



FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Chairman and Members
Park Authority Board

VIA: Jai Cole, Executive Director

FROM: Sara Baldwin, Deputy Director/COO

DATE: July 21, 2023

Agenda

**Administration and Board Management Committee
(Committee of the Whole)
Wednesday, July 26, 2023 – 6:15 pm
Board Room, Herrity Building
Chairman: Faisal Khan
Vice Chair: Maggie Godbold**

1. 2024 Virginia General Assembly Legislative Item – Solar Electric Vehicle (EV) Charging (with presentation) – Information*

*Enclosures



If accommodations and/or alternative formats are needed, please call (703) 324-8563. TTY (703) 803-3354

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INFORMATION

2024 Virginia General Assembly Legislative Item – Solar Electric Vehicle (EV) Charging

In 2022 the FCPA submitted an Environmental Improvement Program (EIP) application for portable solar powered Electric Vehicle Charging stations, to be used at Fairfax County Park Authority facility parking lots without existing or sufficient electrical grid power. This will help the FCPA meet the 2021 County Operational Energy Strategy goal of increasing vehicle charging station access across the county. A portable, non-electric grid connected charging station will allow the FCPA to offer electric vehicle charging at more FCPA facilities and increase availability to more county residents and staff vehicles. The County currently charges the same rate for all EV Charging station users.

VA State Statute § 56-1.2:1 “Retail sale of electricity in connection with the provision of electric vehicle charging service” currently does not allow the retail sale of electricity unless it was procured from a “public utility” (i.e. Dominion, NOVEC, etc.) operating in the service area. The solar charging station would not be connected to the electric grid, would produce its own electricity, and charge for this service, putting its operation outside the legal limits of the current statute.

The proposed statute changes (see Attachment 1) would allow for the retail sale of electricity generated by an alternative energy (i.e. solar, wind, water generation, etc.) source for retail sale. This change expands to explicitly allow building with alternative energy connected to sell electricity for EV Charging as the current statute infers that all EV charging power must come from a “public utility”. As the FCPA installs solar and EV charging stations at its facilities, actual electricity for the charging stations may come from solar system behind the meter. The end goal will be to clarify the existing statute limitation and open the state to more EV Charging options.

The current legislative timeline is below:

<u>Milestone</u>	<u>Schedule</u>
PAB Review	July 26, 2023
BOS Legislative Application	August 1, 2023
EIP FY2025 Application	August 4, 2023
County Legislative Review	3 rd Quarter CY 2023
County Legislative Approval	4 th Quarter CY 2023
VA Legislative Session	1 st Quarter CY 2024
County Budget Adoption	2 nd Quarter CY 2024
Legislative Changes Effective	July 1, 2024

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Staff is planning to submit an FY25 EIP application for Solar EV Charging Station(s) that would (if approved) be funded at the same time as the legislative changes effective date, July 1, 2024.

FISCAL IMPACT:

There is currently no fiscal impact to the FCPA for this legislative change request. If approved by the state, FCPA and the County could purchase the Solar EV charging stations, currently ~\$89,000 each. A dual station setup would cost about \$60,727 at an electric grid connected site, with cost increasing rapidly at non-grid connected sites. A mobile charging station would allow placement at busier park facilities during peak summer season and relocation to other facilities for winter use.

At the August 2, 2022 Board of Supervisor's meeting, Action Item #1 set the retail electric fee for EV charging station to \$0.30/kWh and \$2.00 dwelling fee after a 2-hour charging period and 10-minute grace period. A 4.3 kW solar charger could produce 5,590 kWh, or \$1,677 of revenue.

ENCLOSED DOCUMENTS:

Attachment 1: Proposed Legislative Changes

Attachment 2: Board of Supervisors Electric Vehicle Charging Item – August 2, 2022

STAFF:

Jai Cole, Executive Director

Sara Baldwin, Deputy Director/COO

Aimee L. Vosper, Deputy Director/CBD

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Michael Peter, Director, Business Administration Division

Tonya Mills, Senior Fiscal Administrator, Business Admin Division

Keith Snyder, Energy Branch Manager, Planning and Development Division

Statue Link: [§ 56-1.2:1. Retail sale of electricity in connection with the provision of electric vehicle charging service \(virginia.gov\)](#)

§ 56-1.2:1. Retail sale of electricity in connection with the provision of electric vehicle charging service.

