the advisory group so if 7 people had no opinion, that would be 13 people. So 85% of the 13 people supported the policy.

PG: Okay well that is very different.

AK: This was the easiest way to generally present the results but we will have more detail in the report.

SH: Were strongly support/oppose and support/oppose rated equally?

AK: For the purposes of this presentation, yes.

AK:

- Access to battery information received strong support with limited no opinions, with slightly less support for the UDS proposal. The next was industry support. All policy recs received reasonable levels of support, slightly larger numbers for no opinion. Circular and quality and recycling, this did not receive the same level of

support as the previous group, we saw support at 71% for design for repurposing and third party verification, minimum material recovery rates received weak majority along with all the ones that followed. Developing a reporting system is similar to tracking batteries which came up in the first group. These ones that received weak majority also had smaller numbers of no opinion.

- Safe and efficient reverse logistics received higher levels of support. We have essentially consensus support for adopting universal waste regulations if it changes as at a federal level and identifying strategies to reduce the burden of transportation. There were higher levels of no response for pre-approvals at auctions and strategic infrastructure but still relatively high levels of support.
- In the report we will differentiate between consensus, two thirds majority and above 50%. We can provide more nuance if folks want to see it regarding strong support or strong opposition. The policy recommendations will be presented based on the barriers they address, the pros and cons discussed in prior meetings. A section for dissenting opinions will also be provided to include rationales for why folks are in support of or oppose certain actions to clearly indicate why certain members were not in support of different policies.
- We are going to vote on the following statement to formally endorse the outcome of the survey: “the survey results accurately represent the views of the advisory group members” that means you are not endorsing policy recommendations, you’re saying yes the survey results reflect the views expressed by advisory group members.

PG: I’m at a bit of a loss because I feel like this hadn’t been explained before and the number one decision was a split decision. I think it was not clear that support with modifications would be counted as support and that doesn’t seem accurate. Maybe this could be a way to narrow the policies down, but I don’t feel that this was explained properly.

AK: The actions will be presented with more nuance in the report, but we were not able to present each policy with frequency graphs. It’s very clear that few of the recommendations we move forward with will achieve 100% consensus and we needed a way to proceed in developing the report knowing which recommendations were at least supported.

PG: I don’t agree that this reflects the views of the group because the highest ranked option had only just above 50%.

AK: That is how we chose to present the results to you all in this presentation, the report will reflect the responses in more nuance. We can calculate majority differently if there is debate about how that will be done. When folks don’t express an opinion, it sort of weakens our ability to get insight about whether people support or don’t support. We were lucky that every single one of the questions did get more than 11 members

expressing an opinion, but the no opinion makes it difficult to move forward. We can be sure to express how many people

PG: I think the results you presented are inaccurate. I think support should be a total percentage of the 20 and if you supported with modifications that should not be counted as support. If you are going to use this as a launching pad for further discussion that's great, but in a reporting format I don't think it accurately represents the group.

MO: I understand where you are coming from, the reason it's shown this way is that what we are trying to do here is show where things landed in a bird's eye view. I agree that support with modifications is not the same as saying 'Yes I agree', they are different. I agree that if 7 out of 20 respondents don't provide an opinion, it does not mean there is 85% support in that way. There is a big asterisk there. All of these asterisks will be reflected in the report. I believe it would be broken down by response, then getting into what the policy is, then the dissenting views. The support/not support is not meant to be granular, it's just to show a summary.

SH: What is the purpose of the endorsement itself? Why do we need endorsement?

MO: Because of the nature of this group as a public body. We asked you to fill out the survey privately, so for the results of this survey to be actionable we need to vote on it publicly.

SH: Perhaps we could change it to certify because we could certify that the results are accurate without endorsing what the results were.

NL: I had a quick comment. I largely wanted to say what Mohammed had said but specifically on the point of counting people who don't have an opinion, I do think it's appropriate to discount them from the percentage. There were a few where I didn't have an opinion and if it were introduced as a bill, I wouldn't weigh in. So, I agree that the response should reflect the people who did express an opinion.

MO: In terms of support, the percentages you see here do not capture all the details.

AK: And the purpose of including a column of how many people did not express an opinion was to make it transparent. Our job

AD: I wanted to support Perry's comment with regard to "support with modification," I think it's important to reflect those in the results. In the interest of working collaboratively we responded support with modification only agreeing with certain aspects and it's important that that be separately and clearly explained.

GK: I hope I don't offend anybody by my first statement. I'm rather surprised there were so many no opinions. We have spent so much time discussing these issues so to not have an opinion is kind of surprising. I support changing it to "certification." And recommend adding that it does not imply endorsement.

AK: That is a reasonable amendment, and I will modify that.

LS: Maybe can we change it to accurately reflects the responses rather than the views.

DB: Thanks Alissa, I don't need to restate everything that has been said. I think the way it says no opinion makes sense and can be highlighted in the report. I am wondering if the responses about what would be included in the labeling requirements.

JD: I can share that with the group

PG: I still don't agree with the levels of support. And I don't think that the survey results are mutually exclusive, so I don't think it is accurate.

AK: We did have a goal of eliminating the policy options that didn't receive support so we wouldn't have to include those.

