

CHARTING VIRGINIA'S CLEAN ENERGY PATH

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WHY IT MATTERS

Experts around the world continue to warn that governments must rapidly reduce greenhouse gas emissions to ensure a stable, healthy climate for future generations.¹ In Virginia, nearly one-third of all carbon pollution comes from the electricity sector.² The **Virginia Clean Economy Act (VCEA)**, passed in 2020, outlines a path for Virginia's two largest electric utilities—**Dominion Energy** and **Appalachian Power Company**—to transition to clean energy by 2045 and 2050, respectively.

The VCEA sets targets for clean energy resources, including solar, wind, energy efficiency, and battery storage, to replace retiring fossil fuel power plants and complement Virginia's existing nuclear power. The impacts are already visible. Solar and wind represented 8.62% of Virginia's electricity generation in 2025, a sixfold increase from 2020 (1.33%).³ Virginia's GDP has grown by over 11% since 2020,⁴ and the clean energy sector now supports more than 118,000 jobs across the Commonwealth.⁵ Dominion also projects that its latest **Renewable Portfolio Standard (RPS)** plan will save customers \$157 billion in fuel costs over the lifetime of its clean energy investments.⁶

Shifting to clean energy will protect Virginia's health, climate, and communities. Fossil fuel pollution has been linked to asthma, heart disease, and premature death—especially in vulnerable populations.⁷ Transitioning to clean electricity reduces harmful emissions, improves air quality, and can even improve grid stability amid increasingly severe climate events. This transition is expected to reduce Virginians' health-related costs by up to \$7 billion over the next 20 years.⁸ While electricity demand is expected to increase significantly over the next decade, modeling shows that zero-carbon energy can meet this projected increase in a more cost-effective, reliable way than proposals that include fossil generation.⁹

CURRENT LANDSCAPE

Under the VCEA, Virginia's monopoly utilities must plan to build nearly 22 GW of new solar, onshore wind, and offshore wind capacity by 2035.¹⁰ In 2026, the General Assembly passed a law requiring them to petition for over 21 GW of new battery storage by 2045.¹¹ These new generation resources will replace the utilities' existing fossil fuel plants, which Dominion and Appalachian Power must retire by 2045 and 2050, respectively.¹² Other VCEA provisions, including the RPS and **Energy Efficiency Resource Standard (EERS)**, ensure the utilities remain on track to meet those retirement targets by gradually requiring them to rely on more renewable, zero-carbon sources and

to meaningfully utilize energy efficiency measures to reduce their energy load (see *Energy Efficiency is Energy Affordability*, page 103).¹³

Both utilities are well on their way to meeting those clean energy development goals. To date, Dominion and Appalachian Power have collectively petitioned the **State Corporation Commission** for approval of projects totaling more than 6 GW of new solar and onshore wind and over 700 MW of new batteries, with many projects already operational or under construction.^{14,15} Also, Dominion's 2.6 GW **Coastal Virginia Offshore Wind (CVOW)** project—the largest such project in the U.S.—began producing energy in early 2026 and is on track to be fully online by 2027. Once complete, CVOW will generate enough power for about 660,000 homes (see *Responsible Offshore Wind Development*, page 105).

In addition to improved air quality, these efforts have also generated many new jobs and significant economic development. For example, the construction of CVOW has resulted in over \$200 million in annual economic output, wages, and revenue, and supported nearly 1,000 jobs—with similar numbers expected once it's operational.¹⁶

OPPORTUNITIES

The VCEA, along with the **Regional Greenhouse Gas Initiative (RGGI)**, put Virginia on a clear and stable path to a zero-carbon grid by 2050 (see *Virginians Win with Regional Greenhouse Gas Initiative*, page 97). It must be implemented to its fullest potential to ensure a healthy environment for all Virginians.

The clean energy path laid out in the VCEA makes economic and strategic sense. Solar and wind—especially when paired with battery storage—are now consistently less expensive than gas.¹⁷ A recent report by Virginia's **Joint Legislative Audit and Review Commission (JLARC)** found that data centers, if left unregulated, could almost double the state's energy use in the next decade.¹⁸ Increasing demand makes the VCEA more important than ever, because the data is clear: the least expensive and most reliable path forward to meet this demand is with clean energy.¹⁹

While significant clean generation is needed to meet demand, the costs of that growth should be distributed equitably, with data centers paying their fair share (see *Addressing Data Center Energy Demand*, page 99). To ensure utility customers do not overpay for this new clean energy; there must be a level playing field between utility-owned and third party-owned resources (see *Utility Reform*, page 135).

Being a clean energy leader also makes Virginia an

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attractive place for business development, particularly industries with environmental commitments.²⁰ More solar, wind, and storage projects will result in continued job creation and significant economic development, such as the \$700 million undersea cable facility near Chesapeake.²¹ The VCEA charts a bold, shared vision for Virginia's energy future—one that embraces more affordable, more reliable, and cleaner energy sources to power our homes and businesses.

TOP TAKEAWAYS

The Virginia Clean Economy Act will reduce air pollution that is harmful to public health and our climate, creating economic growth, and benefiting communities.

The VCEA and other recent legislation have made Virginia a leader in the clean energy transition and set the Commonwealth up to meet increasing demand affordably and reliably.

Solar, wind, and battery storage are faster to deploy and more affordable than new fossil fuel generation.

ENDNOTES

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