A. The provision of electric vehicle charging service by a person, locality, park authority created by a locality pursuant to § [15.2-5702](#), school board, or any agency as defined in § [2.2-128](#) that is not a public utility, public service corporation, or public service company shall not constitute the retail sale of electricity if:

1. The electricity furnished in connection with the provision of electric vehicle charging service is used solely for transportation purposes; and
2. The person, locality, park authority created by a locality pursuant to § [15.2-5702](#), school board, or agency as defined in § [2.2-128](#) providing the electric vehicle charging service has

a. procured the furnished electricity from the public utility that is authorized by the Commission to engage in the retail sale of electricity within the exclusive service territory in which the electric vehicle charging service is provided; ~~or-~~

b. procured the furnished electricity from a locally generated alternative electrical energy source, including but not limited to solar photovoltaic array, wind turbine, water turbine, who's system is designed to be stand-alone from the electric grid infrastructure for the sole purpose of retail mobile battery charging for customers including but not limited to electric vehicle charging, mobile phones, mobile computers, mobile speakers, and mobile lights.

c. procured the furnished electricity from a locally generated alternative electrical energy source, including but not limited to solar photovoltaic array, wind turbine, water turbine, who's system is designed to discharge between the electric service provider meter and customer interface.

B. The provision of electric vehicle charging service shall:

1. Be a permitted electric utility activity of a certificated electric utility; and
2. Not affect the status as a public utility of a certificated public utility that provides such service.

Commented [KS1]: Specifically requesting for mobile solar powered EV charging stations. They do have battery systems to store power and allow faster car charging, so avoiding phrases such as "directly to customer" which could imply not battery storage allowed.

Commented [KS2]: Trying to make this apply to multiple charging types as FCPA/County could deploy phone/computer charging stations or other types of portable battery chargers.

Commented [KS3]: Concerned that solar arrays connected to the same electric meter as EV charging stations, phone/computer charging stations, may violate statue as written since solar electric would not go to the grid before charging a device. This line item ensures that any retail charging station connected to the same meter as a solar array is legal. FCPA impact - Rec, Golf clubhouse, Nature Centers, parks, with only one meter and solar array installations (coming in 2023 and 2024).

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ACTION - 1

Establishment of Retail Fees for the Charging of Electric Vehicles at County-Owned Charging Stations

ISSUE:

Board adoption of retail fees for the charging of electric vehicles at county-owned charging stations, effective August 3, 2022.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors adopt a two-part fee to be paid by the public effective August 3, 2022, including county employees charging their privately-owned vehicles, for the charging of electric vehicles (EVs) at county-owned charging stations, consisting of (1) a charge of \$0.30 per kilowatt hour and (2) a dwell-time fee of \$2.00 per hour, capped at \$25.00 per session, that applies when the EV's battery is fully charged and a 10-minute grace period has expired.

TIMING:

Board action is requested on August 2, 2022, so that staff may begin to program fee information into county-owned EV charging stations and begin collecting revenue for the provision of EV charging service.

BACKGROUND:

Over the last several years, the Board of Supervisors (Board) has supported electrification of the transportation sector, including funding the installation of EV supply equipment (EVSE) at county government facilities. In addition to helping the county fulfill its own fleet electrification goals, as included in the 2021 update to the Operational Energy Strategy, the proliferation of EVSE at county facilities is intended to increase charger availability for community members and promote the widespread adoption of EVs. Leveraging county assets to facilitate the expansion of EVSE availability and encouraging the use of EVs is essential to meeting the county's greenhouse gas emissions reductions goals, including those in the Community-wide Energy and Climate Action Plan (CECAP), accepted by the Board in September 2021.

Beginning in 2021, county staff began installing ChargePoint Level 2 EVSE at county government locations pursuant to a multi-year plan most recently described in a December 13, 2021 memorandum to the Board. Level 2 EVSE can fully charge most EVs in four to eight hours. Currently, over 20 Level 2 charging stations have been

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installed at county facilities and are eligible for activation, with more scheduled for installation in the remainder of CY 2022 and beyond.

Before the EV charging stations can be activated for public use, they must be programmed with information regarding the fees, if any, to be paid by the public, which is the subject of this item. The fees that the county establishes for the provision of retail EV charging service are not subject to regulation by the Virginia State Corporation Commission pursuant to § 56-232.2:1 of the Virginia Code.