LR: Just a comment, since we are the advisory board, we are supposed to be making recommendations and I realize a lot of time and effort went into making the survey and it seems like we had an awful lot of people not providing an opinion. I'm not sure why we structured this with so much opportunity to not provide a comment or opinion because it is our responsibility to provide comment.

BK: I think no comment may have been perceived as neutral. So I think some of us, if I did not strongly support or oppose something and I felt sort of neutral. In responding, there were a couple of times where I felt I could go either way. That is a little different than saying I have no opinion.

SH: For what it's worth, when we were taking the survey at Ford we viewed would be taken as neutral and still accounted for in the denominator.

AK: I understand that and we will present it differently in the report.

TF: The way I looked at it was I expected it to be calculated on a point system. Going forward what I would like to ask about, I know the goal was to create a draft report. How many times will we be able to review the draft? We can't go back so we have to go forward, and we need to get the report at a certain time and based on today's discussion we will probably have to have a high cadence of meetings to discuss how the information will be presented. So maybe we need to consider that we need to have more meetings than originally anticipated.

MO: We had originally scheduled our next meeting for November 2. We may need another meeting in October. I will get into that after we have finished our deliverable here.

TF: Final comment is that I respect everybody's comments today, but I want to point out that the UC Davis team has a difficult challenge and they have done a good job tabulating this complicated information.

MS: I think we are getting caught up in how responses are presented

PG: I want to propose that the survey not be included in the report and only used to guide the team in drafting the report.

MO: This was a way to show the opinions were given. The team will look at each response granularly. To your point I think what will happen is the team will use this to show where there is support and where there is support with modification. These numbers will not appear in this way in the report.

CG: This discussion is incredibly helpful. It's difficult to think about things in the abstract. Now what we have is something to respond to and we want to respond to it. It is a challenge for 20 people conducting their work publicly to put pen to paper and I want to commend the UC Davis team for putting pen to paper and giving us something to react to that we can respond to and take the feedback and move forward. So this will not look like how you are seeing it today, this is the starting point so we can put pen to paper and start gathering feedback. Thank you all for your thoughtful responses and there will be many more opportunities to have something tangible to respond to. I have had a bit longer to sit with these results and commend that there is a huge amount of agreement and places where we are making very good recommendations. I really encourage everyone to look at the places where we have good suggestions with strong levels of agreement.

AK: Thank you, I recognize we may not get 100% support, but I think it's important that we move forward.

MO: I will take role call and ask the advisory group members to vote on the following statement: "The survey results accurately represent the responses of the advisory group members"

CG: yes

AMSC: yes

MO: yes

TA: yes

DB: Yes

TC: yes

TF: yes

PG: no

SH: yes

GK: yes

BK: yes

JK: abstain

NL: yes

AL: yes

AD: yes

GN: yes

LR: yes

LS: yes

MO: That's a yes, you have formal approval to move forward.

5. Mohammed – DTSC

- We will now move forward to discuss upcoming meetings.
- We had originally scheduled November 2nd for the next meeting. Our timeline is that UC Davis will begin writing and provide a draft.
- Can we have a meeting on October 18th and a draft provided to the advisory group by October 12th?

AK: Yes, we can do that.

Meg Slattery: I am worried that we will be working on a draft that is under edits and the text will change.

AK: I think that will be okay and will facilitate the public discussion.

MO: If folks are on board with the idea of meeting in October, I think we should.

BK: I support this.

TF: I understand Perry's concerns, but there are a lot of areas with agreement and there needs to be discussion. I think peoples concerns should be addressed and therefore I support an October meeting.

GK: I would suggest Friday the 22nd.

AK: I cant make it on Friday because I teach.

MO: Let's look now at Thursday or Friday. What day is best for everyone? I will go through the roll call.

TA: 21

DB: No opinion

TC: 21 or 22

TF: 21

CG: If people can't attend the meeting I suggest you provide written feedback that is shared during the meeting. Any morning works for me.

PG: 22

SH: 21 from 9-12 pacific

GK: both days work

BK: neutral

JK: Neither

NL: Prefer 22

AL: I have a complicated schedule

AD: 21 but will make either work

GN: both. I have a lot of opinions, not all of which are applicable to this situation

MO: We ended up with Friday the 22nd then send written edits to the UC Davis team ahead of time.

MO: there was something from Les in the chat a while ago that I will read aloud for the purposes of transparency: "I had a similar thought. There was no option for "oppose unless modified" which is why I chose No Opinion on some of the responses."

BK: No opinion could be interpreted as a "3" in a scale of 1-5 and that is how I filled it out.

AL: We have certain areas of expertise and areas where we don't feel qualified to weigh in. There are areas where we have strong agency policy. We interpreted no opinion as "this is something we would not comment on" and not neutral.

MO: Thank you all for a very productive and passionate meeting. To wrap up, we convened our meeting, held role call, established quorum, had an update on the recent budget for the climate initiatives, had a presentation from Dan Bowerson answering questions about AAI's backstop proposal and we formally certified the results of the survey and have given direction to proceed with writing the report. Our next meetings are scheduled for **Friday Oct 22 and Tuesday Nov 2.**

CG: Thank you for the debate and discussion today, I look forward to continued discussion, again, thanks to you all for your work up to this point and to the UC Davis team. Thank you to everybody and I hope everybody has a wonderful couple of weeks.