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)

1a) Approve Minutes of the December 12, 2018, Board of Directors Meeting
1b) Receive November 2018 Treasurer Report
1c) Appoint SVCE Treasurer/Auditor and Board Secretary for 2019
1d) Approve Amended Energy Risk Management Policy
1e) Approve Amendment to Financial Policy 6 - Purchasing Policy to Grant the Authority of the CEO to Execute Contracts Implementing the Decarbonization Strategy and Programs Roadmap

Regular Calendar

2) CEO Report (Discussion)
3) Elect a Chair and Vice Chair of the SVCE Board of Directors for 2019 (Action)
4) Appoint Directors to the SVCE Executive Committee for 2019 (Action)
5) Executive Committee Report (Discussion)
6) Finance and Administration Committee Report (Discussion)
7) Legislative Ad Hoc Committee Report (Discussion)

8) Audit Committee Report (Discussion)

Board Member Announcements and Direction on Future Agenda Items

Public Comment on Closed Session

The public may provide comments regarding the Closed Session item(s) just prior to the Board beginning the Closed Session. Closed Sessions are not open to the public.

Convene to Closed Session (Community Hall Kitchen)
Conference with Legal Counsel – Anticipated Litigation
Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2)
One Potential Case

Report from Closed Session

Adjourn

SVCleanenergy.org
333 W El Camino Real
Suite 290
Sunnyvale, CA 94087
Silicon Valley Clean Energy Authority  
Board of Directors Meeting  
Wednesday, December 12, 2018  
7:00 pm  
Cupertino Community Hall  
10350 Torre Avenue  
Cupertino, CA  

DRAFT MINUTES

Call to Order

Chair Corrigan called the meeting to order at 7:01 p.m.

Roll Call

Present:
Chair Courtenay C. Corrigan, Town of Los Altos Hills  
Vice Chair Margaret Abe-Koga, City of Mountain View  
Director Marsha Grilli, City of Milpitas  
Alternate Director Anthony Eulo, City of Morgan Hill  
Director Nancy Smith, City of Sunnyvale  
Director Howard Miller, City of Saratoga  
Director Rod Sinks, City of Cupertino  
Director Rob Rennie, Town of Los Gatos  
Director Liz Gibbons, City of Campbell  
Alternate Director Neysa Fligor, City of Los Altos  
Director Burton Craig, City of Monte Sereno

Absent:
Alternate Director Fred Tovar, City of Gilroy  
Director Dave Cortese, County of Santa Clara

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

Adoption of Resolutions Commending Directors Craig, Grilli and Harney for Their Dedicated Service to SVCE
Chair Corrigan recognized Directors Craig, Grilli and Harney for their service to SVCE.

MOTION: Director Rennie moved and Director Miller seconded the motion to adopt Resolutions 2018-16, 2018-17, and 2018-18 commending Directors Craig, Grilli, and Harney.

The motion carried unanimously with Alternate Director Tovar and Director Cortese absent.

The Board gathered for a group photo; Directors Craig and Harney provided brief comments.
**Consent Calendar**

MOTION: Director Gibbons moved and Alternate Director Eulo seconded the motion to approve the Consent Calendar.

The motion carried unanimously with Alternate Director Tovar and Director Cortese absent.

1a) Approve Minutes of the November 14, 2018, Board of Directors Meeting
1b) Receive October 2018 Treasurer Report
1c) Receive CPAG Report
1d) Adopt Resolution Amending the Authority’s Conflict of Interest Code to Amend Four Position Titles and Add Four Positions
1e) Approve Renewal of the Legislative Ad Hoc Committee of the Board for 2019
1f) Approve Amendment to Financial Policy 6 – Purchasing to Increase the Authority of the CEO to $100,000 to Approve and Execute Contracts

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

**Regular Calendar**

2) **CEO Report (Discussion)**

CEO Girish Balachandran provided a CEO report which included a timeline for Strategic Plan updates. Senior Regulatory Analyst Poonum Agrawal provided a Regulatory/Legislative update and responded to Board questions. CEO Balachandran provided additional information.

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

3) **Appoint Representatives for Vacant Seats on the SVCE Audit Committee and Finance and Administration Committee (Action)**

Chair Corrigan introduced the item.

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

MOTION: Director Gibbons moved and Vice Chair Abe-Koga seconded the motion to appoint Director Nancy Smith as a representative on the SVCE Audit Committee, and Alternate Director Tony Ndah as a representative on the Finance and Administration Committee, through February 2019.

The motion carried unanimously with Alternate Director Tovar and Director Cortese absent.

4) **Adopt Resolution to Revise the SVCE Strategic Plan to Establish 2025 and 2030 GHG Reduction Targets, Adopt the Decarbonization Strategy & Programs Roadmap, and Adopting a FY 2019 and FY 2020 Budget for the Implementation of Decarbonization Programs (Action)**
CEO Balachandran introduced the item and provided brief introductory comments. Director of Decarbonization and Grid Innovation Programs Aimee Bailey presented a PowerPoint presentation.

The Board inquired of and discussed the figures referenced in the 1990 levels in the GHG emissions trajectory and long-term perspective.

Director Smith noted the following amendments on materials:

**Proposed Programs Roadmap – Summary Table & Key Points handout**
- ‘BE3: FutureFit Heat Pump Water Heaters’ should be referenced as ‘BE2: All-Electric Showcase Grants’;
- Under ‘Mobility’: MO1 and MO2 are referred to as EV1 and EV2 in the Board package;
- Under ‘Education & Outreach’: Clarification on which program the GHG emissions inventory update amounts to.

**SVCE Board Packet**
- Page 139: EV02 erroneously has a zero in place of a letter O.

Chair Corrigan opened public comment.

James Tuleya, resident of Sunnyvale and Chair of Carbon Free Silicon Valley, supported the staff recommendation and encouraged the Board to adopt the proposal. Tuleya noted Carbon Free Silicon Valley was looking forward to having clarity on the metrics by which the programs and overall strategy would be monitored and assessed.

Steve Schmidt, resident of Los Altos Hills and Alternate Director of the Board, supported the staff recommendation and agreed with Tuleya that having metrics to monitor programs is critical.

Bruce Karney, resident of Mountain View and member of the Carbon Free Silicon Valley Board, supported the proposed programs and strategies. Karney encouraged the Board to begin thinking about what consequences could result for member agencies not reaching GHG emissions goals, and suggested focusing on per-capita goals rather than absolute goals.

Mike Balma, resident of Mountain View and board member of Carbon Free Mountain View, supported the staff recommendation and noted it institutionalizes emissions reductions. Balma noted he appreciated the innovation and leadership specifically around the reach codes and heat pump water heater programs, as well as the collaboration SVCE has had with other community choice energy programs.

Bryan Mekechuk, resident of Monte Sereno and Customer Program Advisory Group member, supported the budget request. Mekechuk noted two opportunities: 1) changing behavior on retail pricing, and 2) the virtual power plant and energy storage component included in the programs roadmap.

Chair Corrigan closed public comment.

The Board discussed overall support of the programs roadmap and encouraged staff to promote the roadmap in legislation/regulatory, to other community choice aggregators, and to community members.

Director Miller recommended annual reporting include a report back in February as opposed to January to allow for new Board member participation.

