

State-Level Climate Policies Boosting Local Climate Action

Table of Contents

INTRODUCTION	. 2
ENERGY SECTOR CLIMATE INITIATIVES	2
Regional Greenhouse Gas Initiative	2
Codifying the Executive Order 43	
Energy Efficiency Resource Standard	3
Renewable Portfolio Standard	3
Clean Energy Standard	
Net Metering and Power Purchase Agreements	
Empowering Solar Initiatives	
Empowering Energy Efficiency	4
TRANSPORTATION SECTOR CLIMATE INITIATIVES	4
Transportation and Climate Initiative	
Empowering Clean Transportation	4
Multi-Sector Climate Initiatives	
Virginia's Green New Deal	
Virginia Clean Economy Act	
Virginia Energy Plan & Commonwealth Energy Policy	5
SUMMARY	. 5

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Introduction

While the Charlottesville Climate Collaborative's focus is climate action and policy advancement at the local level, approximately 50 climate policies have been introduced in Virginia's 2020 General Assembly which could have a significant impact on local climate emissions. The key climate priority in this year's session is expected to be the Commonwealth's effective participation in the Regional Greenhouse Gas Initiative. Other important climate policy proposals include raising or eliminating the existing caps on net metering or Power Purchase Agreements, implementing mandatory Clean or Renewable Energy Standards and an Energy Efficiency Resource Standard. Additionally, the potential codification into law of novel and overarching policies such as the Virginia Green New Deal and the Virginia Clean Economy Act could provide Virginians with a variety of important climate policies in a single shot. In this report, we review the most important potential climate policies and provide C3's policy recommendations.

Energy Sector Climate Initiatives

Regional Greenhouse Gas Initiative

Several U.S. east coast states constitute the Regional Greenhouse Gas Initiative (RGGI)¹, a prominent cap-and-trade program that reduces carbon dioxide emissions in the electric power sector. RGGI uses a market-based approach, by setting an annual cap on carbon dioxide emissions and auctioning emissions allowances to electricity generation facilities across each state. States can decide how best to use proceeds generated from the auctions; studies have shown that the most cost-effective use of proceeds is investment in energy efficiency programs. Overall, since RGGI's launch in 2009, carbon dioxide emissions have dropped 35% in participating states while their economies have dynamically grown.² If Virginia's legislature chooses to enable the state's participation in 2020, the Commonwealth will become the first southern state to join the RGGI.

As governor Northam has previously pushed to join RGGI, many stakeholders expect the policy

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to spearhead the 2020 General Assembly's action on climate.³ According to Sen. Ebbin, joining RGGI will top the list of energy-related initiatives.⁴ Participating in RGGI is expected to reduce Virginia's electricity related carbon dioxide emissions by 30% by 2030.⁵

Introduced on November 19th, 2019, the Virginia Alternative Energy and Coastal Protection Act bill (HB20) directs the Department of Environmental Quality (DEQ) to implement the final carbon trading regulation as approved by the State Air Pollution Control Board that complies with the RGGI model rule.⁶ The measure would require the revenues from the sale of carbon allowances to help communities with climate change adaptation and mitigation initiatives such as energy efficiency and distributed generation programs.⁷ Additionally, the measure would direct the state's investorowned utilities (IOUs) -i.e. Dominion Virginia Power and Appalachian Power- to achieve a minimum of 50% of RGGI's stipulated annual carbon dioxide emissions reductions through the development of renewable electricity sources.8

Introduced on January 7th, 2020, the *Regional Greenhouse Gas Initiative; Energy Efficiency Fund* bill (HB1152) would establish that at least 50% of the proceeds received from the sale of allowances shall be credited to an account to support energy efficiency programs, with no less than 20% of the proceeds being directed to lowincome energy efficiency programs.⁹

Introduced on January 9th, 2020, the *Electric Utility Regulation; Environmental Goals* bill (HB1526) -a.k.a. *Virginia Clean Economy Act* (VCEA)- would establish Virginia's participation in the RGGI program, requiring 66% of its total revenue to be invested in energy efficiency. Under this measure, over three quarters of these energy-efficiency investments (50% of the program's revenue) would be allocated for lowincome individuals, who tend to bear the heaviest burden of high energy bills.

Codifying the Executive Order 43

On September 16th, 2019, Governor Northam announced a measure for *Expanding Access to Clean Energy and Growing the Clean Energy Jobs of the Future* (Executive Order 43, or EO 43), which calls for 30% of state's electricity

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to be generated from renewables by 2030 and a 100% to be carbon-free by 2050.¹⁰ The order directs the Department of Mines, Minerals, and Energy (DMME) to develop an action plan to meet these ambitious energy goals and push Virginia toward leading the clean energy transition.¹¹ Funding and codifying into law the EO 43 could be a topic of discussion for the General Assembly in 2020.

