Silicon Valley Clean Energy Authority
Executive Committee Meeting
Tuesday, July 25, 2017
11:30 am

Silicon Valley Clean Energy Authority Office
Conference Room
333 W El Camino Real, Suite 290
Sunnyvale, CA

AGENDA

Call to Order

Roll Call

Public Comment on Matters Not Listed on the Agenda

The public may provide comments on any item not on the Agenda. Speakers are limited to 3 minutes each.

Consent Calendar (Action)

1) Approve Minutes of the May 23, 2017, Executive Committee Meeting

Regular Calendar

2) Executive Committee Composition (Discussion)

3) SVCE Candidate Programs (Discussion)

4) FY 2017-18 Operating Budget (Discussion)

5) Proposed SVCE Process for 2018 Rate Adjustment (Discussion)

Committee/Staff Remarks

Adjourn

svcleanenergy.org
333 W El Camino Real
Suite 290
Sunnyvale, CA 94087
Silicon Valley Clean Energy Authority
Executive Committee Meeting
Tuesday, May 23, 2017
11:30 am

Silicon Valley Clean Energy Authority Office
Conference Room
333 W El Camino Real, Suite 290
Sunnyvale, CA

DRAFT MINUTES

Call to Order
Chair Rennie called the meeting to order at 11:42 a.m.

Roll Call
Present:
Chair Rob Rennie, Town of Los Gatos
Director Howard Miller, City of Saratoga
Director Liz Gibbons, City of Campbell
Director Rod Sinks, City of Cupertino
Director Margaret Abe-Koga, City of Mountain View

Absent:
Vice Chair Daniel Harney, City of Gilroy

Public Comment on Matters Not Listed on the Agenda
No speakers.

Consent Calendar
1a) Approve Minutes of the April 25, 2017, Executive Committee Meeting
MOTION: Director Miller moved and Director Gibbons seconded the motion to approve the Minutes of the April 25, 2017 Executive Committee Meeting as submitted.

The motion carried unanimously with Vice Chair Harney absent.

Regular Calendar
2) SVCE Policy Shift
CEO Tom Habashi introduced the item and addressed each topic individually.
**Rate design for 2019 and beyond**

CEO Habashi discussed the rate design initially adopted by the Board of Directors, and presented three options for changes to the rate policy: offer a 1-3% discount from PG&E and a dividend at the end of the year to customers, design rates that are responsive to various special interest groups, and offer the same rates as PG&E with a dividend.

CEO Habashi responded to Executive Committee questions regarding the options presented.

Chair Rennie opened public comment.

James Tuleya, Sunnyvale resident, spoke regarding PG&E’s rate design and his support for the first option. Tuleya spoke of PG&E’s plan for default time-of-use (TOU) rates for all residential customers in 2019 and recommended SVCE work closely with PG&E for an easier transition for customers. Tuleya provided additional information on rates and responded to Executive Committee questions.

Bruce Karney, Mountain View resident, spoke of his experience with dividends and his opinion on the rate options provided. Karney noted that he would like to see the remaining money go back to the community for climate change related activities. Karney noted that rate setting should be done thoughtfully, but shouldn’t be formulaic. Karney suggested that SVCE could use price signals to create customer preference for SVCE.

Chair Rennie suggested an option for commercial customers to donate the dividends to green programs; Executive Committee members expressed support for this idea.

Bruce Karney commented on his experience at a past employer regarding taxable and non-taxable programs and dividends.

Director Abe-Koga left the meeting at 12:40pm.

Director Miller requested staff provide a graph of E-1 residential rate changes throughout the year for PG&E, so that SVCE can see how their rates compare to PG&E rates.

**Power Supply Mix**

CEO Habashi presented staff recommendations for revising the power supply mix.

Director Gibbons requested staff and the SVCE Board ensure good communication with, and maintain support from, the Santa Clara County Board of Supervisors.

Chair Rennie opened public comment.

Bruce Karney commented on the proposal to reduce the percentage of SVCE’s eligible renewables. Karney noted that he would prefer the money allocated for dividends be used toward maintaining a power supply mix with a high renewable percentage. Karney commented on his belief that 30 percent renewable is not enough.

James Tuleya commented on his difficulty of defining renewables at community events and his support of staff’s recommendation to focus on being carbon free.
Chair Rennie closed public comment.

**Product Offerings**

CEO Habashi responded to questions from the Executive Committee regarding the proposed product offerings, particularly the option to shift from the current GreenPrime product to a 100 percent California carbon free product.

Executive Committee members and CEO Habashi discussed the usage of the term “renewable” and how it relates to public perception.

Chair Rennie opened public comment.
No speakers.
Chair Rennie closed public comment.

**Reserve Policy**

CEO Habashi discussed initial plans by the Board for a reserve policy, presented staff recommendations for revisions to the reserve policy, and responded to Executive Committee questions.

Don Eckert, Director of Administrative and Finance, provided additional information and responded to Executive Committee questions.

Executive Committee members and CEO Habashi discussed the reserves in relation to dividends and the Power Charge Indifference Adjustment (PCIA).

Chair Rennie opened public comment.
No speakers.
Chair Rennie closed public comment.

**Committee/Staff Remarks**

Chair Rennie suggested a future agenda item to send a recommendation to ask City councils to change time of charging for City-owned charging stations.

