



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Hans F. Larsen
David Sykes

SUBJECT: ELECTRIC VEHICLE INFRASTRUCTURE

DATE: 03-17-11

Approved

Date

3/25/11

COUNCIL DISTRICT: Citywide

RECOMMENDATION

Accept status report on the City's effort to develop a distributed network of electric vehicle chargers and infrastructure in the City.

BACKGROUND

San José is establishing itself as a leading city in accelerating the transition to electric vehicle infrastructure. A number of departments within the City are working on infrastructure improvements, and procedural and/or policy issues to facilitate the adoption of electric-powered vehicles, including Department of Public Works, Department of Transportation, Office of Economic Development, Planning Building and Code Enforcement (PBCE) and Environmental Services Department.

ANALYSIS

Below is a brief update of activities currently being undertaken to achieve the City's Green Vision and electric vehicle goals.

1. City Electric Vehicle Fleet

The City partnered with 11 public agencies including Alameda County, Sonoma County, San Francisco, Oakland, Marin County, Fremont, Concord, Santa Rosa, Sonoma County Water District, and Marin Municipal Water District securing an MTC Climate Initiative grant for \$2.8 million for the *Local Government EV Fleet Project*. When fully implemented, this project will provide more than 90 electric vehicles with EV chargers for the region. Of this allocation, the City of San José will receive three vehicles and chargers for the fleet and two additional vehicles and chargers for a community car share program.

At present, all required documentation and preliminary environmental studies have been submitted to the granting authority and the Partnership is awaiting final approval and direction. It is anticipated that with final approval that the City will be in a position to initiate the purchase of the first three electric vehicles as early as Fall 2011.

2. EV Charging Stations

The California Energy Commission (CEC) approved the \$1.5 million ABAG Electric Vehicle Corridor Project grant on March 9th. San José would receive approximately \$75,956 from the CEC to install 15 electric vehicle chargers in the City - 10 downtown and five at the Environmental Innovation Center. The funds will cover the cost of the hardware and the bulk of the installation costs. The 15 chargers, which will be owned by the City, will be a combination of Level I, 120 volt and Level II, 240 volt units. Battery recharging rates differ based on the voltage of the charging unit. For example, a Level I charger can fully recharge a Nissan Leaf in about 22 hours whereas a Level II charger can accomplish the same task in about 8 hours.

The CEC will also provide \$45,000 towards the cost of purchasing and installing three fast chargers in San José (\$15,000 per charger). The remainder of the costs, approximately \$60,000 per charger, will be born by 350 Green, a private firm that will own and operate the chargers. The final locations of the fast chargers are still to be determined. A fast charger (DC 480 volt) is capable of charging a Nissan Leaf to 80 percent charge in less than 30 minutes.

In addition to the CEC funding, the City is anticipating receiving approximately 55 Level II chargers through Coulomb Technologies' ChargePoint America program. Coulomb secured federal funding to provide chargers free of cost to nine participating regions around the country, including San Jose-Silicon Valley. The intent of the program, which was made possible by the American Recovery and Reinvestment Act, is to accelerate the development and production of electric vehicles to substantially reduce petroleum consumption, reduce greenhouse gas production, and create jobs. In California, the CEC is also covering most or all of the installation costs for those chargers. Details on the level of funding have yet to be resolved. The City has thus far identified locations for 25 of those chargers, principally in downtown San José. Five of the chargers will replace Level I chargers installed by the City and Coulomb in 2008 through the City's demonstration partnership policy.

In total, the two programs will allow the City to obtain up to 70 electric vehicle chargers plus the three fast chargers that will be installed by 350 Green. However, installation may be delayed depending upon when CEC funding for installation is made available or other funding sources are identified.

3. Streamline Single Family Home Charger Installation

In October 2010, the Building Division put in place a streamlined process for the installation of chargers in single-family homes. For single-family home installations, permits may be obtained on-line or over-the-counter and plan submittals are not required. Instead, only inspection will be

required to verify that the installation has been completed in accordance with the building codes and per the manufacturer's installation guidelines. Information on the guidelines is available to the public and other interested organizations at: <http://www.sanjoseca.gov/building/>.

As of January 2010 a total of 19 permits were issued for the installation of chargers in single-family homes. Of the 19 permits, 17 were issued after October 2010 when the new streamlined process was in place.

4. Battery Swap Station Program

City staff has been working to locate two sites for the future San José Battery Swap Stations. Preliminary site selection has identified two primary sites including the vacant parcel of land at the NE corner of Taylor Street and Route 87 (adjacent to the E-Lot) and a location to be identified at the Environmental Innovation Center. Funding provided through an MTC Climate Initiative Grant will be used for the construction and implementation of four taxi battery swap stations. Two stations will be located in San José and two stations located in San Francisco. The grant will also provide a number of switchable battery electric taxis for use in San José. The first Battery Swap Station is targeting an opening in early 2012 and construction on the second San Jose station should be finished in mid 2014. The cities of San José and San Francisco are working with Better Place to deploy this technology.

5. Clean Vehicle Parking Incentive Program

Currently, the City provides free parking to electric and hybrid vehicles in Downtown City parking facilities, at on-street parking meters, and at regional parks. Eligible hybrid vehicles are those that have been identified by the State as being eligible for HOV (carpool) access. With the HOV access for hybrid vehicles expiring June 30, 2011, DOT plans to modify the Clean Air Vehicle Program to provide free parking incentives to only those vehicles that remain eligible for HOV access. After July 1, 2011 eligible vehicles through the program, will be the ones identified by the Air Resources Board as Zero-Emission (electric or hydrogen cell vehicle) or an Advanced Partial Zero-Emission (Plug-In Electric Vehicle).

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COORDINATION

This memorandum was coordinated with the City Attorney's Office, Office of Economic Development (OED), Environmental Services Department (ESD) and Planning Building and Code Enforcement (PBCE).

/s/

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/s/

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