Chair Corrigan suggested speakers be available to give classroom presentations to involve students and discuss how they can be part of the GHG emission reduction solution.
General Counsel Greg Stepanicich noted an amendment to the proposed resolution under Section 4, to read, "The form of agreements for the implementation of the SVCE decarbonization programs approved by Section 2 above, attached hereto as Attachments 5, 6 and 7, are hereby approved."

MOTION: Alternate Director Eulo moved and Director Miller seconded the motion to adopt Resolution No. 2018-20 taking the following four actions:
1. Adopt the revised Strategic Plan to include the proposed 2025 and 2030 greenhouse gas emissions reduction targets (Attachment 2);
2. Adopt the SVCE Decarbonization Strategy & Programs Roadmap and program briefs (Attachments 3 and 4);
3. Approve the following budget requests for the first tranche of programs, totaling $6,025,000 for FY2019 through FY2020; and,
4. Approve the form of agreements for the SVCE Decarbonization Programs set forth in Attachments 5, 6 and 7.

The motion carried unanimously with Alternate Director Tovar and Director Cortese absent.

5) SVCE 2019 Electric Rates – Outlook and Rate Setting Process (Discussion)

Director of Account Services and Community Relations Don Bray presented the staff report and responded to Board questions.

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

6) Executive Committee Report (Discussion)

Chair Corrigan reported the Executive Committee met December 4, 2018 and discussed the decarbonization plan and programs roadmap, received a strategic plan update from staff, and discussed the increased approval limit for the CEO. Chair Corrigan noted a special meeting was held to discuss the outlook and rate setting process for SVCE’s 2019 electric rates.

7) Finance and Administration Committee Report (Discussion)

Director Craig reported there was nothing to report.

8) Legislative Ad Hoc Committee Report (Discussion)

Director Sinks reported the Legislative Ad Hoc Committee met on November 30, 2018 and discussed legislative strategies and priorities with the newly retained SVCE lobbyist of Aaron Reed and Associates. Staff proposed legislative priorities related to CCA procurement authority, PCIA, data access and transparency. Director Sinks noted the group is looking forward to a proactive year.

9) Audit Committee Report (Discussion)

Chair Corrigan reported the committee met December 5, 2018 and was joined by Mike Maher of Maher Accountancy and Brett Bradford of Pisenti and Brinker, LLP by phone. Bradford discussed the plans for the annual audit process and answered committee questions. The committee also received a presentation from staff on the overview of the annual IT audit.
Board Member Announcements and Direction on Future Agenda Items

Director Smith announced she was appointed to the National League of Cities Energy Environment and Natural Resources Committee.

Chair Corrigan announced at the November City of Los Altos Hills council meeting she was interested in pursuing reach codes as part of Los Altos Hills’ annual building update.

Adjourn

Chair Corrigan adjourned the meeting at 9:01 p.m.
TREASURER REPORT

Fiscal Year to Date
As of November 30, 2018

(Preliminary & Unaudited)

Issue Date: January 9, 2019

Table of Contents

<table>
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<th>Page</th>
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<td>Summary</td>
<td>2-3</td>
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<tr>
<td>Statement of Net Position</td>
<td>4</td>
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<tr>
<td>Statement of Revenues, Expenses &amp; Changes in Net Position</td>
<td>5</td>
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<td>Statement of Cash Flows</td>
<td>6-7</td>
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<tr>
<td>Actuals to Budget Report</td>
<td>8-9</td>
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<td>Monthly Change in Net Position</td>
<td>10</td>
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<td>Personnel Report</td>
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<td>Investments Report</td>
<td>12</td>
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<td>Customer Accounts</td>
<td>13</td>
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<tr>
<td>Weather Statistics</td>
<td>14</td>
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<tr>
<td>Accounts Receivable Aging Report</td>
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</table>
Financial Highlights for the month of November 2018:

Note: The financial audit for FY 2017-18 is on-going with a report to the Board expected in February 2019.

- SVCE operations resulted in positive change in net position for the month of $0.6 million and year-to-date change in net position of $9.1 million.
  - November revenue of $18.3 million accounted for 318 GWh in net retail consumption.
  - Year-to-date operating margin is $3.2 million below budget.
  - SVCE is above the minimum cash reserve target.
- Retail GWh sales for the month came in 5.0% below budget for the month and 4.3% below budget year-to-date.
  - Weather is close to normal. If the variance persist, budgeted energy sales will be reviewed in the mid-year budget.
- Power Supply
  - Even though demand was lower, power supply costs are slightly below budget due to the timing of REC deliveries.
  - The Board approved during October the long-term power purchase agreements that include solar plus storage.
  - Staff will present to the Board a revised risk management policy in January 2019.
- Programs/Capital
  - A Programs Roadmap was presented to the Board of Directors in December 2018.
- Investing/Financing
  - SVCE executed a $20 million line of credit with River City Bank in October.

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<tr>
<th>Change in Net Position</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Total</th>
<th>Budget</th>
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<td>Actual</td>
<td>8,469</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
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<td>9,045</td>
<td>29,541</td>
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<th>Power Supply Costs</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Total</th>
<th>Budget</th>
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<tr>
<td>Energy &amp; REC's</td>
<td>14,735</td>
<td>13,930</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>28,664</td>
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<tr>
<td>Capacity</td>
<td>608</td>
<td>1,290</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1,897</td>
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<td>CAISO Charges</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,841</td>
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<td>NEM Expense</td>
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<td>(82)</td>
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<td>-</td>
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<td>-</td>
<td>(8)</td>
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<td>Charge/Credit (IST/Net Rev)</td>
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<td>1,089</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>1,659</td>
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<td>Net Power Costs</td>
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<td>-</td>
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<td>-</td>
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<td>-</td>
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<td>34,053</td>
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<th>Other</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Total</th>
<th>Budget</th>
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<tr>
<td>Capital Expenditures</td>
<td>2</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>150</td>
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<tr>
<td>Energy Programs</td>
<td>37</td>
<td>3</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40</td>
<td>5,177</td>
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<table>
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<tr>
<th>Load Statistics - GWh</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Total</th>
<th>Budget</th>
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<tbody>
<tr>
<td>Retail Sales Actual</td>
<td>323</td>
<td>318</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>641</td>
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<tr>
<td>Retail Sales Budget</td>
<td>335</td>
<td>335</td>
<td>339</td>
<td>334</td>
<td>318</td>
<td>304</td>
<td>309</td>
<td>314</td>
<td>335</td>
<td>346</td>
<td>342</td>
<td>363</td>
<td>3,974</td>
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# SILICON VALLEY CLEAN ENERGY AUTHORITY

## STATEMENT OF NET POSITION

As of November 30, 2018

### ASSETS

**Current Assets**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Cash &amp; Cash Equivalents</td>
<td>$68,111,808</td>
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<tr>
<td>Accounts Receivable, net of allowance</td>
<td>20,484,410</td>
</tr>
<tr>
<td>Accrued Revenue</td>
<td>10,914,765</td>
</tr>
<tr>
<td>Other Receivables</td>
<td>70,313</td>
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<tr>
<td>Prepaid Expenses</td>
<td>1,207,291</td>
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<tr>
<td>Deposits</td>
<td>11,055,770</td>
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<tr>
<td>Restricted cash - lockbox</td>
<td>4,000,000</td>
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<tr>
<td><strong>Total Current Assets</strong></td>
<td><strong>115,844,357</strong></td>
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**Noncurrent assets**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital assets, net of depreciation</td>
<td>178,109</td>
</tr>
<tr>
<td>Deposits</td>
<td>3,129,560</td>
</tr>
<tr>
<td><strong>Total Noncurrent Assets</strong></td>
<td><strong>3,307,669</strong></td>
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**Total Assets**

