



Energy
Storage
Association

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August 31, 2017

Mary Beth Tung
Maryland Energy Administration
1800 Washington Blvd, Suite 755
Baltimore, MD 21230

Dear Ms. Tung,

The Energy Storage Association (“ESA”) respectfully submits these comments in response to the Maryland Energy Administration’s request for informal public comments on the implementation related to the Energy Storage Income Tax Credit Program as chaptered in Section 10-719 of the General Tax Article of the Maryland Code, pursuant to Senate Bill 0758 (2017).

ESA was established 27 years ago to foster development and commercialization of energy storage technologies. Since then, its mission has been the promotion, development and commercialization of competitive and reliable energy storage delivery systems for use by electricity suppliers and their customers across the United States. ESA members represent a diverse group of entities, including electric utilities, energy service companies, independent power producers, project developers, technology manufacturers and component suppliers. ESA member companies have expertise in the financing and deployment of behind-the-meter energy storage systems for residential and non-residential customers.

Please find our recommendations on the design of the Energy Storage Income Tax Credit Program.

Respectfully,

A handwritten signature in black ink, appearing to read 'JB', with a long, sweeping horizontal line extending to the right.

Jason Burwen
Director of Policy & Advocacy
Energy Storage Association

ENERGY STORAGE ASSOCIATION

COMMENTS ON IMPLEMENTATION OF THE MARYLAND ENERGY STORAGE INCOME TAX CREDIT PROGRAM

I. Appropriate carve-outs for specific customer classes and storage technologies will ensure project diversity, as contemplated in the statute.

While Senate Bill 758 did not explicitly call out a specific allocation of credits to technologies or customer classes, it does contemplate that a diversity of technologies and customer classes may benefit from the program. ESA believes it is prudent to allocate some of the credits to customers and technologies that are either expected to face greater hurdles or may require longer timelines. Doing so will drive learning-by-doing across multiple business models and technologies, which will help establish a more robust Maryland energy storage industry.

ESA recommends that MEA reserve up to 15% of credits in the first year of the program for residential customers. There are three hurdles facing residential customers that merit a separate category allocated to that customer class. First, residential customers may require longer timelines to process permits and paperwork. Second, the state tax appetite of commercial and industrial (C&I) customers is likely to be higher than residential customers, and therefore interest from C&I customers may be higher. Lastly, since C&I projects tend to be larger in size, there is the potential that a handful of projects could deplete the entire allocated credits of the program. Therefore, reserving credits in the first year of the program for residential customers will ensure they have an opportunity to participate in the program effectively.

ESA also recommends that MEA reserve up to 33% of credits in the first year of the program for applicants installing standalone storage systems, i.e., not installed with solar photovoltaic (PV) systems. The federal Investment Tax Credit (ITC) for solar PV systems is also applicable to storage systems that are installed with solar PV systems. However, the federal ITC is not available for standalone storage systems. While coupling solar PV systems with storage has many benefits to both the customer and ratepayers, the entire credits allocated to this program may be depleted quickly by customers utilizing the federal ITC. Creating a storage-only allocation would encourage a wider variety of storage applications and ensure diversity of grid deployments.

Finally, ESA recommends that MEA reserve up to 10% of credits in the first year for installation of thermal and mechanical storage systems, including hybrid installations of such technologies with batteries. Doing so will ensure that the program drives a variety of storage technologies and

accounts for the longer timeline for project design and installation associated with thermal and mechanical storage systems.

ESA recommends that MEA review the previously recommended allocations after the end of the first year of the program. MEA should examine the utilization of these allocations and determine whether all credits should be available on a first-come-first-serve basis for the remaining years of the program.

II. Requirements for obtaining awards must be rigorous enough to ensure projects come online.

ESA recommends that MEA require enough “skin in the game” for awards of tax incentives to ensure that risky projects do not hold on to credits that could otherwise be used to successfully deploy storage technologies. California’s Self-Generation Incentive Program (SGIP) design strikes an effective balance between enabling robust response and ensuring viable projects. The key SGIP components that are relevant to the Maryland tax incentive program include:

- *A non-refundable deposit that is significant enough to ensure that only serious projects compete for an award.* SGIP includes a deposit worth 5% of requested incentive award amount. The application fee is refunded upon completion and verification of the installed SGIP project, and all forfeited application fees from projects that were not completed are allocated to the Program Administrator’s credits for award.
- *Requirement of demonstration of project milestones to make sure that the projects are progressing in a timely manner to maintain their awards.* MEA can develop a set of project milestones and the timelines required to meet them, including a signed contract for project purchase.

