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COUNCIL AGENDA: 0/0/00  
FILE:  
ITEM:

# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Lori Mitchell

**SUBJECT:** TITLE OF REPORT

**DATE:** Date Council Memo is due

Approved

Date

**COUNCIL DISTRICT: #**

**RECOMMENDATION** (Mandatory)

San José Clean Energy recommends City Council approve to enter into an agreement with the Center for Sustainable Energy (CSE) to manage and administer San José Clean Energy funds as part of the California Electric Vehicle Infrastructure Project (CALeVIP). San José Clean Energy (SJCE) will distribute funds to an account managed by CSE to provide rebates for electric vehicle Level 2 and Direct Current Fast Charging infrastructure installations. San José Clean Energy will distribute funds, which include CSE service fees of \$85,290 in FY19-20, \$914,710 in FY20-21, and \$3 million in FY21-22 into CALeVIP.

**OUTCOME** (Mandatory)

Approving the recommendation will allow the City of San José to sign an agreement with CSE to formally launch program implementation and participate in the current round of funding of CALeVIP: the City contributes \$4 million and the California Energy Commission (CEC) contributes \$10 million. The combined funds will be used as incentives for the installation of electric vehicle charging infrastructure in the City. SJCE will distribute funds of \$85,290 in F19-20, \$914,710 in FY20-21, and \$3 million in FY21-22 into CALeVIP. Exact month to month outlay of funds to CSE will depend on CALeVIP applicant demand, project completions, and documentation review and approval by CSE.

These combined investments are expected to result in the installed roughly 100 new Direct Current Fast Charge (DCFC) charging ports and 1,400 new Level 2 charging ports in San José by the end of 2021. For reference, San José currently has or is planned to have 141 DCFC charging ports and 1,087 Level 2 charging ports.

**Commented [MK1]:** To double check this data with SUMC (DOT e-mobility consultant) data

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**BACKGROUND** (Mandatory)

On August 8, 2017, City Council approved an ordinance establishing a Community Choice Aggregation (“CCA”) program to be named San José Clean Energy (“SJCE”) and amending Title 26 of the San José Municipal Code to create the Community Energy Department of the City of San José to manage the CCA.

In February 2018, the City of San José was one of the first U.S. cities to adopt a Paris Agreement-aligned climate action plan: Climate Smart San José. Climate Smart San José is a data driven plan with specific goals and actions focused on three components: energy, mobility and water. It details not only ways to reduce the city's carbon footprint but also to improve quality of life for those who live and work in San José.

On May 15, 2019, SJCE updated the City Council Transportation and Environment Committee on the Community Energy Programs planning process. SJCE advised that vehicle electrification was likely to be one of the sectors that will be recommended as a primary area of program focus. SJCE expectsto bring to further recommendations to City Council on future programs in early 2020.

**ANALYSIS** (Mandatory)

CALeVIP Program Introduction

The CALeVIP is a CEC funded electric vehicle (EV) charging infrastructure incentive program. The CEC co-funds with a participating organization, which is normally a local government entity, utility, or CCA. Program implementation and administration is managed by the Center for Sustainable Energy (CSE) which was competitively selected by the CEC. The incentives are focused on Level 2 and DCFC charging stations and can be public or private chargers in workplaces, multi-family dwellings, destination centers, and shopping centers, but are not available for single family homes. Incentives will cover a portion of the costs of both the charging station as well as the electrical infrastructure upgrades needed to install the charging stations. Incentives are currently structured in the following way, but are subject to change following public feedback due September 6th submitted to the CEC.

Level 2 Incentives

**Proposed Level 2 Incentive Design**

Incentive Project	Rebate Per Connector	Rebate Adders Per EV Charging Connector		
		MUD	DAC	Low Income
San Jose Clean Energy	\$5,000	\$1,000	\$500	\$500

DCFC Incentives

**Proposed DCFC Incentive Design**

DCFC Type	Non-Disadvantaged Community/Low Income Rebate	Disadvantaged Community/Low Income Rebate
50 kW+	Up to \$50,000 or 75% of the total project cost, whichever is less	Up to \$60,000 or 80% of the total project cost, whichever is less
100 kW+	Up to \$70,000 or 75% of the total project cost, whichever is less	Up to \$80,000 or 80% of the total project cost, whichever is less