Energy Efficiency Resource Standard

An Energy Efficiency Resource Standard (EERS) establishes specific annual and longterm goals for energy conservation which utilities must achieve through energy efficiency programs in their territories.¹² As such, a mandatory EERS would guide utilities' energy efficiency programs and make sure they are relevant, effective, and widely implemented. More than half of U.S. states already have a mandatory EERS.¹³

Renewable Portfolio Standard

A mandatory Renewable Portfolio Standard (RPS)¹⁴, also known as Renewable Energy Standard (RES)¹⁵, requires a percentage of electricity produced by utilities to come from renewable sources of energy. While Virginia enacted a voluntary RPS in 2007, environmental groups have categorized it as ineffective.¹⁶

Clean Energy Standard

There are many variants to an RPS policy, including the broader Clean Energy Standard (CES). A CES typically refers to a technologyneutral portfolio standard requiring a certain percentage of utility electricity generation to be produced through zero- or low-carbon resources, taking advantage of renewables as well as other energy sources such as nuclear and waste.¹⁷ A RPS or CES would ensure that the state eliminates the "dirty energy loophole" allowing power plants to pollute within the state and sell the energy to other jurisdictions. As the EO 43 declared that Virginia's electricity should be carbon-free by 2050¹⁸, the General Assembly may decide to enact a CES to achieve this goal.

Introduced on December 2nd, 2019, the *A Virginia Energy Plan and Commonwealth*

Energy Policy bill (SB94)¹⁹ proposes enacting a mandatory CES, among other strategies, for reaching carbon neutrality in the electric power sector by 2040. The measure would also minimize the negative impacts of climate change and mitigate the adversities of the clean energy transition on disadvantaged communities.

Introduced on January 6th, 2020, the House's version of the *Virginia Energy Plan; Commonwealth Energy Policy* bill (HB714)²⁰ is similar to SB94, but also proposes that the Commonwealth ensure the deployment of 30% renewables by 2030, in addition to the goal of a 100% carbon-free electric power system by 2040. This measure would also require the Commonwealth to adopt residential and commercial building codes that meet or exceed the current standards of the International Building Code, while encouraging the construction and retrofitting of buildings to achieve maximum energy savings.

Net Metering and Power Purchase Agreements

Net metering is an electricity billing mechanism which allows consumers who generate some or all of their own electricity to export generation surpluses to the grid and reduce their future electric bills, allowing them to use their produced electricity anytime rather than only when generated. This is particularly impactful for intermittent renewable energy sources like solar, as most solar customers produce more electricity than they consume in a day.

Power Purchase Agreements (PPA) are financial agreements between a customer and a thirdparty developer (an incumbent utility or not), where the customer purchases electricity from an energy system that is owned by the thirdparty.²¹ PPAs are the primary financing mechanism for schools and counties to fund their renewable energy projects, such as Fairfax County's recently announced large scale solar PPA installation on municipal facilities, schools, and park sites.²² Virginia currently limits renewable energy projects installed within Dominion Energy's territory using third-party PPAs at a combined cap of 50 MW,²³ enough solar energy to power only 6,500 homes²⁴.



Introduced on January 6th, 2020, the *Distributed Renewable Energy* bill (HB572)²⁵ would promote distributed renewable energy by:

- Removing the 1% cap on the aggregated amount of renewable energy that can be net metered in a utility's service territory;
- Authorizing third-party PPAs for all customer classes throughout the Commonwealth;
- Allowing all net-metering customers to attribute output from a single solar array to multiple meters;
- Allowing the owner of a multi-family residential building or the common areas of a condominium to install a renewable energy generation facility and sell the electricity to tenants or condominium unit owners;
- Removing the restriction on customers installing a net-metered generation facility larger than their previous 12 months of electricity demand;
- Raises the cap for net-metered nonresidential generation facilities from 1 MW to 3 MW.

Empowering Solar Initiatives

Introduced on January 6th, 2020, the *Financing Clean Energy Projects* bill (HB654)²⁶ would authorize the DMME to sponsor a statewide clean energy financing program.

Introduced on January 7th, 2020, the *Virginia Brownfield and Coal Mine Renewable Energy Grant Fund and Program; Handbook* bill (HB754)²⁷ would establish a fund and program to award grants for renewable energy projects targeting brownfields sites (sites with presence or potential presence of hazardous substances) or abandoned mine lands (AMLs).

Empowering Energy Efficiency

Introduced on January 6th, 2020, the *Energy Saving Products; Tax Deduction for Energy-Saving Products* bill (HB633) ²⁸ establishes a tax incentive with a reduction on the amount a taxpayer pays for energy-saving products (e.g. solar panels or Energy Star certified products).