The charging stations located in county-owned parking lots and publicly accessible garages will be available for use by the public, including county employees, who will be able to charge personal vehicles for a fee, and for use by county fleet vehicles. Stations located in restricted-access county-owned garages and lots that will be used primarily by county fleet vehicles may be available for use for a fee by those county employees who have been granted access to the restricted garages and lots, so long as that use does not affect the charging of fleet vehicles.

Several factors are considered when setting EVSE retail fees, with staff concluding that the most important considerations at this time are (1) the costs that are to be recovered by the fees; (2) the user's ability to access and move the vehicle when charging is completed, and (3) competitiveness with the fees charged by other stations located nearby. Fees for EV charging service will be paid by the user at the ChargePoint station using the ChargePoint application. The ChargePoint application allows the user to select notification preferences, including notification when the vehicle is fully charged, and the option of receiving a receipt when public charging is complete.

Based on its fee-setting analysis, described in Attachment 1, staff recommends EVSE fees of (1) \$0.30 per kilowatt hour (kWh) while electricity is being delivered to the EV battery, with (2) a dwell-time fee of \$2.00 per hour, capped at \$25.00 per session, that applies when the EV's battery is fully charged but the vehicle remains connected to the charging station after a 10-minute grace period expires. Staff has concluded that the recommended fees are likely to cover the county's key variable costs of providing EV charging service, specifically transaction fees and electricity. Based on Table 1 as shown in Attachment 1, this fee proposal appears competitive with the rates currently charged by other publicly-accessible commercial stations located in Fairfax County.

Two jurisdictions in the Northern Virginia region have established EV charging fees, with the approach taken in each jurisdiction distinguishable from this staff proposal. Loudoun County charges a fee of \$2.10 per session at its stations, regardless of how much electricity is delivered or how long the vehicle remains connected to the charging station. Arlington County is likely to adopt a fee of \$0.1452/kWh at its July 16, 2022, meeting, but that fee is only an interim measure. Arlington County intends to expand its EV charging infrastructure beyond the seven stations currently installed and plans to

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retain a consultant to develop a recommendation on a permanent EV rate structure and charging model consistent with that expansion. Unlike the initial interim fee, the future proposal is likely to consider infrastructure costs, parking fees and rate structure options, including a dwell-time charge to encourage turnover of spaces and maximize use of EV charging stations.

Staff considers the per-kWh approach to be the most equitable approach because it is based on the actual electricity consumption of the vehicle. It is also the approach that most EV drivers are familiar with, as it is comparable to the approach that is increasingly deployed by most commercial providers. Basing fees on a per-session or per-minute basis raise issues because of variable factors including a vehicle's battery capacity and the potential impact of weather on charging times.

The dwell-time fee applies when an EV's battery is fully charged and no longer receiving electricity but the vehicle remains connected to the charging station following a 10-minute grace period. 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 some instances, such as at Park-and-Ride locations or in Metro garages, it is presumed that the vehicle will be parked at the EVSE for a full business day. For these locations, the dwell-time fee of \$2.00 per hour is intended to discourage an EV driver with a nearly-full battery from parking at an EVSE spot for a de minimis cost and preventing others from using that spot.

The \$25.00 dwell-time cap per session considers the maximum civil penalty of \$25.00 established in Va. Code § 46.2-1219.3 for traffic infractions related to parking in a space marked as reserved for EV charging. This civil penalty, adopted by the General Assembly in 2022, may only be imposed if the parking space reserved for EV charging has a separate sign containing the language "PENALTY, UP TO \$25." Va. Code § 46.2-1219.3 further authorizes localities to adopt an ordinance consistent with the section's provisions. At this time, staff does not intend to recommend the Board adopt such an ordinance or to include a "PENALTY, UP TO \$25" sign at spaces reserved for EV charging at county-owned charging stations, as there is no evidence that drivers are inappropriately parking in spaces reserved for EV charging.

In 2023, staff anticipates providing the Board with a report on the status of EV charging station usage by the public, including usage data and analysis of the existing user fees. That report also may address whether changes to the fees appear warranted.