Director Gibbons noted that a majority of Campbell’s charging stations are privately owned.

Executive Committee members were in consensus that a discussion on charging stations should be brought to the Board.

Alan Suleiman, Director of Marketing & Public Affairs, provided additional information on charging stations and responded to Executive Committee questions.

**Adjournment**

Chair Rennie adjourned the meeting at 1:30 p.m.
To: Silicon Valley Clean Energy Authority Executive Committee

From: Tom Habashi, CEO

Item 2: Executive Committee Composition

Date: 7/25/2017

BACKGROUND & DISCUSSION
Staff is proposing a revision to the Executive Committee to be comprised of the Chair, Vice Chair, and three additional Board members for a total of five members.

The Executive Committee previously consisted of six members, but due to the overlap of some Board member committee assignments it would be more practical to reduce the number to five. Director Miller, who also serves on the Risk Oversight Committee and Audit & Finance Committee, has offered resignation from his position on the Executive Committee.

Reducing the number of members in the Executive Committee will allow for less overlap of Directors serving on other SVCE committees.

ATTACHMENTS
1. Director Miller Email Re: Resignation from the SVCE Executive Committee
-------- Original message --------
From: Howard Miller
Date: 6/16/17 11:15 AM (GMT-08:00)
To: Rob Rennie
Cc: Tom Habashi, James Lindsay
Subject: Resignation from the SVCE Executive Committee

Chair Rennie:

This eMail is to codify our discussion regarding my committee assignments within Silicon Valley Clean Energy. With my recent appointment to the newly formed Finance Committee and my ongoing assignment to the Risk Oversight Committee, I am resigning my position on the Executive Committee. While my enthusiasm for SVCE is unbounded, my time is not. 3 committee assignments is an excessive load for me at this time.

That said, as always, I will continue to do what it takes to help SVCE be successful and I look forward to my new assignment on the Finance Committee.

Regards,

Howard Miller
Staff Report – Item 3

To: Silicon Valley Clean Energy Authority Executive Committee
From: Tom Habashi, CEO

Item 3: SVCE Candidate Programs
Date: 7/25/2017

BACKGROUND

In July 2016, staff recommended to dedicate 1% of SVCE’s revenue to implement customer programs and committed to provide a list of candidate programs by summer 2017.

Staff also conducted a monthly sustainability managers roundtable meeting to receive input on shaping and prioritizing the program evaluation criteria, as well as the areas of focus.

ANALYSIS & DISCUSSION

Staff has taken several steps in preparing this list of candidate programs. The first step was identifying a clear set of program evaluation criteria. Each of these criteria represent important aspects of SVCE’s strategic goals, and each candidate program should rank favorably against all, or most, criteria to ensure the program will be beneficial to SVCE customers. The program evaluation criteria are as follows:

- **GHG Reduction** – directly measurable and attributable carbon reduction, and addressable potential
- **Unit Cost** – SVCE unit cost of GHG reduction, after leverage of 3rd-party resources
- **Time to Value** – speed, level and likelihood of achieved customer value
- **Grid Performance** – improved grid resources and demand alignment to optimize use of clean energy
- **Community Engagement** – local stakeholder sponsorship, and beneficial visibility within the community
- **Market Transformation** – uniquely addresses critical need(s) in development of essential new markets

Each of the candidate programs have been researched and vetted through the steps listed above, and have been categorized into the following three areas:

1. Electrification
2. Demand Management
3. Foundational Programs

Electrification programs focus on fuel switching and tackling carbon emissions from other industries, such as transportation and gas heating.

Demand management programs will help our customers to manage electricity use smarter to take advantage of when prices are lowest, or to improve grid performance by using electricity when there is less congestion or take advantage of high solar production times.
Foundational programs represent ongoing programs that SVCE’s customer care team will provide on an ongoing basis. These programs will provide continual load building and carbon reduction, support our member communities, and provide education and awareness for residential and commercial customers.

**FISCAL IMPACT**
Pending the Board’s approval for the proposed FY 17-18 budget, two percent of SVCE’s annual operating revenue has been committed to programs, approximately $5 million.