<table>
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<tr>
<th>Amount</th>
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<tbody>
<tr>
<td><strong>119,152,026</strong></td>
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### LIABILITIES

**Current Liabilities**

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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Accounts Payable</td>
<td>456,126</td>
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<tr>
<td>Accrued Cost of Electricity</td>
<td>29,197,285</td>
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<tr>
<td>Accrued Payroll &amp; Benefits</td>
<td>229,949</td>
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<td>Other accrued liabilities</td>
<td>386,340</td>
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<tr>
<td>User Taxes and Energy Surcharges due to other gov'ts</td>
<td>873,607</td>
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<tr>
<td>Supplier Security Deposits</td>
<td>585,000</td>
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<tr>
<td><strong>Total Current Liabilities</strong></td>
<td><strong>31,728,307</strong></td>
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### NET POSITION

<table>
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<tr>
<th>Description</th>
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<tr>
<td>Net investment in capital assets</td>
<td>178,109</td>
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<tr>
<td>Unrestricted (deficit)</td>
<td>87,245,610</td>
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<td><strong>Total Net Position</strong></td>
<td><strong>$ 87,423,719</strong></td>
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## OPERATING REVENUES

<table>
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<tr>
<th>Description</th>
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<tr>
<td>Electricity Sales, Net</td>
<td>$44,602,948</td>
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<tr>
<td>GreenPrime electricity premium</td>
<td>142,464</td>
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<td><strong>TOTAL OPERATING REVENUES</strong></td>
<td><strong>$44,745,412</strong></td>
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## OPERATING EXPENSES

<table>
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<tr>
<td>Cost of Electricity</td>
<td>34,053,319</td>
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<tr>
<td>Staff Compensation and benefits</td>
<td>493,833</td>
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<tr>
<td>Data Management</td>
<td>602,335</td>
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<tr>
<td>Service Fees - PG&amp;E</td>
<td>188,279</td>
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<tr>
<td>Consultants and Other Professional Fees</td>
<td>180,266</td>
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<tr>
<td>Legal</td>
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<tr>
<td>Communications &amp; Noticing</td>
<td>28,027</td>
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<tr>
<td>General &amp; Administrative</td>
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<tr>
<td>Depreciation</td>
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<tr>
<td><strong>TOTAL OPERATING EXPENSES</strong></td>
<td><strong>$35,761,789</strong></td>
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**OPERATING INCOME(LOSS):**

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td><strong>OPERATING INCOME(LOSS)</strong></td>
<td><strong>$8,983,623</strong></td>
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## NONOPERATING REVENUES (EXPENSES)

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<td>Interest Income</td>
<td>61,232</td>
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<td>Financing costs</td>
<td>(55,856)</td>
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<tr>
<td><strong>TOTAL NONOPERATING EXPENSES</strong></td>
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## CHANGE IN NET POSITION

<table>
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<tbody>
<tr>
<td>Net Position at beginning of period</td>
<td>$78,434,720</td>
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<tr>
<td><strong>Net Position at end of period</strong></td>
<td><strong>$87,423,719</strong></td>
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CASH FLOWS FROM OPERATING ACTIVITIES
Receipts from electricity sales $ 53,880,629
Receipts from wholesale sales $ 292,340
Tax and surcharge receipts from customers 1,024,134
Energy settlements received 223,732
Deposits and collateral received 500
Payments to purchase electricity (36,242,280)
Payments for staff compensation and benefits (531,590)
Payments for data manager fees (671,530)
Payments for PG&E service fees (94,088)
Payments for consultants and other professional services (204,537)
Payments for legal fees (49,907)
Payments for communications and noticing (71,425)
Payments for general and administrative (213,481)
Energy settlements paid (3,083,961)
Payments of deposits and collateral (500)
Tax and surcharge payments to other governments (1,112,797)

Net cash provided (used) by operating activities 13,145,239

CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES
Interest and related expense payments (55,856)

Net cash provided (used) by non-capital financing activities (55,856)

CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES
Acquisition of capital assets (2,147)

CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES
Interest income received 61,232

Net change in cash and cash equivalents 13,148,468
Cash and cash equivalents at beginning of year 58,963,340
Cash and cash equivalents at end of period $ 72,111,808
### RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Income (loss)</td>
<td>8,983,623</td>
</tr>
<tr>
<td>Adjustments to reconcile operating income to net cash provided (used) by operating activities</td>
<td></td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>8,358</td>
</tr>
<tr>
<td>Revenue reduced for uncollectible accounts</td>
<td>224,852</td>
</tr>
<tr>
<td>(Increase) decrease in net accounts receivable</td>
<td>2,951,885</td>
</tr>
<tr>
<td>(Increase) decrease in other receivables</td>
<td>15,948</td>
</tr>
<tr>
<td>(Increase) decrease in accrued revenue</td>
<td>6,016,596</td>
</tr>
<tr>
<td>(Increase) decrease in prepaid expenses</td>
<td>(83,445)</td>
</tr>
<tr>
<td>Increase (decrease) in accounts payable</td>
<td>(264,412)</td>
</tr>
<tr>
<td>Increase (decrease) in accrued payroll &amp; benefits</td>
<td>38,660</td>
</tr>
<tr>
<td>Increase (decrease) in energy settlements payable</td>
<td>488,078</td>
</tr>
<tr>
<td>Increase (decrease) in accrued cost of electricity</td>
<td>(5,474,466)</td>
</tr>
<tr>
<td>Increase (decrease) in accrued liabilities</td>
<td>386,340</td>
</tr>
<tr>
<td>Increase (decrease) taxes and surcharges due to other governments</td>
<td>(146,778)</td>
</tr>
<tr>
<td><strong>Net cash provided (used) by operating activities</strong></td>
<td>13,145,239</td>
</tr>
</tbody>
</table>
## BUDGETARY COMPARISON SCHEDULE
October 1, 2018 through November 30, 2018

**REVENUES & OTHER SOURCES**

<table>
<thead>
<tr>
<th>Item</th>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Sales</td>
<td>$44,602,948</td>
<td>$47,635,068</td>
<td>($3,032,120)</td>
<td>-6%</td>
<td>$258,831,695</td>
</tr>
<tr>
<td>Green Prime Premium</td>
<td>142,464</td>
<td>102,282</td>
<td>40,182</td>
<td>39%</td>
<td>613,691</td>
</tr>
<tr>
<td>Other Income</td>
<td>-</td>
<td>16,667</td>
<td>(16,667)</td>
<td>-100%</td>
<td>100,000</td>
</tr>
<tr>
<td>Investment Income</td>
<td>61,232</td>
<td>83,333</td>
<td>(22,101)</td>
<td>0%</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>TOTAL REVENUES &amp; OTHER SOURCES</strong></td>
<td><strong>44,806,644</strong></td>
<td><strong>47,837,350</strong></td>
<td><strong>(3,030,706)</strong></td>
<td>-6%</td>
<td><strong>260,045,386</strong></td>
</tr>
</tbody>
</table>

