



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Lori Mitchell

SUBJECT: COMMUNITY ENERGY PROGRAMS ROADMAP UPDATE

DATE: February 21, 2020

Approved

Date

2-24-20

RECOMMENDATION

Accept the report on the status of San José Clean Energy's (SJCE) program selection framework and three near-term programs at different phases of planning and implementation, including California Public Utilities Commission (CPUC) funded energy efficiency programs, the Disadvantaged Community Green Tariff, and the California Electric Vehicle Infrastructure Project (CALeVIP); direct future updates for both the near-term and future programs as they are developed in further detail; and recommend this item for full Council consideration at a Council meeting in the fall of 2020.

OUTCOME

Provide an update on San José Clean Energy's preliminary program roadmap that details the initial programs SJCE recommends offering based upon guiding principles and objectives.

BACKGROUND

On August 8, 2017, City Council approved an ordinance establishing a Community Choice Aggregation (CCA) program to be named San José Clean Energy 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 Community Choice Aggregation. Under the adopted Title 26, SJCE may provide any programs as approved by the City Council.

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, named Climate Smart San José ("Climate Smart"). This is a data driven plan with 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 the quality of life for those who live and work in San José.

On May 15, 2019, SJCE provided an update to the Transportation and Environment Committee on the Community Energy Programs planning process.

On October 22, 2019, City Council adopted a resolution approving the implementation of the California Electric Vehicle Infrastructure Project in San José, which included SJCE contributing \$4 million over the next 2 to 4 years as a condition for the California Energy Commission to disburse \$10 million to SJCE's program under a grant awarded to SJCE and other public entities.

ANALYSIS

CA Electricity Markets & Financial Position

One of the key advantages of CCA agencies in California is the ability to reinvest operational financial surpluses into the community through programs and rate discounts along with a greater awareness of community needs than large investor owned utilities. Currently SJCE operational surpluses are funding an operating reserve to ensure financial stability of the program. The purpose of an operating reserve is to allow an agency to withstand sudden changes in market conditions that may have significant impacts on the financial solvency of an organization. Other CCA agencies in California have employed financial practices focused on attaining a minimum level of reserves, ranging between 120 days to 180 days of operating expenses.

California's electricity markets continue to be complex and uncertain. Increases to the Power Charge Indifference Adjustment (PCIA) and Direct Access (DA) expansion continue to be serious threats to CCA's financial stability. The PCIA is an exit fee that SJCE's customers pay when they are enrolled in a CCA program. To date SJCE has set rates to cover the cost of the PCIA so that customers realize a 1% discount to PG&E's rates. PCIA forecasts continue to be volatile and increase over time. In 2019, the PCIA increased 22%. PG&E has submitted forecasted PCIA rates that are volatile and may result in a substantial increase in late 2020 or early 2021. DA is a program that a limited number of commercial customers can utilize to procure energy directly. Expanding DA could result in a significant loss of SJCE commercial customers, increase carbon emissions in San José and introduce instability to SJCE's remaining customer base. SJCE in collaboration with CalCCA continues to engage with legislative and regulatory bodies to address these issues.

In addition to the PCIA and DA uncertainty, the California electric sector has become much more complex over the past few years. Pacific Gas & Electric (PG&E) filed for bankruptcy on January 29, 2019, and there are multiple regulatory and legislative actions on utility wildfire liability and mitigation plans, de-energization, and the public safety power shutoffs. The future growth and success of SJCE will be dependent on the program's ability to demonstrate a sustained period of financial stability with strong underlying credit, as well as successful operations in one of the most complex electricity markets.

Operating in such evolving and complex electricity market requires a prudent and thoughtful financial management strategy. A major component of such a strategy is the attainment and maintenance of financial reserve levels that are equivalent to a minimum number of days of operating costs. One of the key early program priorities for SJCE will be to establish minimum operating reserves that are commensurate with other CCA agencies as soon as practical to preserve the long-term financial stability while also considering strategic investments in programs that will offer the greatest benefit for SJCE customers.