San Mateo and Santa Clara County Collaboration

In January 2019, a coalition was formed among San Mateo and Santa Clara County electrical load-serving entities, which includes SJCE, Peninsula Clean Energy, Silicon Valley Clean Energy, City of Palo Alto Utilities, and City of Santa Clara/Silicon Valley Power to apply for CALeVIP funding. Since CALeVIP is operated on a county-wide level, it was imperative that each county, and the CEC staff endorsed, a joint application to receive matching CEC funding. Even though SJCE staff had not yet finalized program plan and recommendations and presented to Council, the decision was made to pursue the funding to preserve the option.

City of San José Electric Vehicle Goals

Climate Smart San José set an ambitious target to reach 61% of passenger vehicles (includes SUV's) or 153,200 vehicles as electric by 2030. The Climate Smart plan identified one of the key challenges in meeting that goal is "creating an EV charging infrastructure" to support 61% EV's in the city. The Climate Smart plan also includes a clear action (2-3-A) "to partner strategically to expand the network of publicly available charging stations".

The standard definition for EV's include both battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV). A BEV runs fully on power from the battery, while a PHEV runs on both a gasoline engine and a battery.

As of October 2018, the City of San José had approximately 23,170 registered EV's according to the California Department of Motor Vehicles. Twenty three thousand one hundred and seventy (23,170) EV's represented around 2.8% of total registered passenger vehicles in San José in 2018. This means that San José will need to increase EV's in the City by 561% in order to meet the goal in 2030 of 153,200 EV's.

On a shorter term basis, per the Climate Smart plan, San José will need 63,100 passenger EV's (includes SUV's) by 2025. This represents a 171% or 39,930 electric vehicle increase compared to 2018.

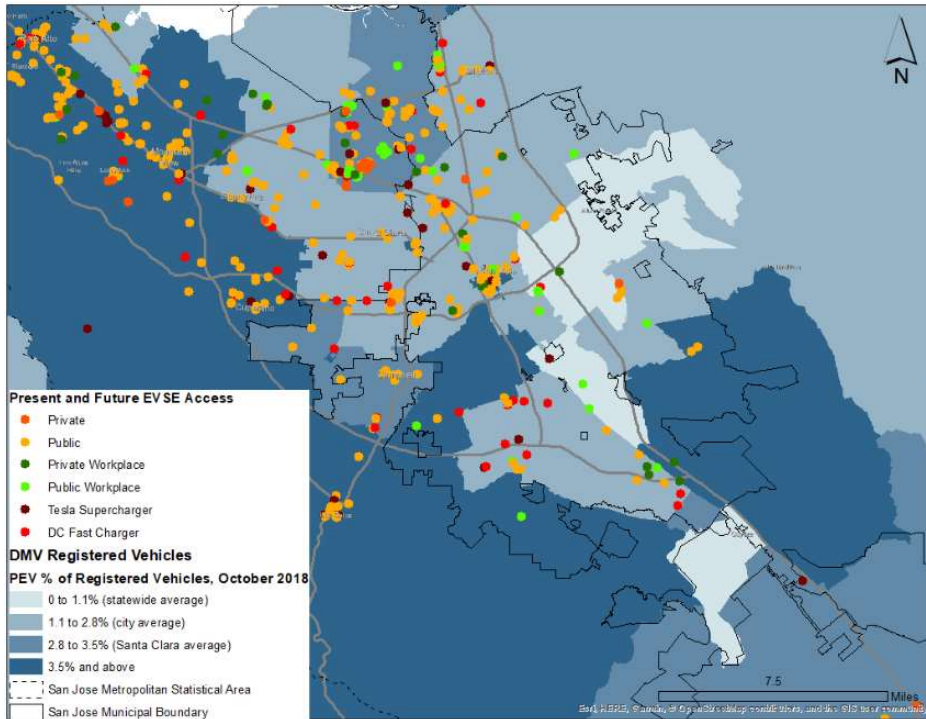
#### City of San José Electric Vehicle Charging Infrastructure

Studies have shown a strong statistical link between electric vehicle uptake and charging infrastructure availability (ICCT EV Charging Best Practices, 04-10-2017). Although correlation does not imply causality, the statistical correlation implies that if San José does not have enough available charging infrastructure, electric vehicle uptake will be negatively impacted. Thus, it is imperative that San José must have a widely available and accessible electric vehicle charging infrastructure to meet Climate Smart's ambitious EV goals.