**EXPENDITURES & OTHER USES**

**CURRENT EXPENDITURES**

<table>
<thead>
<tr>
<th>Item</th>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>34,053,319</td>
<td>33,787,427</td>
<td>(265,892)</td>
<td>-1%</td>
<td>211,815,189</td>
</tr>
<tr>
<td>Data Management</td>
<td>602,335</td>
<td>562,550</td>
<td>(39,785)</td>
<td>-7%</td>
<td>3,375,301</td>
</tr>
<tr>
<td>PG&amp;E Fees</td>
<td>188,279</td>
<td>178,993</td>
<td>(9,286)</td>
<td>-5%</td>
<td>1,073,960</td>
</tr>
<tr>
<td>Salaries &amp; Benefits</td>
<td>493,833</td>
<td>805,582</td>
<td>311,749</td>
<td>39%</td>
<td>4,833,494</td>
</tr>
<tr>
<td>Professional Services</td>
<td>177,175</td>
<td>305,009</td>
<td>127,834</td>
<td>42%</td>
<td>1,830,051</td>
</tr>
<tr>
<td>Marketing &amp; Promotions</td>
<td>20,066</td>
<td>183,750</td>
<td>163,684</td>
<td>89%</td>
<td>1,102,500</td>
</tr>
<tr>
<td>Notifications</td>
<td>7,961</td>
<td>25,833</td>
<td>17,872</td>
<td>69%</td>
<td>155,000</td>
</tr>
<tr>
<td>Lease</td>
<td>53,036</td>
<td>53,272</td>
<td>236</td>
<td>0%</td>
<td>326,040</td>
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<tr>
<td>General &amp; Administrative</td>
<td>117,023</td>
<td>106,027</td>
<td>(10,996)</td>
<td>-10%</td>
<td>636,160</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT EXPENDITURES</strong></td>
<td><strong>35,713,027</strong></td>
<td><strong>36,008,443</strong></td>
<td><strong>295,416</strong></td>
<td>1%</td>
<td><strong>225,147,694</strong></td>
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</tbody>
</table>

**OTHER USES**

<table>
<thead>
<tr>
<th>Item</th>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Programs</td>
<td>40,404</td>
<td>952,701</td>
<td>912,297</td>
<td>0%</td>
<td>5,176,634</td>
</tr>
<tr>
<td>Office Equipment</td>
<td>2,147</td>
<td>25,000</td>
<td>22,853</td>
<td>91%</td>
<td>150,000</td>
</tr>
<tr>
<td>Financial Security Requirement</td>
<td>-</td>
<td>147,000</td>
<td>147,000</td>
<td>100%</td>
<td>147,000</td>
</tr>
<tr>
<td>Refund of Bond</td>
<td>-</td>
<td>(100,000)</td>
<td>(100,000)</td>
<td>100%</td>
<td>(100,000)</td>
</tr>
<tr>
<td><strong>TOTAL OTHER USES</strong></td>
<td>42,551</td>
<td>1,024,701</td>
<td>982,150</td>
<td>96%</td>
<td>5,373,634</td>
</tr>
</tbody>
</table>

**DEBT SERVICE**

<table>
<thead>
<tr>
<th>Item</th>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing</td>
<td>55,856</td>
<td>-</td>
<td>(55,856)</td>
<td>-186%</td>
<td>30,000</td>
</tr>
<tr>
<td><strong>TOTAL DEBT SERVICE</strong></td>
<td>55,856</td>
<td>-</td>
<td>(55,856)</td>
<td>-186%</td>
<td>30,000</td>
</tr>
</tbody>
</table>

**Total Expenditures, Other Uses & Debt Service**

<table>
<thead>
<tr>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,811,434</td>
<td>37,033,145</td>
<td>1,221,711</td>
<td>3%</td>
<td>230,551,328</td>
</tr>
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</table>

**Net Increase(Decrease) in Available Fund Balance**

<table>
<thead>
<tr>
<th>FYTD Actual</th>
<th>FYTD Amended Budget</th>
<th>Variance</th>
<th>FY 2018-19 Amended Budget</th>
<th>% Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,995,210</td>
<td>$10,804,205</td>
<td>($1,808,995)</td>
<td>-17%</td>
<td>$29,494,058</td>
</tr>
</tbody>
</table>
SILICON VALLEY CLEAN ENERGY AUTHORITY

BUDGET RECONCILIATION TO STATEMENT OF
REVENUES, EXPENSES AND CHANGES IN NET POSITION

Net Increase (decrease) in available fund balance per budgetary comparison schedule $ 8,995,210

Adjustments needed to reconcile to the changes in net position in the Statement of Revenues, Expenses and Changes in Net Position

Subtract depreciation expense (8,358)
Add back capital asset acquisitions 2,147
Change in Net Position 8,988,999
## SILICON VALLEY CLEAN ENERGY AUTHORITY

### STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

October 1, 2018 through November 30, 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERATING REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity sales, net</td>
<td>$26,013,308</td>
<td>$18,589,640</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$44,602,948</td>
<td></td>
</tr>
<tr>
<td>Green electricity premium</td>
<td>76,005</td>
<td>66,459</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>142,464</td>
<td></td>
</tr>
<tr>
<td>Other income</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>$26,089,313</td>
<td>$18,656,099</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$44,745,412</td>
<td></td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of electricity</td>
<td>16,783,435</td>
<td>17,269,884</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34,053,319</td>
<td></td>
</tr>
<tr>
<td>Staff compensation and benefits</td>
<td>236,907</td>
<td>256,926</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>493,833</td>
<td></td>
</tr>
<tr>
<td>Data manager</td>
<td>301,479</td>
<td>300,856</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>602,335</td>
<td></td>
</tr>
<tr>
<td>Service fees - PG&amp;E</td>
<td>94,279</td>
<td>94,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>188,279</td>
<td></td>
</tr>
<tr>
<td>Consultants and other professional fees</td>
<td>130,737</td>
<td>114,869</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>245,606</td>
<td></td>
</tr>
<tr>
<td>General and administration</td>
<td>99,316</td>
<td>79,743</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170,059</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>4,179</td>
<td>4,179</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,358</td>
<td></td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>17,650,332</td>
<td>18,111,457</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>35,761,789</td>
<td></td>
</tr>
<tr>
<td>Operating income (loss)</td>
<td>8,438,981</td>
<td>544,642</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,983,623</td>
<td></td>
</tr>
<tr>
<td><strong>NONOPERATING REVENUES (EXPENSES)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>30,474</td>
<td>30,758</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61,232</td>
<td></td>
</tr>
<tr>
<td>Interest and related expense</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(55,856)</td>
<td></td>
</tr>
<tr>
<td>Total nonoperating revenues (expenses)</td>
<td>30,474</td>
<td>30,758</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,376</td>
<td></td>
</tr>
<tr>
<td><strong>CHANGE IN NET POSITION</strong></td>
<td>$8,469,455</td>
<td>$575,400</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$8,988,999</td>
<td></td>
</tr>
</tbody>
</table>
### PERSONNEL REPORT FOR NOVEMBER 2018

