



DATE: April 12, 2022

CATEGORY: Consent

DEPT.: City Manager's Office

TITLE: Fees for Level 3 Electric Vehicle Chargers

RECOMMENDATION

Adopt a Resolution of the City Council of the City of Mountain View Amending the Master Fee Schedule to Change the Fees for Electric Vehicle Chargers, to be read in title only, further reading waived (Attachment 1 to the Council report).

BACKGROUND

On July 7, 2015, the City Council approved the institution of a fee for use of City-owned, Level 2 electric vehicle (EV) chargers in Mountain View. The fees were set at \$1.50 per hour for the first two hours (with a one-hour minimum) and \$5 per hour after two hours. In March 2016, based on community input, the City Manager authorized adjusting the fees to \$1 per hour for the first two hours (with a one-hour minimum), and \$4 per hour after two hours. (Charging levels are used to categorize the rated power, voltage, and current of the charging system and, thus, the time needed to achieve a charge.)

On December 16, 2019, the California Office of Administrative Law approved amendments to the Electric Vehicle Fueling Systems Specifications in the California Code of Regulations, Title 4, Section 4001 and Section 4002.11. These updated regulations specify that pricing for EV-charger usage should be based on the amount of electricity dispensed rather than time. The rule change does not preclude station owners from charging additional fees, such as hourly fees for parking or overstay fees. These regulations apply to new Level 2 EV chargers installed on or after January 1, 2021, and new Level 3 EV chargers installed on or after January 1, 2023. Level 2 and Level 3 EV chargers installed prior to that date have until January 1, 2031, and January 1, 2033, respectively, to comply. The current and planned number of Level 2 and Level 3 chargers at downtown City parking facilities is provided below.

On February 25, 2020, the City Council adopted a resolution to amend the fee structure of City-owned, Level 2 EV chargers to include a fee of \$0.20 per kWh for electricity while the vehicle is actively charging, and an overstay fee of \$3 per hour once the vehicle stops charging and after a grace period of 20 minutes. As noted in the resolution, the City Manager may waive the

overstay fee during off-peak hours at any location.

By the end of June 2022, the City will install one Level 3 DC fast charger (DCFC) in the 850 California Street parking structure as part of a larger project to also install 34 new Level 2 EV chargers and replace 18 existing Level 2 EV chargers in downtown parking structures. This will be the first City-owned Level 3 DCFC in Mountain View.

ANALYSIS

The primary intent of the EV charger fees is to recover costs incurred by the City to own, operate, and provide electricity for these charging stations. In addition to cost recovery, considerations in setting the fee structure include incentivizing EV use over gasoline-powered vehicles and ensuring vehicle turnover so that EV chargers are available to multiple users throughout the day.

Level 2 EV Charger Fee Structure

Staff conducted an analysis of the Level 2 EV charger fees amended on February 25, 2020 to assess their efficacy at recovering costs and encouraging turnover. This analysis also informed the proposed Level 3 DCFC charger fees. Between March 1, 2020 and December 31, 2021, the City incurred \$20,183 in electricity costs for the 27 EV charging ports at the 850 California Street parking structure, the Civic Center parking garage, and the Community Center. As shown in Table 1, the total revenue collected covered 96% of the City's operating costs for the EV chargers.

Table 1: Cost Recovery for 27 Level 2 Chargers, March 2020 through December 2021*

Estimated Cost		Estimated Revenue	
Electricity Use and Demand Charges	\$20,183	Electricity Fees (\$0.20/kWh)	\$21,969
Maintenance/Repairs	-		
Network Charges	\$9,178	Overstay Fees (\$3/hour)	\$6,328
Total Cost:	\$29,361	Total Revenue:	\$28,297

**The Community Center EV chargers first became available for use on May 27, 2020.*

The current fees have been effective at encouraging turnover at the charging stations. Table 2 shows the number of overstays exceeding 20 minutes that occurred between March 1, 2020 and December 31, 2021. Since the fees were amended, vehicles remained parked past the 20-minute grace period in only 12% of charging sessions.

**Table 2: Charging Sessions with Overstays Exceeding 20 Minutes,
 March 2020 through December 2021**

Overstay (minutes)	Downtown Garages		Community Center*		Total	
	Sessions	%	Sessions	%	Sessions	%
20-30	279	3%	80	2%	359	3%
31-40	148	2%	94	2%	242	2%
41-50	84	1%	93	2%	177	1%
51-60	73	1%	62	1%	135	1%
Over 60	245	3%	372	8%	617	5%
Total Overstays	829	10%	701	15%	1,530	12%

**This does not include overstays that occurred between 9:00 pm and 8:00 am, when overstay fees are waived at the Community Center.*

Recommended Level 3 EV Charger Fee Structure

Staff surveyed 35 charging stations in the region with publicly posted pricing information to understand Level 3 DCFC per kilowatt-hour (kWh) charging fee structures. As shown in Figure 1, fees ranged from \$0.12 per kWh to \$0.59 per kWh, with a median fee of \$0.31 per kWh. About half of the stations also offered Level 2 charging, and over 80% of these stations charged the same per-kWh fee for Level 2 and Level 3 charging.

