



Staff Report June 13, 2023

TO: Honorable Mayor and Town Council
FROM: Christy Consolini, Planning Director
DATE: June 13, 2023
RE: Modification to the Costco MMRP and Mitigation Measure GHG-1

Recommendation

Adopt Resolution 23-____ (Attachment A)

Issue Statement and Discussion

Since the Costco Draft EIR was prepared in 2019 and the Final EIR adopted and certified in 2020, new electric vehicle charging infrastructure technology has become more commercially available. The newer DC Fast Charge (DCFC) technologies allow for faster charging of electric vehicles than slower Level 2 (L2) chargers, reducing the charging time from four to eight hours to 15 to 60 minutes. The faster speed of the DCFC is more in keeping with the average time a shopper spends at a retail establishment, making them able to serve a larger number of electric vehicles in a shorter period of time. Since more vehicles can efficiently cycle through the charging sequence with a DCFC than a L2 charger, Costco proposes to install the more costly DCFC units at a reduced number of chargers.

As described in Attachment B, Mitigation Measure GHG-1 includes a provision for Costco to install 67 charging stations within the Costco parking lot. Costco proposes to replace the 67 L2 traditional chargers with 14 DCFCs. This replacement would allow for greater mitigation of greenhouse gas emissions, despite fewer chargers, as more vehicles can use a single charger in a shorter period of time. The use of 14 DCFCs would double the GHG emissions offset of 67 L2 chargers.

The allowance to use newer mitigating technologies in place of older technologies at a reduced rate of units has been shown to result in no new or increased impacts and results in higher patronage as vehicles can be fully charged without sitting idle for four or more hours. CEQA and the MMRP allow for substitutions as long as the substitute achieves an equal or greater level of impact mitigation and results in no new impacts not already addressed by the EIR.

CEQA Requirements

This review and approval serves as the CEQA requirement for a modification to the MMRP. Per Section 6 “Changes to the MMRP” of the Town’s adopted CEQA EIR, Findings of Fact, Statement of Overriding Considerations and MMRP, changes to the MMRP are to be made by the Town in writing and with Findings to support the modification. The modification is considered minor as it relates to changes in technology that improve the effectiveness of the mitigation measure.

No amendment or addendum to the EIR is warranted as the modification reflects a change to a component of Mitigation Measure GHG-1 in relation to improvements in available technology to be installed in the same location and manner as that stated in the mitigation measure. The use of new technology and associated reduction in electric vehicle charging stations to reflect this technology does not result in major revision to the EIR and does not result in new or increased impacts. Therefore, a subsequent EIR supplemental EIR, or addendum to the EIR are not required per CEQA Guidelines Sections 15162-15164). CEQA Guidelines do not require additional CEQA studies in relation to modifications to mitigation measures based on the availability of improved technology.

Financial Implications

The modification results in no financial implications to the Town.

Attachments

- A. Resolution
- B. Findings

TOWN OF LOOMIS

RESOLUTION NO. 23 - __

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF LOOMIS
AUTHORIZING SUBSTITUTION OF ELECTRIC VEHICLE CHARGING TECHNOLOGY
ESTABLISHED IN THE LOOMIS COSTCO EIR AND MMRP**

WHEREAS, the Town of Loomis adopted and certified the Loomis Costco EIR and MMRP on August 11, 2020; and

WHEREAS, at the time the EIR was written, DC Fast Chargers were not widely commercially available for installation; and

WHEREAS, DC Fast Chargers are now readily available and compatible with the majority of electric vehicles as well as compatible with the timeframe in which retail patrons remain parked in commercial retail parking lots;

NOW, THEREFORE, IT IS HEREBY RESOLVED that the Town Council of the Town of Loomis does hereby declare as follows:

The mitigation requirement in mitigation measure GHG-1 to install electric vehicle chargers within the Costco parking lot may be equivalently fulfilled through the installation of 14 DC Fast charging units rather than through 67 Level 2 charging units.

PASSED AND ADOPTED this 13th day of June 2023 by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

ATTEST:

Mayor

:

Deputy Town Clerk

CEQA Findings of Fact for Modification of the Loomis Costco Project MMRP

Introduction

The purpose of these Statement of Findings (Findings) is to satisfy the requirements of Sections 15091, 15092, and 15093 of the California Environmental Quality Act (CEQA) Guidelines, associated with approval of the Loomis Costco Project (proposed project) and modification of Mitigation Measure GHG-1 regarding the installation of electric vehicle charging stations within the Costco parking lot.