FISCAL IMPACT:

The county's provision of retail EV charging service to the public is expected to have no material fiscal impact to the county. The revenues from the retail fees will be dependent

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on factors including the number of vehicles that park at county government EV charging stations and the amount of electricity consumed, but revenues are expected to cover the variable costs of transaction fees and electricity. Revenue distributions from ChargePoint will occur quarterly, assuming that the amount due is at least \$250, with revenue due at least annually and within 30 days of contract expiration or termination. Retail fees charged by the county to the public for EV charging service do not apply to the use of EVSE to charge the county's fleet EVs. For budgetary purposes, electricity consumption by county fleet EVs will be tracked between internal county departments.

ENCLOSED DOCUMENTS:

Attachment 1 – Fee-Setting Analysis for Electric Vehicle Charging Service

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Fee-Setting Analysis for Electric Vehicle Charging

Setting fees for the public use of electric vehicle supply equipment (EVSE) provided by a local government is a relatively new exercise, with few examples available nationwide. Determining appropriate fees is currently complicated by issues including the lack of data regarding factors such as expected usage, growth and revenues. Given these and other factors, staff's recommendation should be viewed as a starting point. The approach described in this analysis may be modified over time as markets and regulatory frameworks evolve, EV penetration and likely revenues increase, and the increased availability of relevant data allows for more informed assessment and decision-making.

Staff's recommendation with respect to a fee-setting for EV charging consists of two primary elements: (1) determining the methodology for pricing the service; and (2) determining the specific fees to be charged.

1. Pricing Methodology

Broadly speaking, rate-setting methodologies for essential monopoly utility services such as electricity, natural gas and water are intended to result in cost-based rates that generate revenue from each class of customer in proportion to the cost to serve each class of customer. Establishing cost-based rates typically involves analyses and decisions regarding the utility's revenue requirement, its cost of service, and the rate design it proposes for recovering its revenue requirement.

The goal of cost-based rates and the use of traditional rate-setting methodologies for achieving that goal are not appropriate to use when setting fees for a service, such as EVSE, that is both optional and is available from alternate providers or sources. For services such as EVSE, cost recovery is an important consideration, but so are competitors' prices. Prices that are too high in comparison to those charged by other providers are likely to lead to reduced demand for the service absent some unique benefit. Given these considerations, staff selected a pricing methodology that emulates pricing available in a competitive market.

After determining it was appropriate to emulate competitive pricing, staff surveyed fees charged by various providers of EVSE to EV drivers. Fees charged by several of these providers in Fairfax County are summarized in Table 1, below. Though comparisons are complicated by varying characteristics, such as member status or monthly fees, Table 1 shows that staff's recommended fees are generally below the fees charged by competitive providers in the area. This table does not include fees charged by certain highly-visible charging networks like ChargePoint and SemaConnect because fees for stations in those networks are set by the stations' owner-operators, such as a retail or commercial establishment, not by the network provider. The table also does not include fees charged for use of Tesla EV charging stations, as those stations are usable only by drivers of Tesla vehicles.

Table 1, Examples of fees charged by commercial providers of Level 2 EV charging service

<i>Provider</i>	<i>Charging</i>	<i>Dwell Time</i>	<i>Comments</i>
Blink	<i>Non-member: \$0.59/kWh Member: \$0.49/kWh</i>	None noted on company website.	Fee shown reflects amount charged in Fairfax County as of June 2022. Fee varies depending on state and membership status.
Electrify America	<i>Non-member: \$0.43/kWh Member: \$0.31/kWh + monthly \$4.00 fee</i>	"Idle time" fee of \$0.40/minute applies after a 10-minute grace period.	Fee shown reflects amount charged in Fairfax County as of June 2022. Fee varies depending on state and membership status.
EVgo	<i>Non-member: \$0.30/min + \$2.99 credit card fee Member: (1) \$0.27/min + \$4.99 prepaid monthly charging credit (expires monthly) or (2) \$0.24/min + monthly \$6.99 subscription fee</i>	None noted on company website.	Fee shown reflects amount charged in Fairfax County as of June 2022. Fee depends on state, time of day and membership status.

Although EVgo charges on a per-minute basis, increasingly providers' rates for EV charging service are set on a per-kilowatt hour basis. Per-kilowatt hour 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 is installing, which can measure and bill the electricity delivered to a vehicle during a charging session.