Transportation Sector Climate Initiatives

Transportation and Climate Initiative

The Transportation and Climate Initiative (TCI) is a proposed multi-state, cap-and-trade program geared towards reducing emissions from vehicles.²⁹ Research and debates surrounding the TCI have been ongoing since 2010,³⁰ with Virginia declaring its intent to participate in 2018³¹ and further contributing to the drafting process. States will officially decide whether they want to join after spring 2020.³² Virginia's General Assembly may discuss the proposal of the state formally joining the initiative and how the proceeds from TCI will be invested.³³

Empowering Clean Transportation

Introduced on January 6th, the *State Air Pollution Control Board; Low-Emissions Vehicle Program* bill (HB577)³⁴ would direct the State Air Pollution Control Board to implement a low-emissions motor vehicle program based on the motor vehicle standards authorized by Section 177 of the Federal Clean Air Act.

Introduced on the same day, the *Electric Vehicle Rebate Program* bill (HB717)³⁵ would establish a rebate program for the purchase of certain vehicles powered by zero-emissions engines of up to \$4,500 per unit.

Multi-Sector Climate Initiatives

Virginia's Green New Deal

The Virginia Green New Deal (VA-GND) pursues an equitable plan for 100% renewables by 2036, in conjunction with job training and local opportunities in renewable energy.³⁶ On December 6th 2019, Del. Rasoul introduced the *Green New Deal Act; Fossil Fuel Projects Moratorium, Clean Energy Mandates, Civil Penalties* bill (HB77)–a.k.a. the "Green New Deal Act".³⁷ According to Rasoul, the VA-GND is not solely an environmental plan; it is about economic, social, and environmental justice. Earlier in 2019, the Democratic Party of Virginia officially endorsed the VA-GND.³⁸ The measure would establish a moratorium on approval by

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any state agency or political subdivision required for:

- Fossil fuel power stations;
- Import or export terminals for fossil fuel resources and certain maintenance activities relating to existing terminals;
- Gathering lines or pipelines for the transport of any fossil fuel resource that requires the use of eminent domain on private property, and certain maintenance activities relating to such gathering;
- Refineries of a fossil fuel resource;
- Exploration for any type of fossil fuel, unless preempted by applicable federal law.

The VA-GND would require that at least 80% of the electricity sold in calendar years 2028 through 2035 be generated from clean energy resources. In calendar year 2036 and every calendar year thereafter, 100% of the electricity sold is required to be generated from clean energy resources.

The measure would also require the DMME to adopt a Climate Action Plan that addresses all aspects of climate change, including mitigation, adaptation, and resiliency. The VA-GND would also establish:

- A 36% reduction in absolute electricity consumption in buildings by 2035;
- Job training programs and energy worker protections;
- Clean energy transitional assistance for workers in the fossil fuel industry and affected communities;
- Environmental justice protections.

Virginia Clean Economy Act

On December 19th, Sen. Jennifer McClellan, Del. Rip Sullivan, Del. Jennifer Carroll Foy and a broad and diverse coalition of advocacy groups and business voices unveiled the Virginia Clean Economy Act. Introduced on January 9th, 2020, the VCEA is expected to set a goal of a 100% carbon-free electricity supply for the Commonwealth (through all of the state's electric utilities) by 2050.³⁹ This 30-year goal would be achieved by jointly increasing Virginia's energy efficiency levels and cleaning up its energy supply sources. Among other things, the measure would:

- Ensure Virginia's participation in the RGGI, requiring an important share of its revenue to be invested in energy efficiency;
- Establish a mandatory RPS that would require each and every electric utility to increase the share of renewable electricity in their generation portfolio by approximately 3% per year. Consequently, under the VCEA, Virginia would have at least 41% of its electricity being produced by renewable sources by the year of 2030 and 100% from renewable sources by 2050. Additionally, VCEA's mandatory RPS would rectify current controversies related to electricity derived from biomass facilities present by the state's existing voluntary RPS.⁴⁰
- Remove, or make virtually inactive, all existing restrictions for the implementation of PPAs and net metering projects;
- Establish incremental annual energy savings targets for IOUs' energy efficiency programs;

Virginia Energy Plan & Commonwealth Energy Policy

The *Virginia Energy Plan; Commonwealth Energy Policy* bill (HB714) sets the goal of achieving a net-zero carbon energy economy by 2050, considering emissions from the electricity, transportation, building, and industrial sectors. The measure would promote the use of energy efficient motor vehicles that utilize alternative fuels and enact a mandatory CES for reaching a carbon neutral electric supply by 2040.

Summary

C3 is thrilled with the amount and quality of the climate-related bills introduced in Virginia's 2020 General Assembly, showing the momentum of a diverse and growing climate movement. If approved, many of these proposals would go a long way in vaulting Virginia into the top tier of American states tackling climate change. This is an exciting and promising time for climate action in Virginia, and we are grateful to our community and fellow advocates who are helping to make 2020 a Year of Climate Action.



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⁷ Lindsey, op. cit.

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¹⁶ Kuckro, op. cit.

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