These Findings state the environmental conclusions of the Town relating to the environmental effects of the proposed project mitigation measure modification. The Town has prepared these Findings to support the following actions:

1. Modification of the mitigation monitoring and reporting program (MMRP), Mitigation Measure GHG-1, to address new electric vehicle charging technologies, in which 67 Level 2 (L2) chargers would be replaced with 14 high efficiency DC Fast chargers (DCFCs).

Background

Since the 2020 adoption of the Costco Environmental Impact Report (EIR), Findings, and MMRP by the Town Council (State Clearinghouse #20170052077), new electric vehicle charging technologies have been developed that allow for more time-efficient charging of electric vehicles. DCFCs allow for vehicle charging in a period of 15 minutes to one hour, as compared to L2 AC chargers, which charge vehicles in a timeframe of four to eight hours. DCFCs allow for more vehicles to be charged in the same timeframe than L2 chargers. This is more in keeping with the average time spent shopping at the Costco warehouse, where individuals are unlikely to spend four or more hours shopping.

For background, L2 AC charging typically uses a 208- or 240-volt AC electric circuit, while DCFC uses a 3-phase 480-volt AC electric circuit or 800-volt utility connection, but delivers direct current to the vehicle. DCFCs typically do not exceed 30 minutes to charge a vehicle completely, while L2 chargers can take up to 8 hours for a full charge. Essentially, L2 charging provides around 25 miles of range per hour of charging (the equivalent of 12.5 miles of range in 30 minutes of charging), while DCFC provides around 200 miles of range in just 30 minutes of charging.

Costco EIR and MMRP Mitigation Measure GHG-1 indicates, "Install 67 (approximately eight percent of total parking spaces) electric vehicle charging stations within the project site, with signage, adequately identifying such areas; these spaces could be included with the preferential parking spaces as well." This requirement for 67 electric vehicle charging stations was based on slower Level 1 and L2 charging technologies, which were the only readily available systems when the project EIR was prepared. DCFCs have subsequently been developed and are commercially available and operable. Over time, this technology will overtake publicly available L2 chargers in retail settings due to the efficiency of the charging period. Since DCFCs can charge electric vehicles in a shorter timeframe, fewer DCFC stations are needed to equate to a

L2 charger and multiple vehicles can cycle through a charging station in the same period of time as one vehicle at a L2 charger.

Given the improved time efficiency of DCFCs and the evolving technology of fast charging, the applicant has requested to install DCFCs in place of L2 chargers to meet this mitigation measure. Analysis of the DCFC technology in comparison to L2 chargers indicates that six DCFCs result in greater greenhouse gas emissions mitigation than 67 L2 chargers. Costco proposes to install 14 DCFCs in place of 67 L2 chargers, in accordance with proposed CalGreen policy updates that equate one DCFC to five L2 chargers, which would result in more than doubling the mitigation measure's effectiveness.

Findings for the Changes to the MMRP

As established in the MMRP, any substantive change in the MMRP shall be reported in writing. Modifications to the requirements of the MMRP may be made by the Town, subject to the following findings, documented by evidence included in the public record. Findings and related documentation supporting the findings involving modifications to mitigation measures, including a determination whether further environmental review is required (see CEQA Guidelines Sections 15162-15164), shall be maintained in the project file with this MMRP and shall be made available to the public upon request.

To allow for this modification to the mitigation measure and the MMRP, the following three findings are necessary, as noted in Section 6 of the MMRP regarding changes to the MMRP. An explanation of how each finding is met is provided in *italics*.

- **The modified or substitute mitigation measure provides a level of environmental protection equal to, or greater than that afforded by the mitigation measure included in the FEIR and the MMRP; and,**

Replacing the 67 L2 chargers with six DCFCs provides an improved level of environmental protection, while 67 L2 chargers with 14 DCFCs, as proposed by Costco, greatly improves the level of environmental protection.

