

# **Support for HB 1221 - Battery Storage and Solar Ar**

Uploaded by: Kim Moses

Position: FAV



Worcester County Government

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March 5, 2024

Delegate Marc Korman  
House Office Building, Room 251  
Annapolis, Maryland 21401  
[Marc.Korman@house.state.md.us](mailto:Marc.Korman@house.state.md.us)

Delegate Regina T. Boyce  
House Office Building, Room 251  
Annapolis, Maryland 21401  
[regina.boyce@house.state.md.us](mailto:regina.boyce@house.state.md.us)

Dear Environment and Transportation Chair Korman, Vice Chair Boyce and members:

The Worcester County Commissioners support HB 1221 Battery Storage and Solar Arrays Safety Training Grant Program and Fund. This needed legislation will make available funds for local governments to provide vital training to area fire departments about the proper responses to and the inherent dangers of Lithium-ion battery storage facilities, which are becoming more prevalent.

Battery Energy Storage Systems can prove fatal due to potential explosions caused by thermal runaway. When this occurs, toxic chemicals are released into the air that are extremely hazardous to first responders and any other people and animals within the plume area. Quality training to address these hazards can be expensive, so the proposed funding will be vital in providing the training needed to protect our first responders. In addition, the runoff that occurs from attempting to extinguish these systems is also littered with toxic chemicals that are detrimental to the environment, and ultimately state waterways.

Because of these hazards, it is imperative that Maryland jurisdictions have the funds needed to equip local fire departments with critical information to safely respond to emergencies involving lithium-ion battery storage systems installed with solar arrays and to establish certain training and emergency response standards that assure public safety as the State of Maryland moves towards a more robust renewable energy portfolio. We thank you for considering our concerns and urge you to support HB 1221.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anthony W. Bertino, Jr." The signature is fluid and cursive.

Anthony W. Bertino, Jr.  
President

cc: Senator Mary Beth Carozza  
Delegate Wayne Hartman  
Delegate Charles Otto

# **Battery Storage and Solar Arrays Safety - HB 1221(**

Uploaded by: Michael Cox

Position: FAV



UNIVERSITY OF  
MARYLAND

MARYLAND FIRE AND RESCUE INSTITUTE

Michael E. Cox, Jr., Executive Director

College Park, Maryland 20742-6811  
301.226.9900 TEL 301.314.0686 FAX

March 7, 2024

Delegate Jacobs  
Environment, Economic and Transportation Committee  
309 Lowe House Office Building  
6 Bladen Street  
Annapolis, MD 21401

Dear Delegate Jacobs,

I am writing to you on behalf of the Maryland Fire and Rescue Institute (MFRI), the state's comprehensive education and training facility, which annually trains 25,000 to 35,000 first responders. As Executive Director of MFRI, I am submitting my testimony in support of House Bill 1221.

With lithium-ion battery storage systems and solar arrays rapidly proliferating throughout the country, firefighters must be trained to face the unique hazards and challenges related to this emerging technology. You can't turn on the news without seeing an electric scooter, bike, hoverboard, or car catching fire and the perils that quickly ensue causing destruction, injuries, and deaths.

The grant funding provided through HB 1221, would enable MFRI to provide the imperative training needed to keep firefighters and Maryland citizens safe. For nearly 100 years, Maryland Fire and Rescue Institute has been educating and training firefighters, EMS, and rescue first responders, updating and employing new protocols to keep pace with changing technology.

I ask you and your constituents for assistance in helping to ensure that our firefighters have the necessary education and training necessary to protect life, property, and the environment in our state.

Sincerely,

Michael E. Cox, Jr., MS, CFO, EFO, NRP  
Executive Director

**HB1221.pdf**

Uploaded by: Mike McKay

Position: FAV

**MIKE MCKAY**  
*Legislative District 1*  
Garrett, Allegany, and Washington Counties



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Judicial Proceedings Committee  
Executive Nominations Committee

**THE SENATE OF MARYLAND**  
**ANNAPOLIS, MARYLAND 21401**

January 30, 2024

RE: Fire/EMS Coalition Support for House Bill 1221

Dear Chairmans Korman and Wilson, Vice Chairs Boyce and Crosby, and Members of the respected Committees,

The Fire/EMS Coalition would like to express their support for House Bill 1221: Battery Storage and Solar Arrays Safety Training Grant Program and Fund. The bill will establish the Battery Storage and Solar Arrays Safety Training Grant Program in the Maryland Energy Administration to provide grants to the Maryland Fire and Rescue Institute to train local fire departments on certain safety aspects associated with lithium-ion battery storage systems installed with solar arrays. The bill will require the Maryland Fire and Rescue Institute to consult with certain entities in determining how to meet the purpose of the Program with the grants awarded under the Program.