Currently San José's landscape for charging infrastructure includes 1087 Level 2 and 141 planned or installed charging ports. The Electric Vehicle Infrastructure Projection Tool Lite (U.S. Department of Energy) estimates that San José will need 3,931 Level 2 charging ports and 270 DCFC charging ports in order to service the 63,100 EVs called for in Climate Smart in 2025. This implies San José will need to increase our Level 2 charging ports by 2,844 ports (261%) and DCFC charging ports by 129 ports (92%) in just 5 years. The 1,400 Level 2 charging ports CALeVIP could provide represent 49% of 2025 incremental requirements, while 100 DCFC charging ports represent 78% of 2025 incremental need. xx

**Commented [MK2]:** Pending SUMC study confirmation

**Commented [MK3]:** Will add in details from DOT's SUMC study



### Equity Considerations

The latest analysis of EV adoption and EV charging infrastructure in San José shows spatially that communities in the City with lower household income, also have lower rates of EV adoption and lower access to EV charging stations.

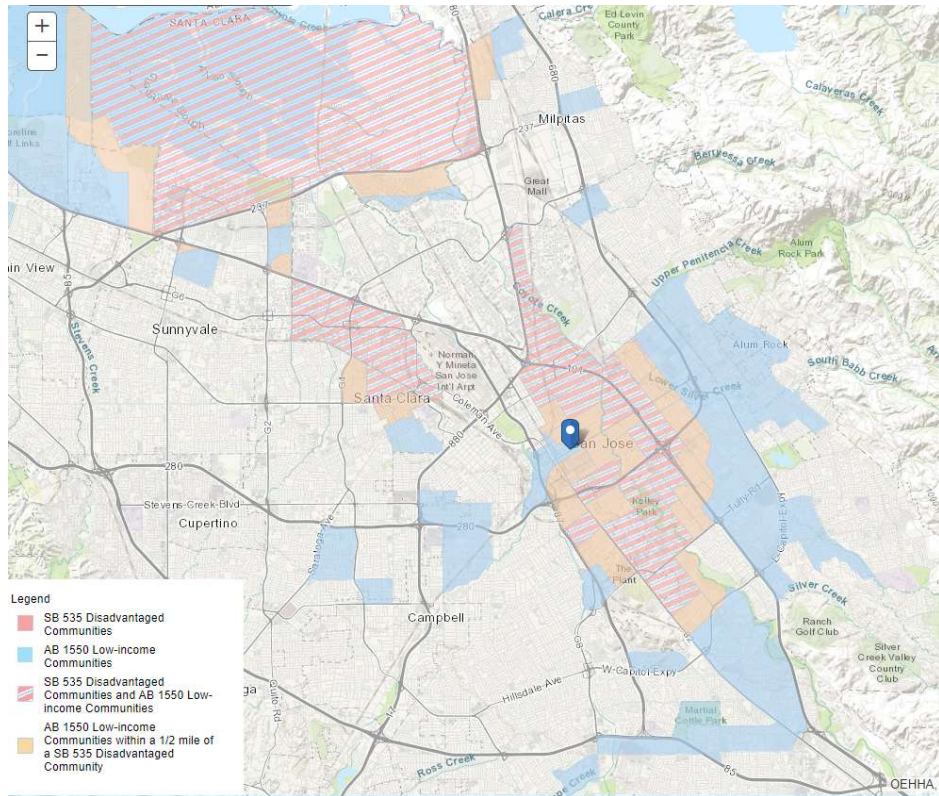
To address these inequities, San Jose's implementation of CALeVIP will require that 25% of total rebates dispersed (25% of \$14 million = \$3.5 million) will go to communities designated at the top 25% of disadvantaged communities (i.e. the most disadvantaged communities) as defined by the California Environmental Protection Agency through CalEnviroScreen 3.0 tool per Senate Bill (SB) 535, and/or census tracts and households that are at or below 80 percent of the statewide median income, or at or below the threshold designated as low-income by the California Department of Housing and Community Development's (HCD) 2016 State Income Limits per Assembly Bill (AB) 1550. The map below shows the communities defined by SB 535 and AB 1550.