#### HEADCOUNT

<table>
<thead>
<tr>
<th>Position</th>
<th>Budget</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of Account Services and Community Relations</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Account Services Manager</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Energy Consultant</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Energy Associate</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Communications Manager</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Community Outreach Specialist</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Communications Specialist</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Board Clerk/Executive Assistant</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Director of Finance and Administration</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Administrative Services Manager</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Management Analyst</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Administrative Analyst</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Director of Power Resources</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Power Resources Manager</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Power Resources Planner</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Power Settlements &amp; Compliance Analyst</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Manager of Regulatory and Legislative Affairs</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Senior Regulatory Analyst</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Director of Decarboniation and Grid Innovation</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Data Analyst</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Analyst</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong>*</td>
<td><strong>25</strong></td>
<td><strong>16</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>
# SILICON VALLEY CLEAN ENERGY AUTHORITY
## INVESTMENTS SUMMARY
### October 1, 2018 through November 30, 2018

### Return on Investments

<table>
<thead>
<tr>
<th>Return on Investments</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Market</td>
<td>$30,474</td>
<td>$30,758</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$61,232</td>
</tr>
</tbody>
</table>

### Portfolio Invested

- **Average daily portfolio available to invest**: 55,148,395, 63,583,109
- **Average daily portfolio invested**: 20,154,823, 20,185,339
- **% of average daily portfolio invested**: 36.5%, 31.7%

### Detail of Portfolio

<table>
<thead>
<tr>
<th>Details of Portfolio</th>
<th>Opening Rate %</th>
<th>Current Rate %</th>
<th>Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Market - River City Bank</td>
<td>1.26%</td>
<td>1.52%</td>
<td>$20,215,072</td>
</tr>
</tbody>
</table>

*Note: Balance available to invest does not fund in the lockbox or deposits for power supply.*
CUSTOMER ACCOUNTS

RESIDENTIAL ACCOUNTS

NON-RESIDENTIAL ACCOUNTS
WEATHER STATISTICS

COOLING DEGREE DAYS

HEATING DEGREE DAYS
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Receivable</td>
<td>$22,437,276</td>
<td>$19,731,322</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,612,742</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$360,293</td>
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<tr>
<td></td>
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<td>$215,696</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$517,224</td>
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<tr>
<td>Period %</td>
<td>100%</td>
<td>87.9%</td>
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<tr>
<td></td>
<td></td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3%</td>
</tr>
</tbody>
</table>

*Note: A portion of accounts that are 120 days old have been sent back to PG&E, however the receivable remains outstanding until PG&E writes the account off.
Staff Report – Item 1c

To: Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 1c: Appoint SVCE Treasurer/Auditor and Board Secretary for 2019

Date: 1/9/2019

RECOMMENDATION

Appoint Don Eckert, SVCE Director of Finance and Administration, as the Board Treasurer/Auditor and Andrea Pizano, SVCE Board Clerk/Executive Assistant, as the Board Secretary for 2019.

BACKGROUND

Pursuant to Section 4.11.3 of the Joint Powers Agreement, the Board shall appoint a qualified person to act as Treasurer and a qualified person to serve as Auditor. The Board may appoint a qualified person to serve as both Treasurer/Auditor. The Treasurer/Auditor acts as the depository of the Authority’s funds and has custody of all of the money of the Authority. The Treasurer/Auditor reports directly to the Board in the performance of his or her duties as Treasurer/Auditor and must comply with the requirements for treasurers of general law cities. Government Code Section 6505.5 and Section 6 of the Joint Powers Agreement further specifies the duties and obligations of the Treasurer/Auditor.

Pursuant to Section 4.11.2 of the Silicon Valley Clean Energy Authority Joint Powers Agreement, the Board of Directors of the Authority shall appoint a Secretary. The Secretary is responsible for keeping the minutes of all Board meetings (that is, ensuring the minute meetings are completed and retained) and keeping other official records of the Authority. The secretary does not have to be a member of the Board.

ANALYSIS & DISCUSSION

SVCE’s Director of Finance and Administration Don Eckert and SVCE Board Clerk/Executive Assistant Andrea Pizano have served as the Board Treasurer/Auditor and Board Secretary, respectively, since 2017. Given their knowledge and experience gained in these roles, staff would recommend that they continue serving in this capacity for 2019.

STRATEGIC PLAN

N/A

ALTERNATIVE

The Board can elect to appoint other individuals for the position of Board Treasurer/Auditor and/or Board Secretary.

FISCAL IMPACT

No fiscal impact as a result of the appointments.
Staff Report – Item 1d

To: Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 1d: Approve Amended Energy Risk Management Policy

Date: 1/9/2019

RECOMMENDATION
Staff recommends that the Board approve the updated Energy Risk Management Policy (Attachment 2).

RISK OVERSIGHT COMMITTEE RECOMMENDATION
The Risk Oversight Committee (ROC) reviewed a draft updated policy at its November 13, 2018 meeting. At that meeting, Committee members made suggestions to improve the draft policy including making it clear to the Board what changes to the existing policy are proposed and why. ROC members stressed that the Board needs to have checks and balances since energy transacting is the primary cost driver for SVCE. In response to input from the November ROC meeting, staff revised the updated policy.

The ROC reviewed the revised draft policy at its meeting of December 10, 2018. The ROC discussed the changes from the current policy including the recommendation to move the tolerance bands for Resource Adequacy products and Renewable Portfolio Standard resources from the Policy to the Energy Risk Management Guidelines. The ROC said that while it makes sense for operational flexibility to move these to the Guidelines, they still expect to receive reports on the hedging strategy and progress for energy, Resource Adequacy and renewable procurement. The ROC indicated that it wanted to be assured that there was a hedging plan for all the energy-related procurement and that the plan included a “laddering” strategy to buy resources over time to access the market at different points in time. Staff included a section referring specifically to the requirement that the Front Office prepare a Procurement Plan at least every six months for approval by the CEO.

BACKGROUND
In April 2016, SVCE was formed to provide generation electricity services to the residents and businesses within its service territory. Since the cost of energy and energy-related products is over 95% of SVCE’s operating expenses and single transactions can be in the millions of dollars (and must be made with as little as one hour between offer and acceptance), clear policies to manage risks and guide staff are essential.

In February 2017, the Board approved its first Risk Management Policy, which allowed SVCE to transact in the California Independent System Operator (CAISO) congestion market. That policy was narrowly drafted to satisfy CAISO requirements and to allow SVCE to begin transactions with the CAISO. In March 2017, the ROC was formed to provide a forum for review of staff analysis and hedging strategies.

On May 10, 2017, the Board approved an updated and expanded the Energy Risk Management Policy (Attachment 3) to incorporate other provisions to address key issues such as trading authority, credit risk and hedging.