The Fire/EMS Coalition supports House Bill 1221 as it will be beneficial to the general safety of the public and advance safety practices related to lithium-ion battery storage in Maryland. The Coalition supports this important safety effort.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mike McKay'.

Senator Mike McKay  
Representing the Appalachia Region of Maryland  
Serving Garrett, Allegany, and Washington Counties

**Voting Organizations:**

**Maryland Fire Chief's Association (MFCA)**  
**Maryland State Firemen's Association (MSFA)**  
**State Fire Marshal (OSFM)**  
**Maryland Fire Rescue Institute (MFRI)**  
**Maryland Institute for Emergency Medical Services System (MIEMMS)**  
**Metro Fire Chief's Association**

## **Professional Firefighters of Maryland**

### **Our Mission Statement**

The Maryland Fire/EMS Coalition unites Republicans and Democrats in support of fire/emergency services legislation that benefit all first responders. Becoming a member does not require taking positions on legislation; rather Coalition members are asked to offer support in a way that best benefits fire/emergency services in their respective Legislative Districts.

# **HB1221 testimony.pdf**

Uploaded by: Robert Phillips

Position: FAV



# MARYLAND STATE FIREMEN'S ASSOCIATION

REPRESENTING THE VOLUNTEER FIRE, RESCUE, AND EMS PERSONNEL OF MARYLAND.



**Robert P. Phillips**

**Chairman**

Legislative Committee

17 State Circle

Annapolis, MD 21401

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## **HB1221: Battery Storage and Solar Arrays Safety Training Grant Program and Fund**

My name is Robert Phillips, I am the Legislative Committee Chair for the Maryland State Firefighters Association (MSFA). The MSFA represents the 25,000 plus volunteer Fire/EMS and Rescue first responders across the state.

I wish to present testimony in favor of House Bill 1221: Battery Storage and Solar Arrays Safety Training Grant Program and Fund

The MSFA supports the adoption of this bill. We have seen first hand the effects of Lithium-ion battery fires due to charging and storage issues. The Lithium-ion battery is not a new concept or device, they have been with us for about 30 years now. The issue now is the everyday use beyond the small rechargeable device. Today manufacturers combine many hundreds or thousands of these batteries into a bigger battery pack which is then used to store energy from a solar array. The amount of these batteries has grown to the point that we the in the fire service can no-longer provide the fire suppression needed with present technology or resources.

This bill will fund the study of lithium-ion battery storage and develop a training program for the firefighters in this state so that we can better provide the fire suppression and protection that will be needed.

I thank the committee for their time and attention to this important bill and ask that you vote favorable on House Bill 1221.

I will now be glad to answer any questions, or my contact information is listed above and welcome any further inquiries you might have.



**HB1221-ET\_MACo\_SWA.pdf**

Uploaded by: Dominic Butchko

Position: FWA



## House Bill 1221

### *Battery Storage and Solar Arrays Safety Training Grant Program and Fund*

MACo Position: **SUPPORT**  
**WITH AMENDMENTS**

To: Environment and Transportation and  
Economic Matters Committees

Date: March 8, 2024

From: Dominic J. Butchko

The Maryland Association of Counties (MACo) **SUPPORTS HB 1221 WITH AMENDMENTS**. The bill would provide resources to counties to both educate the public on the potential public safety consequences of utility scale batteries installed on solar installations and to better equip and train local firefighters. MACo's suggested amendments seek to expand the requirement to all utility scale batteries – while many such facilities are attached to solar installations, the proper policy concern is the battery, not the solar.

To fully transition from fossil fuels, it is incumbent that Maryland adopt multiple avenues of renewable power generation and storage. As this transition progresses, counties are seeing various actors start to embrace utility scale batteries as an efficient method to store energy, especially for power sources that are not continual, notably solar energy. Predominantly, the utility and data center industries have taken the lead with adopting these technologies, but so too are commercial, residential, and industrial actors employing various energy sources.

Lithium-ion batteries generally, and utility scale batteries particularly, come with a slew of issues yet to be fully addressed by policy makers – to this end, MACo is working with House & Senate sponsors on bipartisan legislation to examine lithium-ion battery safety at all levels and present recommendations to state and local leaders. Unlike a traditional fire, utility scale battery fires burn hotter and longer, and may discharge a mass of toxic chemicals. *The equipment, resources, and effort required to extinguish one of these fires is scales of magnitude higher than what many county fire departments can reasonably handle.* In at least two instances, county officials were told by battery operators that if there is a fire in the area surrounding a solar installation (and its battery storage), to not respond with conventional first responders, and to instead evacuate the area immediately.

