



Staff Report

TO: City Council
FROM: Elizabeth Gibbs, Community Services Director
DATE: July 7, 2020
SUBJECT: Hold a Public Hearing and Consider Resolution Approving a Subscription Agreement with ChargePoint and Establishing A Fee Schedule for Electric Vehicle Charging Stations

Background and Analysis:

Staff has secured funding to purchase and install an electric vehicle charging station at the Beaumont Civic Center public parking lot. A rebate in the amount of \$240,000 from Southern California Incentive Program (SCIP) and \$31,870 from Mobile Source Air Pollution Reduction Committee (MSRC) as well as \$100,000 from Riverside County Transportation Commission STA capital project fully funds the purchase and installation of the electric vehicle charging stations.

On September 17, 2019, City Council approved an agreement with Baker Electric in the amount of \$371,000 to purchase and install three ChargePoint DC Fast Charging (DCFC) electric vehicle charging stations at Beaumont Civic Center parking lot. The stations include a 5-year commercial cloud plan and a 5-year warranty prepaid with the purchase of the terminals. These items are required for the initial five years of the station operation per the rebate grants secured.

Cloud Service

The electric vehicle (EV) charging stations will utilize ChargePoint, Inc. (ChargePoint) as the direct provider of networking services. As a result, the City must enter into a Master Services and Subscription Agreement (MSSA) with ChargePoint to utilize their cloud-based networking system (Attachment A).

ChargePoint is the industry leader in providing networked EV charging stations throughout the United States. ChargePoint operates 111,000 charging stations and has established partnerships with large and small entities in both the private and public sectors, including the County of Riverside and the University of California at Riverside.

To use a ChargePoint station, customers create an account on ChargePoint's website or download the mobile application. Customers have two options: acquire a ChargePoint Card that can be used at the station or use their phone to pay. Downloading the mobile app is preferred because it offers many options where a customer can 1) see which stations are available for charging, 2) start charging by holding the phone up to the card reader at the station, 3) receive notifications when the car is finished charging or when a station becomes available, 4) schedule charging, set reminders, get notifications and track usage, and 5) alert ChargePoint when issues are encountered.

ChargePoint also has cooperative agreements with other electric vehicle charging operators, such as EVGo, Plug Share, and Sema Connect to name a few. This means that a customer who has an account set up with one of these competitive companies can use the City's ChargePoint station as well.

All EV charging station usage data is available to the City in a cloud database and includes a wide variety of reports to help provide an ongoing review of each station, including revenues received, actual electrical costs, station performance and maintenance needs.

Charging Station Use Fees

In order to optimize the use of the charging stations and allow multiple electric vehicles to use the charging equipment during a typical day, ChargePoint encourages the City to develop a pricing plan designed to cover energy costs, transactions fees, and regular equipment maintenance while keeping competitive fees with surrounding stations.

There are two types of chargers offered in the public EV charging industry. Fast chargers (DCFC), which provide a 250-mile charge in one hour, and slow chargers, also known as Level 2 chargers, which provide a 25-mile charge in one hour. In the Pass Area, the City of Beaumont and Kohl's have the DCFC type charging stations, while other stations in the immediate area offer the slower, Level 2 chargers.

Not all EVs charge the same and most have a battery size of 25-30 kWh capacity that can travel about 100 miles before needing to be recharged. In comparison, 100kWh batteries found in Teslas, can travel over 300 miles before needing to be recharged.

The cost for the use of the charger is calculated based on duration of stay and energy consumed (\$/kWh). ChargePoint recommends using kWh pricing to cover electrical cost and provide revenue to cover ongoing operating costs. Additionally, ChargePoint encourages establishing parking fees for vehicles remaining at the station after the charge is completed to encourage turnover of the parking space.

Below is a table of fees for nearby DCFC stations:

Kohl's Beaumont	\$0.25 kWh	\$0.10 parking fee per minute
City of Highland	\$0.35 kWh	\$2.00 an hour parking fee after 1 st hour.
County of Riverside	\$0.35 kWh	\$0.50 a minute parking fee after 30 minutes

Staff analyzed the above rates of nearby stations and consulted with Southern California Edison (SCE) for kWh rate and monthly charges that the City of Beaumont could expect to pay. SCE notified staff on May 29, 2020, that the average charge for energy will be \$0.231435 kWh and there is an additional \$117.81 monthly fee. In addition to these fees, ChargePoint will charge 10% of the total amount paid by the customer as a service fee.