The census tracts defined either by SB 535 or AB 1550 in general also show the lowest quantity of EV charging infrastructure installation. Directing 25% of the rebates toward these

**Commented [MK4]:** Will add to this section once CEC the workshop is done 9/16 and we have an indication of DAC/low income requirements.

**Commented [MK5]:** Need to add map from SUMC with EV adoption by Income

communities could serve as mechanism to drive up the currently low EV adoption rate in our disadvantaged and low income communities.



### Electric Vehicle Benefits

#### *SJCE Benefits*

In addition to the other benefits enumerated below, converting more drivers of gas vehicles to electric vehicles is a revenue growth opportunity for SJCE through the increased electrical load EVs would add. The approximately 39,930 new EVs estimated to be serviced by the new charging infrastructure from CALeVIP would bring roughly \$9 million in increased annual revenue ( $39,930 \times 3.5 \text{ MWh/EV/year} \times \$64.1/\text{MWh}$ ) to SJCE. These additional revenues can then help to support future programs promoting and incentivizing EV adoption or other community investment opportunities in San José, leading to a virtuous cycle for both SJCE and San José residents.

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In addition, accelerating the installation of Level 2 and DCFC stations with load management capabilities will support SJCE in shifting and shaping electrical load during the day. CALeVIP program requirements will require the installation of networked chargers, which will shift charging to occur when prices are low and when solar capacity is available.

#### *Greenhouse Gas Emission Reductions*

San José's latest Greenhouse Gas (GHG) Inventory report for 2017 emissions calculated that transportation and mobile sources, which includes passenger vehicles, contributed to 63% of San José's emissions.

By enabling wider electric vehicle adoption through greater charging availability, CALeVIP could be an important factor in providing the 265,100 metric tons of annual CO<sub>2</sub>e reductions specified per the Climate Smart model in 2025 through the addition of 39,930 electric vehicles. The reduced annual emissions of 265,100 metric tons associated with roughly 39,930 more electric vehicles represents around 7.4% of the 2017 transportation and mobile source emissions (3,589,159 metrics tons) in San José.

#### *Health Benefits*

Gas powered vehicles produce smog-forming pollutants such as nitrogen oxide, as well as other pollutants harmful to human health including particulate matter, carbon monoxide, and sulfur dioxide. These pollutants lead to lung irritation, weaken the body's defenses against respiratory infections, and pose health risks to young children and asthmatics.

EV's produce clear health benefits by offering zero exhaust emissions at the street level, leading to cleaner and healthier communities, with particular benefits to the most vulnerable who tend to live close to freeways and major roadways. Though electric vehicles still emit particulate matter from road, tire, and brake wear, their overall air pollutants are fewer than gasoline or diesel fueled vehicles.

#### *Economic Benefits*

While most EV's tend to have higher upfront costs compared to traditional gas vehicles, the significant rebates and incentives available at both the Federal and State level are bringing many EV models at or close to cost parity with gas vehicles. Depending on the vehicle brand, EVs owners can receive up to a \$7,500 federal tax credit on a new EV. On a state level, the California Air Resource Board's Clean Vehicle Rebate Project offers adopters of a new EV a \$2,500 rebate (\$4,500 rebate for income qualified residents). These incentives can bring down the cost of EV adoption by \$10,000 to \$12,000 per vehicle. There are also incentives for used EV's for income-qualified residents through the Clean Vehicle Assistance program and Clean Cars for All program.

EV's have lower life cycle costs than gas powered vehicles. An average EV driver will save around \$1,000 per year on fuel costs, based on current electricity rates and gas prices. With San José currently at 23,170 plug-in EVs, helping to reach 63,100 EVs by 2025 through the CALeVIP program could bring potential economic benefits to San José residents of \$39.9

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million annually (39,930 x \$1,000). San José residents can also save money through lower annual maintenance costs when driving an EV compared to a gas vehicle. The American Automobile Association (AAA) estimates that an EV driver can save around \$204 per year in maintenance compared to driving a gas vehicle. Again with 39,930 additional EVs, San José residents can save up to \$8.2 million annually (39,930 x \$204/year) on maintenance costs by 2025.

