

Committee: Education, Energy, and the Environment

Testimony on: SB697 “Energy Storage – Targets and Maryland Energy Storage Program – Establishment”

Position: Favorable

Hearing Date: February 28, 2023

The Maryland Chapter of Sierra Club submits this testimony in support of SB697. This bill will require the Public Service Commission (PSC) to establish minimum targets for energy storage capacity in the state by specified dates along the pathway to Maryland’s ambitious Greenhouse Gas Reduction goals, establish an actual Energy Storage Program, and through that program develop market-based incentives and procurement mechanisms that will achieve “a robust, cost-effective energy storage system in the state.”

SB697 builds upon the Energy Storage Pilot Program established in 2019. We believe SB697 is warranted at this time to accelerate the rate of deployment of energy storage capacity in our state and set targets beyond those in the Pilot Program. The cherry blossoms are coming out earlier every year, the most Antarctic ice ever has melted, weather is increasingly erratic, and increasing numbers of lives, homes, and farms are being lost each year to the floods, drought, wildfires, and storms associated with this climate disruption. When the Energy Storage Pilot Program started, it seemed reasonable to have the program conclude and provide a final report by the end of 2026, and potentially take next steps in 2028. We now have a Greenhouse Gas Reduction goal of 60% by 2031, and the rapid expansion of clean renewable energy is an essential part of achieving that goal.

Likewise, the deployment of energy storage capacity is essential to achieving the full impact of that expansion, adding substantial value to investments in clean renewable resources.

- Energy storage solves the intermittency problem of wind and solar power generation, which can only provide electricity when the wind is blowing or when sunshine is available. By storing extra energy produced by wind or solar generators for use later, battery storage adds stability to these variable energy sources and maximizes their effectiveness.
- Energy storage will also improve electricity grid resilience and reliability, bridging potential electrical power shortfalls or outages.
- Energy storage can reduce transmission and distribution line losses.
- By storing and later releasing energy generated by clean wind and solar, energy storage will further reduce air and water pollution from dirty or inefficient energy generation facilities, and lower emissions of carbon dioxide and other greenhouse gases.

Since 2019, there have been major advances in energy storage technology, attendant decreases in cost, and a rapid increase in the amount of battery storage brought online by utilities themselves as well as other large and small private-sector entities. The U.S. Energy Information Agency recently reported that while battery storage was “negligible” (less than 2 gigawatts, GW) before 2020, the amount had increased to roughly 9 GW at the end of 2022 and is projected to reach 30

GW by the end of 2025.¹ The National Renewable Energy Laboratory projects that battery storage costs will drop by over 30 percent by 2025 and by almost 45 percent by 2030.²

Maryland cannot afford to sit by while these important advances are happening – especially with the incentives provided by new federal funding. While the evaluation of the different models being developed under the energy Storage Pilot Program will be worthwhile, the rapid development of storage capacity countrywide offers multiple models and examples to learn from as well. It is essential that the critical steps laid out in SB697 – establishment of minimum targets, development of an Energy Storage Program within the PSC, and the identification of appropriate market-based incentives and procurement/contracting mechanisms – be carried out as soon as possible, building upon the pilot program’s experience.

For these reasons, the Sierra Club Maryland Chapter finds SB697 to be an important component of our efforts to reach our clean energy and Greenhouse Gas Reduction targets, and we urge a favorable report.

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¹ U.S. Energy Information Agency, “Today in Energy;” “*U.S. battery storage capacity will increase significantly by 2025;*” Dec. 8, 2022

² Cole, Wesley, A. Will Frazier, and Chad Augustine. 2021. Cost Projections for Utility Scale Battery Storage: 2021 Update. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79236. <https://www.nrel.gov/docs/fy21osti/79236.pdf>.