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October 28, 2025

Chair Frederick H. Hoover
Maryland Public Service Commission
William Donald Schaefer Tower
6 St. Paul St., 16th Floor
Baltimore, MD 21202

RE: Fluence Comments in Response to MD PSC RFI for Transmission Connected Energy Storage Complying with the Next Generation Energy Act

Thank you for the opportunity to submit comments in response to the Maryland Public Service Commission's (PSC) Request for Information (RFI) in advance of the state's forthcoming solicitation for front-of-the-meter transmission connected energy storage as required under the Maryland Next Generation Energy Act.

Established in 2018, Fluence is an American company and global market leader in utility-scale energy storage products and services, as well as optimization software for storage. Fluence provides an ecosystem of offerings, including modular, scalable energy storage products, comprehensive service offerings, and AI-enabled optimization software. Projects with Fluence's integrated battery energy storage systems provide power to utilities, companies, and consumers across eight of the 10 U.S. ISO power markets, where 278 million Americans live, and the portfolio of over 80 energy storage projects utilizing our systems in the United States represents more than 1 million operating hours (or 41,667 days). The company is transforming the way we power our world by helping system operators, utilities, and power producers create more resilient and reliable electric grids.

Fluence is a leader in the onshoring of the grid-scale lithium iron phosphate (LFP) battery energy storage system (BESS) supply chain and we pride ourselves on best-in-class quality, cybersecurity, and safety.

Fluence has long prioritized building a domestic supply chain and this objective has been accelerated in recent years. We recently delivered our first system to a customer in the United States that includes every major component of the system (including LFP cells) procured from a domestic manufacturing facility. Our products for both the U.S. and global markets also do not contain controls hardware or software that are made or designed by a foreign adversary-controlled entity or manufactured within a foreign adversary country.

With respect to safety, in particular, Fluence is an industry leader. We undertake a continual safety engineering process which assesses potential risks associated with LFP stationary energy storage and incorporate safety elements at every stage of system design and installation. Fluence's products meet or exceed both NFPA-855 and UL9540 standards, and our approach includes mitigations designed to prevent safety events, limit the extent of events, and safely conclude events.

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As an equipment supplier, Fluence will not bid into the upcoming RFP required under the NGEA, but it may bid to supply BESS equipment to project developers that do participate in the RFP process. As such, Fluence has responded below to questions included in the RFI that are specific to our role as an equipment supplier.

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1. ***Contract Length.*** *The Maryland NGEA requires at least a 15-year contract term.*

    a. *What is a desirable contract term given the useful life of energy storage equipment, degradation of battery performance over time, augmentation schedules and financing considerations?*

    20 years is considered a standard contract term for battery energy storage projects.

6. ***Resource Types***

    b. *How should the solicitation compare the benefits of co-located resources and stand-alone energy storage against one another?*

    Battery energy storage resources that are co-located with generation and standalone battery energy storage projects each have different attributes, but the PSC should appropriately identify and value the attributes of the energy storage resource in either configuration. For example, when paired with renewables, storage should be valued for its extension of power availability, and it should be valued for improving plant efficiency and reliability when paird with thermal generating assets. In standalone applications, storage should be valued for its additional transmission capacity and redundancy and for large load power smoothing.

8. ***Safety***

    a. *Which safety standards should be required to be reviewed in the ESCC award process?*

    The battery energy storage industry actively promotes the adoption and enforcement of the latest national fire safety standards and has generally coalesced around the adoption of the National Fire Protection Association (NFPA) Standard 855.

    NFPA 855 provides insight into mitigating risks and helping to ensure all installations are performed take into account vital, life-saving considerations. The standard offers comprehensive criteria for the fire protection of BESS installations, the setting where the technology is being installed, the size and separation of BESS installations, and the fire suppression and control systems in place. Compliance

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requires either:

- NFPA 68 (deflagration venting);
- NFPA 69 (explosion prevention);
- Large-scale fire test demonstrating non-propagation.

NFPA 855 also references UL 9540A, which is a test method for evaluating thermal runaway fire propagation in BBESS, and includes specific tests for evaluating cells, modules, and full units. Output from this testing is used to assess NFPA 855 compliance. The PSC should be required to review certifications to both NFPA 855 and UL9540 standards.

