



COMMUNITY CLIMATE
COLLABORATIVE

STATE-LEVEL CLIMATE POLICIES BOOSTING LOCAL CLIMATE ACTION

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During the 2020 Virginia General Assembly numerous bills were passed that will spur clean and renewable energy, improve energy efficiency programs, promote clean transportation, and advance the Commonwealth's climate goals. This report highlights some specific bills that impact key areas of climate action in Virginia and provides insights on how they empower individuals, businesses, communities, and municipalities to reduce emissions.

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RENEWABLE AND CLEAN ENERGY

Energy Efficiency, Renewable Portfolio, and Clean Energy Standards

An Energy Efficiency Resource Standard (EERS) establishes specific annual and long-term goals for energy conservation which utilities must achieve through energy efficiency programs in their territories. As such, a mandatory EERS guides utilities' energy efficiency programs and makes sure they are relevant, effective, and widely implemented. More than half of U.S. states already have a mandatory EERS (Main, 2019).

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

There are many variants to an RPS policy, including the broader Clean Energy Standard (CES). A CES typically refers to a technology-neutral 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 (Cleary, 2019).

A RPS or CES ensures that the state eliminates the "dirty energy loophole" that allows the double counting of renewable energy production in Virginia and that power plants pollute within the state and sell the energy to other jurisdictions. Three bills were passed this legislative session that introduce or advance the quality and accountability of these standards.

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, providing them with the ability to use their produced electricity anytime rather than only

when generated. This is particularly impactful for intermittent renewable energy sources like solar, as many solar customers can produce more electricity than they consume in a day.

Power Purchase Agreements (PPA) are financial agreements between a customer and a third-party developer (either an incumbent or aspirant utility), where the customer purchases electricity from an energy system that is owned by the third-party. PPAs are the primary financing mechanism for schools and municipalities 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 (Althen, 2019).

At least three bills directly impacting net metering and PPAs were passed in the 2020 General Assembly. Together, these bills increase the previous limits (a.k.a. "caps") on net metering and PPAs for solar installations, increasing access to renewable energy for commercial and residential properties, tax-exempt organizations, and low-income community members.

New EERS, RES, & CES Legislations

Clean Energy & Community Flood Preparedness Act

This bill, [HB981/SB1027](#), 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 Regional Greenhouse Gas Initiative (RGGI) model rule.

The measure requires the revenues from the sale of carbon allowances to help communities with climate change adaptation and mitigation initiatives. Namely, the revenue should be distributed as follows:

- 45% shall be credited to the account established pursuant to the Fund for the purpose of assisting localities and their residents affected by recurrent flooding, sea level rise, and flooding from severe weather events;



- 50% shall be credited to an account administered by Department of Housing and Community Development (DHCD) to support low-income energy efficiency programs, including programs for eligible housing developments;
- 3% shall be used to (i) cover reasonable administrative expenses; (ii) carry out statewide climate action planning and mitigation activities;
- 2% shall be used by DHCD, in partnership with the Department of Mines, Minerals and Energy (DMME), to administer and implement low-income energy efficiency programs.

Virginia Clean Economy Act (VCEA)

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, [HB1526/SB851](#). The contents of this bill more than codifies into law Governor Northam's [Executive Order 43](#), which calls for 30% of state's electricity to be generated from renewables by 2030 and a 100% to be carbon-free by 2050.

This 30-year goal would be achieved by jointly increasing Virginia's energy efficiency levels and cleaning up its energy supply sources, effective July 2020.

Among other things, this bill also:

- Establishes 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 clean energy sources by the year of 2030 and a zero-carbon electric grid 2050. Additionally, VCEA's mandatory RPS would rectify current controversies related to electricity derived from biomass facilities (Main, 2019);

- Removes, or makes virtually ineffective, all existing restrictions for the implementation of PPAs and net metering projects;
- Establishes a mandatory Energy Efficient Resource Standard (EERS) with incremental annual energy savings targets for investor-owned utility (IOU) energy efficiency programs; as such, this mandatory EERS would guide utilities' energy efficiency programs and make sure they are relevant, effective, and widely implemented,¹

VA Energy Plan & Commonwealth Energy Policy

Introduced on December 2nd, 2019, the A Virginia Energy Plan and Commonwealth Energy Policy bill ([HB714/SB94](#)) enacts a mandatory CES, among other strategies, for reaching 30% renewables by 2030 and carbon neutrality in the electric power sector by 2040 (with definitions complementary to those of the VCEA), effective July 1, 2020. The measure also minimizes the negative impacts of climate change and mitigates the adversities of the clean energy transition on disadvantaged communities.

The bill also stipulates the Commonwealth Energy Policy, which states among a total of 10 objectives that it shall be the policy of the Commonwealth to "establish greenhouse gas (GHG) emissions reduction standards across all sectors of Virginia's economy (including electricity, transportation, building, agricultural, and industrial sectors) that target net-zero emissions by 2045.