2. *Determining an Appropriate Fee*

The next step in staff's analysis was to determine an appropriate per-kWh price for the service provided. Staff sought to set the fee so that it would recover the primary elements of the service: transaction fees and the cost of electricity, both of which are variable costs. Network and maintenance are fixed parts of the cost of each port and not readily captured on a per kWh basis. At this time, staff does not recommend recovering the capital costs associated with the provision of EV charging service, as including those costs is likely to inflate the fee beyond those charged by alternate providers, thereby making the service unattractive to EV drivers visiting county facilities. Pricing that discourages use of the EVSE appears inconsistent with the board's objectives of encouraging EV use and providing EV charging service to the public.

It is difficult to project revenues and cost recovery at this very early stage of EVSE roll-out. However, staff's initial assessment is that transaction fees and electricity costs are likely to account for over half the proposed fee of \$0.30/kWh, while costs associated with network and maintenance costs are likely to account for the remainder. Setting the per-kilowatt hour fee higher could generate a replacement fund for the charging stations, which are expected to have a lifespan of approximately 10 years.

- *Transaction fees* recover the network provider's costs of billing and collecting revenue associated with EV charging and are a standard element of contracts with providers. In the county's case, transaction fees are governed by the five-year contract (with renewal options) awarded in November 2020 to National Car Charging LLC (NCC), whose team includes ChargePoint, Inc. (CPI). Under the contract, CPI charges a 10 percent transaction fee when it collects and processes revenue from EV users on the county's behalf.
- *Electricity costs* have been stable for several years, but in FY 2023 the average electricity cost for service provided by county accounts by Dominion Energy Virginia (Dominion) is expected to increase to approximately 11 ¢/kWh. A key factor for this increase is surging natural gas prices due to global demand and near-record levels of exports. Because nearly 40 percent of Dominion's generation portfolio currently relies on natural gas, coal and oil, rising natural gas prices (which also affect coal and oil prices) translate to higher electricity rates for customers. Another factor is the substantial costs that Dominion is expected to incur in complying with the directives of the Virginia Clean Economy Act (VCEA), including the requirement of 100 percent clean electricity by 2045. A third factor is rising commodities expenses due to supply chain constraints and mounting inflation. Given the expected volatility in electricity prices over the next several years, staff recommends that the embedded cost of electricity in the fee for EV charging be set at least 25 to 30 percent above the current average cost of electricity, or approximately \$0.13/kWh to \$0.14/kWh.

Network and maintenance costs are fixed costs that are governed by the county's contract with NCC, Contract No. 4400009695. In addition to standard warranties, the EV charging stations acquired and operated pursuant to this contract are covered by ChargePoint Assure, a 10-point full-service maintenance and support program designed for ChargePoint customers like Fairfax County. As described in the contract, elements of ChargePoint Assure include remote automated monitoring of the ChargePoint stations, coordinating all necessary repairs to the ChargePoint EVSE, and guaranteeing a 98 percent annual station uptime.

Based on its consideration of these elements, staff has concluded that a per-kWh fee of \$0.30 should be sufficient for the next several years to recover costs related to transaction fees and electricity, and may recover some portion of network services and maintenance costs as well. Staff will monitor and provide periodic updates to the board on EVSE usage and revenues.

Legislative Change Proposal - Solar EV Charging

July 2023

Overview

- ▶ Recommend approval of the proposed changes VA legislation § 56-1.2:1 to allow for Solar EV charging and other similar retail electric sales.
- ▶ Current statute requires procurement from Public Utility (Dominion, NOVEC, etc)
- ▶ FCPA would like to utilize solar powered EV charging station for grid-less sites.

Timing

- ▶ July 26, 2023 - PAB Review/Approval
- ▶ August 1, 2023 - BOS Legislative Application
- ▶ 3rd Quarter CY 2023 - County Legislative Review
- ▶ 4th Quarter CY 2023 - County Legislative Approval
- ▶ 1st Quarter CY 2024 - VA Legislative Session
- ▶ July 1, 2024 - Legislative Changes Effective

Proposed Changes

Add verbiage to § 56-1.2:1 allowing retail sale of electricity for EV charging from:

- ▶ stand alone, dedicated alternative energy (solar, wind, etc.) source
- ▶ alternative energy (solar, wind, etc.) source on same side of meter as EV Charging station

Equipment Overview

- ▶ Overview
 - ▶ Charge up to 265 e-miles daily
 - ▶ One parking space
- ▶ Portable
 - ▶ Can be moved seasonally
- ▶ Major Potential Locations
 - ▶ Burke Lake Park - Ice Cream Parlor Area
 - ▶ Clemyjontri
 - ▶ Frying Pan Farm Park