ANALYSIS & DISCUSSION
As SVCE matures as an agency, a review of the Energy Risk Management (ERM) Policy is appropriate. One starting point is the requirements CAISO imposes on entities who transact in its markets. Participants in the CAISO’s markets must comply with certain Creditworthy Requirements and file the CAISO minimum participation criteria Officer Certification Form. Besides detailing credit requirements, these requirements contain minimum standards related to risk management (see Section 12.1.(d) of the Creditworthy Requirements):
Any CAISO review and verification of the Market Participant’s risk management policies, procedures, and controls will be conducted according to generally accepted risk management standards that may be developed from time to time and shall include but not be limited to confirmation that:

- “The Market Participant’s risk management framework is documented in a risk policy addressing market, credit, and liquidity risks that has been approved by the Market Participant’s risk management governance function, which includes appropriate corporate persons or bodies that are independent of the Market Participant’s trading functions, such as a risk management committee, a designated risk officer, a board or board committee, or a board or committee of the Market Participant’s parent company;
- The Market Participant maintains an organizational structure with clearly defined roles and responsibilities that segregate front-, middle-, and back-office functions to as high a level as is practicable;
- Delegations of authority specify the transactions in which traders are allowed to enter;
- The Market Participant ensures that traders have adequate training and experience relative to their delegations of authority in systems and the markets in which they transact;
- As appropriate, risk limits are in place to control risk exposures;
- Reporting is in place to ensure risks are adequately communicated throughout the organization;
- Processes are in place for independent confirmation of executed transactions; and
- As appropriate, there is periodic evaluation or mark-to-market of risk positions.”

The authorities and limitations sections of SVCE’s Current ERM Policy need to be revised to be clearer, more understandable and workable for the agency. In addition, the policy contains many operational elements that are better located in Guidelines.

The Proposed Policy (Attachment 2) retains much from the Current Policy, adds descriptions of risks and how they are managed, removes some operational detail that will be contained in the new Guidelines, and clarifies transacting authorities. The changes incorporated in the Proposed Policy are outlined in Attachment 1, which compares the current and proposed policies and identifies any differences and why a change is proposed.

Staff is working to complete the Energy Risk Management Guidelines which provide additional detail to implement the Policy. The Guidelines are an operational document that will be approved by the CEO. For context, the table of contents of the draft Guidelines is provided as Attachment 4.

**STRATEGIC PLAN**
SVCE’s strategic plan provides guidance on what types of energy-related products to acquire (e.g. purchase Power Content Category 1 renewable resources to meet Renewable Portfolio Standards), and what policy goals to pursue (e.g. ensure that 100% of SVCE’s energy needs are from carbon-free resources), and what overall strategies to pursue (e.g. stagger acquisitions to accommodate uncertainty and diversity the use of technologies to meet RPS needs). The Energy Risk Management Policy provides guidance for staff to meet the policies outlined in the Strategic Plan while managing the risks inherent in the energy supply business.

**ALTERNATIVE**
SVCE could continue with the Energy Risk Management Policy in place, but—at a minimum—the delegated transacting authority should be made clearer.

**FISCAL IMPACT**
Implementing the proposed updated Energy Risk Management Policy is not expected to have a fiscal impact.

**ATTACHMENTS**
2. Proposed Energy Risk Management Policy
3. SVCE’s Current Energy Risk Management Policy (approved by the Board on May 10, 2017)
4. Table of Contents for Draft Energy Risk Management Guidelines
The following table provides an explanation of each section of SVCE’s existing ERM Policy and whether it was retained, changed, or moved to the ERM Guidelines.