**ATTACHMENTS**
1. Program Briefs: Connected Homes Energy and Demand Management, Commercial Demand Management, and SVCE GHG Inventory Data and Metrics.
2. SVCE Candidate Program Summaries
<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Connected Homes Energy and Demand Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Class</strong></td>
<td>Demand Management</td>
</tr>
<tr>
<td><strong>Alignment</strong></td>
<td>Strategic Plan 5.2 and 5.3 Establish an SVCE decarbonization program roadmap and related processes. Develop and conduct SVCE programs that promote decarbonization via fuel switching to clean electricity, and improved energy efficiency</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>Reduce GHG through home energy management by curtailing electric load during summer peaks (lowering ramp-up load) and reducing gas heating during winter to reduce natural gas consumption and thus lowering GHG’s</td>
</tr>
<tr>
<td><strong>Market</strong></td>
<td>Residential – All residential customers with an existing connected T-stat, and participants in rebated T-stats (25,000 customers estimated)</td>
</tr>
<tr>
<td><strong>Est. Launch</strong></td>
<td>8/10/2017</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>Reduce 530 MT of CO2 based on 25,000 winter participants (3% of HVAC savings per home = 100,000 therms at 0.005302 metric ton of CO2 per therm)</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Through one or more third parties, promote, rebate and enlist a user friendly automated home thermostat to reduce energy consumption throughout a season, with a future capability to encourage on demand energy reduction or increase consumption based on available carbon free energy.</td>
</tr>
<tr>
<td><strong>Stakeholder Engagement</strong></td>
<td>Nest staff, customer base.</td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>Thru Dec 2017: $75,000 Thru Dec 2018: $175,000</td>
</tr>
<tr>
<td><strong>Metrics</strong></td>
<td># of enrollees, lbs of GHG, MWH/Therms saved</td>
</tr>
<tr>
<td><strong>Exit Strategy</strong></td>
<td>Transition to DR and ADR phase in 2-4 seasons utilizing Rush hour rewards and Sun shine savings (rates or incentives)</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>Program manager 0.25 FTE of existing staff Marketing/outreach Social media, member agencies websites, vendor co-marketing IT Website, email blasts Integrate enrollees in CRM Accounting Process contract with third parties, vendor payments and rebates</td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td>Board</td>
</tr>
</tbody>
</table>

*Silicon Valley Clean Energy*
<table>
<thead>
<tr>
<th>Title</th>
<th>Commercial Demand Management - &quot;Peak Day Pricing&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Class</td>
<td>Demand Management</td>
</tr>
<tr>
<td>Alignment</td>
<td>2.1 Provide carbon free electricity to additional customers in the SVCE service area and increase market share 5.3 Develop and conduct SVCE programs that promote decarbonization via fuel switching to clean electricity, and improved energy efficiency</td>
</tr>
<tr>
<td>Strategy</td>
<td>Develop SVCE focused DR initiative to provide proper economic motivation for customer usage matching to grid resources, reduce ramp up, and increase SVCE trusted advisor role.</td>
</tr>
<tr>
<td>Market</td>
<td>Commercial customers with controllable loads</td>
</tr>
<tr>
<td>Est. Launch</td>
<td>9/1/2017</td>
</tr>
<tr>
<td>Goal</td>
<td>20 C&amp;I Customers</td>
</tr>
<tr>
<td>Description</td>
<td>Using 3rd party partner, mirror existing PG&amp;E demand response program called Peak Day Pricing (PDP) for which SVCE customers are not currently eligible. Customers may opt in for the proposed PDP mechanism provided by SVCE including risk for using more on peak event days and rewards for minimizing usage when grid is congested.</td>
</tr>
<tr>
<td>Stakeholder Engagement</td>
<td>Current PG&amp;E PDP customers, other CCAs</td>
</tr>
<tr>
<td>Budget</td>
<td>Thru Dec 2017: $300,000 Thru Dec 2018: $300,000</td>
</tr>
<tr>
<td>Metrics</td>
<td>Compare 2016 behavior with 2017 behavior</td>
</tr>
<tr>
<td>Exit Strategy</td>
<td>As pricing migrates closer to real-time pricing, this may not be necessary. Or, if participation or satisfaction low.</td>
</tr>
<tr>
<td>Resources</td>
<td>Website update, Tariff sheet, PG&amp;E data transfers</td>
</tr>
<tr>
<td>Program manager</td>
<td>TBD</td>
</tr>
<tr>
<td>Marketing/outreach</td>
<td>Outreach to large A10, E19 and E20 customers via existing Accounts team</td>
</tr>
<tr>
<td>IT</td>
<td>Interval data and data management via 3rd party</td>
</tr>
<tr>
<td>Accounting</td>
<td>Process contract with 3rd party provider and customer payments.</td>
</tr>
<tr>
<td>Approvals</td>
<td>Board</td>
</tr>
</tbody>
</table>
Related Information about demand management options:

<table>
<thead>
<tr>
<th>Related Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity Bidding</strong></td>
<td>Day ahead or day of curtailment during utility Summer. SVCE provides a curtailment commitment. Reward/penalty system. SVCE customers can already do this with PG&amp;E.</td>
</tr>
<tr>
<td><strong>Automated Demand Response</strong></td>
<td>Rebate for installing equipment needed for participating in DR programs.</td>
</tr>
<tr>
<td><strong>Permanent Load Shift</strong></td>
<td>Thermal energy storage (ice maker/chilled water storage). SVCE can do this with PG&amp;E.</td>
</tr>
<tr>
<td><strong>Demand Response Auction Mechanism</strong></td>
<td>Sellers will bid aggregated demand response directly into the CAISO day-ahead energy market.</td>
</tr>
<tr>
<td><strong>Scheduled Load Reduction</strong></td>
<td>Pays you to reduce your electric load during pre-selected time periods that you specify in advance.</td>
</tr>
<tr>
<td><strong>Optional Binding Mandatory Curtailment</strong></td>
<td>Penalty based system with only reward being exemption from rotating blackout.</td>
</tr>
<tr>
<td><strong>Tariff companion</strong></td>
<td>Providing a proper tariff based on PG&amp;E annual hourly costs - like real-time pricing.</td>
</tr>
</tbody>
</table>
2017 Hourly Marginal Generation Costs