While counties acknowledge that utility scale battery technology is an important component in the evolving energy grid, it is also important that Maryland and its first responders understand and recognize the risks associated with this technology and adopt policy to address those realities. Counties request that HB 1221 be amended to include training and education on the dangers of all utility scale batteries, not merely those connected to solar installations.

Counties support the intent of HB 1221 but urge the Committee to expand the bill's scope to cover all utility scale batteries, independent of their intended use. Accordingly, MACo urges the Committee to issue a **FAVORABLE WITH AMENDMENTS** report for HB 1221.

**HB1221 (SB0788) - UNF.pdf**

Uploaded by: Landon Fahrig

Position: UNF



# Maryland Energy Administration

**TO:** Chair Korman, Vice Chair Boyce, and Members of the Environment and Transportation Committee  
**FROM:** MEA  
**SUBJECT:** HB 1221 - Battery Storage and Solar Arrays Safety Training Grant Program and Fund  
**DATE:** March 8, 2024

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## **MEA Position: UNFAVORABLE**

This bill would establish a Battery Storage and Solar Arrays Safety Training Grant Program within the Maryland Energy Administration (MEA), and require an annual appropriation of \$1 million from the Strategic Energy Investment Fund (SEIF). This appropriation repeats in perpetuity.

The bill requires a significant annual transfer of SEIF funding to the Maryland Fire and Rescue Institute. To the extent SEIF funding is utilized for other programs, existing MEA programs focusing on clean energy deployment and greenhouse gas (GHG) reductions would be reduced.

Additionally, MEA is not the appropriate source for these grants nor the agency to oversee a program that is truly a public safety program. MEA's expertise is in renewable energy, energy efficiency, and GHG reduction spaces. New resources, human and otherwise, would be required to properly implement and oversee any new program, especially one of this magnitude and of novel subject matter.

MEA is fully committed to the intentional, targeted, and safe deployment of solar arrays and battery energy storage systems. Safety, not just fire suppression, should be included in the consideration and siting of utility-scale battery storage facilities. Berkeley Lab published a Best Practices and Considerations for Siting Battery Storage Systems. Within that document, recommended questions to be addressed when siting battery storage include but are not limited to:

- Does the battery storage system have access to the building's HVAC, fire suppression, and communication systems?
- If located outdoors, will the battery storage system be protected from unintended impacts?
- Does the site facility staff have adequate training on the procedures necessary to perform in the event that the battery storage system requires an emergency shutdown?
- Will the battery storage system be protected from natural disasters and severe weather events (e.g. hurricanes, floods, hail)?
- Will operations and maintenance (O&M) providers and first responders have "access to" and "egress from" the battery storage system?

Each of these considerations would apply to fire-related safety concerns.

However, attention to safety is woven into the structure of the current pilot program. Under the current Energy Storage Pilot Program regime found in PUA § 7-216, investor-owned utilities must "submit to the Commission, the Maryland Energy Administration, and the Office of People's Counsel information or data concerning... project safety, including battery type and chemistry". Additionally, under the pilot program, "an investor-owned electric company shall make all data provided... that is not proprietary or confidential available to the public."

Under Commission Order No. 89664, November 6, 2020, authorizing the Exelon-owned utility pilot projects Decommissioning, Safety, and Fire Prevention, the commission noted, in part:

*PPRP was concerned about fire safety and recommended that the Commission require utilities to share plans to address fires and explosions for Commission review and approval prior to installation. In addition, based on the toxicity of lithium ion batteries, PPRP recommended that utilities file a decommissioning plan for Commission review and approval. PPRP recommended following the framework used in New York State, which requires each plan to contain a narrative description of the decommissioning process, plans for funding the decommissioning process, and contingency plans for removal of damaged batteries.*

Because of these concerns, the Commission required that participating utilities create and file plans for preventing and addressing fires and explosions, for safe removal of damaged batteries, and for decommissioning and disposal of batteries. The plans must contain a narrative description, an estimate of costs, and identify the source of funding. These plans were subject to Commission approval. Demonstrating the need for an independent review of each project, the Commission found that the Delmarva Power & Light project required additional care and evaluation of risks because it involved the installation of energy storage systems in private residences. Accordingly, Delmarva was directed to address any safety concerns specifically associated with installing storage resources in the homes of residential ratepayers, and its plans for informing potential participants of those risks.

For the foregoing reasons, MEA urges the committee to issue a **Unfavorable Report**.

Our sincere thanks for your consideration of this testimony. For questions or additional information, please contact Landon Fahrig, Legislative Liaison, directly ([landon.fahrig@maryland.gov](mailto:landon.fahrig@maryland.gov), 410.931.1537).