Making energy investments and operational decisions in consideration of current and future cash flows and financial obligations is a core fundamental principle for SJCE. For example, SJCE met a significant financial milestone by maintaining a \$20,000,000 Operating Reserve by December 2019 and anticipates fully repaying its \$10,000,000 commercial paper loan by the end of this calendar year. Further, SJCE is on track to achieving one of the program's most significant financial goals – building an Operating Reserve equivalent to 120-180 days of operations within the next five years, or by fiscal year 2024-2025. SJCE recognizes the importance of establishing and maintaining this level of reserve to help lessen the financial risks and impacts that customers face, including: power supply price volatility, regulatory risk, and changes to the PCIA.

CCA Program Landscape

All nine counties in the San Francisco Bay Area are now operating CCAs; therefore, there are numerous CCA programs for SJCE to learn from and benchmark against. In general, California CCAs have focused on programs that reduce greenhouse gas emissions (GHGs), increase electrical load through increased electrification, and/or reduce energy procurement costs. Most programs have focused on vehicle electrification due to the large source of GHG emissions from the transportation sector and electrical load growth opportunities. The second priority of CCA programs in our region has focused on home and building electrification to accelerate the transition from natural gas to electrical appliances and equipment. Finally, Bay Area CCAs are increasingly focused on distributed energy resources (DERs) and programs focused on resiliency.

SJCE Program Strategic Alignment

As a department of the City of San José, maintaining alignment between SJCE programs and Climate Smart San José is important. Figure 1 illustrates how SJCE fits within Climate Smart as well as the related strategies SJCE’s programs will address within the Climate Smart Plan.

Figure 1. Climate Smart San José Strategies

A Framework for Action: Nine Strategies in Three Pillars



SJCE Program Categories

Figure 2 outlines the program category recommendations that will serve as the primary focus for SJCE. These program categories have been chosen through collaboration with the Clean Energy Community Advisory Commission and were based on both other CCAs’ experience as well as the program categories’ connections to Climate Smart San José and SJCE’s program guiding principles approved by the Transportation and Environment Committee on June 3rd, 2019.

Figure 2. Program Categories



Program Category Descriptions:

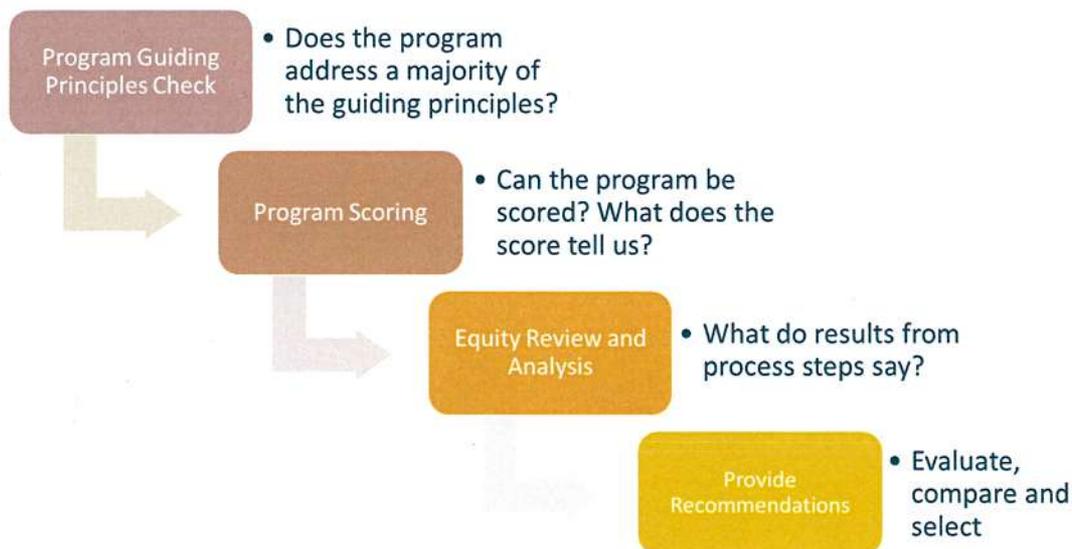
- **Vehicle Electrification:** Programs focused on accelerating the conversion of all vehicle types to an electrified version.
- **Building Electrification:** Programs supporting the conversion of homes and buildings from gas and electricity powered to solely electricity powered.
- **Distributed Energy Resources:** DER programs include any customer side of the utility meter resources such as solar, battery storage, and demand response.
- **Energy Efficiency:** Energy Efficiency programs help reduce customer energy usage and costs either through equipment upgrades or building envelope improvements.
- **Resiliency:** Programs to provide back-up power or to sustain power in the event of a power outage or other electric service disruption. Resiliency programs often rely on distributed, customer side of the utility meter resources to sustain power.
- **Program-specific Rates:** Programs designed to offer special rates to select customer groups to either incentivize energy-use behavior or to support select customer groups.