Solar Legislation

Distributed Renewable Energy Bill (a.k.a. Solar Freedom Act)

The Solar Freedom Act ([HB572/SB710](#)) overlaps with the Clean Economy Act, increasing the cap on PPAs and enabling net-metering.

Effective July 1, 2020, the Distributed Renewable Energy bill will promote distributed renewable energy by:

¹ In Virginia there are only two IOUs: Appalachian Power Co (APCo) and Dominion Energy Virginia (a.k.a. DEV or Dominion).



- Increasing the cap on the amount of renewable energy that can be net metered in a utility's service territory to 6%;
- 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 that has an expected annual electricity production of up to 150% of their previous 12 months demand;
- Raises the cap for net-metered commercial facilities from 1 MW to 3 MW and from 20 kW to 25 kW for residential solar projects;
- Raises the cap on third-party PPAs from 50MW to 1,000MW for Dominion Customers, including governments and schools;
- Authorizing third-party PPAs for all customer classes, included those who are tax-exempt (ie: nonprofits), throughout the Commonwealth on projects that are over 50 kW.

Covenants Regarding Solar Power; Reasonable Restrictions

A part of Virginia's Energy Plan, [HB414/ SB504](#) defines limitations of Homeowner association (HOA) regulations pertaining to solar. Formerly undefined, these bills determined regulations are "not reasonable" if modifying the solar project would increase cost by more than 5% or decrease energy production by more than 10%. This introduction of formal language to define HOAs' restrictive abilities for residential solar will allow individuals to advocate for solar design choices that are the most efficient for their energy needs.

Community Solar Development Pilot Program; Low-Income Communities

[HB573](#) amends an existing solar development pilot program by requiring

community solar projects owned by utility investors to include facilities inside low-income communities, defined by census tracts qualified for the Low-Income Housing Tax Credit. These census tracts must have at least 50% of households with incomes below 60% or have a poverty rate of 25% or more.

The facilities inside low-income communities must equal or exceed the costs of facilities located outside of the low-income community in order for the utility to be eligible for building an energy generating facility outside of the low-income community. This means solar farms owned by utility companies like Dominion will need to ensure that those independent solar farms exist in low-income communities, increasing access to solar and lowering utility costs for those experiencing energy burden.

Shared Solar Programs; Electric Utility Regulation, etc.

[HB1634/ SB629](#) instructs the SCC to set up a shared solar program for Dominion customers by 2021 that allows customers to purchase electricity through a subscription in a shared solar facility. The bill instructs that the Commission will approve a shared solar program of 150 MW where at least 30% of the customers are low-income.

The Commission can approve an additional 50 MW after ensuring that at least 45 of the 150 MW of the shared solar capacity is subscribed by low-income customers. This bill has the potential to increase access to renewable energy for all community members, making it easier to purchase clean energy through current providers.

Securities Act; Equity Crowdfunding Exemption

[HB1339/ SB542](#) repeals sunset date on crowd funding provisions to financing solar. This bill extends the ability for solar projects to be financed through donations or crowd funding, which would have expired on July 1, 2020. Now, solar projects can continue to be powered by donations or bond investments, which will continue to be important for entities like schools, churches, and nonprofits to switch to on-site, renewable energy.



ENERGY EFFICIENCY

Energy Efficiency Programs & Financing Improvements

Many utility companies, whether by legislative action or stakeholder advocacy, provide funding or services for energy efficiency programs. These programs have often missed the mark on moving the needle in community-wide GHG2 emissions, bringing into question their effectiveness and impact. Furthermore, Virginia has lagged behind other states in supporting financing programs that enable electricity users/consumers to finance energy efficiency improvements with reasonable, even incentivized, terms and conditions. This year's General Assembly passed at least four bills that will increase the stakeholder process for defining utility energy efficiency programs, increase accountability of these programs, and introduce financing programs.

Energy Efficiency Legislation

Financing Clean Energy Projects

Effective July 1, 2020, [HB654](#) authorizes the Department of Mines, Minerals and Energy to sponsor a statewide clean energy financing program. The Department will engage a private entity through a competitive selection process to develop and administer the program. [SB754](#) allows cooperative utilities to start on-bill financing (OBF) programs. Under the bill, energy efficiency measures can include heating and air conditioning systems, water heaters, weatherization, insulation, window and door modifications, appliances, and automatic or Internet-connected control systems. Access to mechanisms like OBF can increase the ability of moderate to low-income individuals to energy efficiency improvements.

Electric Utilities; Energy Efficiency Programs, Stakeholder Process

[HB575](#) increases the stakeholder engagement in processes for developing energy efficiency programs for APCo and Dominion to ensure they are relevant, effective, and widely implemented. Increased stakeholder engagement in developing and defining these energy

efficiency programs will help to ensure equitable input from community members on what they believe is relevant and effective.

Electric Utility Regulation; Energy Efficiency Programs; Industrial Customers

This bill, [HB1576](#), makes it harder for larger electricity customers to avoid contributing funds for energy efficiency programs by revising the definition of "large general service customers" as a customer with demand of 1 MW at a single site, previously defined by a demand of 500 kW from a single meter.

