

## **Background**

There is increasing focus on climate change and global warming due in part to the burning of fossil fuels. Albemarle County's Climate Action Plan target is to reduce greenhouse gas emissions in the community by 45% from 2008 levels by 2030 and to achieve net zero carbon by 2050. Transportation emissions are estimated to account for 48% of the emissions in Albemarle County. Leveraging County assets to facilitate the expansion of electric vehicle charging equipment to encourage the use of electric vehicles is essential to meeting community greenhouse gas emission reduction goals. Doing so with a mind to fiscal stewardship is equally important.

Albemarle County applied for and received a grant in 2020 for the installation of electric vehicle charging stations at the County Office Buildings. Staff began installation of the electric vehicle chargers in early 2021, completing the work in May 2021. The County installed five (5) Level 2 and three (3) Level 3 electric vehicle (EV) charging stations with a total of 13 charging spaces, at County Office Building McIntire and County Office Building 5th Street. Eleven (11) of the charging spaces are available for public use, with two (2) of the charging spaces reserved for County electric vehicle use. Level 2 chargers typically add around 39 miles of range per hour. Level 3 chargers, also called Direct Current (DC) chargers, can add up to 100 miles of range in 30 minutes.

The initial project cost, including installation, 5-year equipment lease, and 5-year maintenance program, totaled approximately \$333,008. \$232,500 came in the form of a grant rebate, with the remaining \$100,508 coming from Board dedicated climate action funds. Total electrical costs for the power dispensed at chargers is \$86,507.

At the time of installation, the Virginia code was written such that state agencies and localities were not allowed to assess fees for distributing electricity, preventing any recoupment of operating costs. As a result, members of the public charge their vehicles for free at the County electric vehicle chargers.

The EV charging program has proven to be popular with the public. Since the installation of the EV charging stations, the County has hosted over 8,000 unique drivers at the county-owned facilities. Data received from ChargePoint, the EV charging equipment supplier, shows the County has dispensed 696 mega-watt-hours of electricity and seen an accumulated greenhouse gas emissions savings of over 487 metric tons, which equates to a savings of approximately 54,745 gallons of gasoline.

Due to its popularity, the usage of county electric vehicle charging stations has seen an average increase of 10% per month, every month, since the units were commissioned. Currently, the EV chargers dispense an average of 35,000 kilowatt hours of power a month, with a recurring cost of \$4,600 monthly to the County. At the current rate of usage increase, costs are predicted to approach \$8,000 per month by early FY25. When the lease and maintenance contracts are up for renewal in mid-2026, the monthly operating expenses are expected to increase by an additional \$5,500 per month (\$66,000 per year) for the lease of the charging station equipment.

Since 2021, the Virginia State Code has been amended to expand governmental authority regarding the use and sale of electricity for transportation purposes. As currently written, any state government entity, as well as any locality, park authority, public institution of higher education, or school board, may operate retail fee-based EV charging infrastructure on its property. A locality may restrict use to employees of the locality and authorized visitors and may install signage that details these restrictions. Retail fee-based EV charging provided by state agencies must be offered at rates similar to those generally available to consumers in the competitive area. (Reference Virginia Code sections 22.1-131, 56-1.2, 56-1.2:1, 56-232.2:1, and 2.2-614.5)

After these changes to the Virginia Code, several jurisdictions in the State of Virginia have established EV charging fees. Arlington County established a charge of \$0.1452 per kilowatt hour at their Board of Supervisors July 16, 2022 meeting. Fairfax County followed with a charge of \$0.30 per kilowatt hour, and, after a 10-minute grace period, once the vehicle is fully charged but still plugged in, a dwell-time fee of \$2.00 for every hour is assessed and capped at \$25. A dwell time fee is a fee that applies when an EV's battery is fully charged and no longer receiving electricity, but the vehicle remains connected to the charging station. The dwell-time fee is intended to encourage EV drivers to vacate a parking space served by an EV charging station when charging service is no longer needed, thereby freeing the space for other potential users.

In our local free market, there are approximately 71 non-Tesla chargers available to the public within a 5-mile radius of COB McIntire, including the 13 County chargers. Currently, 34 of the chargers are listed as free, including the County-owned units, with most of the free charging stations being located at hotels, resorts, or businesses for customer use. The remaining chargers are available to the public at rates between \$0.34 per hour and \$1.80 per kilowatt hour.