SJCE Program Selection Framework

Staff has developed a program selection framework, based on the guiding principles approved by the Transportation and Environment Committee on June 3rd, 2019, and used it to help guide selection of the future programs discussed later in this memorandum.

- Maximize greenhouse gas reduction opportunities
- Align with Climate Smart San José
- Promote equity, affordability, and support disadvantaged communities
- Produce customer and community benefits
- Maintain or improve the financial status of SJCE

Figure 3. Program Selection Process Steps



Community Outreach on Potential Programs

SJCE has engaged the community to collect ideas and feedback on potential programs. This included a) assessing awareness of new energy technologies; b) listening to commercial and industrial customer needs c) testing potential program ideas; and d) fielding industry input through a workshop.

A. Assessing Awareness of Clean Energy Technologies

Many of the programs in the SJCE Programs Roadmap focus on accelerating the adoption of new clean technologies that reduce GHGs and improve air quality. From March to May 2019, SJCE conducted focus groups and an online survey to assess awareness and determine potential barriers to greater adoption of these technologies. Key takeaways:

Spanish-speaking focus group led by Somos Mayfair:

- Worries about insufficient electrical infrastructure at their homes to support increased electrification
- Perceptions of EVs as expensive to purchase
- Importance of receiving information from trustworthy sources, such as neighbors or community leaders

Vietnamese-speaking focus group led by ICAN:

- General interest in “cash for clunkers” type of EV program
- Confusion on true costs and benefits of rooftop solar
- Resistance to electric induction cooktops will be a barrier for home electrification

English-speaking focus group led by SJCE staff:

- Generally knowledgeable of clean energy technologies like rooftop solar, EVs, and battery systems
- Concerns on resiliency due to PG&E Public Safety Power Shutoff (PSPS) events from increased home electrification
- Good potential audience for future program stress-testing

Online survey results:

- 522 respondents, survey available in English, Spanish and Vietnamese
- Identified lower SJCE awareness among Spanish survey respondents
- Millennials more aware and ready to purchase an EV
- District by district differences on HPWH awareness and solar adoption

B. Commercial and Industrial Customer Engagement

SJCE has maintained a consistent line of communication and feedback with key commercial and industrial customers. Key takeaways from those interactions include:

- Interest in EV charging infrastructure
- Several expressed interest in onsite solar + storage
- General focus on reducing costs

- Looking for SJCE to lead, propose solutions

C. Community Program Ideas Testing

To build on the feedback received through the technology awareness focus groups and survey, SJCE tested program ideas by conducting an online survey and in-person surveys at events.

Key takeaways of online survey:

- 400 respondents, survey in English, Spanish and Vietnamese
- Respondents skewed older (55 years old and above)
- Millennials more likely to engage in programs related to EV's, Heat Pumps, and Demand Response
- All demographics listed "Affordability" is what they value most in electricity service
- All demographics listed "Energy Efficiency" as the program they are most interested in taking advantage of

D. Industry Expert Workshop

In April of 2020, the Rocky Mountain Institute and World Resources Institute, in connection with resources provided through the American Cities Climate Challenge, will support SJCE in holding and leading a 1-day workshop on SJCE's draft programs roadmap. The aim of the workshop is to collect feedback on the draft roadmap, understand future trends in clean energy, and develop relationships with key stakeholders. The workshop will include participants from a variety of industries and backgrounds including CCAs, non-profits engaged in climate and energy, key corporate customers, and the energy and electrification fields.

