

Memorandum Department of Public Works



TO: Michael O. Geisel, P.E.
City Administrator

FROM: James A. Eckrich, P.E. *JAE*
Public Works Dir. / City Engineer

DATE: May 25, 2022

RE: Electric Charging Stations and Fleet Vehicles

On May 12, 2022 I had the opportunity to attend an online training conducted by Ameren Missouri regarding charging stations for electric vehicles. Within that training I learned that Ameren rebates are available for up to \$5,000 per Level 2 port and \$20,000 per DC Fast Charger (DCFC) port. Level 2 chargers include a charge rate of roughly 25 miles of range per hour and are recommended for workplaces/businesses, government facilities, and multi-family/apartment buildings. DCFC Chargers include a charge rate of up to 80% charge in 30 to 45 minutes and are recommended for areas near highways, city centers, businesses, and fleets. Ameren states that they expect these incentives to continue through the rest of 2022 and expire early in 2023.

I have desired to discuss electric charging stations and fleet vehicles with City Council for some time. These vehicles are becoming commonplace, and I expect that City residents will soon expect the ability to charge vehicles in our public parking lots. Additionally, the Public Works Department has begun to encounter problems on road improvement projects when people cannot access their driveways in order to charge vehicles. In these cases it would be advantageous if we could offer a charging station at a City parking lot.

I have recently met with a contractor (recommended by Ameren) who installs charging stations through the Ameren program. This contractor provided me rough costs for charging stations throughout the City in public parking lots. The proposed locations, including costs and incentives, are located on the next page. **Please note that these are rough estimates. A detailed cost estimate would be completed prior to the City authorizing any kind of expenditure related to electric vehicle charging stations.**

	# of charging stations	# of charging ports	Estimated cost	Estimated incentive	Estimated Net Cost
City Hall	4	8	\$70,000	\$35,000	\$35,000
CVAC	4	8	\$70,000	\$35,000	\$35,000
Central Park	4	8	\$70,000	\$35,000	\$35,000
PW Facility	2	4	\$30,000	\$15,000	\$15,000
Logan Park	2	4	\$30,000	\$15,000	\$15,000
Eberwein Park	1	2	\$40,000	\$10,000	\$30,000
Meditation Park	1	2	\$40,000	\$10,000	\$30,000

As you can see, the proposal above could provide a total of 36 charging ports throughout the City at a total net cost of \$195,000. These charging stations would be “pay” stations, and we would expect to recoup all electric and operation / maintenance costs through the fees paid by the user. *Please note that the location and charging station numbers detailed above are only a concept – the actual number and location of charging stations could vary substantively.* I am providing the information above only for the purpose of discussing this matter and determining whether this is something the City Council would like the Public Works Department to pursue.

In addition to charging stations, I believe the City should investigate whether we should begin to incorporate electric vehicles into our fleet. This would necessarily involve a cost / benefit analysis including acquisition costs, maintenance costs, operation costs, and the costs associated with additional charging stations to accommodate fleet charging. However, I do not want to conduct such an analysis without some kind of direction from City Council that this is something we wish to consider.

Action Recommended

This matter should be forwarded to the Planning and Public Works Committee of City Council for its consideration. Should PPW concur with Staff’s recommendation it should authorize the following:

1. The issuance of a Request for Proposals (RFP) for professional services necessary to design the construction of electric vehicle charging stations throughout the City of Chesterfield. These services would include coordination with Ameren on their incentive program. There will be no cost associated with the selection of a consultant for this purpose. The consultant selected would be paid when / if the City entered into a contract for construction of electric vehicle charging stations.

2. The Public Works Director to perform a detailed analysis of the incorporation of electric vehicles into the City fleet. This analysis should include, at a minimum, a cost benefit analysis of acquisition costs, maintenance costs, operation costs, and necessary infrastructure improvements.

If this course of action is approved the Public Works Department would commence work on these issues immediately and report back to PPW / City Council prior to committing to any course of action or expenditure.

If PPW does not agree with my recommendation the Public Works Department will cease any further investigation of electric charging stations and fleet vehicles.

Forward to PPW for policy and strategy consideration. It is not necessary to consider funding or commit any funds for implementation until investigation is complete and council has the opportunity to evaluate and provide direction.

 2022-5-27