Commission to Advance Lithium-Ion Battery Safety in Maryland

Interim Report

Final Version Adopted by the full Commission on November 22, 2024
Submitted by the Chair on behalf of the Commission
December 1, 2024

Submitted to:
Legislative Policy Committee

OVERVIEW OF COMMISSION TO ADVANCE LITHIUM-ION BATTERY SAFETY IN MARYLAND

Summary of the authorizing legislation (House Bill 468/Ch. 950, 2024 and SB 532/Ch. 949, 2024)

The Commission to Advance Lithium-Ion Battery Safety in Maryland (the Commission) was established to make legislative, regulatory, programmatic, and other recommendations regarding:

- best practices, standards, and guidelines (1) to prevent, detect, and suppress lithium-ion battery fires in consumer, transportation applications, and utility applications, with review and consideration of the National Fire Prevention 855 Standards for Grid Scale Storage and Safety; (2) to prevent, detect, and suppress lithium-ion fires at recycling facilities; (3) for reusing, recycling, and decommissioning lithium-ion batteries;

- the viability of extended producer responsibility for lithium-ion batteries;

- training, education, and other information to better inform the public and first responders regarding lithium-ion battery safety; and

- any other global issues the Commission may consider useful for enhancing the safety and reuse of batteries in the State

Reporting

On or before December 1, 2024, the Commission shall submit an interim report on the progress and status of the Commission to the Legislative Policy Committee, in accordance with § 2–1257 of the State Government Article. On or before December 1, 2025, the Commission shall report its findings and recommendations to the Governor and, in accordance with § 2–1257 of the State Government Article, the General Assembly.

COMMISSION MEMBERSHIP

- Commission Chair, Emil Nusbaum, Esq., VP of Strategy, Government and Regulatory Affairs, Automotive Recyclers Association
- Taiwo Alo, Director Smart Grid Innovation & Capacity Planning, PEPCO Holdings, Inc.
- Vincent Baker, Assistant Chief, Howard County Office of the Fire Marshal
- David Black, Chair Safety Committee, Maryland State Firefighter's Association
- Marc Boolish, Director, PRBA - Rechargeable Battery Association
- Ivan Browning, Battalion Chief, Montgomery County Fire and Rescue Service
- Kenneth Bush, Chief Fire Protection Engineer, Office of the State Fire Marshal
- Michael Cox, Executive Director, Maryland Fire and Rescue Institute
- Geoffrey Donahue, Director, Maryland Department of the Environment – Office of Emergency Preparedness & Response
- Garrett Fitzgerald, Section Chief Climate Programs and State Policy, Montgomery County
- Haley Kotzker, Energy Policy Manager, Maryland Energy Administration
- Kitty McIlroy, President, Maryland Recycling Network
- Christopher Neidhart, Battalion Chief, Montgomery County Fire and Rescue Service
- Chris Pilzer, Director Sustainable Growth, WM
- Shatorah Roberson, Esq., Managing Policy Advisor, Tesla
- Nicholas Rodricks, Bureau Chief, Baltimore County Bureau of Solid Waste
- Ginny Rogers, Power Plant Siting Assessor, Maryland Department of Natural Resources
- Justin Short, Government Relations Manager, Recycled Materials Association
- Robert Whittlesey, Principal Technical Program Manager, Ion Storage Systems
- DeAndre T. Wilson, Acting Manager of Engineering - Grid Reliability and Modernization Division, Maryland Public Service Commission

WORK OF THE COMMISSION

- The Commission has held three Commission meetings since October 2, 2024. The Commission worked to establish a regular meeting schedule for November 2024 through December 2025. Commission members agreed that meetings will be held in person (with a virtual option for those who cannot meet in person) and that the Commission will meet monthly.

- The Commission began identifying and tracking battery safety and extended producer responsibility policies that would be relevant to the Commission's objectives.

- At the upcoming Commission meeting in December 2024, the Commission will receive a presentation on lithium-ion battery fires and battery safety from the University of Maryland's Fire Protection Engineering Center for Risk and Reliability.

- After discussions and input from Commission members regarding differences in battery composition, size, and applications, the Commission voted unanimously on the creation of four subcommittees to provide recommendations and assist the Commission. The four subcommittees formed were: (1) Consumer and Transportation Applications; (2) Utility Applications, with review and consideration of the NFPA 855 Standards for Grid Scale Storage and Safety; (3) Prevent, detect and suppress lithium-ion fires at recycling facilities; (4) Reusing, recycling and decommissioning lithium-ion batteries. Subcommittees have held five meetings since October 2, 2024. The four subcommittees have been working to identify potential risks associated with lithium-ion battery applications relevant to their subcommittees, compiling existing literature and best practices, and identifying experts that can assist the Commission in its mission. Subcommittees are only meant to assist the Commission by providing recommendations and do not have the authority to make decisions on behalf of the Commission.

    - The Consumer and Transportation Applications Subcommittee is currently researching best practices and policies related to battery powered micromobility devices and vehicles powered by vehicle traction batteries. The Subcommittee is planning to receive a briefing from subject matter experts at Tesla on vehicle battery safety and first responder information.

    - The Utility Applications, with review and consideration of NFPA 855 Standards for Grid Scale Storage and Safety Subcommittee is reviewing an investigation published by Underwriters Laboratory's Fire Safety Research Institute on a battery energy storage system explosion that took place in 2019.

    - The Prevent, detect and suppress lithium-ion fires at recycling facilities Subcommittee is working on collecting information on public awareness campaigns associated with promoting the responsible and safe disposal of lithium-ion batteries. The Subcommittee intends to visit one of WM's facilities to build a stronger understanding of the risks of improperly disposed of batteries. The facility tour will also help Commission members understand technology currently in use to prevent facility fires.

- The Reusing, recycling and decommissioning lithium-ion batteries Subcommittee is working to obtain expert speakers on battery second life and recycling to present to the Subcommittee.

- Commission members attended a battery safety demonstration hosted by the Montgomery County Department of Environmental Protection at the Shady Grove Transfer Station. At the demonstration, Commission members learned about Montgomery County's efforts to raise public awareness about battery recycling to help prevent battery fires. The event also highlighted the risks associated with battery-related fires and Montgomery County Fire and Rescue demonstrated what happened when batteries go into thermal runaway.

MEETINGS

Commission Meetings	
10/02/2024	<u>Inaugural Meeting</u> - Selection of Commission Chair - Review of the legislation and Commission duties - Commission process - Motion passed unanimously by the Commission to establish four subcommittees that will assist the Commission by only providing recommendations. Subcommittees will not have authorization to make decisions on behalf of the Commission.
11/07/2024	- Review and approval of 10/02/2024 meeting minutes - Update from Subcommittees - Introduction to battery policy tracker containing policies on lithium-ion battery safety and circularity - Discussions on existing state initiatives to collect and handle damaged, defective, recalled batteries
11/22/2024	Review of Interim Report. Motion passed unanimously by the Commission to approve Interim Report to be submitted to Legislative Policy Committee.
Subcommittee Meetings	
10/29/2024	Consumer & Transportation
10/30/2024	Prevent, Detect and Suppress Fires at Recycling Facilities
10/31/2024	Utility Applications
11/19/2024	Consumer and Transportation Applications
11/20/2024	Prevent, Detect and Suppress Fires at Recycling Facilities