- Current Summer Non-Residential Peak
- Proposed Year Round Non-Residential Peak

*Under consideration at CPUC

Detailed description of PG&E's GRC Marginal Energy Cost Model is in Chapter 2 testimony in Exhibit PG&E-9, Vol 1, available by searching for GRC Phase II Testimony from PG&E file on 12/02/16 at [https://sfgov.sanfrancisco.gov/Public/Reports](https://sfgov.sanfrancisco.gov/Public/Reports).
Conceptual Representation of the Risk-Reward Tradeoff in Time-Varying Rates

Potential Reward (Discount from Flat Rate) vs. Risk (Variance in Price)

- Flat Rate: Less Risk, Lower Reward
- Inclining Block Rate: More Risk, Higher Reward
- Seasonal Rate
- TOU
- Super Peak TOU
- RTP

Source: Faruqui et al., 2011
<table>
<thead>
<tr>
<th>Title</th>
<th>SVCE GHG Inventory Data and Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Class</td>
<td>Foundational</td>
</tr>
<tr>
<td>Alignment</td>
<td>Required to support Strategic Plan Goal #5: Work with the community to achieve energy and transportation-related GHG reductions of 30% from 2015 baseline by 2021</td>
</tr>
<tr>
<td>Strategy</td>
<td>Strategy 5.1: Utilize local GHG data and key ‘clean electric’ operating measures to guide SVCE program activities 1) Document 2015 baseline GHG inventory data related to energy and transportation for the SVCE service territory, by January 2018; 2) Identify and document Climate Action Plan (CAP) goals and measurement methods relevant to SVCE, and quantify penetration of related ‘clean electric’ infrastructure by Q1 2018; 3) Establish and document an initial set of SVCE ‘clean electric’ operating metrics and targets, where related to an SVCE program by Q1 2018; 4) Support local GHG accounting efforts and customer GHG accounting (e.g. Power Content Label)</td>
</tr>
<tr>
<td>Market</td>
<td>For use by SVCE, and partnering jurisdictions</td>
</tr>
<tr>
<td>Est. Launch</td>
<td>9/1/17</td>
</tr>
<tr>
<td>Goal</td>
<td>Establish baseline energy and transportation-related emissions data and key metrics for the service territory, and processes for ongoing annual tracking</td>
</tr>
<tr>
<td>Description</td>
<td>Retain expert consulting services to support initial definition of required inventory and metrics data, identification of activity data sources; tools and processes for annual collection, analysis, reporting and archiving; and development of initial datasets for 2015 baseline, and calendar year 2017.</td>
</tr>
<tr>
<td>Stakeholder Engagement</td>
<td>Sustainability Managers, Public Works, Developers, Architects</td>
</tr>
</tbody>
</table>
| Budget | Thru Dec 2017: $50,000  
Thru Dec 2018: $50,000 |
| Metrics | GHG emissions, storage capacity, DG, charging stations |
| Exit Strategy | Ongoing need throughout SVCE service life |
| Criteria | GHG Reduction: n/a  
Unit Cost: n/a  
Grid Stability: n/a  
Comm. Engagement: Med  
Mrkt Transformation: Med  
Time to Value: Med |
| Resources | Program manager: 0.25 FTE  
Marketing/outreach  
IT: Tools for developing and maintaining inventory data  
Accounting: Process contract with third parties, vendor payments  
Approvals: Board |
SVCE CANDIDATE PROGRAM SUMMARIES

**Electrification**

**MUD/Workplace EV Charging Assist**

**Goal:** Implement 100 charging points at 10 sites that are vetted for meter location, parking location, ADA, and feasibility.

**Summary:** PG&E will soon offer a “make-ready” EV charging program. MUDs and Workplaces will have to qualify for this program to participate. SVCE would like to maximize investment within our service area. Release Request for Qualifications (RFQs) for contractors capable of vetting customer locations for PG&E EV charge station program feasibility. SVCE will also offer assistance to customers in completing PG&E applications.

**Estimated Cost:** $10,000 (2017); $30,000 (2018)

**EV Pilot Program (rebate new & used EV’s)**

**Goal:** Reduce GHG emissions and increase the market share of Electric Vehicles within our service area.

**Summary:** Work with dealers to provide rebates for EVs, develop a user-friendly platform for SVCE customers to purchase or lease EVs and provide dealers with training/education on EVs. In addition to this, we will connect this program with the existing Smart Charging program.

**Estimated Cost:** $20,000 (2017); $1,200,000 (2018)

**EV Seed Program**

**Goal:** Place 10 used EVs + charging stations + Ride share app in mobile home parks and Multi-Unit Dwellings (MUDs) across the SVCE service area.

**Summary:** Place 10 used EVs as well as charging stations in MUDs and mobile home parks across our service area. Implement a ride sharing app to allow for carpooling within the communities as well as usage/satisfaction data collection.

**Estimated Cost:** $100,000 (2017); $50,000 (2018)

**Heat Pump Water Heaters**

**Goal:** Install 200 Electric Heat Pump Water Heaters in 2018

**Summary:** Increase the adoption of HPWH by providing a cash incentive and technical guidance to developers and installers. This program would reduce construction costs for new projects and lower dependence on natural gas in the built environment.

