February 27, 2023

Honorable Brian J. Feldman, Chair
Education, Energy, and the Environment Committee
2 West Miller Senate Office Building
Annapolis, Maryland 21401

Re: CHESSA Letter of Support for SB 663, Maryland Resilient and Clean Energy Homes Act

Dear Chair Feldman and Members of the Education, Energy, and Environment Committee:

The Chesapeake Solar and Storage Association (CHESSA)[1] appreciates the opportunity to testify in support of SB 663, the Maryland Resilient and Clean Energy Homes Act. CHESSA is proud to support SB 663 and asks the Committee for a favorable report.[2]

The Maryland Resilient and Clean Energy Homes Act is a nation-leading bill. By passing SB 663, Maryland will turn the future challenges of expensive upgrades to the electric grid driven by transportation and home electrification into a present opportunity to fund customer-driven clean energy solutions that can offset and mitigate the future need for additional grid infrastructure. SB 663 looks to create partnerships among utilities, consumers, and clean energy vendors to innovate and provide solutions to the grid that are seamlessly integrated into customers' lives.

But at the bottom line, this bill pilots a new approach to incenting customers and investor-owned utilities to work together to make the grid more efficient and less costly for all ratepayers. Electrification, if managed well, represents an opportunity to spread grid costs across more units sold, producing a downward pressure on rates. Without intervention and early attempts to establish such a framework, the financial impact of electrification on ratepayers could grow large and increase energy inequities among ratepayers.

[1] CHESSA is a member organization that represents over 120 companies engaged in all facets of the solar and battery storage industry throughout Maryland, Virginia, and the District of Columbia.
[2] Representatives of Maryland League of Conservation Voters and Chesapeake Physicians for Social Responsibility have given CHESSA consent to represent that those organizations endorse and support CHESSA's letter of support for SB 663.

Numerous studies in the past year have shown that widespread electrification of vehicles and use of heat pumps–a cornerstone of President Biden's climate mitigation strategy as reflected in the Inflation Reduction Act–could represent an unprecedented increase in electric demand in the United States if left unmanaged.[3] This represents a substantial and foreseeable future cost to ratepayers that could be in the tens of billions in Maryland alone.[4] CHESSA applauds Chair Feldman's leadership for bringing a bill that proposes a solution to this looming issue. It is important that this solution relies on customer investments and behaviors that also further the state's clean energy deployment and energy efficiency goals. CHESSA appreciates the fact that SB 663 will provide additional incentive support to low-to-moderate-income customers and residents of affordable multifamily housing, moving toward a clean energy transition that leaves no one behind.

That is the **why** of SB 663. What about the **how**?

There are two core provisions of SB 663 that get customers into the game: (1) upfront rebates for electrical work and equipment needed to facilitate an electrification investment; and (2) a commitment for recipients to participate in a "load management" program for a set period of two years where customers can earn additional compensation by helping the utility during critical peak events or otherwise managing the demand placed on the grid to avoid the need for grid upgrades.

Importantly, the two-year commitment is a carrot, not a stick, which is necessary to pilot different approaches to achieving demand reductions through customer response. With the emergence of new technologies like smart main electric panels and the growing prevalence of battery storage devices, CHESSA believes these customer behavioral changes could be made seamless from the customer experience perspective. As the saying goes, change begins at home and SB 663 is a customer-centric approach to empowering consumers to be the solution.

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[3] *See, e.g.,* "Global Energy Perspective 2023," McKinsey & Co., *available at* https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2022 (projecting that global electric demand could triple by 2050 due to electrification); https://www.icf.com/insights/climate-electric-vehicle-revolution (projecting a 40% increase in energy demand from electric vehicles); "Grid of the Future: PJM RTEP Perspective (5/10/22), *available at* https://urldefense.com/v3/__https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220510/item-12---grid-of-the-future-rtep-perspective.ashx__;!!OKj0nms!P0cNV-oIYqM5nP1zu220qBZeGJBCTfG8FDT-nHPz-RylubcGoxpKVUQGLogtdpFCing5H9coQQJ7BIutdi1sBg$ (EV charging could account for ~10% of total PJM energy over next 15 years).

[4] BGE Supplemental Testimony to Howard County Council re: Bill 5-2023 (2/20/23), *available at* https://apps.howardcountymd.gov/olis/GetFile.aspx?id=34009 (stating that "BGE projects that it will need to build or expand 250 substations and roughly double its feeder system to support building and transportation electrification in its service territory…")

Upfront rebates for main electrical upgrades caused by home electrification

A make-ready credit, capped at $3,000 per premises for general market customers and net of any additional sources of state or federal funding, is provided to any residential customer of an IOU that is undertaking a beneficial electrification investment that requires an upgrade to the main electrical service of the home. With beneficial electrification and increased use of DERs like EVs, rooftop solar, and battery storage, it is becoming apparent that the costs of accommodating additional loads within the existing housing stock will require significant electrical upgrades for most residential customers.[5] The typical cost of a main panel upgrade, including the cost of electrical work performed, can range between two to five thousand dollars. For a homeowner that may be on the fence about the timing of an electrification or clean energy investment, this could dissuade or defer the decision to proceed. Many states have already adopted make-ready for electric vehicles for residential customers.[6] Pepco has proposed a robust make-ready "heavy up" program in Washington, D.C., but participation in that program would not be coupled with required participation in demand response or demand flexibility programs as proposed here.