III. Project timing requirements should accommodate flexibility for developers while ensuring project commitments.

Project timing requirements are a critical component of the Energy Storage Income Tax Credit Program and must balance developers’ need for flexibility with the agency’s need for project commitment. Typical timeframes for installing energy projects in Maryland are difficult to estimate considering the limited experience with behind-the-meter storage installations in the state. Timeframes vary significantly across the country based on size of installation, the type of building, the type of storage technology, and whether the storage device is located inside or outside of the building. The process from purchase of the system to the in-service date where the system is installed and operating can vary significantly as a result of non-technical processes, such as permitting and interconnection, especially for some instances on new construction

projects. In California and other states, earlier storage installations for C&I customers experienced delays caused largely by lack of familiarity on the part of counties and utilities, which caused challenges in executing permitting and interconnection of storage. Until the Maryland storage market picks up and begins gaining experience with permitting and interconnection, it is difficult to definitively determine appropriate timeframes. At the same time, MEA must impose project timing requirements to make sure that the program credits are made available to customers who intend on installing storage and that reservations are not held for projects that are unlikely to be developed.

ESA recommends MEA again turn to California's SGIP as a good template for appropriate project timing requirements. The "Proof of Project Milestones" outlined in the SGIP program includes a signed contract within 90 days of incentive award. ESA believes this is an aggressive enough requirement considering the time it takes to negotiate a contract and the fact that some customers may be hinging their decision to execute a contract for a storage system on receiving the tax incentive. The last project milestone -- proof of completion -- must also reflect project development timelines. ESA recommends an 18-month project completion requirement as the shortest feasible requirement, which is still an aggressive timeline. As a comparison, SGIP provides an 18-month window for project completion with an option to extend by 6 months up to three times.

IV. Limitations on customer eligibility must be designed to provide greatest optionality while encouraging robust market.

ESA recommends that MEA establish a limit of one tax credit per *installation address* per year, rather than place limits by customer or customer address. By focusing on the installation address, MEA can protect against abuse of the program while ensuring the development of a robust storage market in Maryland with the greatest variety of customers and end use applications. It is critical that eligibility criteria for the tax credit encourages multiple ownership structures, including third-party ownership of storage systems installed at various residential and business properties; indeed, this model of ownership has driven expansion of the solar PV market in Maryland previously and should be available for the storage market as well. Similarly, the eligibility criteria should not constrain a customer who has multiple sites across the state, such as a business, from deploying storage across their several separate facilities. Using the address of physical installation, rather than customer address or identity, is the best approach for limiting tax credit awards. Finally, MEA could consider a limit on the amount of tax credits that any one developer can obtain in order to attract a robust set of market participants into the state.

Additionally, ESA recommends MEA allow applicants to elect either an individual or business tax credit, and that the type of tax credit not be based on property type for the installation. For example, a person who works from a home office should be able to avail either business or

individual credit as they choose. ESA finds this proposed restriction does not pass the test of providing the greatest optionality for customers, and it is not clear whether it in fact provides greater credits to customers.

V. Timing of award notice and distribution must provide customer with ability to make investment decisions

ESA recommends MEA transfer tax credit certificates only after a storage project is verified as in service. Customers need certainty about their eligibility for the tax incentive before securing a contract with a developer and building their storage system, and award of tax credits in advance of project completion is both appropriate and necessary. However, as with other incentive programs around the country, transfer of tax credit certificates should come only after the project is operational, which ensures that systems are actually being deployed. This provides the needed clarity for customers while at the same time does not create a situation where customers receive a tax credit for a project that never materializes.

VI. Project eligibility should derive from statutory language and be dependent on basic safety requirements.

ESA recommends the following definition for energy storage system that borrows from Senate Bill 758:

“a system used to store electrical energy, or mechanical or thermal energy that was once electrical energy, for use as electrical energy at a later time or in a process that offsets electricity use at peak times”

As a first criterion, a storage system must be capable of receiving electricity and converting it in an electrochemical, mechanical, or thermal process that can then be re-converted at a later time to electricity for the purpose of consumption at the customer site or delivery into the grid. For thermal storage technology, an additional criterion should be that the project enables avoidance of electricity consumption for thermal purposes during “peak times,” defined as the on-peak billing periods in the tariff of the utility of that jurisdiction.

Additionally, ESA recommends that eligible projects maintain certain safety criteria, namely: the use of UL-certified equipment, certification by a licensed electrician, and compliance with applicable building and fire codes.

VII. Program metrics selection should help inform storage policy in the future

ESA recommends the following metrics should be collected from program participants who are installing battery storage technologies:

- Project installed cost and tax credit award value (\$);
- power rating (kW);
- energy rating (kWh);
- technology type and sub-type (e.g., battery *and* lithium-ion);
- permitting costs and timelines; and
- interconnection costs and timelines.

The latter two data points would be collected towards the end of the project development timeline and would provide Maryland policymakers with increased visibility into interconnection and permitting hurdles that may face the storage industry in the state.

These same data requirements should apply to thermal storage projects, with the following equivalent metrics as appropriate:

- power capacity (tons);
- dispatchable peak shift available (kWh).