BRINGING MORE RESILIENT ENERGY TO VIRGINIA COMMUNITIES

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EXECUTIVE SUMMARY

With the Virginia Clean Economy Act, Virginia is poised to embark on a massive investment in large-scale solar and wind installations, and although such resources are necessary to decarbonize the power sector, such facilities suffer from the same reliability risks as other large-scale power plants.

Small-scale energy resources, especially when paired with storage, are a necessary complement to larger resources. They improve grid reliability, reduce pressure on agriculture and forest land, and provide more jobs per megawatt compared to larger resources.[1] Virginia must remove barriers to customer-owned clean energy, strengthen the renewable portfolio standard, and promote solar-plus-storage solutions for electricity resilience.

CHALLENGE

Virginia faces an immense challenge in transitioning to clean energy while ensuring electricity reliability. To do that most effectively, Virginia must deploy renewable energy in all its forms. While multi-acre utility-scale solar installations may be common, solar can also be installed on rooftops and through "shared solar" where customers can subscribe to a local, off-site solar installation. Current policy, however, skews towards large-scale resources, undervaluing the role that smaller-scale solar and wind, battery storage, and microgrids can play on the grid, especially with regards to grid resilience. Specifically, Virginia's current policy ignores the benefits of distributed generation related to transmission capacity, energy balancing, distribution capacity, and line losses.

Currently, the policies and programs meant to expand access to distributed solar in the Commonwealth aren't applicable across all utility territories. In 2020, the legislature supplemented that policy by authorizing different shared solar programs in Dominion and Old Dominion Power territory (Appalachian Power Company was excluded).The rules regarding customer-owned generation are different and more restrictive for rural electric cooperatives and municipal electric utility customers.

Even within the Virginia Clean Economy Act, policies apply differently among utilities: the distributed generation carve-out within the renewable portfolio standard applies only to Dominion Energy, and a home with more than 15 kW of solar pays standby charges in Dominion territory but not in Appalachian Power or Old Dominion Power territories. Lastly, prohibitions against customers aggregating multiple meters continue to restrict solar and wind access for local governments, universities, and multi-family housing.

SOLUTION

> **Virginia needs a comprehensive, unified state policy on distributed energy that does not vary from utility to utility.**

To remove bureaucratic red tape, foster economic growth, lower the costs of the clean energy transition, and promote electricity resilience for all utility customers, Virginia needs a comprehensive, unified state policy on distributed energy that does not vary from utility to utility. The policies intended to expand access to customer-owned solar (community or shared solar, power purchase agreements (PPAs), the distributed generation carve-out in the renewable portfolio standard, and protections against discriminatory fixed or stand-by charges for net metering customers must be expanded and strengthened across all utility territories, including those of electric cooperatives and municipal electric utilities.

Increasing and strengthening the distributed generation carve-out within Dominion's renewable portfolio standard will support more growth in this vital sector as well. Additional incentives and financing options for customers to be able to afford their own clean energy systems must also be expanded, such as through low-interest loans, rebates for low-income customers, and tax credits.

The Commonwealth must also support the development of more energy storage systems, and microgrids are needed in combination with generation resources in order to further increase resilience and reliability, particularly in low-income and disadvantaged communities. The current aggregated net metering program should be expanded to more customer types such as multi-family housing providers, universities, and local governments.

POLICY RECOMMENDATIONS

Expand the Dominion Energy shared solar program to all customers.

Prohibit utilities from charging unreasonably high minimum bills for shared solar customers.

Support solar-plus-storage for buildings that can serve as resilience hubs for communities.

Increase the renewable portfolio distributed energy set-aside from 1% to 10%, and create a set-aside requirement for Appalachian Power.

Increase low-income clean energy access with $2 million/year for the Clean Energy Advisory Board and $2 million/year for grants for schools in disadvantaged communities.

Create a 25% investment tax credit for customer-owned renewables.

Prohibit standby or demand charges that apply only to distributed generation customers.

Hark Vineyards, Earlysville, Va
Image credit: Sarah Stryker