

DOCKETED

Docket Number:	20-EPIC-01
Project Title:	Development of the California Energy Commission Electric Program Investment Charge Investment Plans 2021-2025
TN #:	250616
Document Title:	LBNL Comments - Transportation Electrification Research Scoping Workshop
Description:	N/A
Filer:	System
Organization:	Lawrence Berkeley National Laboratory
Submitter Role:	Public Agency
Submission Date:	6/13/2023 2:56:44 PM
Docketed Date:	6/13/2023

*Comment Received From: Lawrence Berkeley National Laboratory
Submitted On: 6/13/2023
Docket Number: 20-EPIC-01*

Berkeley Lab's Comments - Transportation Electrification Research Scoping Workshop

Please see comments attached.

Additional submitted attachment is included below.



BERKELEY LAB

Bringing Science Solutions to the World

June 13, 2023
Jonah Steinbuck
California Energy Commission
715 P Street
Sacramento, California 95814

Re: Lawrence Berkeley National Laboratory Comments on the Transportation Electrification Research Scoping Workshop

Dear Director Steinbuck,

On Wednesday May 31st, Commission staff hosted a Transportation Electrification Research Scoping Workshop. Berkeley Lab is pleased to present our comments in response to the aforementioned workshop. See Comments below:

What are the challenges associated with battery reuse for residential storage and grid-scale storage solutions?

These stationary storage and residential storage batteries normally use LFP chemistries (a type of low cost lithium-ion battery), that do not use Co and Ni materials. Using current hydrothermal or pyrolytic recycling methods does not recover much valuable materials in LFP batteries. Direct cathode recycling can be much more cost effective to recover LFP cathode materials.

How can R&D funding be effectively utilized to further scale-up direct cathode recycling?

There will be major deployment of LFP chemistry based batteries for residential storage and grid-scale storage in California due to its lower cost and longer lifetime. Current LFP chemistry dominates the still small residential storage and grid-scale storage market worldwide. The U.S. is cranking up LFP battery production significantly. We can anticipate LFP batteries will dominate storage deployment in this decade. Research should focus on methods to facilitate the LFP battery materials direct recycling.

Berkeley Lab appreciates the opportunity to provide these comments in response to the Transportation Electrification Research Scoping Workshop.

The following individual contributed comments: Gao Liu.

Sincerely,
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