FY19-20 Pilots and Outreach

SJCE has introduced a series of pilots as well as conducted outreach to promote existing programs available to San José residents. These pilots and outreach efforts have included:

- Development of Program Websites
 - Electric Vehicles: www.sanjosecleanenergy.org/ev
 - Going Solar: www.sanjosecleanenergy.org/going-solar
 - Energy Efficiency: www.sanjosecleanenergy.org/save-energy
- Promotion Partnership with Grid Alternatives for Low Income Rooftop Solar Programs
- Hosting an EV Ride and Drive event (April/May 2020).
- CALeVIP: California Energy Commission co-funded EV charging infrastructure program providing rebates for Level 2 and DC Fast Charging stations, launching May/June 2020.

Program Approach and Prioritization

Based on the process described above, SJCE has developed a list of programs to target. Because SJCE has not yet reached its minimum operating reserve level, near-term programs are divided

into programs that leverage external or matched funding as is shown in Figure 4 and programs that focus on education and outreach as shown in Figure 5. The timing of future programs is based on the timing for SJCE to attain adequate operating reserve levels. This timeframe is somewhat uncertain and could vary from 2-5 years depending on the regulatory and legislative outcomes on PCIA, DA expansion, and other electricity market changes.

Near Term Programs

Figure 4. Programs Leveraging External Funding

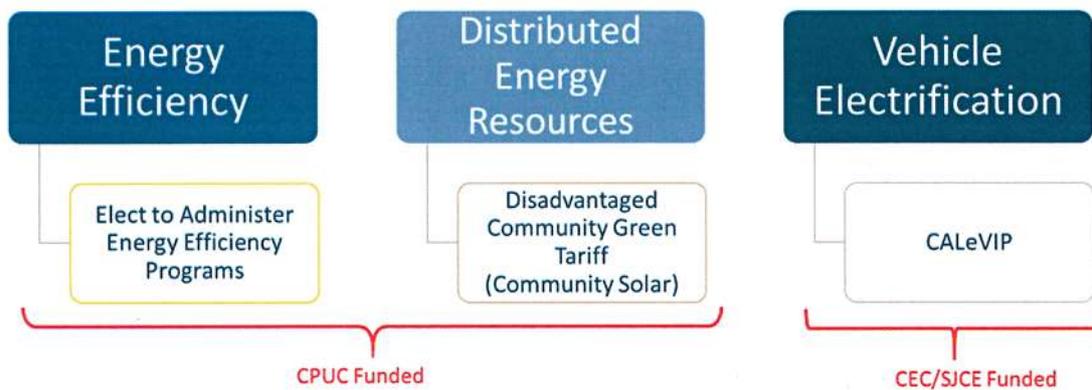
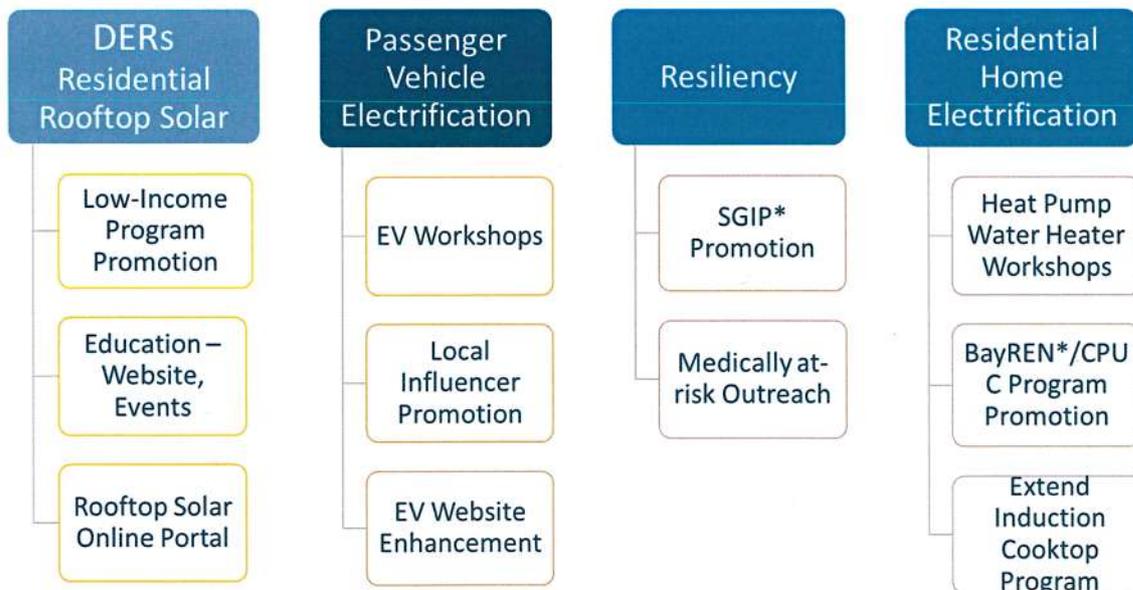