Additional make-ready rebate available for low-to-moderate-income households

Cutting or eliminating this upfront cost barrier is even more important in delivering electrification and clean energy benefits to low-to-moderate income consumers. SB 663 provides additional flexibility to cover up to $6,000 for qualifying low-to-moderate-income customers. This should ensure that the entirety of the make-ready electrical work and equipment is covered to dramatically reduce the barrier to beneficial electrification to households that would benefit the most.

Load management and grid services support structure

The unique and innovative feature of SB 663 is that it seeks to create a "load management program" that will provide participating consumers additional compensation for providing value to the electric grid by helping address critical peak events and managing load and demand to prevent the need for upgrades to the grid.

[5] Walton, Robert, "Residential electric panels represent a nearly $100B 'roadblock' to full electrification, report finds," Utility Dive (August 31, 2021), *available at,* https://www.utilitydive.com/news/residential-electric-panels-represent-a-nearly-100b-roadblock-to-full-el/605829/.

[6] Make-ready programs exist, in some form, in Alabama, California, Connecticut, DC, Georgie, Hawaii, Massachusetts, Michigan, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Oregon, Utah, Virginia, and Washington. Additional make-ready programs are pending approval in several states.

Encouraging on-site clean energy systems to provide grid support and customer resilience

As a complement to the "load management program," SB 663 provides for at least a quarter of the pilot program budget to be reserved to encouraging customers to install "on-site clean energy systems" (i.e., solar plus battery storage systems).

Encouraging these systems provides assurance and resilience to homeowners–which can be especially critical for customers that are dependent on an electrically-powered medical device or that require refrigeration for medication–and provides an ongoing value stream to encourage these home batteries to participate in grid support. As the entire East Coast experienced with the recent Winter Storm Elliott, the electric grid is vulnerable to extreme weather and the demands put on the grid by electric heating load. Increasing the flexibility of customer demand, by dispatching and aggregating residential battery storage devices during these peak winter mornings, can mitigate the risk of rolling blackouts. Many states have already moved forward with similar battery programs (often called Bring Your Own Device or BYOD programs), as outlined in Attachment A.

Aligning utility and consumer interests in a more efficient, less costly grid

Under the current regulatory paradigm, utilities earn a rate of return on capital assets and have a natural incentive to want to build and place into rate base infrastructure investments. While there are efficiency standards and other directives to avoid waste and promote conservation, there are currently few guardrails in place for mitigating the increased grid costs that could come from widespread home electrification. SB 663 pilots an approach that allows investor-owned utilities to seek a portion of shared savings (if any are achieved) by demonstrating that successful operation of pilot projects has helped defer or avoid quantifiable grid costs. Providing some incentive for utilities to leverage customer-sited resources and customer programs such as this to avoid building assets that are otherwise in the interest of shareholders creates a potentially new paradigm where utilities could be encouraged to lean in on the approach to empowering more and more customer-driven solutions. Creating helpful regulatory mechanisms for shared savings and respecting the utility's cost of capital is necessary to align interests and achieve win-win results for all.

Require utilities to allow meter collar adapters to expedite battery storage installation

As Maryland and other states seek ways to make the installation of solar and battery storage faster and cheaper, one of the easiest and no-cost ways to facilitate this is to allow for the use of customer-owned meter collars. Meter collars are devices installed between the utility meter and the meter socket, which can allow for residential clean energy systems to be installed 10-times faster, at a discount to customers, and which bypass the need for expensive panel upgrades and

rewiring due to where the devices are situated on a home. Meter collars already are being installed safely in scores of utility territories throughout the U.S. and consistently reduce the cost of solar and storage installation by hundreds to thousands of dollars.

Create a stakeholder group to design a multifamily program to extend the benefits of the program to low-to-moderate-income customers living in qualifying multifamily dwelling.

CHESSA recognizes that many low-to-moderate-income customers do not own their own home and may not directly benefit from programs that are largely helpful to single-family homeowners. CHESSA applauds SB 663 for including a multifamily program that can both extend the benefits of resilience to these residents while charting a path to incorporating beneficial electrification at these facilities. The process contemplated in SB 663 will invite all informed and interested stakeholders have a seat at the table to fashion programs that will meet the unique needs of the residents.

The provisions of SB 663 align with the provisions of the Inflation Reduction Act that provide the opportunity for an additional 20% bonus to the federal investment tax credit for solar and battery storage systems. Additionally, as the General Assembly is poised to make the community solar program permanent, it is entirely possible that the stakeholder group might identify special modifications to the community solar subscription model that could be streamlined for qualifying multifamily dwellings (i.e., community solar subscriptions could be limited to onsite residents). The community solar structure, or some streamlined adaptation for the multifamily onsite setting, could help deliver the requirement that participating low-to-moderate-income customers living in qualifying multifamily dwellings will receive at least 25% bill savings.

Conclusion

CHESSA greatly appreciates the opportunity to submit these comments and is proud to voice our strong support for a favorable recommendation from this Committee. We appreciate the leadership of the Chair in bringing this important and innovative legislation forward and look forward to opportunities to collaborate with all interested parties in building a clean energy transition that works for everyone.

/s/
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/s/
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