



STAFF REPORT

To: County Council
From: Zack Darby, Sustainability Analyst
Emily Quinton, Sustainability Program Manager
Date: July 27, 2022
Type of item: Work session
Subject: Discussion and direction to staff regarding County electric vehicle chargers usage fee structure

Purpose & Requested Council Action

During a work session on June 22, 2022, staff shared recommendations for the management of public facing electric vehicle charging stations. Specifically, those recommendations are:

- Implement the market rate fee of \$0.43/kWh at the three County fast chargers. Charging at these stations will remain free for fleet vehicles.
- Allow level II charging to remain free for all users for now.

Staff have returned to council for direction on these recommendations.

Background

Currently, all County owned and operated electric vehicle (EV) charging stations are free to use, as they have been since the first charging station was installed in 2016. Over the years, the plan has been to revisit a fee structure once staff had more information about how much the chargers are being used and the County's ongoing costs for electricity, warranties, networking, and service contracts. This data has been collected and analyzed and staff have reached a recommendation on this topic.

To support the Council's fleet transition and GHG reduction goals¹, the first public charging station was installed in 2016, and the County now has 15 stations across five different sites.

- Coalville Courthouse: Two (2) level II and one (1) DC fast charging stations
- Kamas Public Services Building: Two (2) level II charging stations
- Health Department (Quinn's Junction): Two (2) level II charging stations
- Ecker Hill Park & Ride: Five (5) level II charging stations

¹ <https://summitcounty.org/DocumentCenter/View/6777/Staff-Report-and-Resolution-2017-16>

- Sheldon Richins Building: One (1) level II and two (2) DC fast charging stations

The 2019 Summit County EV Charging Station Infrastructure Report and Strategic Plan² lays the groundwork for additional chargers, including up to 11 additional EV chargers that are being installed in 2022. As noted above, the County currently operates 3 fast charging stations³ and 12 level II stations.

Summary of Findings for detailed methodology & figures see [previous staff report](#).

Charger usage in 2021

- County charging stations used a total of 77,350 kWh
- The 3 fast charging stations receive much higher usage than the 12 level II stations
- Fast charging accounted for roughly 62% of total usage

Cost to operate charging stations in 2021

- Total cost of operation was \$56,238 (includes the cost of electricity, warranty service, and networking fees)
- The cost of electricity at the 3 fast charging stations was \$27,756 which accounts for nearly half the total cost of operation across all 15 chargers
- Average cost of operation per year for a level II charger is approximately \$1,762
- Average cost of operation per year for a fast charger is approximately \$15,780
- Fast chargers cost more money to operate, in part, because they trigger the demand charge⁴ set by our utility provider, Rocky Mountain Power

Implementing a usage fee (see table 1 below)

- Most entities charge by the amount of kilowatt hours (kWh) used
- The current market rate for fast charging is \$0.43/kWh
- If this fee is implemented at the fast charging stations, the County could recover approximately \$20,533 annually
- This would account for approximately 47% of the total cost to operate the fast chargers annually

Estimated cost to the consumer with recommended fee structure compared to gas

- The cost to fully charge an EV sedan at \$0.43/kWh = \$31.30
- The cost to fill a sedan with gas at \$5.00/gallon = \$37.14

² <https://www.summitcounty.org/DocumentCenter/View/10595/Electric-Vehicle-Charging-Station-Infrastructure-Report-PDF>

³ <https://www.summitcounty.org/DocumentCenter/View/19499/Staff-Report-Electric-Vehicle-Chargers?bidId=>

⁴ Demand Charges are based on the highest level of electricity you demand at one time during the billing period and at the time of day it's needed. Because the fast chargers require a high amount of electricity, every time they are plugged in, they trip the Rocky Mountain Power demand charge which adds a lot to our monthly bill.

- The cost to fill up a small SUV with gas at \$5.00/gallon = \$62.00
- Assumptions: estimates based on the range of a Chevy Bolt and the average fuel efficiency of sedans and small SUVs

Request

Staff request Council direction on the following recommendations which were presented to Council on June 22:

- Implement the Market Rate Fee (\$0.43/kWh) for fast charging. Fast charging is very costly and implementing the market rate fee would allow the County to recoup some of that cost. Continue to offer fast charging for free to fleet vehicles.
- Continue to allow level II stations to remain free of charge. The cost of electricity at these stations is so minimal, that it is worth the cost to encourage EV adoption.
- Continue to monitor charger usage, cost, and industry trends.

Should the Council direct staff to implement a fee, staff will work with the service providers to establish fee collection, a process that will happen immediately for the ChargePoint brand fast charger and after additional troubleshooting with the BTC Power brand fast chargers. Should the Council direct staff to not implement a fee, monitoring of these charging stations will continue as usual.

Feel free to contact Zack Darby (zdarby@summitcounty.org) with any questions. For a more detailed report on this topic see [previous staff report](#).

Talking Points for: Discussion and direction to staff regarding County electric vehicle chargers usage fee structure

- Staff presented this topic to Council on June 22, and are now back seeking a direction on this matter.
- Council set a policy in 2016 to offer EV charging for free with the intention of revisiting this at a later date.
- Based on staff's research, they are recommending implementing a fee for the DC fast chargers but allowing level II charging to remain free to the Public.
- Why? The monthly electricity bills and maintenance on these units is very high, and a fee would help recoup some of the cost. Charging stations are not a money-making venture.
- The market rate for fast charging right now is \$0.43/kWh
- Installing and maintaining EV charging stations aligns with the County sustainability goals of:
 - Reducing greenhouse gas emissions
 - Transitioning the County fleet to alternate fuel vehicles