**Estimated Cost:** $80,000 (2017); $400,000 (2018)
SVCE eBike Share Pilot
Goal: Increase usage of electric bikes for commuting and other purposes within our service area.
Summary: Collaborate with manufacturers and bike share companies to create an eBike share pilot program. Locate bike sharing/charge points on corporate campuses in order to increase usage of electric bikes and product awareness.

Estimated Cost: $50,000 (2017); $30,000 (2018)

Demand Management

Managed EV Charging
Goal: Reduce GHG while improving grid stability by managing the demand of electric vehicle charging through smart Electric Vehicle Supply Equipment (ESVE).
Summary: Through one or more 3rd parties, promote, rebate and enlist a user friendly automated home and workplace EVSE to dynamically reduce energy consumption to encourage on demand charge reduction or increase charging based on available carbon free energy and market availability of clean energy.

Estimated Cost: $60,000 (2017); $180,000 (2018)

Commercial Demand Management/Peak Day Pricing
Goal: Provide proper economic motivation for customer usage matching to grid resources.
Summary: Develop a demand management program that incorporates peak-time rebates and/or real-time pricing tariffs that can be overlaid on the PG&E peak-time tariffs to correct for inconsistencies and inaccuracies in PG&E’s price structure. SVCE to develop unique tariff to overlay on PG&E to correct the inconsistency. Allow access for only large E-19/E-20 rate customers who participated in PDP.

Estimated Cost: $300,000 (2017); $300,000 (2018)

Commercial vs Utility Scale Battery Storage Study
Goal: Investigate and understand various storage strategies
Summary: Commission a study to engage one or more large commercial customers in deploying a behind the meter 4-hour storage pilot at 200KW to 500KW (800KWh to 2MWh) and analyze the stacked benefits of such deployment versus a utility scale storage system. Engage these customers with vendors and understand the role that CCAs can have in facilitating such a deployment and monetize grid services.

Estimated Cost: $100,000 (2018)

Foundational Programs

DA Local Customer Pilot
Goal: Enlist local Direct Access customers to SVCE generation service to increase market share and improve business’s clean electricity content.
Summary: Establish new SVCE service model for providing electricity to DA customers, allowing customers to maintain their current DA status and vintage; DA service model may include new/distinct processes for data management, billing, partner participation (PG&E, SVCE suppliers and vendors), contracting and contractual obligations.

Estimated Cost: $100,000 (2017); self-funded (2018+)
SVCE GHG Inventory Data and Metrics
Goal: Establish baseline energy/transportation related emissions data and key metrics to improve/support ongoing annual GHG tracking.
Summary: Retain expert consulting services to support initial definition of required inventory and metrics data, identification of activity data sources; tools and processes for annual collection, analysis, reporting and archiving; and development of initial datasets for 2015 baseline, and calendar year 2017. Collect metrics on distributed generation, charging stations and storage throughout SVCE territory.

Estimated Cost: $50,000 (2017); $50,000 (2018)

Model Ordinances
Goal: Draft template ordinances focused on electrification and decarbonization for our member communities to more easily adopt.
Summary: Enlist 3rd party expert to aid in the drafting of ordinances focused on regulations in the building and transportation sectors that will aid the adoption of green technologies and practices. Leveraging SVCE board and member communities’ Sustainability Managers; establish mechanism for ongoing evaluation and development.

Estimated Cost: $100,000 (2017); $100,000 (2018)

Decarbonization Series – A Power Network of Silicon Valley Energy Professionals. Commercial education program
Goal: Create a knowledge-sharing group of energy professionals on best practices and new tech to help make their businesses more efficient and carbon-free
Summary: This workshop series, hosted four-to-five times a year (every other month, skipping holidays) will include a specific topic, speaker or company to share information about available or new technologies to improve energy efficiency, demand management and fuel-switching. The workshops could take the form of presentations, discussions and tours of projects and facilities of interest.

Estimated Cost: $5,000 (2017); $20,000 (2018)

SVCE Energy Experts - an SVCE residential education program
Goal: Increase awareness and support of SVCE by residential customers
Summary: Develop an education program where SVCE offers 4 meetings a year with a class of up to 40 participants. These classes would teach about all things energy in California and qualify participants for a Resident Energy “expert” Certificate after the 4th and final class.

Estimated Cost: $10,000 (2017); $30,000 (2018)
Staff Report – Item 4

To: Silicon Valley Clean Energy Authority Executive Committee

From: Tom Habashi, CEO

Item 4: FY 2017-18 Operating Budget

Date: 7/25/2017

BACKGROUND
The Proposed Annual Operating Budget for FY 2017-18 is being provided to the Executive Committee for consideration and feedback. Staff is scheduled to present the Proposed Operating Budget at the Board of Directors meeting on August 9th.

ANALYSIS & DISCUSSION
The FY 2017-18 Proposed Operating Budget features the first full year of operations for Silicon Valley Clean Energy (SVCE) as the Agency converts from start-up phase into normal state. The Proposed Operating Budget presents SVCE in stable financial condition. The projected balance available for reserves is $40.6 million or $10.7 million higher than the FY 2016-17 Mid-Year Budget.

Revenues
Revenues are projected at $240.1 million, nearly all of which are derived from the sale of energy.

