

Topic: Electric utilities; recovery of development costs associated with small modular reactor.

Bill Patrons: Sen. Marsden & Del. Marshall

Overview:

This bill would allow Dominion Energy and Appalachian Power to seek approval from the State Corporation Commission (SCC) to charge their customers for a variety of different project costs related to the development of a small modular nuclear reactor (SMR), including evaluation, design, engineering, federal licensing, environmental permitting, equipment, construction, and financing. The bills would allow the utilities to seek cost recovery for these items “along separate development phases.” This means one or both utilities could charge their customers for project development costs for years, without any guarantee that the project will ever be completed or generate electricity to serve those customers.

Reasons to oppose:

Put simply, this bill removes existing customer protections to provide preferential treatment to SMRs—a technology that is completely unproven for commercial electricity generation.

- Dominion and Appalachian Power can already petition the SCC for approval of SMRs on a level playing field with other types of generation. There is no need to give special treatment to SMRs, especially given the very real customer risks associated with SMRs.
- There are currently no SMRs in commercial operation in the U.S. In fact, only one operational prototype for commercial electricity generation exists in the world—a small floating barge in Russia.
- NuScale, the developer of the leading proposal in the U.S., recently cancelled the project.¹ Estimated construction costs had already almost doubled, from \$5.3 billion to \$9.3 billion and likely would have grown even more had it not been cancelled.²
 - Shortly thereafter, investors filed a class action securities lawsuit against NuScale, alleging misleading statements and failure to disclose material facts³
 - Under SB454/HB1323, all of the costs of a failed project like NuScale would fall onto Virginia ratepayers, without producing a single electron.
- As drafted, utilities could start developing multiple SMR facilities—as many as they like—and begin recovering hundreds of millions or even billions of dollars from

¹ <https://www.reuters.com/business/energy/cancelled-nuscale-contract-weighs-heavy-new-nuclear-2024-01-10/>.

² <https://ieefa.org/resources/eye-popping-new-cost-estimates-released-nuscale-small-modular-reactor>

³ <https://www.opb.org/article/2023/11/22/nuscale-nuclear-power-lawsuit/>.

customers—without any guarantee that customers will ever benefit from an operational power plant.

Recent experience shows the nuclear industry has failed to deliver on promises, resulting in billions of excess costs to customers

- Southern Company's Plant Vogtle, a two-reactor conventional nuclear project in Georgia, is the most expensive power plant ever at \$34 billion. While one unit finally began operation in 2023, the second unit is still not in operation,⁴ despite being years behind schedule, and \$20 billion over budget.⁵
- In South Carolina, SCE&G abandoned its V.C. Summer plant, a conventional nuclear project, after years of cost increases, delays, and regulatory disputes. Utility customers are now paying \$2.3 billion for a filled-in hole in the ground that will never produce electricity.⁶
- While nuclear advocates believe SMRs will buck this trend, so far, the leading SMR project (NuScale) has already been cancelled after its costs ballooned to at least \$9.3 billion.

Dominion customers are already on the hook for abandoned nuclear investments

- Dominion Energy merged with SCANA, the parent company of SCE&G, in 2019,⁷ so it is now Dominion Energy's South Carolina affiliate who is collecting \$2.3 billion from customers for the abandoned V.C. Summer nuclear plant.
- In 2014 the Virginia General Assembly allowed Dominion to recover approximately \$500 million in development costs from its customers for the never-constructed North Anna 3 nuclear reactor.⁸

⁴ <https://www.world-nuclear-news.org/Articles/Vogtle-4-start-up-moved-to-2024>.

⁵ <https://saportareport.com/plant-vogtle-is-almost-complete-time-to-celebrate/columnists/guestcolumn/der-ek/>

⁶ <https://theintercept.com/2019/02/06/south-caroline-green-new-deal-south-carolina-nuclear-energy/>.

⁷ <https://news.dominionenergy.com/2019-01-02-Dominion-Energy-Combines-With-SCANA-Corporation#:~:text=At%20the%20merger's%20completion%2C%20each.existing%20consolidated%20SCANA%20net%20debt.>

⁸ <https://energynews.us/2017/09/06/amid-nuclear-setbacks-virginia-utility-pauses-plans-for-new-reactor/>

Costs of SMR projects are likely to be significantly higher and riskier for customers than the recently approved offshore wind project

- The offshore wind industry is far more mature than SMRs, with the first commercial offshore wind facility coming online in 1991.⁹
- Dominion's offshore wind project was only approved after Dominion first completed a two-turbine demonstration project. Once completed, Dominion's offshore wind project will generate significantly more electricity at lower cost.
- In addition, the offshore wind project includes significant customer protections against cost overruns and delays. In December 2022, the SCC approved a stipulation agreement in which Dominion agreed that construction cost overruns in excess of \$500 million would be split 50-50 between ratepayers and the company's shareholders, and cost overruns in excess of \$1.5 billion would be born 100% by the company's shareholders.¹⁰
- Rather than protect customers, SB454/HB1323 would greenlight utilities to spend hundreds of millions of dollars on a nascent, unproven technology with no guarantee that these facilities will ever work or benefit customers.

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⁹<https://orsted.com/en/insights/white-papers/making-green-energy-affordable/1991-to-2001-the-first-offshore-wind-farms>

¹⁰ State Corporation Commission, PUR-2021-00142, Order on Reconsideration at 23 (Dec. 15, 2022), <https://www.scc.virginia.gov/docketsearch/DOCS/7pj901!.PDF>.