Decarb Strategy & Programs Roadmap Update

Executive Committee
Jan 31, 2020
Purpose

- SVCE Board approved the Decarb Roadmap in Dec 2018
- Roadmap includes policy for annual reporting & review, starting Jan 2020
- This is first annual update
Outline

1. Highlights of 2019
2. Proposed Changes to Roadmap
3. Discussion & Next Steps
Outline

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3. Discussion & Next Steps
Staffing

Core programs staff* as of Dec 2018:

*Please note all SVCE staff make critical contributions to program design, development and implementation. These are specifically staff who devote at least half of their time on programs work.
Staffing

Core programs staff* with 2019 additions:

*Please note all SVCE staff make critical contributions to program design, development and implementation. These are specifically staff who devote at least half of their time on programs work.
Key Third Party Partners for Program Admin Support

Innovation Onramp admin

General program admin across portfolio

Evaluation, measurement & verification
Highlighted Progress

- All member agencies engaged in the Reach Code Effort for better building and EV charging codes – multiple in process of review & adoption
- EV Infrastructure Joint Action Plan adopted by Board
- $33M in CEC funding for Peninsula-Silicon Valley CALeVIP Project for EVSE incentives
- FutureFit HPWH Program launched & fully reserved – next steps underway
- All-Electric Showcase Award winners profiled in a website gallery and other education & outreach materials
- Two application rounds of Innovation Onramp complete, and multiple innovative pilot programs launched
- Sponsored SunCode Hackathon & Stanford Cleantech Challenge through Innovation Partners to catalyze innovation for decarbonization
- Community Outreach Grants launched for reaching hard-to-reach customers

...and more!
2018 GHG Update

Buildings and transportation emissions by subsector for 2015, 2017, and 2018
1. Highlights of 2019
2. Proposed Changes to Roadmap
3. Discussion & Next Steps
Proposed Changes to Roadmap

Staff propose two changes:

1. Adjust comprehensive update to 2-year cycle
2. Inclusion of two additional 2020 priorities
Proposed 2020 Priorities

Three categories of 2020 priorities:

1. **Cont. 2019**: program priorities still under development that continue into 2020

2. **Planned 2020**: Board-approved initiatives identified in the Roadmap & EVI Joint Action Plan for 2020 prioritization

3. **New 2020**: Two proposed new initiatives
Proposed 2020 Priorities

- C&I Clean Power Offerings
- Integrated Resource Plan
- Retail Rates Assessment
- Local Renewables

- Reach Codes
- All-Electric Showcase Grants
- FutureFit HPWH
- Streamlining Community-wide Electrification
- Workforce Development
- Building Decarb Joint Action Plan
- Resilience for Community Facilities

Cross-Sector:
- Innovation Partners
- Innovation Onramp
- Customer Resource Center

- Virtual Power Plant
- Non-SVCE Efficiency Programs

- Priority Zone DC Fast Charging
- Multi-Unit Residential Charging Technical Assistance
- Small and Medium Workplace Charging Rebates
- Fleet Electrification Grants
- Silicon Valley Transportation Electrification Clearinghouse
- Regional EV Leadership Recognition
Proposed new 2020 programs

• **Building Decarb Joint Action Plan** *(approx. $120k)*: Create an SVCE-wide building decarb joint action plan with member agencies to prioritize future incentives, permitting, code & rates and other activities

• **Resilience at Community Facilities** *(approx. $200k)*: Work with member agencies to analyze and develop a program to support resilience at community facilities
Additional Relevant Activities

• Streamlining programs reporting
  o Development of web dashboard/portal (feedback from community)

• DER/electrification 2030 potential assessment
  o Informs GHG modeling and impact assessment for next programs update

• Program-level evaluation underway/planned
  o FutureFit HPWH
  o Reach Code Effort
  o EV Infrastructure programs
  o Community Outreach Grants
  o Customer Resource Center
  o UtilityAPI flagship pilot
Outline