- Energy sales are projected at $239.5 million, $13.8 lower than forecasted in March 2017. This is due to a 16% anticipated increase in 2018 of the Power Cost Indifference Adjustment (PCIA) and the lowering of Pacific Gas & Electric (PG&E) generation rates of 1.5% with the continued commitment that SVCE will remain 1% lower than PG&E rates.
- GreenPrime premium revenues are projected at $0.4 million with an expectation that 2% of total accounts will partake.
- Investment Income is projected at $0.2 million.

Operating Expenses
Operating expenses are projected at $192.0 million, comprised primarily of power supply purchases, data management, and billing services. Less than 6% of operating expenses, are for expenses not directly related to power supply.

- Power Supply costs are projected at $181.1 million. The majority of our power supply is under contract as required by the risk management policy.
- Data Management and Billing Services costs are projected at $4.3 million. These costs are fixed prices per account.
- Employment Expenses are projected at $4.3 million. Included is a 3% across-the-board wage increase. The addition of two new positions include:
  o Associate Regulatory Analyst to support the agency’s role in the regulatory arena.
  o Administrative Analyst with a focus on human resources to support a larger staff count.
- Professional Services costs are projected at $1.4 million. This is a decrease of 23% compared to the FY 2016-17 Mid-Year Budget. Highlights include support for power supply, regulatory issues, annual financial audit and legal support.
• Marketing & Promotions costs are projected at $0.3 million to support community engagement and brand recognition.
• Notifications costs are projected at $0.1 million with the majority of the costs due to the required joint mailer effort with PG&E.
• Lease costs is mostly for rent of SVCE’s current facility.
• General and Administrative costs include travel and compensation for Board members.

Programs
The Programs budget is projected at $4.7 million or 2% of projected energy sales. The budget will reconcile to specific programs after staff presents and receives feedback from the Board of Directors at the August Board meeting.

Capital
There are no major capital purchases expected in FY 2017-18.

Debt Service
Debt Service includes the expectation of paying off the $2.7 million Member Agency loan. No new debt is anticipated in FY 2017-18.

ATTACHMENTS
1. FY 2017-18 Proposed Operating Budget
## SILICON VALLEY CLEAN ENERGY
### FY 2017-18 PROPOSED BUDGET
#### ($ IN THOUSANDS)

<table>
<thead>
<tr>
<th>Line</th>
<th>DESCRIPTION</th>
<th>FY 2016-17 AMENDED BUDGET</th>
<th>FY 2017-18 PROPOSED BUDGET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>REVENUES</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Energy Sales</td>
<td>103,303</td>
<td>239,486</td>
</tr>
<tr>
<td>2</td>
<td>Green Prime Premium</td>
<td>247</td>
<td>440</td>
</tr>
<tr>
<td>3</td>
<td>Investment Income</td>
<td>16</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>TOTAL REVENUES</td>
<td><strong>$103,566</strong></td>
<td><strong>$240,126</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>EXPENSES</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Power Supply</td>
<td>66,671</td>
<td>181,120</td>
</tr>
<tr>
<td>6</td>
<td>Data Management</td>
<td>1,030</td>
<td>3,095</td>
</tr>
<tr>
<td>7</td>
<td>PG&amp;E Fees</td>
<td>430</td>
<td>1,210</td>
</tr>
<tr>
<td>8</td>
<td>Employment Expenses</td>
<td>1,902</td>
<td>4,251</td>
</tr>
<tr>
<td>9</td>
<td>Professional Services</td>
<td>1,730</td>
<td>1,339</td>
</tr>
<tr>
<td>10</td>
<td>Marketing &amp; Promotions</td>
<td>235</td>
<td>295</td>
</tr>
<tr>
<td>11</td>
<td>Notifications</td>
<td>410</td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>Lease</td>
<td>245</td>
<td>315</td>
</tr>
<tr>
<td>13</td>
<td>General &amp; Administrative</td>
<td>125</td>
<td>251</td>
</tr>
<tr>
<td>14</td>
<td>TOTAL EXPENSES</td>
<td><strong>$72,778</strong></td>
<td><strong>$191,976</strong></td>
</tr>
<tr>
<td>15</td>
<td>TOTAL EXPENSES W/O POWER SUPPLY</td>
<td><strong>$6,107</strong></td>
<td><strong>$10,856</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>ENERGY PROGRAMS</strong></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Various Programs</td>
<td>400</td>
<td>4,790</td>
</tr>
<tr>
<td>17</td>
<td>TOTAL ENERGY PROGRAMS</td>
<td><strong>$400</strong></td>
<td><strong>$4,790</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CAPITAL INVESTMENT</strong></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Facility Equipment</td>
<td>250</td>
<td>50</td>
</tr>
<tr>
<td>20</td>
<td>TOTAL CAPITAL INVESTMENT</td>
<td><strong>$250</strong></td>
<td><strong>$50</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>DEBT SERVICE</strong></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Financing</td>
<td>77</td>
<td>-</td>
</tr>
<tr>
<td>22</td>
<td>Interest</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Principal</td>
<td>-</td>
<td>2,730</td>
</tr>
<tr>
<td>24</td>
<td>TOTAL DEBT SERVICE</td>
<td><strong>$161</strong></td>
<td><strong>$2,730</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CASH INFLOWS/(OUTFLOWS)</strong></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>CPUC Deposit</td>
<td>(100)</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>TOTAL CASH INFLOWS/(OUTFLOWS)</td>
<td><strong>$100</strong></td>
<td><strong>$0</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>FUND BALANCE</strong></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Net Increase / (Decrease)</td>
<td>29,877</td>
<td>40,580</td>
</tr>
<tr>
<td>28</td>
<td>Beginning Balance Oct 1</td>
<td>(991)</td>
<td>28,886</td>
</tr>
<tr>
<td>29</td>
<td>ENDING BALANCE AT SEPT 30</td>
<td><strong>$28,886</strong></td>
<td><strong>$69,466</strong></td>
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</table>
Staff Report – Item 5