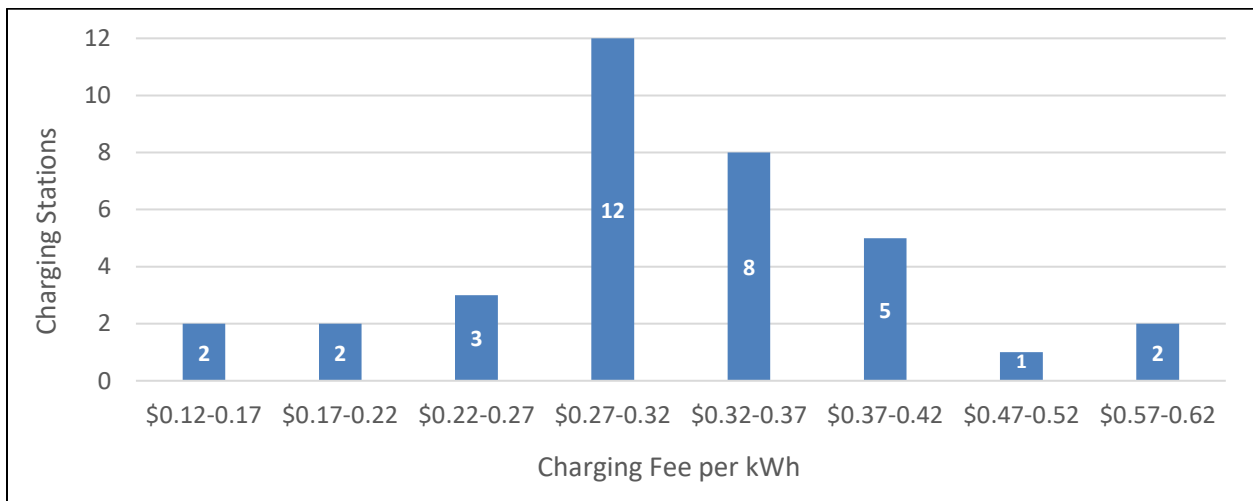


Figure 1: Charging Fees for DCFC in the Region

Staff recommends the following fee structure for L3 chargers, which is modeled to achieve cost recovery and encourage turnover.

- A fee of \$0.20 per kWh for electricity while the vehicle is actively charging; and
- An overstay fee of \$5 per hour once the vehicle stops charging, after a grace period of 10 minutes. As noted in the resolution, the City Manager may waive the overstay fee during off-peak hours at any location.

This recommended fee structure would be equitable for all EV charger users, while incentivizing users to move their vehicles once charging is complete. Average battery capacity in electric vehicles has increased significantly in recent years, meaning it can take longer to fully charge an EV. An overstay fee that begins only when vehicles are no longer actively charging supports EV users that need to charge for longer periods while ensuring reasonable turnover so that the chargers are available to other users.

Level 3 DCFC Cost Recovery

The recommended fee structure is designed to promote EV usage by charging rates that are only high enough to achieve cost recovery for the City's expenses in operating EV chargers. Relevant costs for a Level 3 DCFC include electricity usage and demand charges, maintenance and repair expenses, and network charges. Table 3 contains estimated cost and projected revenue for the one Level 3 DCFC being installed by the end of June. These calculations assume the charger is utilized 33% of the time and has an overstay rate of 10%, with the latter assumed to be slightly lower than the 12% overstay rate of the Level 2 chargers due to the higher overstay fee (\$5 per hour). Table 3 does not include costs for maintenance and repairs or network charges because the vendor installing the DCFC has agreed to cover these costs in exchange for the City allowing it to claim credits through the Low Carbon Fuel Standard program.

Table 3: Projected Annual Cost Recovery for One Level 3 DCFC

Estimated Cost		Projected Revenue with New Fees	
Electricity Use and Demand Charges	\$16,200	Electricity Fees (\$0.20/kWh)	\$14,400
		Overstay Fees (\$5/hour)	\$1,800
Total Cost:	\$16,200	Total Revenue:	\$16,200

Exact costs and revenue are highly dependent on overall EV charger utilization and their time of use because City facilities are on time-of-use electricity tariffs that have varying prices for electricity at different times of the day. Factors such as future changes to electricity tariffs, network charges, and maintenance costs will also affect costs to operate the EV chargers. Staff will continue to monitor changes in these factors and propose adjustments to the fees, as necessary, to reflect the cost to provide the EV charging.

FISCAL IMPACT

No fiscal impact is expected as the proposed fee structure is designed to maintain cost recovery for expenses associated with operating a Level 3 DCFC.

ALTERNATIVES

1. Modify some or all of the components of the proposed fees.
2. Provide other direction.

PUBLIC NOTICING

Agenda posting and emails sent to community members who signed up to receive updates about the Mountain View Sustainability Program.

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- Attachment: 1. Resolution of the City Council of the City of Mountain View Amending the Master Fee Schedule to Change the Fees for Electric Vehicle Chargers