1. Highlights of 2019
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Discussion & Next Steps

- Integrate Exec. Committee feedback
- Bring to BOD in Feb – item to include:
  - Decarb Roadmap changes in redline
    - Adjust comprehensive update to 2-year cycle
    - Inclusion of two additional 2020 priorities
  - Request for budget allocation adjustments (all within 2% of Board-approved programs funds)
Appendix
Program Areas

1. Power Supply
2. Built Environment
3. Mobility
4. Energy Efficiency & Grid Integration
5. Education & Outreach
6. Innovation
2019 Budget

- Board approved 2% of operating revenues for programs ($5-6M)
- Currently ramping up staffing & program portfolio development to utilize full budget
- Uncommitted/unspent funds in a given fiscal year placed in a programs reserve for future use (i.e. funds “roll over”)

Programs budget by program area and fiscal year
2018 GHG Update

2018 actual emissions overlaid on the BAU GHG forecast, including BAU scenario analysis

SVCE’s 2021 Target: 30% below 2015 levels (2.82 MMT CO2e)
2018 to 2030 Emissions Reductions with Programs

SVCE 2030 Target: 50% below 2015 emissions (2.01 MMT CO2e)
2018 to 2030 Emissions Reductions with Programs

SVCE 2030 Target: 50% below 2015 emissions (2.01 MMT CO2e)

2018 Emissions: 3,192,511

- BAU Emissions Reductions: (638,632) = 2,553,879
  - Programs: Electricity
    - Lower electricity emissions intensity to meet 2030 RPS requirements
    - C&I Clean Power Offerings
    - Integrated Resource Plan
    - Retail Rates Assessment
  - Programs: Natural Gas
    - Reach Codes
    - All-Electric Showcase Grants
    - FutureFit HPWH
    - Streamlining Community-wide Electrification
  - Programs: Transportation
    - Workforce Development
    - Building Decarb Joint Action Plan

- 2030 Target Emissions: 2,013,465
  - Priority Zone DC Fast Charging
  - Multi-Unit Residential Charging Technical Assistance
  - Small and Medium Workplace Charging Rebates
  - Fleet Electrification Grants
  - Silicon Valley Transportation Electrification Clearinghouse
  - Regional EV Leadership Recognition

- SVCE 2030 Target: 50% below 2015 emissions (2.01 MMT CO2e)
Approved in Roadmap

Power Supply

• **C&I Clean Power Offerings**: Develop, market and sell additional SVCE power offerings to address large C&I customers seeking to buy clean power at the most competitive rates

• **Retail Rates Assessment**: Carry out comprehensive assessment of retail rates to develop multi-phase plan for improvements and developments of pilot rates

• **Integrated Resource Plan**: Solicit community input to develop comprehensive strategy for supply portfolio (e.g. %RPS, short- vs. long-term contracts, local resource carve-out, etc.)

• **Local Renewables**: Research the availability and price for local resources, and evaluate costs/benefits of procurement

Legend:
Approved 2019 Priority
Proposed 2020 Priority

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Approved 2019 Priority
Proposed 2020 Priority
Approved in Roadmap

Built Environment

- **Reach Codes**: Hire technical consultant to support SVCE and PCE member agencies in the development, review, adoption and implementation of reach codes supporting building electrification and EV charging infrastructure

- **All-Electric Showcase Grants**: Develop model requirements for all-electric buildings for architects, developers, practitioners & provide financial incentives and/or upfront design assistance for a specified number of showcase projects

- **FutureFit Heat Pump Water Heater**: Provide rebates to fuel-switch natural gas water heaters to heat pump electric water heaters (BAAQMD grant)

- **Streamlining Community-Wide Electrification**: Survey and review local city policies (codes, permitting, inspection, incentives, etc.) and develop model policies/processes

- **Workforce Development & Training (added April 2019)**: Programs to support workforce development & training to accelerate the transition from traditional to lower-carbon technologies