To: Silicon Valley Clean Energy Authority Executive Committee
From: Tom Habashi, CEO

Item 5: Proposed SVCE Process for 2018 Rate Adjustment

Date: 7/25/2017

BACKGROUND
During its June 2016 meeting, the SVCE Board approved a policy to set electric rates at 1% below the generation rates offered by PG&E on January 1, 2017. The Board also approved that the rates established for 2017 remain in effect through December 2018. The policy allows reexamination of the rates during the first two years of operation, provided significant deviations in market prices or other extraordinary circumstances mandate an adjustment to the rates.

On January 11, 2017, the SVCE Board approved a full set of detailed SVCE generation rates effective April 1, 2017. These rates currently remain in effect.

In June 2017, PG&E published initial estimates for its 2018 rates. PG&E projects a 16% increase to the Power Charge Indifference Adjustment (PCIA), and an estimated 1.5% decrease in generation rates, effective January 1, 2018. If these changes go into effect as currently projected, SVCE rates will need to be reduced by approximately 6% to maintain a 1% savings level for SVCE customers when compared to comparable PG&E generation rates.

PG&E’s estimated rates for 2018 will be updated again in late August or early September 2017, in PG&E’s Annual Electric True-Up (AET) filing. This filing will present detailed estimates for all rate schedules, covering all customer classes and rate components. Estimated changes to the PCIA will be updated in November 2017, and finalized PG&E rates for 2018 will be published on/near December 31, 2017.

SVCE seeks to adjust its rates for 2018 on or as close to January 1, 2018 as possible, to maintain a price structure that is consistent and competitive with PG&E. To do so will require mitigation of potential delays associated with when PG&E’s detailed 2018 rates and PCIA are known, required SVCE Board approval of new rates, and the lead time required to update and test new rates in SVCE’s third-party billing systems (Calpine Energy Solutions).

ANALYSIS & DISCUSSION

Rate Design Methodology
For 2018, SVCE will maintain the same methodology used to calculate 2017 rates. Each PG&E generation rate or generation rate component was reduced by 1%, and the PG&E customer surcharges were subtracted, yielding the SVCE generation rate. Therefore, the SVCE generation rate is below the PG&E equivalent rate, and the resulting SVCE generation rates allow for the participating customer’s generation cost to be reduced despite the imposition of the PG&E customer surcharges.

SVCE’s rate design approach has the advantages of easy comparability and ease of customer communications in that the generation cost discount is the same, on a percentage basis, for all customers. Such comparability has helped ease the transition for customers to SVCE service, ensure similar rate benefits are obtained by all participating customers, and ensure compatibility of SVCE rates with the PG&E delivery rates will continue to
apply to SVCE customers.

SVCE’s current rate structure includes a total of 37 separate rate schedules, corresponding to the number of distinct PG&E generation rate options. To facilitate cost comparisons, the SVCE generation rate schedule also lists the applicable PG&E customer surcharges (Power Charge Indifference Adjustment and Franchise Fee Surcharge) that PG&E will impose directly on SVCE customers’ bills.

To illustrate the rate design approach underlying the proposed rates, the following example (using hypothetical rates) shows how each rate component is designed for the E-19 rate schedule, the default rate schedule applicable to large commercial customers. The PCIA and FFS surcharges are applied on a per kWh basis and the SVCE energy charges are reduced to offset these charges. No additional PG&E surcharges apply to demand charges, so no adjustment is necessary for SVCE’s demand charges.

Table 1: Rate Design Example, Schedule E-19S

<table>
<thead>
<tr>
<th>Rate Component</th>
<th>PG&amp;E Generation</th>
<th>PCIA</th>
<th>FFS</th>
<th>SVCE GreenStart Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENERGY CHARGE</td>
<td>($/kWh)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer Peak</td>
<td>$0.12552 *0.99</td>
<td>$0.01889</td>
<td>$0.00064</td>
<td>$0.10473</td>
</tr>
<tr>
<td>Part-Peak</td>
<td>$0.08501 *0.99</td>
<td>$0.01889</td>
<td>$0.00064</td>
<td>$0.06463</td>
</tr>
<tr>
<td>Off-Peak</td>
<td>$0.05819 *0.99</td>
<td>$0.01889</td>
<td>$0.00064</td>
<td>$0.03808</td>
</tr>
<tr>
<td>Winter Part-Peak</td>
<td>$0.07871 *0.99</td>
<td>$0.01889</td>
<td>$0.00064</td>
<td>$0.05915</td>
</tr>
<tr>
<td>Off-Peak</td>
<td>$0.06423 *0.99</td>
<td>$0.01889</td>
<td>$0.00064</td>
<td>$0.04467</td>
</tr>
<tr>
<td>DEMAND CHARGE</td>
<td>($/kW)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer Peak</td>
<td>$12.63 *0.99</td>
<td>N/A</td>
<td>N/A</td>
<td>$12.50</td>
</tr>
<tr>
<td>Part-Peak</td>
<td>$3.12 *0.99</td>
<td>N/A</td>
<td>N/A</td>
<td>$3.09</td>
</tr>
</tbody>
</table>