Based on a document from the Air Resources Board, for L2 chargers, the EIR analysis had assumed 15 miles per hour (mi/hr) of charge (the midpoint between ARB stated average of 20 mi/hr of charge for battery EV (BEV) and 10 mi/hr of charge for plug-in hybrid EV). Based on the [USDOT RURAL EV Toolkit and EV Charging Speeds](#), the lower output of the DCFCs provides an estimated 180 miles per hour of charge (this could be up to 240 miles for higher power output fast chargers). A total of six DCFCs, assuming the slower power output, would provide a net change in CO₂e that is slightly more than 67 L2 chargers. This takes into account gasoline-powered VMT replaced by EV VMT, as well as the increased GHG emissions from electricity use. The calculation is the ratio of:

(67 chargers at average 15 miles per hour of charge) to (X chargers at 180 miles per hours of charge):

$$67 \times 15/180 = 5.583.$$

Therefore, the replacement of 67 L2 charging stations with 14 DCFCs would provide even greater mitigation than six charging stations and more than double the effectiveness of the mitigation measure:

$$67 \times 15 : 14 \times 180 = 1,005 : 2,520$$

The sources used to reach these calculations and conclusions include:

CARB: https://ww2.arb.ca.gov/sites/default/files/2020-08/CARB_Technical_Analysis_EV_Charging_Nonresidential_CALGreen_2019_2020_Intervening_Code.pdf

DOT: [USDOT RURAL EV Toolkit and EV Charging Speeds](#)

- **The modified or substitute mitigation measure or measures do not have significant adverse effects on the environment in addition to, or greater than those which were considered by the responsible hearing bodies in their decisions on the FEIR and the proposed project; and,**

Substituting DCFCs for L2 chargers does not result in new adverse environmental effects or impacts not previously analyzed. Both types of chargers would be located in the Costco parking lot area, no increase in air emissions or noise would result, and DCFCs are not anticipated to result in increased traffic as analyzed in the EIR, particularly since the fueling station component of the project has since been removed. Costco is required to secure confirmation from PG&E that there is sufficient electric capacity and availability to serve the charging units. PG&E has not indicated that it cannot serve the site or the electrical demand of the charging units. DCFCs and L2 chargers are currently operating within the Rocklin shopping centers at the I-80 interchange. The addition of new DCFCs at the Costco warehouse would not expand infrastructure so as to cause growth inducement and would serve a growing need within the community as the State mandates for all electric vehicles draws near.

- **The modified or substitute mitigation measures are feasible, and the Town or, where applicable, other public agencies, through measures included in the MMRP or applicable regulations, can ensure implementation.**

DCFCs are commonly used, can be found at other locations in the community, and are available for installation at the Loomis Costco site. As noted above, PG&E has indicated there is sufficient supply and capacity to serve the DCFCs. Since DCFCs are able to fully charge an electric vehicle in a much shorter and efficient period than L2 chargers, their substitution is desirable, particularly in a retail setting where Costco patrons are unlikely to park vehicles for four or more hours. DCFCs are better suited to situations where patrons are unable to leave their vehicle parked for extended periods of time. Although DCFCs are much more expensive than L2 chargers, Costco proposed the use of a reduced number of 14 DCFCs in place of the 67 L2 chargers to address user efficiency and customer demand. Therefore, Costco ensures the DCFCs will be installed and operational and the mitigation measure implemented. It should be noted that this does not relieve Costco of current Green Building Code requirements to pre-plumb additional stalls as “EV-capable” for future installation of additional charging units within the Costco parking lot. EV-capable means the stalls are equipped supporting infrastructure such as conduits, breaker space and junction boxes, but does not require that a charging unit is installed and operable. These EV capable

stalls are shown on the current site plans at the southwest corner of the parking lot and in parking stalls along the accessible pedestrian path closer to the entrance.

Conclusion

Since

1. DCFCs result in better mitigation of greenhouse gas emissions than L2 chargers in a retail setting;
2. No new environmental impacts would result from this modification; and
3. DCFCs are available for installation and operation,

the Town supports this modification as it would achieve improved mitigation from that established in the EIR and MMRP and results in greater practicality of use associated with the use patterns of Costco shoppers and drive-by electric vehicle usage. The MMRP is thereby modified as follows:

GHG-1	<p>Implement Operational Strategies to Encourage Fuel-Efficient Transportation to and from the Proposed Warehouse and Fueling Center.</p> <ul style="list-style-type: none"> • Install <u>fourteen (14) DC Fast Charge charging stations or 67</u> (approximately eight percent of total parking spaces) <u>Level 2</u> electric vehicle charging stations within the project site, with signage adequately identifying such areas; these spaces could be included with the preferential parking spaces, as well. 	Include on site plan prior to design review approval	Project Applicant	
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