|------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Introduction, purpose, scope of policy | Section 1 (Overview) provides an overall summary of the policy including scope and the responsibilities of the Board and the Front, Middle and Back Offices. | Section 1 (General Provisions) includes an overall description of the policy, summarizes the scope of the policy and lists the risks that will be discussed in the policy | No substantial changes.  
• No change to Board requirement to review and update Policy every 2 years  
• New Policy states what the Policy does not cover: other types of business risk such as accident, emergency, or worker’s compensation  
• Responsibilities of Board and are provided in Section 7 (Risk Management Policy Governance)  
• Responsibilities of and Front, Middle and Back Offices are listed in Section 4.1 (Segregation of Duties) |
| Risk management goals  | Section 2 (Energy Risk Management Objective) lists four objectives to provide competitively priced power to its customers. | Section 2 (Risk Management Goals) lists seven goals to manage the risks inherent in serving load in the CAISO market structure. | No substantial changes.  
• New policy has an expanded discussion of the goals including connecting them to the Strategic Plan and Integrated Resource Plan |
| Governance structure   | Section 3 (Governance Structure Roles and Responsibilities) lists the responsibilities of the Board and ROC. Also provides a somewhat detailed list of the responsibilities for the Middle Office and Back Office, and a summary of the Front Office activities. | Section 7 (Risk Management Policy Governance) describes the responsibilities of the Board, ROC, and Internal ROC. Section 4.1 (Segregation of Duties) describes the general responsibilities of the Front Office, Middle Office and Back Office. | No substantial changes.  
• Introduction of Internal ROC as a new group comprising staff in all aspects of transacting to coordinate and review risks and risk management strategies  
• Guidelines to contain more detail regarding duties of the Front Office, Middle Office and Back Office |
|----------------|---------------|------------|------------------|
| Definition of risks | The current Policy does not include a discussion of the types of risks faced by SVCE. There is a discussion of counterparty credit in Section 6 (Counterparty Credit). Section 4 (Hedging) is entirely focused on measuring, monitoring, and “closing the Net Open Position (NOP)” so that supplies can be ”matched” to load to minimize exposure to “price volatility”. | Section 3 (Definition of Market Risks) provides a comprehensive description of the market risks faced by SVCE:  
• Mark-to-Market Risk  
• Market Price Risk  
• Net Revenue Risk  
• Counterparty Credit and Performance Risk  
• Load and Generation Volumetric Risk  
• Operational Risk  
• Liquidity Risk  
• Regulatory/Legislative Risk | This entire section defining the risks faced by SVCE is new. Defining these types of risks is generally considered a required element of an energy risk management policy. One of the first principles of risk management is to identify risks so that they can be measured and managed. These descriptions are provided in the policy so that the Board—and the public—are aware of the types of risks inherent in transacting in the wholesale energy markets. |
| Discussion of how identified risks will be measured and managed | Although there is no discussion of how individual risks are to be managed, Section 4 (Hedging) describes in detail how to manage the market price risk by hedging and ”closing the NOP”. The section includes a definition of NOP (Section 4.2) and how it will be managed (Section 4.3), measured (Section 4.4), and monitored (Section 4.5). In addition, Section 6 (Counterparty Credit) focusses on how to evaluate the creditworthiness of—and establish credit limits for—potential counterparties. The Middle Office is responsible to set counterparty limits. | Section 5 (Risk Management Business Practices) describes generally how risks are measured and managed and includes an explanation of how each risk identified in Section 3 (Definition of Market Risks) is managed. | Substantial change:  
• The entire contents of Section 5 is new. Discussing how the risks faced by SVCE are managed is generally considered a required element of an energy risk management policy.  
• The detail on hedging provided in the Current Policy in Section 4 will be moved to the Guidelines as it is very operational in nature.  
• The detail on counterparty credit in Section 6 of the Current Policy will be moved to the Guidelines as it is very operational in nature. New Section 5 does provide a policy-level discussion on counterparty credit risk (Section 4.4) management. |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Authorized transactions| Section 5 (Authorized Transaction and Trading Limitation) lists the markets that SVCE can participate in (Section 5.3), trading instruments that can be utilized (Section 5.4) and approved enabling agreements (Section 5.5). Section 5.2 describes the process of determining how traders are vetted and authorized to transact on behalf of SVCE. | Section 1.2 (Scope of Business and Related Market Risks) lists the types of activities that SVCE will engage in to conduct its business (e.g. bilateral trading of energy, scheduling of load and resources, participating in CAISO markets including CRRs). Section 6.2 (Approved Markets) states that SVCE can transact in the CAISO, WECC and CARB markets. Section 6.3 (Approved Transactions) lists authorized products (e.g. energy, capacity, transmission, ancillary services, renewable energy resources, CRRs, etc.) and prohibited transactions (e.g. transactions that are speculative or financial derivatives products). | Minor change/clean-up:  
- Substantially the same products authorized, more detail on what is not allowed added.  
- Trader authorization process is substantially unchanged. |
| Reporting               | Section 7 (Reporting) is a laundry list of the types of reports that should be produced, but doesn’t always identify who should produce them, who is the audience and how often the report is to be produced. | Section 5.1 (Risk Measurement Metrics and Reporting) lists the general items that are to be measured, monitored and reported. Reporting is also discussed in Section 5.10 (Reporting) as a “key component” of energy risk management: “Periodic reports will be provided to the ROC that shall provide sufficient details on SVCE’s transactions, NOP, market exposure, credit exposure, counterparty credit ratings, transaction compliance, and other relevant data.” Detail is to be found in the Guidelines. Reporting is also mentioned in Section 4.2 (Additional Internal Controls) as a part of the required operational controls. | Minor change/clean-up:  
- The list in the current policy is comprehensive, but does not identify the audience or frequency of the reports.  
- The frequency and content of the reports are to be prescribed in the Energy Risk Management Guidelines.  
- The New Policy adds a statement that if risks are outside of any established risk limit, the CEO must report that fact and the impact to the ROC immediately and to the Board within 3 months. |
|----------------|---------------|------------|-------------------|
| Segregation of duties | Section 1 (Overview) summarizes the responsibilities of the Front, Middle and Back Offices. Section 3 (Governance Structure Roles and Responsibilities) provides a more detailed list of the responsibilities for the Middle Office and Back Office, and a summary of the Front Office activities. | Section 4.1 (Segregation of Duties) describes the general responsibilities of the Front Office, Middle Office and Back Office and provides a comprehensive description of the importance of segregation of duties in the risk management control infrastructure. | Minor change/clean-up:  
- A detailed list of responsibilities of each office will be part of the Guidelines, as these duties are operational and not policy-related.  
- New Policy contains a clear, definitive statement not found in the Current Policy: “...the staff person that executes a transaction is not the same person that evaluates or settles the transaction.” |
| Authority to transact | Section 5.6 (Authorized Trading Limits) is a table listing “trading limits for personnel authorized to transact on behalf of SVCE.” | Section 6.5 (Authorized Trading Limits) is divided into authority reserved by the Board (Section 6.5.1), authority delegated to the CEO (Section 6.5.2), and the limitation on what the CEO can delegate to authorized personnel. | Clarification/clean-up:  
- New Policy explains that the Board has delegated authority to the CEO for contracts for terms of less than 12 months.  
- Table in New Policy clarifies the CEO’s authority and provides clear limits of the CEO’s transacting authority for periods of up to 60 months. |
| Transacting limits | Section 4.6 (Closing NOP) includes tolerance bands for energy, Renewable Portfolio Standard (RPS) resources, and capacity. | Section 6.4 (Tolerance Bands) provides the same list as in the current policy for energy, but does not include tolerance bands for renewable resources or capacity (Resource Adequacy) products. The section also explains that SVCE strives to stagger purchases for required capacity and RPS products. | Minor change/clean-up:  
- Tolerance bands for energy in New Policy eliminate the bands for the “prompt month” and “balance of the year” as those are operationally difficult to manage to. The tolerance bands for the prompt quarter and prompt year are adequate controls.  
- Tolerance bands for renewable resources and capacity products were eliminated as these are compliance obligations and regulatory requirements and purchasing processes can change. |
| Conflict of Interest | No mention | Section 6.6 (Conflict of Interest) states that employees involved in transacting are barred from investing in any company with whom SVCE transacts. | Addition to Policy:  
- Raises conflict of interest for employees involved in transacting to the policy level |
Energy Risk Management Policy
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1 General Provisions

1.1 Background and Purpose of Policy

Silicon Valley Clean Energy’s (SVCE) mission is to reduce dependence on fossil fuels by providing carbon free, affordable and reliable electricity and innovative programs for the SVCE community.

This Energy Risk Management Policy (Policy) has been developed to help ensure that SVCE achieves its mission and adheres to policies established by the SVCE Board of Directors (Board), power supply and related contract commitments, good utility practice, and all applicable laws and regulations. SVCE is not engaged in the power supply business for profit and is, therefore, precluded by this Policy from engaging in many of the risk-taking activities typical to an organization orientated solely toward profit maximization.

This Policy defines SVCE’s general energy risk management framework and provides management with the authority to establish processes for monitoring, measuring, reporting, and controlling market and credit risks to which SVCE is exposed in its normal course of business.

1.2 Scope of Business and Related Market Risks

SVCE provides energy to retail customers in its service territory that entails business activities such as; bilateral purchases and sales of electricity under short-, medium- and long-term contracts; scheduling of load and generation of electricity into California Independent Systems Operator (CAISO) markets; retail marketing of electricity to consumers within its service territory; compliance with voluntary objectives and regulatory requirements as it relates to carbon free and renewable portfolio standard (RPS) compliant energy; participation in CAISO Congestion Revenue Rights (“CRRs”) market; managing the balance of load and generation over short, medium and long term horizons; and compliance with California Public Utilities Commission (CPUC) Resource Adequacy (RA) requirements.

Examples of energy market risks include, but are not limited to, the following:

- Mark-to-Market Risk
- Market Price Risk
- Net Revenue Risk
- Counterparty Credit and Performance Risk
- Load and Generation Volumetric Risk
- Operational Risk
- Liquidity Risk
- Regulatory/Legislative Risk

This Policy focuses on the following:

- Risk Management Goals and Principles
- Definitions of Risks
- Internal Control Principles
- Risk Management Business Practices
- Authorized Transaction and Trading Limitations
- Risk Management Governance
This Policy does not address the following types of general business risk, which are treated separately in other official policies, ordinances and regulations of SVCE: fire, accident and casualty; health, safety, and workers’ compensation; cybersecurity, general liability; and other such typically insurable perils. The term “risk management,” as used herein, is therefore understood to refer solely to energy market risks as herein defined, and not those other categories of risk.

1.3 Policy Administration

This Energy Risk Management Policy (Policy) is adopted by the SVCE Board of Directors and will be reviewed and updated as needed at least every two calendar years by SVCE’s Board. The CEO is responsible for implementation of the Policy. The CEO is also responsible to develop Energy Risk Management Guidelines (Guidelines), which is required for staff to implement the Policy.

1.4 Policy Distribution

This Policy shall be distributed to all SVCE employees and third-party contractors who are engaged in the planning, procurement, sale and scheduling of electricity on SVCE’s behalf and/or in other SVCE departments providing oversight and support for these activities.