Consistent with 2017, it is anticipated that 37 rate schedules will again be published for 2018, covering most SVCE customers. In isolated cases where a customer is receiving electric service at primary voltage, with load characteristics that qualify them for rates applicable to customers receiving electric service at secondary voltage, they will receive 4% discount on their electric generation cost. This is unusual, and applies to less than 10 customers in SVCE service territory.

100% Renewable Energy Option
The GreenPrime rate for 2018, SVCE’s 100% renewable energy option, will remain unchanged from 2017. It is designed based on the incremental costs of supplying energy solely from eligible renewable generation sources and would add an additional per kWh charge to the bills of customers selecting this option. The charge is equivalent to the per unit cost difference between the default energy mix of 50% eligible renewable/100% carbon free energy and the 100% eligible renewable energy mix. This premium is calculated to be $0.008 per kWh, which would be added to the otherwise applicable rate for the default GreenStart service offering.

Pro Forma Projections
Revenues at the proposed rates are projected to yield a net operating margin of approximately 18% during calendar year 2018.

Timing and Approach for 2018 Rate Updates
To minimize the potential delays associated with the release of PG&E 2018 rate data, SVCE Board approval of new rates, and the lead time required to update rates in SVCE’s third-party billing systems, one of several alternative approaches can be taken:

1) 2018 SVCE rates effective Jan 1, 2018 are established based on projected (versus actual) PG&E rates
    Under this approach, the Board would approve new 2018 rates at/before the December 13th Board meeting based on the best estimates of PG&E’s projected rates and PCIA for 2018 as of the beginning of December, which should be close (in the aggregate) to what PG&E will ultimately finalize. Calpine would
implement the 2018 rates in the billing system, effective as of January 1st, 2018.

2) Two-step update process, with SVCE rates effective Jan 1, 2018, and adjusted/finalized rates Feb 1, 2018
Under this approach, similar to Approach 1, the Board would approve new 2018 rates at/before the December 13th Board meeting based on the best estimates of PG&E’s projected rates and PCIA for 2018 as of the beginning of December, which should be close (in the aggregate) to what PG&E will ultimately finalize. Calpine would implement the 2018 rates in the billing system, effective as of January 1st, 2018; If and where there are substantives in SVCE’s 2018 rates and the 1% savings pegged to PG&E’s finalized rates effective January 1, 2018 (meaning savings greater than 1.1% or lower than 0.9%), the 2018 rates will be selectively adjusted, and approved as the final 2018 rates at the January 10, 2018 Board meeting. Where adjustments to rates are made, they would be implemented in the billing system by Calpine and become effective as of February 1st, 2018.

3) SVCE 2018 rates finalized Jan 1, 2018 based on actual PG&E rates, and made effective Jan 15, 2018
SVCE 2018 rates are ‘pre-approved’ within a designated range at the December 13th, 2017 BOD meeting. The range will be based on the best PG&E rate estimates and PCIA data available as of the beginning of December, which should be close (in the aggregate) to what PG&E will ultimately finalize. Detailed SVCE rates will then be established on January 1st, when PG&E’s detailed 2018 rates are published. These will be loaded into SVCE’s billing systems and made effective as of January 15, 2018.

4) SVCE 2018 rates implemented Jan 15, 2018 based on actual PG&E rates, made retroactive to Jan 1, 2018
SVCE 2018 rates are ‘pre-approved’ within a designated range at the December 13th, 2017 BOD meeting. The range will be based on the PG&E rate estimates and PCIA data available as of the beginning of December, which should be close (in the aggregate) to what PG&E will ultimately finalize. Detailed SVCE rates will then be established on January 1st, when PG&E’s detailed 2018 rates are published. These will be loaded into SVCE’s billing systems as of January 15, 2018. Charges between January 1st and January 15th are then backed out and re-billed on a subsequent invoice, using the 2018 rates.

Each of the four alternative approaches has advantages and disadvantages. The second approach is most preferable. While this means that some rate schedules or rate components will likely need to be updated more than once, all rates will be substantially updated and effective as January 1st, 2018 delivering significant rate reductions to all customers in line with PG&E’s anticipated movements in rates and PCIA. In January, the 2018 rates are adjusted if/where necessary to remain pegged to PG&E with a 1% savings. A February rate update will likely be required for some rates, but this will not involve a retroactive rate adjustment.

FISCAL IMPACT
The adoption of rates will have an impact on the finances of Silicon Valley Clean Energy as described in the Pro Forma Projections section of the staff report.

CONCLUSION
Option 2 offers the best means to ensure that SVCE rates will remain at 1% below PG&E and will be established at the same time PG&E is updating their rates. Based on current projections, SVCE’s rates for 2018 are projected to yield sufficient revenues to cover anticipated SVCE program power supply and other costs, and generate a surplus that will contribute to operation of a financially healthy organization.