

BaltimoreCounty_FAV_SB0788.pdf

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Position: FAV

JOHN A. OLSZEWSKI, JR.
County Executive



JENNIFER AIOSA
Director of Government Affairs

AMANDA KONTZ CARR
Legislative Officer

WILLIAM J. THORNE
Legislative Associate

BILL NO.: **SB 788**

TITLE: Battery Storage and Solar Arrays Safety Training Grant
Program and Fund

SPONSOR: Senator McKay

COMMITTEE: Budget and Taxation

POSITION: **SUPPORT**

DATE: February 21, 2024

Baltimore County **SUPPORTS** Senate Bill 788 – Battery Storage and Solar Arrays Safety Training Grant Program and Fund. This legislation would provide grants to the Maryland Fire and Rescue Institute to train local fire departments on responding to incidents involving lithium-ion battery storage systems.

The widespread use of solar energy and lithium-ion battery vehicles, devices, and energy storage systems has resulted in monumental challenges for the fire service worldwide. Fires and emergencies involving these systems have increased at an alarming rate, resulting in fatalities and millions of dollars in property damage in the United States. The Baltimore County Fire Department has experienced an increase in the installation of these systems and thus fires involving these systems. The training and emergency response standards offered by SB 788 would enhance the Baltimore County’s ability to maintain the safety of responders and effectively mitigate these incidents.

Accordingly, Baltimore County urges a **FAVORABLE** report on SB 788 from the Senate Budget and Taxation committee. For more information, please contact Jenn Aiosa, Director of Government Affairs at jaiosa@baltimorecountymd.gov.

SB788.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 Senate Bill 788

Dear Chairman Guzzone, Vice Chair Rosapepe, and Members of the Committee,

The Fire/EMS Coalition would like to express their support for Senate Bill 788: 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 Senate Bill 788 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.

SB788.pdf

Uploaded by: Mike McKay

Position: FAV

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



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Judicial Proceedings Committee
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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Senate Bill 788 – Battery Storage and Solar Arrays Safety Training Grant Program and Fund

January 30, 2024

Dear Chairman Guzzone, Vice Chair Rosapepe, and Members of the Committee,

I am writing to express my support for Senate Bill 788: 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.

Senate Bill 788 will be beneficial to the general safety of the public and advance safety practices related to lithium-ion battery storage in Maryland. I thank you and as for a favorable report.

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

SB788_RMC_SupportTestimony.pdf

Uploaded by: Molli Cole

Position: FAV



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Susan O'Neill, Chair

Charlotte Davis, Executive Director

Testimony in Support of
Senate Bill 788 – Battery Storage and Solar Arrays Safety Training Grant Program and Fund
Senate Budget and Taxation Committee
February 21, 2024

The Rural Maryland Council supports Senate Bill 788 - Battery Storage and Solar Arrays Safety Training Grant Program and Fund. This bill establishes a Battery Storage and Solar Arrays Safety Training Grant Program within the Maryland Energy Administration (MEA), to provide specified grant funding to the Maryland Fire and Rescue Institute (MFRI) to train local fire departments. The bill also establishes the Battery Storage and Solar Arrays Safety Training Grant Fund, which receives at least \$1.0 million from the Strategic Energy Investment Fund (SEIF).

A solar battery is an energy storage solution that is used to collect and store power generated from alternative energy sources such as wind and solar generation facilities. These types of systems are put in place to maximize the use of alternative energy, increase energy independence, and reduce the carbon footprint. There are risks involved using these types of systems, one of which is thermal runaway. According to UL Research Institutes, UL Research Institutes, Thermal runaway is one of the primary risks related to lithium-ion batteries and occurs when a lithium-ion cell generates heat at a rate several times higher than the rate at which heat dissipates from the cell. When these batteries fail or overheat, they release flammable, toxic gases that can spark a fast-spreading fire that is extremely difficult to extinguish, leading to tremendous damage to the battery and surrounding area.

Simply Google ‘firefighter training for lithium batteries’ and you will find story after story of devastation caused by lithium-ion battery fires and the lack of training of firefighters to address them. According to the U.S. Fire Administration, fires involving lithium-ion batteries are increasing rapidly, as they are in a growing number of applications including consumer products, transportation products, and power generations within the nation’s electric power grid. These fires are difficult to control because the source of gases that are creating the flames is confined within a cell battery that will not allow water in. Training is essential to help firefighters better understand the physical phenomena that determine how hazards develop during the lithium-ion incidents and how to best deal with them.

As Maryland moves towards a renewable energy portfolio, measures must be taken to do it safely. It is imperative that Maryland fire departments are sufficiently trained to handle incidences caused by lithium-ion battery malfunctions.

Senate Bill 788 will provide the training and funds to make this happen and the Rural Maryland Council requests your favorable support.

The Rural Maryland Council (RMC) is an independent state agency governed by a nonpartisan, 40-member board that consists of inclusive representation from the federal, state, regional, county, and municipal governments, as well as the for-profit and nonprofit sectors. We bring together federal, state, county, and municipal government officials as well as representatives of the for-profit and nonprofit sectors to identify challenges unique to rural communities and to craft public policy, programmatic, or regulatory solutions.

“A Collective Voice for Rural Maryland”

SB788 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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SB788: 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 Senate Bill 788: 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 Senate Bill 788.

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

SB0788-BT_MACo_SWA.pdf

Uploaded by: Dominic Butchko

Position: FWA



Senate Bill 788

Battery Storage and Solar Arrays Safety Training Grant Program and Fund

MACo Position: **SUPPORT**
WITH AMENDMENTS

To: Budget & Taxation Committee

Date: February 21, 2024

From: Dominic J. Butchko

The Maryland Association of Counties (MACo) **SUPPORTS SB 788 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 SB 788 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 SB 788 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 SB 788.

SB0788 (HB1221) - UNF.pdf

Uploaded by: Landon Fahrig

Position: UNF



Maryland Energy Administration

TO: Chair Guzzone, Vice Chair Rosapepe, and Members of the Budget and Taxation Committee
FROM: MEA
SUBJECT: SB 788 - Battery Storage and Solar Arrays Safety Training Grant Program and Fund
DATE: February 21, 2024

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 or eliminated.

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 the 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 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, 410.931.1537).