

Fee Setting Analysis for Electric Vehicle Charging

Introduction

Staff is recommending the County establish a rate to charge electric vehicle (EV) owners for use of the County EV charging stations located at the McIntire and 5th Street office buildings, starting on July 1, 2024. The proposed rate to be charged is designed to recover the County's ongoing operating costs to supply the charging stations. Additionally, the fee is designed to encourage EV charging station users to promptly move their EVs when batteries are fully charged so that the station is available to other users. Also known as a dwell-time fee, this applies when an EV's battery is fully charged and no longer receiving electricity, but the vehicle remains connected to the charging station. This whitepaper details the methodology for the development of the recommended rates and charges, including:

- A rate of \$0.147 per kilowatt hour (kWh) is recommended to EV charging station users to recover county operating costs and administrative fees. This rate would align with Virginia code § 2.2-614.5, with services offered at rates similar to those available in the competitive area.
- After an appropriate grace period, a dwell-time fee of \$2.00 per hour will be charged for remaining parked in the EV station after their EV battery is fully charged. Dwell time would be capped at \$25.00, consistent with the maximum civil penalty of \$25.00 established in Virginia Code § 46.2-1219.3.

Rate and Fee Methodology

Staff's recommendation for EV charging consists of three primary elements: (1) determining the methodology for pricing the service; (2) determining the specific fees to be charged; and (3) determining the method for periodic rate adjustments.

1. Determining the Pricing Methodology

Staff surveyed fees charged by various providers of EV supply equipment (EVSE) to EV drivers. Fees charged by several of these providers in Albemarle County are summarized in Table 1 below. This table is not all-inclusive and can be variable as many stations allow pricing to be set by the station owner-operators, such as a retail or commercial establishment, not the network provider. The table also does not include fees charged for the use of Tesla EV charging stations, as those stations are usable only by drivers of Tesla vehicles and are not representative of the entire EV owner group.

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. 80% of the charging at the County EV chargers is done using the Level 3 chargers.

Table 1: Examples of Fees Charged by Commercial Providers of Level 2 & Level 3 EV Charging Services

<i>Provider</i>	<i>Charging Fee</i>	<i>Dwell Time Fee</i>	<i>Comments</i>
AmpUp, Level 2 Charging	\$1.80 per hour, plus a \$0.30 processing fee, and a \$0.18 per hour service fee	None noted on the company website	The fee reflects the amount charged in Albemarle County as of February 2024.

	Converted to a per kWh cost, this equates to approximately \$0.32/kWh		
Blink, Level 2 Charging	\$0.49/kWh	None noted on the company website	The fee reflects the amount charged in Albemarle County as of February 2024.
EVGo, Level 3 Charging	Non-member: \$0.34/kWh early bird (12 AM to 8 AM), \$0.40/kWh off-peak (8 AM to 2 PM, 9 PM to 12 AM), and \$0.45 peak hours (2 PM to 9 PM), with a session fee of \$0.99 Member: Basic member receives an 8% discount on pricing for a \$0.99/month subscription and no session fees. Higher monthly subscription fees result in larger discounts.	None noted on the company website	The fee reflects the amount charged in Albemarle County as of February 2024.

Though comparisons are complicated by varying characteristics, such as member status or monthly fees, Table 1 shows that the staff's recommended fee of \$0.147 per kilowatt hour would be below the fees charged by competitive providers in the local area.

Staff recommends setting charging fees on a per-kWh basis. Per-kWh billing is based on the amount of electricity delivered to the vehicle's battery, making it both simple and equitable. It is much like a gas station pricing gasoline by the number of gallons of gasoline pumped into a vehicle's gas tank. Pricing on a per-kWh basis is supported by the ChargePoint stations that the County has currently installed, which can measure and bill the electricity delivered to a vehicle during a charging session.

2. Determining an Appropriate Fee

The next step in the staff analysis was determining an appropriate per-kWh price for the service provided. Staff sought to set the fee to recover the service's primary elements:

- Cost of electricity
- Cost of the lease and maintenance contract
- Cost of ChargePoint administrative fees

Staff does not recommend attempting to recover the County's previously invested capital costs associated with the provision of EV charging service. Those costs would likely inflate the fee beyond those charged by alternate providers, thereby making the service unattractive to EV drivers visiting the County facilities. Pricing that discourages the use of EVSE would be inconsistent with the objectives of encouraging EV use and providing EV charging services to the public.

The cost of electricity is a variable cost, dependent on the amount of electricity consumed and electrical provider rates. Electrical rates have been fairly stable; however, the rates can change year-to-year depending on the costs the electrical provider passes to consumers. Based on the most current consumption history, the County's average electrical cost is \$0.132 per kWh.

The current lease and maintenance costs for the EV charging units were pre-paid for five years with ChargePoint upon installation of the EV charging stations in 2021; the County's current contract will expire in June of 2026. Staff proposes reevaluating the County EV charging kWh rate in FY2026-27 to include the costs associated with a new lease and maintenance contract.

Per the existing contract, ChargePoint adds an administrative or transaction fee to the County's monthly bill based on the monthly kWh usage. The ChargePoint fee amounts to 10% of the collected revenue from the EV charging stations. Staff have calculated the estimated rate that would need to be passed on to EV charging station users and included that in the proposed rate.

Based on these elements, staff determined that a per-kWh fee of \$0.147 will be sufficient at this time to recoup the costs related to providing electricity and ChargePoint administrative fees. Table 2 illustrates the rate inputs for the EV charging station fee. Per the research completed, the proposed interim County per-kWh rate is well below local market rates. This approach will incentivize the use of electric vehicles, which is consistent with the goals outlined in the County's Climate Action Plan (CAP).

Table 2: Current EV Charging Rate Inputs

1. Electricity Rate, per kWh	\$0.132
2. ChargePoint Administrative Fee Payback Rate, per kWh	\$0.015
3. Total Proposed Per-kWh Rate, per kWh [Sum of item 1 and item 2]	\$0.147

In addition, staff recommends a dwell-time fee be charged to users who remain parked at an EV station after their batteries are fully charged. The fee would ensure maximum community utilization of the EV chargers by encouraging users to promptly move their EVs to make the station available for other users. This dwell-time fee would be applied after an established 30-minute grace period; once the vehicle is fully charged but still plugged in, a dwell-time fee of \$2.00 for every hour would be assessed and capped at \$25. The \$25.00 dwell-time cap per session is consistent with the maximum civil penalty of \$25.00 established in Virginia Code § 46.2-1219.3 for traffic infractions related to parking in a space marked as reserved for EV charging.

3. Determining the proposed method of periodic cost adjustments

The proposed electric vehicle charging fee is driven by the cost of electricity, the cost of the EVSE lease and maintenance contract, and the EVSE service provider administrative fees. Both the cost of electricity and the cost of the lease and maintenance fees are subject to change on a periodic basis.

Staff recommends the EV charging fee be reevaluated annually at the beginning of each fiscal year. The fee will be calculated using the 12-month average of electrical rates plus announced changes to the primary elements of the EV charging station operating costs. The updated costs will be applied to the fee

formula to generate the EV charging fee for the following fiscal year.

Staff recommends that the proposed ordinance establishing the per-kWh rate stipulate that the County Executive be authorized to approve the annual adjustment of the per-kWh.

For additional information regarding this white paper contact Cai Mowry, Deputy Chief of Operations, Facilities & Environmental Services, at cmowry@albemarle.org.