

## CLEAN, HEALTHY & RESILIENT SCHOOLS

There are currently over 2,800 public elementary, middle, and high schools across our Commonwealth, as well as an array of public colleges and universities. These institutions are critical to the development and success of generations of Virginians. They serve as gathering places for our communities and reflect the values we share. Unfortunately, Virginia's public schools routinely face tight budgets to support their faculty, staff, and infrastructure. COVID-19 has only added to that strain, revealing how vulnerable our school system is to disruption, and showcasing our their importance to public health.

Looking to the future, advanced energy and transportation technologies have an important role to play in making our schools more clean, resilient, and healthy. These technologies can help schools save money, protect students and faculty's health, and increase energy resilience, enabling schools to serve as community shelters during extreme weather events.

### Making our Schools more Energy Efficient

Energy costs are second only to personnel costs in K-12 school district operating budgets<sup>1</sup>, and are a significant outlay at our institutions of higher education. Improvements in energy efficiency – more effective heating and cooling, improved airflow, and better lighting – will help Virginia schools save money by cutting these high energy bills. In fact, around \$2 billion of what schools now pay nationwide can be saved by improving energy efficiency.<sup>2</sup> And these improvements benefit the health of students, faculty, and staff and strengthen educational outcomes.

*To identify schools most in need of improvement, we recommend that policymakers start by requiring energy benchmarking across Virginia's public-school system.* Virginia leaders can provide superintendents the guidance and resources they need to measure and track energy use and incentives to encourage investments in high-efficiency HVAC and lighting systems. Benchmarking will help identify those most in need and steer efficiency dollars towards systems that have historically seen under-investment.

### Electrifying our School Bus Fleet

Another opportunity to save money for Virginia schools and improve student health is by replacing Virginia's current fleet of diesel school buses with electric buses. Electric buses have lower fuel and maintenance costs, helping school districts save thousands of dollars over the long term<sup>3</sup>, and reduce the number of harmful pollutants that our children are breathing in on a

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<sup>1</sup> U.S. Environmental Protection Agency. Energy Efficiency Programs in K-12 Schools. 2011.

[https://www.epa.gov/sites/production/files/2015-08/documents/k-12\\_guide.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/k-12_guide.pdf)

<sup>2</sup> *Id.*

<sup>3</sup> First Electric School Buses Deployed in Texas. December 2020.

<https://www.eisd.org/cms/lib/TX02216949/Centricity/Domain/4/everman-isd-tx-ev-deployment-FINAL.pdf>



daily basis.<sup>4</sup> Innovative business strategies can help overcome the upfront cost differential that currently exists between diesel buses and electric buses, allowing schools to recognize both the cost savings and health benefits these vehicles provide.

Each year, the Commonwealth replaces roughly 1,500 school buses at the end of their useful life. *If over the next four years, 35% of those new buses were electric, by the end of 2025, Virginia would have over 2,100 electric buses transporting students to and from school (roughly 12% of the statewide fleet).* The Attorney General and lawmakers can help support the equitable, state-wide deployment of such buses through the disbursement of VW settlement funds and fully financing the Equitable Electrification Fund enacted during the '21 legislative session.

### Solar for our Schools

Solar Power Purchase Agreements (PPAs) are already helping schools across the Commonwealth save money. These financial innovations allow solar companies to install solar on or adjacent to schools, then sell the output to the schools, lowering their power bills with clean generation while not saddling them with the upfront costs of installation. Middlesex County Public Schools will be the first school district in Virginia to have 100% of its schools powered by on-site solar, saving \$4.74 million for taxpayers.<sup>5</sup> Thanks to the Clean Economy Act, the cap on solar PPAs has been increased, from 50 MWs in Dominion's service territory to 1,000 MWs, and from 7 MWs in Appalachian Power's territory to 40 MWs.

By the end of 2021, we should see approximately 50 to 60 MWs of solar on schools across the Commonwealth. *We believe Virginia can triple this number in the next four years, bringing the total to 150 MWs by the end of 2025 – enough generation to cover over 440 schools or about 20% of all public schools.* Currently, only California and New Jersey have more. Support from lawmakers and the next Attorney General can help ensure that deployment occurs broadly and equitably, from Northern Virginia and Richmond to the Southside and the Eastern Shore.

### Energy Resilient Schools

From hurricanes, tornados, and floods to heat waves and polar vortexes, natural disasters pose an ongoing and potentially growing risk to the health and well-being of Virginians across the Commonwealth. The same distributed technologies that help schools manage and reduce their energy bills, from rooftop solar and efficient systems to battery storage can also make these institutions more energy resilient – allowing them to (literally) keep the lights on when disaster strikes, and the grid fails. *The next Attorney General should task the Secretaries of Education, Public Safety, and Natural Resources with finding ways to increase the energy resilience on our public schools while also making them clean and healthy centers of education.*

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<sup>4</sup> U.S. EPA: AFLEET Tool. 2018.

<sup>5</sup> Middlesex County Public Schools: A Virginia Solar School Leader. Suntribe. <https://suntribesolar.com/case-study/middlesex-virginia-solar-school/>