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- **Building Decarb Joint Action Plan**: Create an SVCE-wide building decarb joint action plan with member agencies to prioritize future incentives, permitting, code & rates activities

- **Resilience at Community Facilities**: Work with member agencies to analyze and develop a program to support resilience at community facilities (fire stations, schools, hospitals etc.)
Approved in Roadmap
Mobility

- **EV Charging Infrastructure Strategy and Plan**: Create an SVCE-wide EV readiness and infrastructure strategy considering permitting practices, ordinance/reach code integration, siting, rate design

- **EV Fast Charging Pilot Depots**: Work with private sector, member agencies, and regional partners to develop one or more EV fast charging pilots (e.g. for ride-hailing electrification, real-time pricing, “last mile”)

- **EV Incentives for Low Income**: Provide rebates for used EVs for low-income qualified customers in collaboration with Peninsula Clean Energy

- **EV Charging for Multi-Unit Dwellings**: Provide flexible grant offerings to address market gaps with multi-unit dwelling and small and medium business workplace charging

- **Fleet Electrification**: Support member cities and commercial customers in evaluating options to electrify their vehicle fleets

Legend:
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Proposed 2020 Priority

Mobility

* Indicates refinement from 2019 Roadmap programs

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- **EV Incentives for Low Income**: Provide rebates for used EVs for low-income qualified customers in collaboration with Peninsula Clean Energy

- **Priority Zone DC Fast Charging (pivoted from “EV Fast Charging Pilot Depots”)**: Issue a competitive solicitation for SVCE incentives for fast chargers in SVCE-defined priority zones to support MUD residents and corridors

- **Multi-Unit Residential Charging Technical Assistance**: Provide outreach, technical assistance and incentives to address market gaps with multi-unit dwellings

- **Small and Medium Workplace Charging Rebates**: Provide outreach, technical assistance and incentives to address market gaps with small and medium workplace charging

- **Fleet Electrification Grants**: Issue a competitive solicitation for SVCE support of fleet electrification plans and incentives for interested member cities and commercial customers

- **Peninsula-Silicon Valley CALeVIP**: $60M regional incentive program to provide rebates for EV charging infrastructure for L2 and DCFC

- **Silicon Valley Transportation Electrification Clearinghouse**: Form a regional working group with industry and agency stakeholders collaborating to resolve issues and attract funding

- **Regional EV Leadership Recognition**: Recognize organizations for EV infrastructure best practices and support them in taking their next step to further support EVs

Legend:
Approved 2019 Priority
Proposed 2020 Priority
Complete
Approved in Roadmap

Energy Efficiency & Grid Integration

• Virtual Power Plant: Procure capacity from “virtual power plants” made up of cloud-based aggregations of customer-cited resources to support grid integration and monetize value from connected, controllable loads

• Non-SVCE Programs: Promote existing, non-SVCE led energy programs through the Customer Resource Center and other channels.

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Education & Outreach

• **Customer Resource Center**: Develop customer resource center to enable engagement and awareness-building, education and action related to vehicle and building electrification.

• **Community Engagement Grants**: Partner with local organizations in underserved customer segments to promote SVCE accomplishments and programs.

Legend:
Approved 2019 Priority
Proposed 2020 Priority

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Innovation

• **Innovation Partners**: Engage with key strategic partners to participate in the local innovation ecosystem to provide a voice for SVCE customers and the decarbonization mission

• **Innovation Onramp**: Provide small grants to support innovation through pilot projects with external partners
Proposed 2020 Priority

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Civic Engagement Training Program

Discussion of Pilot Proposal
Executive Committee
January 31, 2020
Civic Engagement Training Program (CETP)

Working with local educators and elected officials, SVCE proposes to support development of a pilot training program for high school students on effective engagement in local public policy formation efforts.

