

ACCESSIBLE & AFFORDABLE DISTRIBUTED ENERGY RESOURCES

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WHY IT MATTERS

Virginia must rapidly decarbonize its electricity sector to reduce the worst impacts of climate change.¹ Historically, the clean energy transition prioritized replacing fossil fuels with utility-scale renewable energy. However, **distributed energy resources (DERs)** are a complementary and increasingly critical tool for accelerating this transition while maximizing affordability, energy equity, energy independence, and resilience. DERs do this while reducing pressure on farm and forest land, advancing the clean energy transition while protecting natural resources.

DERs are clean energy technologies that produce or moderate power close to where that power is used. These technologies include rooftop and shared solar, as well as smaller batteries and **demand response programs**, which provide incentives to decrease electric consumption during peak hours. In **Virtual Power Plants (VPP)**, DERs are pooled into networks, managed as a collective, and can replace gas peaker plants with a faster installation timeline and at lower cost to ratepayers,² all without jeopardizing public health or the environment with carbon emissions.

DERs can help Virginia meet energy demand while decarbonizing the power sector, spurring local economic development, protecting households from utility rate hikes, and boosting **grid resilience** and reliability.

DERs provide a wide range of public benefits and grid services. Homeowners, tenants, local businesses, and governments can use DERs to save money on utility bills, support local jobs and economies, and improve air and water quality and public health by reducing reliance on fossil fuels. DERs also make the grid more affordable and reliable by minimizing power loss along transmission lines and deferring investments in expensive energy infrastructure.³ Additionally, DERs increase grid resilience to large-scale disruptions, like extreme weather events that can cause blackouts, facilitating Virginians' energy independence.

CURRENT LANDSCAPE

Virginia is committed to 100% carbon-free electricity from investor-owned utilities by 2050.⁴ The **Virginia Clean Economy Act (VCEA)**, as amended by the **2026 Distributed Generation Expansion Act (DGEA)**, requires that Dominion meet 4.5% and eventually 5% of its annual **Renewable Portfolio Standard (RPS)** requirement through DERs.⁵

Virginia's **net metering** law⁶ compensates customers for electricity they generate. Last year, advocates

successfully defended APCo's and Dominion's net metering programs before the **State Corporation Commission (SCC)**. Net metered resources are still limited to 6% of peak load.⁷

2026 saw much legislation improving DER access. Dominion's **shared solar** program was expanded by 525 MW,⁸ and APCo's program was expanded in two tranches totaling 100 MW by 2028.⁹ **Modernized permitting** for residential solar and batteries using automated software will accelerate solar adoption and save localities time and resources. Residential solar **consumer protections** impose uniform contract and disclosure provisions to provide transparency and commonsense protections. Virginians can now access plug-in solar or "**balcony solar**," small solar systems that can plug into existing home electrical circuits, empowering renters and others typically excluded from rooftop solar to save \$13-50 monthly.^{10,11}

Standby charges or "**demand charges**" are a monthly fee for Dominion customers whose solar systems export energy. 2026 legislation raised the standby charge threshold from 15 kW to 20 kW (AC), enabling Virginians to properly size their systems and increasing DER adoption. Finally, the DGEA expanded the carveout for solar on **previously disturbed lands** (e.g., parking lots and brownfields) to 1,000 MW. Despite widespread support, a state fund to support projects on brownfields and old coal mine land has been established, but never funded.¹² One way to advance these projects without state funding is to offer permitting or interconnection benefits.

OPPORTUNITIES

Virginia imports more energy than any other state, and data center demand is projected to double energy needs in the next 15 years (see *Addressing Data Center Energy Demand*, page 99).¹³ As energy demand continues to grow, so does demand for DERs. Broad, bipartisan support exists for DERs, but more work is needed to make them a widespread reality.

A portfolio of **agrivoltaics** projects across Virginia's nearly 40,000 farms can drive rapid DER adoption, lower farmers' utility bills, promote energy independence, and preserve agricultural lands. Raising the limit of "small agricultural generator" net metered projects from 500 kW to 3 MW would empower larger agricultural energy users to maximize solar savings.

Building on last session's success enabling smart permitting, Virginia should continue to reduce soft costs, such as by allowing **remote inspections** and the use of **meter socket adapters**. These changes can

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make clean energy upgrades more affordable. Eliminating the 6% cap on net metered resources would strengthen the market signal to DER development.

Homeowners associations (HOAs) impede Virginians installing solar and batteries through onerous restrictions and bureaucracy. While current law limits what HOAs can impose to “reasonable restrictions”, Virginia could further limit HOAs from placing unnecessary burdens on homeowners.

VPPs should be designed to give consumers transparency, control, and clear benefits. Over 100,000 Virginians now own an electric vehicle¹⁴ (see *Accelerating Virginia's Transition to Electric Cars*, page 81). Other states have already launched pilots to deploy “vehicle to grid” (V2G) technology.¹⁵ Given Virginia's leadership in developing VPP programs (see *Getting Storage on the Grid*, page 111), the state should give VPP aggregators flexibility to integrate residential EVs enabled with V2G technology.

ENDNOTES

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TOP TAKEAWAYS

Small-scale clean energy like rooftop solar and battery storage are a critical component of our clean energy future, spurring local economic development, protecting households from utility rate hikes, and boosting grid resilience and reliability.

DERs have broad, bipartisan support, and recent efforts have improved access to DERs by lowering costs and other barriers.

Virginia should continue to reduce soft costs and other barriers, incentivize DERs on previously developed sites and agricultural lands, and deploy VPPs.