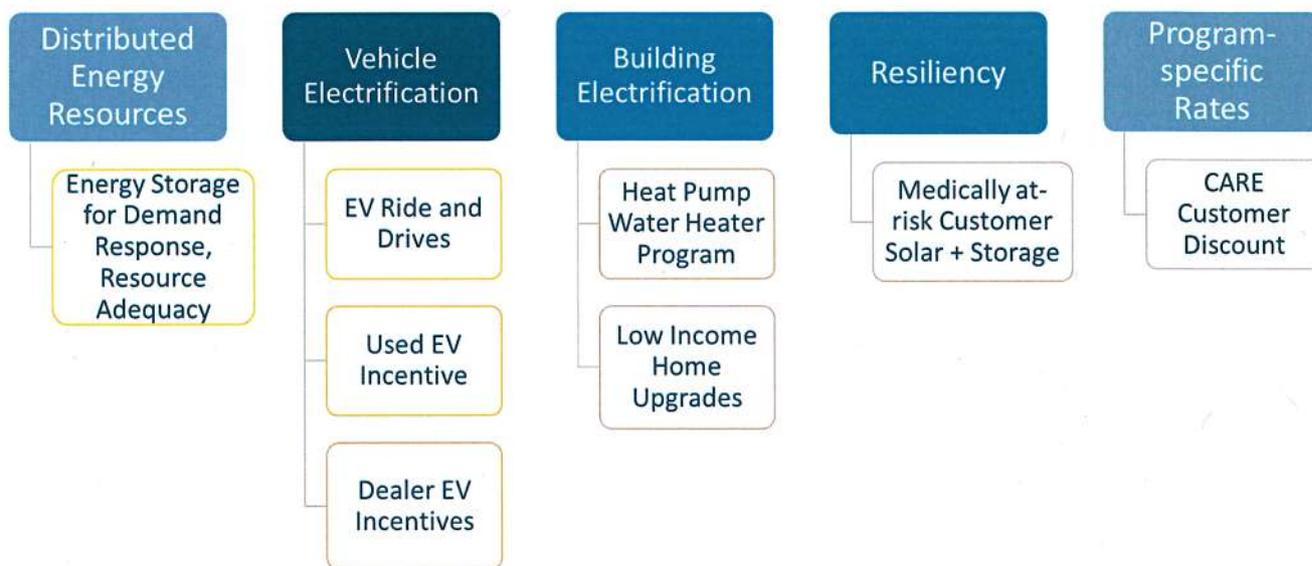
Figure 5. Education and Outreach Programs



*SGIP = Self-Generation Incentive Program. BayREN = Bay Area Regional Energy Network

Future Programs

Figure 6. Future programs once operating reserve target is achieved



The future recommended programs, shown in Figure 6, are a diverse mix of programs that stood out during the program selection process. These programs effectively address each guiding principle. SJCE recommends completing additional analysis, stakeholder engagement, and program design iterations over the next few years. Following these actions, additional programs could be added or taken out of the program recommendations. In the long term, SJCE recommends programs that focus on difficult-to-reach customers and communities to ensure they are benefiting from clean energy, as well as focus on market segments still awaiting the transition to clean energy. Please see Appendix for more detailed descriptions of all programs.