Thus, with the combination of federal and state incentives, lower annual fuel and maintenance cost savings, greater EV adoption will lead to more savings for San José residents and greater economic benefits for the City.

#### **EVALUATION AND FOLLOW-UP** (Mandatory)

A status update of the CALeVIP implementation (including status on outreach efforts, early applicants, and updated funding timing) will be included as part of the Department of Transportation's Electric Mobility Roadmap update to the T&E Committee at the end of 2020. .

#### **POLICY ALTERNATIVES** (If applicable)

**Alternative #:** City Council does not approve entering into an agreement with CSE and not investing in CALeVIP

**Pros:** SJCE does not pull \$4 million from budgetary reserves in FY20-21 and FY21-22

**Cons:** The City of San José loses an opportunity to receive \$10 million in CEC funding to go to EV charging infrastructure in San José in 2020-2021.

**Reason for not recommending:** There is high likelihood SJCE invests in a EV charging infrastructure program as it aligns with SJCE program guiding principles and the Climate Smart plan. Investing into a program like CALeVIP now, while earlier than SJCE planned and in advance of a full program review with Council, is an one-time opportunity for San José to receive significant State funding to meet our EV charging infrastructure targets.

#### **PUBLIC OUTREACH** (Mandatory)

On August 13<sup>th</sup>, 2019, the CEC hosted a workshop on the Santa Clara County CALeVIP project to elicit public input on the proposed funding allocations, rebate amounts and structure, and eligibility requirements. The CEC also enlisted public comments to be submitted either through their website or by mail.

#### **COORDINATION** (Mandatory)



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This memorandum has been coordinated with the Department of Transportation and City Attorney's Office.

**COMMISSION RECOMMENDATION/INPUT** (Mandatory)

To Come

**FISCAL/POLICY ALIGNMENT** (If applicable)

The recommended actions support the Climate Smart Plan (City Action 2.3-A/2.3-C) and the Envision San José 2040 General Plan (Action TR-1.16 and Appendix C: GHG Reduction Strategy)

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT:  
Total Project Costs: \$4,000,000

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

*This section shall reflect the cost or price elements as identified in the Compensation Schedule of the agreement/contract (below are sample elements). Should tie to the recommendation.*

Funding Amount: \$4,000,000  
Center for Sustainable Energy Service Fee: \$280,000 (7% of total funds invested)  
Incentives Available: \$3,720,000  
TOTAL AGREEMENT/CONTRACT AMOUNT: \$4,000,000

3. FISCAL IMPACT:  
This estimated fiscal impact depending on customer applications and customer project timing to install charging infrastructure is as follows:

FY19-20: \$85,290 (maximum)  
Early stage project deliverables service fee paid to CSE  
FY20-21: \$914,710 (maximum)  
Service paid to CSE and payments to customers  
FY21-22: \$3,000,000 (maximum)  
Service paid to CSE and payments to customers

4. SOURCE OF FUNDING:

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All expenses will be funded by the San José Clean Energy's budgetary reserves. At the beginning of the CALeVIP program, the expected fund balance will be \$34,980,000 and, by its conclusion will grow to \$96,744,000 inclusive of the total projected program cost. Furthermore, by the conclusion of the program we expect to repay the currently outstanding \$10,000,000 commercial paper loan and will not have any debt.

**BUDGET REFERENCE**

The \$85,290 FY19-20 Expense will be part of the \$150,000 allocated for Local Energy Programs in the FY19-20 adopted budget. It resides in San Jose Clean Energy's Non Personal Appropriation (Fund 501, Appn 0782) and future fiscal year's spending will be requested as part of the proposed budget process.

**CEQA** (Mandatory)

Environmental status granted by the Planning, Building and Code Enforcement Department. The appropriate citation is to be noted on the memo:

Exempt, ND (Negative Declaration) or Resolution No. \_\_\_\_\_.

**DEPARTMENT HEAD**

Title, Department

For questions, please contact Name, Title, at (408) 000-0000.