Though it is not required by Maryland law, the PSC itself has already weighed in on the merits of NFPA 855 certification. In its RM85 rulemaking, the PSC established safety requirements that an energy storage device shall adhere to the design, construction, operation and maintenance standards in the latest version of NFPA 855.

c. *Should compliance with insurance requirements; outreach to emergency responders and host communities; and emergency response plans be considered?*

Fluence recommends that the PSC provide extra scoring points for bids that procure BESS equipment from suppliers with testing and training programs that exceed industry standards. Examples of actions exceeding industry standards include:

- Conduct large-scale fire testing beyond UL9540A requirements that measure true propagation risk, test spacing and density designs, and inform action plans;
- Conduct comprehensive first responder training programs and other stakeholder safety engagement programs.

With respect to insurance requirements, Fluence also notes that it will be more difficult to insure projects that are not certified to NFPA855 and UL9540.

9. *Project Viability and Other Qualitative Factors*

b. *How should supply chain and tariff risks be incorporated when assessing project viability?*

Given ongoing uncertainty surrounding tariffs on imports of battery energy storage systems, solutions that maximize U.S. domestic content significantly derisk energy storage projects and minimize exposure to tariff-related price increases. Fluence

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recommends that the PSC give additional scoring points to bids that maximize the use of U.S. domestic content.

10. Cost-Benefit Analysis

a. *What benefits, besides capacity, locational and avoided emissions value, should be quantified when assessing the cost-effectiveness of the energy storage price schedule?*

ii. *How should the value of longer duration storage (i.e., beyond 4 hours) be considered and if so, how?*

Battery energy storage can provide a variety of grid services. Most deployed battery storage projects are between vary between 2-4 hours in duration. These projects maintain grid frequency, manage peak demand, and time shift renewable power generation. At longer durations, battery storage can provide multi-hour firming of renewable generating assets and begin to act as dispatchable, non-emitting replacements for gas peaker plants.

When assessing the value of energy storage projects at any duration, the PSC should do so on a technology-neutral basis. For example, while LFP chemistry is viewed as the near-term and long-term solution for projects with durations of up to 4-6 hours, there is significant interest in emerging but unproven battery chemistries for longer-duration storage projects.

While there will be roles for those emerging chemistries in certain grid applications, LFP is still a preferred solution for projects with durations of up to 12 hours. Even at those longer durations, LFP offers lower installed costs, efficiency, energy density, and safety advantages. Moreover, LFP is a bankable technology that has been proven over decades and has global and domestic manufacturing capacity at scale. The PSC should evaluate bids with each of these characteristics in mind.

Separately, the PSC should not require projects with longer discharge durations to be synchronous with the charge duration as it will limit the suite of available battery technologies that can achieve the outcomes desired under the procurement.

13. Energy Storage Industry

c. *Any trends in or around the energy storage industry that may impact the procurement and how should these trends be accounted for in the solicitation.*

Fluence has observed several emerging trends in the battery storage industry. For each of the following trends, the PSC could consider providing additional scoring points to bids that address the underlying concerns:

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- Greater battery capacity and technical design allowing for more energy density at the project site, driving down prices while minimizing project footprints and easing noise concerns;
- Regionalization of supply chains, particularly in the United States and Europe;
- More battery storage projects sited near major load centers, where they can help to minimize grid congestion;
- Battery storage as a part of the solution set to serve demand from data center loads.

15. Non-Price Factors

a. *What non-price factors should be considered by the Commission and how should these non-price factors be incorporated into the evaluation process?*

Battery storage projects are highly digital, interconnected, and increasingly reliant on software-based controls. This enables faster response times, more efficient system management, and allows for better integration of new technologies, but it is imperative that battery storage assets are secure and protected from cybersecurity vulnerabilities.

This is especially true when it comes to disruption risks associated with controls hardware or software produced or designed by a foreign adversary-controlled entity or manufactured within a foreign adversary country. This includes battery management systems, energy management systems, inverters, and software that supports system functionality (including imports of fully integrated systems manufacted in foreign adversary countries that contain this hardware and software).

When evaluating bidders participating in the RFP process, the PSC should provide scoring points to bidders that use BESS equipment that incorporates controls hardware and software that is not produced or designed by a foreign adversary-controlled entity or manufactured within a foreign adversary country.

We look forward to working with the PSC to ensure that the upcoming procurement achieves the state's objectives to deploy energy storage projects that make electricity more affordable and reliable for the state of Maryland and its residents. Please do not hesitate to contact Mike Weiner (Senior Manager, Policy and Advocacy) should you have any questions.