**Program Objectives**

1. Help students learn about how to be effective local change makers, and the necessary skills.

2. Provide students with opportunities to apply skills in a supportive setting, gain confidence and influence policies of concern to them.

3. Design a supporting CETP program, execute a one-year pilot, assess results, and determine longer-term operating strategy.
Background

• Locally and globally, students are taking action on sustainability and climate issues – strong alignment with SVCE charter

• Students surveyed see barriers to participating in civic engagement
  o think their voice would not be heard
  o issues to be tackled seems too big
  o believe adults do not take youth seriously
  o no one ever asked

• 92% of 38 surveyed students indicated that they would like to influence local public policy
How will CETP complement existing youth initiatives in the community?

• Organizations in Silicon Valley are addressing similar issues, such as Silicon Valley Youth Climate Action, Young American Policy Advocates (YAPA), Project Citizen and more.

• SVCE’s CETP will complement these initiatives as an educational program rather than a student organization:
  - Participating students will gain skills and knowledge they can bring to organizations that they are already involved in and passionate about.

• Relative to the Project Citizen, the CETP will specifically offer local content and experts from the communities SVCE serves.
Proposed CETP Pilot Structure

Students start with Level 1, and have the option continue to Levels 2 and 3:

- **Level 1:** 2 hours of self study incl online communication with instructor

- **Level 2:** additional 2 hours of self study, and a 6-hour workshop

- **Level 3:** additional 2 hours of self study, an additional 6-hour workshop

- Workshops will be facilitated by a local educator and local elected official

- Students will gain knowledge on how to be successful change maker within their community and identify who inspires them.

- Students will learn how local governance operates and how the public can participate. In addition, students will practice public speaking in local city halls.

- Students will advance their learning on local processes and apply what they have learned by speaking or writing on the policies they are passionate about.
Eligibility, enrollment and topics

• Open to all high school students within Silicon Valley Clean Energy service area
  o Level 2 and 3 workshops will be held in specific cities

• SVCE proposes to have students choose topics of personal interest broadly focused on sustainability and climate. Example topics could also be provided by supporting instructors/elected officials, and City staff

• Modeled two scenarios:
  o **Low enrollment** case of 100 total students and 40 students complete Level 3
  o **High enrollment** case of 500 students and 60 students complete Level 3
Community Input and Key Questions

• In development of the program approach, input was received from many stakeholders, including educators, students, NGO’s and elected officials

• Key suggestions identified to include within the curriculum and program design phase:
  o include lessons from the book “Thinking Fast and Slow” within the curriculum such as behavioral economic and systems thinking
  o develop a plan for outreach to underserved youth to participate
  o include topics on “what are reasonable outcomes from civil engagement” within the curriculum
  o garner student feedback at the end of the program
  o include an initial orientation session for students
Proposed Pilot Timeline

**Spring/Summer**
- Establish Contract for development
- Develop content for the three courses
- Build online Level 1
- Create collateral materials
- Plan for Level 2 and Level 3 workshops

**Summer/Fall**
- Conduct Pilot Outreach
- Students Complete Level 1

**Winter**
- Host Level 2 workshop
- Interested students complete Level 2

**Winter/Spring**
- Host Level 3 workshop
- Interested students complete Level 3

**Spring**
- Evaluate the program
- Students can take what they learned and apply it to their interests

* Specific months are contingent on the timing of the program development
Roles and Resource Requirements

• An estimated 1100 to 1400 person-hours (0.6 – 0.7 FTE) would be required to develop and deliver the Civic Education Training Program (CETP) in its first year

• About 50% to 60% of person-hours would be devoted to one-time pre-launch and year-end evaluation activities

• Total costs include staff time, content development and workshop space and materials
SVCE Recommendations

- SVCE proposes to launch the pilot CETP program for the 2020/2021 school year

- SVCE recommends allocation of $92,000 to the launch the CETP pilot, assuming the high enrollment case
  - Low enrollment case estimate is $77,000
Questions?