



February 28, 2023

SB 697 – Energy Storage – Targets and Maryland Energy Storage Program – Support

Chair Feldman, Vice Chair Kagan, and members of the Senate Education, Energy, and the Environment Committee:

The American Clean Power Association (ACP) is uniting the power of wind, solar, transmission and storage companies and their allied industries, to champion policies that enable the growth of renewable energy in the United States.

ACP strongly supports SB 697, which will establish a 10-year goal to bring storage projects into Maryland and on to our grid. Energy storage refers to a technology class unlike any other electric grid technology or infrastructure. Energy storage has the unique capability to capture energy at one point in time, store the energy, and release the energy later when it is needed or when it is most useful to do so. It can provide electricity during times of peak demand, absorb excess energy from renewables during peak supply, reduce energy waste and increase grid efficiency, alleviate transmission congestion, serve as backup power for homes, businesses, and broader communities, and will be an essential component of our modernizing electric grid.

Energy Storage Enables a Clean Energy Future

The passage of Climate Solutions Now makes storage critically important. Maryland's commitment to net-zero greenhouse gas emissions by 2045 means we need to clean up our grid. As we bring on new sources of generation like wind and solar, we need to ensure that we get serious about cleaning up our capacity to back up these resources.

Not only are energy storage technologies commercially viable and scalable, but they have also become a leading grid-enhancing technology in states across the country with modernized policy frameworks. Over 4,000 megawatts of energy storage capacity were added in the United States in 2022. According to the U.S. Energy Information Administration, in 2023 the United States is expected to install more energy storage capacity than gas-fired power plants.

Energy Storage Strengthens Reliability

Energy storage, at its core, is a reliability enabling and reliability enhancing technology. Across the country, states are choosing energy storage as the best and most cost-effective way to improve grid resilience and reliability. Energy storage systems provide a wide array of unique grid benefits and services designed to increase grid reliability, including:

- I. *Frequency Response and Regulation* – always ensuring the moment-to-moment stability of the electric system.
- II. *Peaking Capacity* – meeting short-term spikes in electric system demand that can otherwise require use of lower-efficiency, higher-cost generation resources.
- III. *Maximizing Renewable Energy Resources* – reducing curtailment of renewable generation resources and maximizing their contribution to system reliability.



- IV. *Grid Infrastructure Support* – relieving transmission and distribution infrastructure congestion, preventing reliability violations on power lines, enhancing the resilience of wires infrastructure, and creating a more flexible power system.
- V. *Increasing Operational Flexibility* – facilitating efficient integration of a diversity of generation resources and improving the ability of the electric grid to adapt rapidly to changes in demand and generation.
- VI. *Improving Grid Resilience* – serving as back-up power for individual homes, businesses, communities, and the broader grid system to minimize and prevent power outages and service interruptions from extreme weather.

Energy Storage Lowers Costs

By optimizing the grid, bolstering reliability, and enabling a clean grid, energy storage technologies are uniquely positioned to reduce energy system costs and over the long-term, lower rates for consumers. There are myriad ways that energy storage can reduce energy costs, including:

- I. *Supporting the integration of more wind and solar generation* — Wind and solar are the cheapest sources of electricity. Energy storage supports the integration of higher and higher shares of renewables, enabling the expansion and incorporation of the most cost-effective sources of electricity generation.
- II. *Reducing energy waste* — Energy storage can help eliminate energy waste and maximize the benefits of renewable energy. Energy storage is the only grid technology that can both store and discharge energy. By storing energy when there is excess supply of renewable energy compared to demand, energy storage can reduce the need to curtail generation facilities and use that energy later when it is needed.
- III. *Improving grid efficiency* — Energy storage is instantly dispatchable to function both as generation and load, so it can help the grid adjust to fluctuations in demand and supply, optimizing grid efficiency, alleviating transmission congestion, and increasing grid flexibility. This reduces overall system costs.
- IV. *Limiting costly energy imports and increasing energy security* — As an in-state resource built and operated in Maryland, energy storage can limit the need to utilize often more costly and more-fossil fuel intensive balancing resources from the broader grid. Energy storage improves energy security and maximizes the use of affordable electricity produced in Maryland.
- V. *Preventing and minimizing power outages* — Energy storage can help prevent or reduce the risk of blackouts or brownouts by increasing peak power supply and by serving as backup power for homes, businesses, and communities. Disruptions to power supply can be extremely costly and hazardous to health and safety. Energy storage makes the grid more resilient and reliable.

We thank Senator Augustine for introducing this legislation. Senate Bill 697 will accelerate Maryland's clean energy transition, generate more than \$3 billion investment in the Maryland economy and creating as many as 1,500 family-supporting jobs.

The American Clean Power Association requests a favorable report.

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