

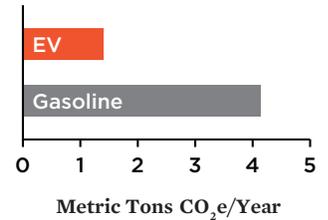
Electric Vehicle Benefits for Virginia

1. Interest in EVs is growing quickly.

EV sales for new cars grew 58% in Virginia from model year 2022 to model year 2023.

2. EVs cut global warming emissions.

Driving the average EV in Virginia produces 2.7 fewer metric tons of emissions per year compared to driving a gasoline-powered car getting 30 miles per gallon.



3. Charging infrastructure is increasing.

From 2021 to 2023, the number of DC fast-charging ports in Virginia increased by 46%, making charging more accessible to drivers.

4. Drivers save on fuel.



\$0.87

Average price per gallon equivalent January 18-19, 2024



\$2.97

Average price per gallon January 18-19, 2024

By switching to an electric car, the average driver in Charlottesville could save \$814 a year on fuel costs.

Electric Vehicles Are a Win for Our Climate, Health, and Economy

Incentives, consumer interest, and strong state and federal vehicle performance standards are helping to drive the deployment of cleaner vehicles. In Virginia, electric vehicle (EV) sales grew **58 percent** from model year 2022 to model year 2023 (Atlas 2023). This clean transportation transition is important because fully electric vehicles do not emit tailpipe pollution—meaning they produce less harmful air pollution than a gasoline-powered vehicle. From manufacturing to disposal, an EV will produce less than half the heat-trapping emissions of an equivalent gas-powered car (Reichmuth, Dunn, and Anair 2022).

In Virginia, driving an average EV will produce **2.7 fewer metric tons of carbon dioxide-equivalent emissions per year** than a 30 miles-per-gallon (mpg) gasoline-powered car (Reichmuth, Dunn, and Anair 2022). The same analysis found that a driver in Virginia would need a gas-powered car getting 88 mpg to be as efficient as the average EV, and 115 mpg to equal the most-efficient EV. And EVs will only continue to get cleaner as we generate more of our electricity from solar and wind power.

The lack of harmful tailpipe emissions has a measurable impact on public health. According to the American Lung Association, switching to 100 percent EVs and a clean electricity grid could save Virginia **\$25.4 billion in public health costs** from 2020 through 2050, and **avoid as many as 299,000 sick days** (ALA 2023).

Lastly, due to significant investment from the federal government in EV manufacturing and charging infrastructure, EVs can be job creators. Nationwide, **152,246 jobs** in EV manufacturing have been announced since 2021 (BGA and Atlas 2024).

EVs Get People Where They Need to Go

EV battery ranges have improved in recent years. Modern EVs can handle a variety of trips, from daily driving to longer travel. For instance, an EV with a 250-mile range can handle the round trip from Richmond to Virginia Beach and back. And they can even handle most trips for rural households: in Virginia, **84 percent of rural travel is for trips of less than 100 miles** (FHWA, n.d.; FHWA 2019).

Charging infrastructure also continues to improve. In Virginia, **direct current fast-charging (DCFC) ports increased by 46 percent** from 2021 to 2023, and **level 2 charging ports increased by 41 percent** (DOE 2024). Federal programs such as the Charging and Fueling Infrastructure Grant Program and the National Electric Vehicle Infrastructure (NEVI) Formula Program, along with the federal tax credit for charging infrastructure, are expected to add to the number of charging stations across the country (26 U.S.C. §30C). Under the NEVI Program, Virginia will receive an estimated **\$106.4 million to build charging infrastructure** (FHWA 2022).

EVs Can Save People Money

Consumers who switch to EVs can see savings on fuel and maintenance costs (AAA 2022). In Charlottesville, for example, where gasoline averaged \$2.97 per gallon January 18-19, 2024, **charging an EV was the equivalent of paying \$0.87 per gallon for gasoline**. At that price, using an EV could result in a potential annual fuel **savings of \$814** for the average driver (GasBuddy 2024; NREL 2023).

In addition, federal tax credits are available to eligible car buyers (including at the point of sale) to help reduce the up-front cost of qualified new and used EVs. Eligible consumers can receive a credit of up to \$7,500 for the purchase of a new, qualified EV, and up to \$4,000 for the purchase of a used, qualified EV (26 U.S.C. § 30D; 26 U.S.C. § 25E). Drivers may also be eligible to claim a federal tax credit of up to \$1,000 for installing a charger at home (26 U.S.C. § 30C).



For methodology and references, please visit:
www.ucsusa.org/resources/state-electric-vehicle-benefits

The Union of Concerned Scientists puts rigorous, independent science into action, developing solutions and advocating for a healthy, safe, and just future.

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