

ACHIEVING 100% CLEAN ENERGY

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EXECUTIVE SUMMARY

Virginia is committed by law to powering the Commonwealth with 100% carbon-free electricity by 2050 through the passage of the 2020 Virginia Clean Economy Act (VCEA). The VCEA outlines a clear path to achieving this zero-carbon future by mandating the retirement of fossil fuel generators; the construction of solar, wind, and battery storage; and instructing utilities to meet energy efficiency standards. Unfortunately, repeated attempts to repeal or weaken this law have sought to compromise our ability to achieve an emissions-free electricity grid. Virginia must stay the course on our clean energy future by maintaining the fossil fuel power plant retirement schedule, investing in energy efficiency, and ensuring that credits for renewable energy are only available to viable clean, renewable sources.

CHALLENGE

Experts continue to warn that governments across the world must slash emissions significantly in the short-term in order to achieve net zero by mid-century to ensure a stable, healthy climate for current and future generations.¹ Decarbonizing the economy begins with the electric sector, which is directly responsible for nearly a third of Virginia's carbon pollution, and is particularly important as we electrify cars and buildings.²

Virginia's electricity is still reliant on fossil fuels, which collectively make up over 60% of our generation.³ This legacy of fossil fuel generation has short and long-term consequences (see DEFENDING THE REGIONAL GREENHOUSE GAS INITIATIVE). Thankfully, Virginia passed the landmark Virginia Clean Economy Act (VCEA) in 2020, charting a course to zero carbon emissions in our utility sector by 2050.

Unfortunately, Virginia's largest utility – Dominion Energy – has signaled its plans to ignore the VCEA and take Virginia down a reckless and costly road. Its latest Integrated Resource Plan (IRP) makes no effort to meaningfully plan to phase out fossil power plants on a reasonable timeline. It fails to leverage the still untapped potential of energy efficiency, and it proposes tens of billions of dollars in modular nuclear and new natural gas facilities – while simultaneously placing all the risk of project failure on Virginians (see MANAGING TECHNOLOGIES UNPROVEN AT SCALE).

SOLUTION

To achieve a zero-carbon emission grid, Virginia must fully implement the VCEA with a particular focus on its core tenets: the retirement of the fossil fuel generation fleet and the construction of and incentivization of proven zero-carbon resources.

The VCEA charted Virginia's clean energy path in 2020 to tackle climate change and establish the Commonwealth as a leader in the clean energy transition. This landmark

policy has four main components: a 100% Renewable Portfolio Standard (RPS), a Battery Storage Acquisition requirement, an Energy Efficiency Resource Standard, and fossil fuel generation retirement schedule – all of which are overseen by the SCC to ensure a reliable and affordable transition takes place.

An RPS outlines the required amount of electricity generation from clean, renewable resources – such as wind and solar.⁴ State-level renewable portfolio standards are highly effective – responsible for over 50% of clean energy growth in the country.⁵ There are currently 22 states, plus the District of Columbia and Puerto Rico, with 100% clean energy directives.⁶

The VCEA also sets targets of 3,100MW of energy storage by 2035, and requires 10% of energy storage projects to be deployed for power backups at hospitals, government facilities, and more.⁷ These storage requirements complement the Energy Efficiency Resource Standard, which requires Dominion and Appalachian Power to meet a specific portion of their electricity demand through energy efficiency.⁸

Lastly, the VCEA requires Dominion and Appalachian Power to retire their fossil fuel plants by 2045 and 2050, respectively, including almost all of Dominion's coal-fired power plants by 2030.⁹ The VCEA allows utilities to petition the SCC to keep those plants open longer if closing them could negatively affect reliability.¹⁰

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, and it must be implemented to its fullest potential.

POLICY RECOMMENDATIONS

Maintain the mandatory fossil fuel retirement schedule.

Ensure that VCEA incentives for clean energy remain applicable only to proven, zero-carbon resources like solar and wind.

Ensure that the SCC has full authority to shield captive ratepayers from the costs and risks of still unproven emerging generation technologies like modular nuclear reactors and hydrogen (See MANAGING TECHNOLOGIES UNPROVEN AT SCALE).

Expand the role that third-party owned and operated solar, wind, and storage play in our energy mix (see SHIFTING UTILITIES' INCENTIVES FOR AFFORDABLE, CLEAN ENERGY).

Increase energy efficiency targets and empower the SCC to hold utilities accountable for failure to achieve said targets (see CUTTING ENERGY BILLS & AIR POLLUTION WITH ENERGY EFFICIENCY).