

**State of Maryland**  
**Senate Finance Committee**  
**CARES Proposal**  
*Comments of the Nuclear Energy Institute*

February 11, 2020

Bill Number: SB 265 and HB 363  
Commenter: Nuclear Energy Institute  
Position: Support with Amendments

The Nuclear Energy Institute appreciates the opportunity to provide comments on the Clean and Renewable Energy Standard (CARES) proposals in SB 265 and HB 363. This approach would assure Maryland will have a 100 percent carbon-free electricity system by 2040. This is an ambitious target and achieving this goal while minimizing the impact on Maryland consumers will require the state to draw upon all of the carbon-free sources of electricity available. To this end, the Nuclear Energy Institute applauds the inclusion of nuclear energy as part of the portfolio of non-emitting technologies. However, for this approach to be viable, these bills must be amended to more accurately value the contribution of Maryland's existing nuclear resource.

These bills create incentives for new nuclear technologies to be deployed in the future as part of the reconfiguration of the state's electricity system to one that is completely carbon-free. New nuclear designs are being developed to produce a suite of options that will be smaller, more cost-effective, and provide better capabilities to complement the expanded use of variable wind and solar generations across days and seasons. By including new nuclear as part of the path forward, the CARES proposal opens the door to a broader set of options for Maryland to reach its clean energy future. In order to reach this future, however, Maryland must not lose what it has on hand.

Today, nuclear energy provides the vast majority of Maryland's carbon-free electricity. This non-emitting generation provides the foundation for Maryland's clean energy future. The Calvert Cliffs Nuclear Power Plant generated 15,000,000 mega-watt hours in 2018. This is about 80 percent of Maryland's carbon-free electricity. Realizing the bold vision for Maryland's future begins with ensuring the continued operation of Calvert Cliffs.

The proposal counts the generation from the plant as part of meeting the state's carbon-free electricity requirement, but it does not place any value on doing so. This approach effectively takes for granted that the plant will always continue operation. This is a risky assumption as similar nuclear plants in the same PJM regional electricity market have closed or are facing the prospect of doing so.

The January 2020 report from the Maryland Power Plant Research Program (PRPP) titled Nuclear Power in Maryland: Status and Prospects presented information on plants that have retired early. Since 2013, nine nuclear units with 6,700 megawatts of capacity have closed. These nine reactors produced 55 million megawatt-hours of firm, carbon-free electricity. Beyond these units that have already ceased operation, plant owners have announced the intention to close an additional eight units by 2025. These plants have 7,500 megawatts of capacity and generation 60 million megawatt-hours in 2018.

The PRPP report essentially concluded that Calvert Cliffs will not be subject to these economic pressures and therefore does not need to be valued for its carbon-free attribute in the way that every other non-emitting generator would be under the CARES proposal as the state will essentially receive this for free. The basis of this decision was an analysis prepared by the Independent Market Monitor of PJM who has estimated that Calvert Cliffs will remain in operation for the next two years. The Market Monitor reaches this finding by subtracting estimated operational costs from forecasted market revenues. As Maryland plans for its long-term future there are at least two good reasons why it should not base its carbon-free energy plan on this assumption.

First, the cost data used by the Market Monitor was not collected to inform this kind of assessment. The Nuclear Energy Institute publishes data from the Electric Utility Cost Group (EUCG). EUCG is an industry association that collects data to facilitate benchmarking of nuclear plant operations. NEI publishes this data because it is the most comprehensive information that enables year-to-year comparisons of plant operations and in this way is superior to other public data sources. The data collection conducted through EUCG does not attempt to capture all of the factors that would inform a decision on whether to continue plant operation. Indeed, the report from which this data is pulled contains the following caution: “Data is collected by EUCG to perform benchmarking comparisons from nuclear power plant operators. The total generating cost does not include considerations for risk management or returns on investment that would be key factors in business decisions affecting a particular station.” Assessing plant viability without including risk tolerance or investment returns ensures that the forecast will be based on an incomplete understanding of business interests.

The second reason to question the assumption the Calvert Cliffs will continue to operate is that the revenue estimates will not be aligned with the economic landscape. The Market Monitor uses available market prices for 2020 and 2021. This presumes that the competitive future will be very similar to today’s conditions. This may be reasonable for a very short-term time horizon, but a poor guide to 2040. The CARES proposal itself will dramatically remake the competitive landscape for electricity in the future. Calvert Cliffs may receive slightly higher revenues today because it operates in a transmission-constrained area of the grid. If CARES were successful the transmission system will change dramatically. The deployment of offshore wind will necessitate the construction of transmission that will alleviate such constraints and could even lead to lower

relative market prices should the wind be deployed prior to the transmission upgrades. Beyond that, CARES would add dramatically more wind and solar to the mix which will further lower the wholesale power prices in the region. In the face of further depressed wholesale prices, Calvert Cliffs will be in an increasingly tenuous position as other generators will receive revenues that reflect their carbon-free attributes to offset the eroding electricity sales revenue.

Governor Hogan and the Maryland legislature are to be commended for showing leadership in creating a clean electricity future for the state. By including nuclear energy as part of the portfolio of carbon-free technologies, the CARES proposal recognizes that any carbon-free source of generation should be valued for its carbon-free attribute. The legislature should amend this proposal to apply this principle not just to new nuclear resources, but also to the existing nuclear energy that can be the foundation on which new clean resources can be added. Maryland has a difficult path ahead to reach its goals. Retaining its largest source of carbon-free electricity is one big step in realizing this future.