



Agenda Report

19-265

Agenda Date: 6/25/2019

REPORT TO COUNCIL

SUBJECT

Action on the California Energy Commission Electric Vehicle Ready Communities Blueprint

BACKGROUND

In December 2017, the California Energy Commission (CEC) released a Grant Funding Opportunity (GFO-17-604) for Electric Vehicle (EV) Ready Communities Challenge Phase I - Blueprint Plan Development. The City of Santa Clara, dba Silicon Valley Power (SVP) recognized the need for consulting services to be successful in the grant and partnered with Siemens Industry, Inc. (Siemens) as SVP's subcontractor in its grant proposal.

On May 9, 2018, at the CEC Business Meeting, SVP was officially awarded a grant for \$199,280 with an in-kind match requirement of \$100,286 (\$75,492 for the subcontract with Siemens Industry, Inc. and \$24,794 for staff time) to develop an EV Ready Communities Blueprint.

Silicon Valley Power, along with various City of Santa Clara departments and stakeholders, has completed and developed the Electric Vehicle Ready Communities Blueprint (EV Blueprint) for the City per the grant requirements. The EV Blueprint identifies the actions and milestones needed to proceed toward implementation of an EV ready community through 2030. When the CEC solicits Phase II of the grant funding, SVP will use the EV Blueprint as a submission for the application. The EV Blueprint for the City defines goals and requirements (Task 2); analyzes target areas, technical recommendations, and economic recommendations for charging infrastructure (Task 3); and evaluates city programs to be implemented (Task 4).

DISCUSSION

A primary goal of the EV Blueprint was to set goals and requirements and sets the foundation for development of the City's EV Readiness. The process for setting this foundation was conducted in four steps:

- Identify and understand the perspectives of impacted and interested internal and external stakeholders. The EV Blueprint team interviewed key stakeholders including the Community Development Department, Traffic Engineering and Fleet Management Divisions of the City, conducted surveys of SVP residential and business customers, and gathered data from the Santa Clara Valley Transportation Authority and from the Bay Area Air Quality Management District. The team also reviewed numerous planning, policy, and program documents from the City, and developed three Plug-in Electric Vehicle (PEV) adoption scenarios to forecast the quantitative impacts of PEV adoption on emissions and the electric grid.
- Determine the current state of transportation electrification, particularly with regards to vehicle adoption, charging infrastructure, and supporting programs and policies. The EV Blueprint

analyzes vehicle usage and traffic patterns within the City to identify where charging infrastructure is expected to be utilized the most.

- Forecast long-term Plug-in Electric Vehicle (PEV) adoption scenarios for the City and analyze their influence on emissions reductions, electric grid impacts, charging infrastructure constraints, charging connector installations, societal benefits, disadvantaged community assistance, interoperability, and funding. The Blueprint identifies optimal areas within the City for charging infrastructure that offer high utilization and low installation costs as well as the potential business models around electric vehicle supply equipment ownership.
- Identify and prioritize key elements within the EV Blueprint that ultimately support the EV Blueprint Goal, which is to help the City meet greenhouse gas emissions reduction targets 55% below the 2008 baseline levels by 2035 as identified in the City's Climate Action Plan.

Key Findings

- A clear understanding of where charging infrastructure is desired and where SVP equipment upgrades require planning for charging infrastructure.
- Electric vehicle load impacts to SVP's net energy requirements were forecasted to be about 1 percent to 3 percent of energy sales by 2030. This means that electric vehicles will not have a significant operational or financial effect on SVP.
- Elements identified as deserving priority attention are the multi-dwelling (MUD) and low-income charging availability, City fleet electrification targets, and Disadvantaged Communities (DAC) charging availability which is geared to commercial fleet adoption.

The EV Blueprint recommends fourteen program initiatives to ensure Santa Clara is an EV Ready Community by the end of 2030:

- Program Management Organization
- Building Codes
- Streamline EVSE Permit Process
- Public Payment Standards
- Sub-Metering/Metering Rules
- Smart Charging Rules
- Curbside Regulations
- PEV Only Tariff/TOU Rates
- Vehicle Grid Integration Incentives
- Charging Data Incentives
- Rebate Programs
- City Fleet Electrification Plan
- Coordinated Public-Private Partnerships
- City Funded / Owned Charging

This analysis provided the City a clear understanding of how PEV adoption could occur, how SVP and other departments might promote adoption, and the potential effects of that adoption. The evaluation of potential program initiatives was conducted in two parts. The first part was completed through stakeholder engagement to identify a list of city programs that can be implemented to ensure

that PEV adoption helps the City meet greenhouse gas emissions reduction targets 55% below the 2008 baseline levels by 2035. The second part was to propose detailed plans for each program initiative, so that each initiative has a clear roadmap towards implementation.

Over the next year, SVP will take the EV Blueprint recommended 14 program initiatives listed above, timelines and budgets, and determine what resources and funding opportunities are available to implement each program initiative. These recommendations provided SVP with a clear understanding of the technical and economical requirements to promote EV adoption specific to the City's ecosystem. However, California Energy Commission (CEC) EV Ready Communities' Challenge Phase II grant funding is not assured to assist in the implementation and SVP will seek other funding sources to implement the recommendations as necessary.

The submittal of the City's Electric Vehicle Ready Communities Blueprint to the CEC will enable the City of Santa Clara to apply for Phase II of the EV Ready Communities' Challenge. Phase II will narrow down from the nine funded submissions that the State awarded in Phase I and the CEC will select only three submissions out of the nine to move forward with implementation of their respective EV Blueprints with a \$2,000,000 grant each.

ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(b)(5) in that it is a governmental organization or administrative activity that will not result in direct or indirect changes in the environment.

FISCAL IMPACT

Submitting the Electric Vehicle Ready Community Blueprint to the California Energy Commission does not have a financial impact on the City. Submittal will allow the City and SVP to apply for the CEC's Phase II grant funding.

COORDINATION

This report has been coordinated with the Finance Department and City Attorney's Office.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall Council Chambers. A complete agenda packet is available on the City's website and in the City Clerk's Office at least 72 hours prior to a Regular Meeting and 24 hours prior to a Special Meeting. A hard copy of any agenda report may be requested by contacting the City Clerk's Office at (408) 615-2220, email clerk@santaclaraca.gov <<mailto:clerk@santaclaraca.gov>> or at the public information desk at any City of Santa Clara public library.

RECOMMENDATION

Approve the Electric Vehicle Ready Communities Blueprint for submittal to the California Energy Commission.

Reviewed by: Manuel Pineda, Interim Chief Electric Utility Officer

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. Electric Vehicle Ready Communities Blueprint