The SCC will exempt large customers from the paying bill costs used to maintain certain energy efficiency programs if it finds that the customer has implemented energy efficiency programs that produced, or will produce, measured and verified results consistent with industry standards and other regulatory criteria in the last five years.

TRANSPORTATION

EV Markets & Improved Connectivity

Two solutions for more sustainable transportation have been in focus in recent years, including electrical vehicle infrastructure and improved connectivity for public transit. Of particular interest in addressing issues of equity and climate, expanding access to public transportation is necessary in providing viable alternative travel options for all members of our community. Three bills were passed this year that begin to touch on solutions for cleaner and more equitable transportation.

Clean Transportation Legislation

Department of Mines, Minerals and Energy; Electric Vehicle Rebate Working Group

In 2019, a tax credit for electric vehicles was introduced for Virginians, aiming to increase electric vehicle sales and lower transportation-related GHG emissions. The introduction of this tax credit symbolized a step in the right direction and now, Virginia will begin exploring another means for



incentivizing EV sales to catalyze the development of a robust EV market that makes choosing zero-emissions vehicles over combustion engines more likely.²

This bill, [HB717](#), instructs the DMME to investigate how an EV rebate program could be structured, deployed, and managed and will report its findings by November 1, 2020.

Transportation. Amends Numerous Laws Related to Transportation Funds, Revenue Sources, Construction, and Safety Programs

This bill, [HB1414/SB890](#), establishes a Transit Incentive Program to promote transit services, support regional routes, and reduce barriers to transit used by low-income individuals. This bill also increases the tax on gasoline, further incentivizing use of alternative transportation.

A long-awaited program, the Virginia Passenger Rail Authority (VPRA), was authorized with the passing of this bill. The VPRA will be able to own and manage rail infrastructure throughout the Commonwealth, making it easier to introduce and expand rail lines for public use. Since this program will operate as an independent authority, it will be able to acquire tracks and craft long-term plans without impact from changing administrations.

Comprehensive plan; transit-oriented development

Effective July 1, 2020, [HB585](#) will require cities with more than 20,000 people and counties with more than 100,000 to include considerations for reducing GHG emissions through transit-oriented development in their comprehensive plans.

This means that the next review of comprehensive plans for localities that are greater than the noted populations will address coordinated transportation, housing, and land use planning that promote transit-oriented development.

² Zero-emissions vehicles are those that emit no GHG from the onboard source of power.

ADVANCING CLIMATE GOALS

Virginia Energy Plan & Commonwealth Energy Policy

In addition to passing legislation to increase access to renewable energy and energy efficiency, Virginia's General Assembly introduced two bills that formally set goals for a carbon-neutral future and begin to outline the government's role in meeting climate goals.

The Virginia Energy Plan; Commonwealth Energy Policy

This bill ([HB714/SB94](#)) formally adopts findings that "climate change is an urgent and pressing challenge for Virginia, that swift decarbonization and a transition to clean energy are required to meet the urgency of the challenge, and that the Commonwealth will benefit from being a leader in deploying a low-carbon energy economy."

The Virginia Energy Plan; Commonwealth Energy Policy bill(s) set the goal of achieving a net-zero carbon energy economy by 2050, considering emissions from the electricity, transportation, building, and industrial sectors. The measure promotes 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. The bill also requires that the Plan identifies actions to help reach climate energy and goals, including an inventory of all greenhouse gas emissions for the four years preceding the issuance of the Plan.

Energy Manager; Responsibilities

This bill, [SB963](#), establishes the Commonwealth Efficient and Resilient Buildings Board to advise the government on reducing emissions. Each state agency must designate an energy manager to ensure they're on track for helping the state reach its goal. Localities like the City of Charlottesville and Albemarle County have already identified staff members to manage local government energy use and, perhaps, this state-wide initiative to manage energy-use at the agency level will



influence local governments to approach energy management in a similar fashion.

Summary

The climate and clean energy legislation resulting from the 2020 General Assembly has created momentum toward reaching Virginia's renewable energy goals and reducing emissions. Notably, the Clean Energy & Community Flood Preparedness Act allows Virginia to officially participate in RGGI, the Virginia Clean Energy Economy Act increases the caps on net-metering and solar PPAs. The Virginia Energy Plan now officially includes the goal of achieving a net-zero carbon energy economy by 2040, considering emissions from the electricity, transportation, building, and industrial sectors. These pieces of legislature

coincide at multiple nexuses, which amplifies the momentum of climate action across the Commonwealth. At the same time, it is apparent that more work is needed to achieve the GHG emissions reduction levels necessary to meaningfully address climate change. While much of the new legislation begins to push us in the right direction, the timeline of implementation is not fast enough and does not include enough incentives for adopting clean energy solutions. Yet, this is still an exciting and promising time for climate action in Virginia.

As new legislation takes effect in July, it will be important to observe how these bills empower individuals, businesses, and communities to reduce emissions and reflect on the ways future legislation can increase access and speed up progress toward a clean energy economy.



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