Staff recommends setting a fee similar those set at nearby stations at \$0.35/kWh with a parking fee of \$2.00 an hour after the first hour or part thereof. As a fast charging station, all vehicles can be fully charged within the first hour. Staff will monitor demand and use of the charging stations during the first year to determine if any adjustments to the use fees are needed, including implementation of graduated pricing.

<u>Cost Recovery</u>	DCFC / Level 3
Cost of Electricity	\$0.23/kWh
Ongoing Costs- Maintenance Fees, Monthly SCE Service Fees and other expenses not covered by Warranty	\$0.055/kWh
Cost of Network Services \$4,099 year and Warranty \$9,300*	\$0.03/kWh
Payment Processing Fee (10%)	\$0.035/kWh
Total	\$.35/kWh

*Beaumont has a current 5-year subscription/warranty that begins as soon as the stations are activated. These amounts are listed anticipating renewing the agreements when they expire in 2025.

Fiscal Impact:

The City will not incur any additional operating costs until the current 5-year subscription and warranty expires in 2025. However, there are limitations to what is covered in the warranty, such as expenses incurred due to vandalism. The fees set with ChargePoint will be set at a

level to recover the cost associated with SCE plus 10% for service fees. For the first five years of the station it will generate a modest annual reserve for the coverage of non-warranted damage as well as for the costs associated with warranty and cloud service renewal in year six.

The electric vehicle charging station will be open and available for use 24 hours a day, 365 days a year.

The first year, conservative estimates are that the station will be used for an average of one hour a day and use approximately 50 kWh. If 50 kWh of energy is used to charge a vehicle every day, at a rate of \$0.231435 kWh, driver fees would amount to \$6,388 in a year. Costs associated with the station including SCE fees and 10% transaction fee from ChargePoint would be \$6,210. The difference of \$90 would be the reserve for the first year.

Details on the projected operating costs and revenue for the first six years of the station are provided in the table below. Growth in usage is projected conservatively with half-hour additional charging time in a day over the previous year for the first three years and an additional one hour of use for years thereafter. Parking fees are not included in this calculation since the implementation of the parking fee is to be used as a deterrent for parking longer than needed to charge the vehicle.

	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6+ 2026
	1 hour of total use a day	1.5 hours of total use a day	2 hours of total use a day	3 hours of total use a day	4 hours of total use a day	5 hours of total use a day
Driver Fee	\$6,387	\$9,581	\$12,775	\$19,162	\$25,550	\$31,938
Electricity Average	\$4,223	\$6,336	\$8,447	\$12,671	\$16,895	\$21,118
SCE Service Fees	\$1,004	\$1,506	\$2,008	\$3,011	\$4,015	\$5,019
10% Driver Transaction Fee	\$639	\$958	\$1,278	\$1,916	\$2,555	\$3,194
Network & Warranty	Included	Included	Included	Included	Included	\$13,399*
Annual Reserves	\$90	\$842	\$1,594	\$3,099	\$4,603	-\$7,292

*Projected network & warranty costs in year six

Although year six shows a loss of revenue to cover the additional incurred charge of warranty and cloud service renewal, the calculations are presented in a conservative nature. The actual use of the station will likely be better than what is conservatively projected in the table above. First, the projections are based on an average electric rate provided to us by SCE and is an average of all peak hours. It is likely that most charging will occur during off-peak hours, corresponding with the Civic Center’s business hours, which generally has lower rates than peak hours which occurs 4 p.m. to 9 p.m. Monday-Friday. Second, the State of California’s goal is to have 5 million zero emission vehicles on the road by 2030, therefore communities will have more vehicles that need charging service in the coming years, with many programs in place to meet this goal.

SCE provided these rates to the City of Beaumont on May 29, 2020:

Summer On Peak (4pm to 9pm weekdays excluding holidays) =	0.49626	¢/kWh
Summer Mid Peak (4pm to 9pm weekends and holidays) =	0.2557	¢/kWh
Summer Off Peak (All hours outside of 4pm to 9pm) =	0.12604	¢/kWh
Winter Mid Peak (4pm to 9pm weekdays and weekends) =	0.29707	¢/kWh
Winter Off Peak (All other hours) =	0.13593	¢/kWh
Winter Super Off Peak (8am to 4pm weekdays and weekends) =	0.07761	¢/kWh
Average=	.231435	¢/kWh

Recommended Action:

Hold a Public Hearing,
 Waive the full reading and adopt by title only, “A Resolution of the City Council of the City of Beaumont, California, Approving a Subscription Agreement with ChargePoint and Establishing a Fee Schedule for Electric Vehicle Charging Stations,” and
 Authorize the Mayor to execute the subscription agreement with ChargePoint.

Attachments:

- A. Resolution