CONCLUSION

The Program Roadmap will provide the structure and direction for future SJCE programs. This includes depicting the strategic alignment with City Climate plans and priorities. In the near term, SJCE will focus on programs leveraging external funding and education and outreach to make significant progress and set the ground work for future program success. The Programs Roadmap will be continually refined through consultation with the Transportation and Environment Committee, City Council, the Clean Energy Community Advisory Commission (CECAC), and key stakeholders and community groups.

EVALUATION AND FOLLOW-UP

The information presented in this memo will be compiled into a formal SJCE Programs Roadmap for consideration by City Council in fall of 2020. The plan is to make the SJCE Programs Roadmap a living document that goes through formal revisions every two years to adjust to changes to community needs and priorities, as well as changes to technological advancements and market conditions.

CLIMATE SMART SAN JOSE

The recommendation in this memo aligns with one or more Climate Smart San José energy, water, or mobility goals.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the March 3, 2020, Transportation & Environment Committee meeting.

COORDINATION

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

COMMISSION RECOMMENDATION/INPUT

These are the written comments of the CECAC from the January 14, 2020, CECAC Meeting.

Recommendation: Adopt the SJCE program selection framework, as presented on January 14, 2020, and use it to evaluate and select energy programs. The CECAC also supports Staff's recommendation for three near-term programs including, Disadvantaged Community (DAC)-Green Tariff, CALeVIP, CPUC funded energy efficiency programs, and requests future updates for both the near-term and medium-term programs as they are developed in further detail.

Background: The CECAC thanks Staff for their receptivity and responsiveness to the questions, comments and input from the Commission and Ad Hoc Programs subcommittee.

The Commission has been reviewing the programs over the past several months with staff and established a dedicated Ad Hoc subcommittee to review the programs in depth and held multiple in-person meetings to understand and refine the documentation and approach.

Trying to evaluate and select a wide variety of program types is complex and involves both quantitative estimates and qualitative impact to the community. We believe that staff has done an excellent job of identifying relevant criteria and developing a scoring methodology that should be adopted for use in the short term, and then updated at least annually to incorporate lessons learned and regional energy market evolution.

Consideration for future planning:

While there are four criteria areas (emissions, cost effectiveness, equity, and community benefits), they do not necessarily have equal weight when selecting a program for SJCE. (Staff comment: Program scoring criteria were reviewed with CECAC). For example, budgetary pressures play an important role in the ability to pursue and scale-up various projects, but this is not directly included in the analysis currently.

A concern from some commissioners is that a program gets maximum score for cost effectiveness if it delivers GHG reductions at \$100/MTCO₂ or less. However, the cost for a carbon allowance in California is currently much lower.

The Commission recognizes that the subjective nature of the scoring for equity and community benefit is difficult to incorporate into the overall program ranking. These areas should be refined over time with further guidance from City Council and stakeholders and take into consideration their relative impact on the entire City population (more than 1 million people and thousands of companies).

FISCAL/POLICY ALIGNMENT

The recommended actions support the Climate Smart Plan (City Action 1.1-B/1.1-E/1.1-F/1.1-J/2.2-E/2.2-K/2.3-A/2.3-C/2.3-I/3.2-D/) and the Envision San José 2040 General Plan (Action TR-1.16 and Appendix 8: Greenhouse Gas Reduction Strategy).

COST SUMMARY/IMPLICATIONS

Near term programs will leverage external funding administered by the CPUC to the maximum extent practical. Any additional costs will be subject to the appropriation of funds.

/s/

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For questions, please contact Zach Struyk, Deputy Director of Account Management and Marketing in Community Energy, at (408) 535-4868.

Attachment: Appendix – Program Descriptions