2 Risk Management Goals

Although SVCE does not engage in risk-taking activities typical in a for-profit organization, certain risks are incidental to the normal power supply operations and hedging activities. SVCE’s policy is to manage risk inherent with serving load, including the risks associated with normal cost-hedging activities, those associated with participation in wholesale markets in general and the CAISO in particular.

The goals of energy risk management shall be to:

1. assist in achieving the business objectives in the Strategic Plan, Integrated Resource Plan (IRP) and Cash Reserve Policy including retail rate stability and competitiveness and the accumulation of financial reserves;
2. avoid losses and excessive costs which would materially impact the financial condition of SVCE;
3. establish the parameters for energy procurement and sales activity to obtain the best possible price while ensuring compliance with Board-approved policies;
4. identify specific cost, regulatory and legislative risks that could adversely affect SVCE’s ability to achieve its business objectives, and to the extent possible, quantify and measure performance against those risks;
5. assist in assuring that market activities and transactions are undertaken in compliance with established procurement authorities, applicable laws, regulations and orders;
6. encourage the development and maintenance of a corporate culture at SVCE in which the proper balance is struck between control and facilitation and in which professionalism, discipline, technical skills and analytical rigor come together to achieve SVCE objectives; and
7. manage business risks to acceptable levels consistent with retail rate-setting, resource procurement and cash reserve management.
SVCE manages its energy resources and transactions to provide its customers with low cost renewable, carbon free and other energy while at the same time minimizing risks. The risk management principles that SVCE will use include:

1. Undue exposure to CAISO or bilateral energy market volatility for the purpose of potentially achieving lower costs but at the risk that costs may, in fact, be much higher, will not be accepted.
2. Procurement and hedging strategy will be determined by analytical methods supplemented by experienced judgement. SVCE will use that experienced judgement and its analytical tools to assess system cost drivers such as weather, short term energy prices, load variation and operational constraints to manage timing and quantity of purchases and sales of energy and related services, consistent with the limits identified in this Policy.
3. When actions are taken that are consistent with this Policy and for the combined goal of low costs and optimized risk, those actions are considered to be consistent with the objectives of this Policy.
4. SVCE will not engage in transactions, without proper authorization, whose purpose is not tied to managing costs and risks or are outside of the limits identified in this Policy.

3 Definition of Market Risks

The term “market risks,” as used here, refers specifically to those categories of risk which relate to SVCE’s participation in wholesale and retail markets as a Load Serving Entity (LSE) and its interests in long-term contracts. Market risks include market price risk, counterparty credit and performance risk, load and generation volumetric risk, operational risk, liquidity risk, and regulatory and legislative risk. These categories are defined and explained as follows.

3.1 Mark-to-Market Risk

Mark-to-Market risk is the risk that wholesale trading positions, long-term supply contracts and generation resources may move "out of the money," that is, become less valuable in comparison with similar positions, contracts or resources obtainable at present prices. These same positions can also be "in the money" if they become more valuable in comparison to similar positions, contracts or resources obtainable at present market prices. This valuation methodology is commonly referred to as “Mark-to-Market.” If SVCE is “out of the money” on a substantial portion of its contracts, it may have to charge higher retail rates. This may erode SVCE’s competitive position and market share if other market participants (e.g., Direct Access providers or PG&E) are able to procure power at a lower cost and offer lower retail electricity rates.

3.2 Market Price Risk

Market Price risk is the risk that market prices change, resulting in changes to energy procurement cost. For example, the cost for the unhedged portion of a supply portfolio (net open position) will increase when market prices increase. Conversely, if resources are in excess to needs and market prices fall, the revenue expected from the sale of the surplus resources will decrease. In addition, uncertain market price relationships (locational risk) affect SVCE’s procurement costs.

A subcomponent of market price risk is market liquidity. Illiquid markets make it more difficult to buy or sell a commodity and can result in higher premiums on purchases or deeper discounts on sales.
Another dimension of market price risk is congestion risk. Congestion risks arise from the difference between the prices SVCE pays the CAISO to schedule its load and the prices SVCE receives from the CAISO for energy delivered by SVCE’s suppliers.

3.3 Net Revenue Risk

Net Revenues are the total of all revenues received (from retail sales to customers and from the sale of any energy products that were surplus or unneeded) less the total costs (including the costs of long-term contracts, forward transactions, and spot market purchases plus all other operating costs). Net Revenue Risk is the risk that any of those factors—revenues or costs—changes (e.g. changes in market prices or retail sales volumes, or failures of counterparties). Net Revenue is the “bottom line” for SVCE as it determines the financial viability of the authority.

One of the main components of net revenue risk is on the retail revenue side, which is at risk when customers opt out from service by SVCE and return to PG&E, or if customers choose to find another supplier through direct access opportunities that may arise. In addition, when the Power Charge Indifference Adjustment (PCIA) is changed, it directly affects SVCE’s bottom line if SVCE compensates by changing its retail rates.

3.4 Counterparty Credit and Performance Risk

Performance and credit risk refers to the inability or unwillingness of a counterparty to perform according to its contractual obligations or to extend credit. Failure to perform may arise if an energy supplier fails to deliver energy as agreed. There are four general performance and credit risk scenarios:

1. counterparts and wholesale suppliers may fail to deliver energy or environmental attributes, requiring SVCE to purchase replacement products elsewhere, possibly at a higher cost;
2. counterparts may fail to take delivery of energy or environmental attributes sold to them, necessitating a quick resale of the product elsewhere, possibly at a lower price;
3. counterparts may fail to pay for energy or environmental attributes delivered; and
4. counterparts and suppliers may refuse to extend credit to SVCE, possibly resulting in higher collateral posting costs impacting SVCE’s cash and bank lines of credit.

An important subcategory of credit risk is concentration risk. When a portfolio of positions and resources is concentrated in one or a very few counterparties, sources, or locations, it becomes more likely that major losses will be sustained in the event of non-performance by a counterparty or supplier or as a result of price fluctuations at one location.

3.5 Load and Generation Volumetric Risk

Energy deliveries must be planned for based upon forecasted load adjusted for distribution line losses. SVCE forecasts load over the long and short term and enters into long- and short-term fixed-price energy contracts to hedge its load.

Load forecasting risks arises from inaccurate load forecasts and can result in the over or under procurement of energy and/or revenues that deviate from approved budgets. Energy delivery risk occurs if a generator fails to deliver expected or forecast energy. Variations in wind speed and cloud cover can also impact the amount of electricity generated by solar and wind resources, and occasional oversupply of power on the grid can lead to curtailment
of energy deliveries or reduce revenue as a result of low or negative prices at energy delivery points. Weather is an important variable that can result in higher or lower electricity usage due to heating and cooling needs.

In the CAISO markets this situation can result in both oversupply and undersupply of electricity relative to SVCE’s load and the over or under scheduling of generation or load into the day ahead market relative to actual energy consumed or delivered in the real time market. Load and generation volumetric risk may result in unanticipated open positions and imbalance energy costs. Imbalance energy costs result from differences in the price or volume of generation or load scheduled into the day ahead market when compared to the price or volume of generation or load occurring in the real time market during that time period.

3.6 Operational Risk

Operational risk consists of the potential for failure to act effectively to plan, execute and control business activities. Operational risk includes the potential for:

1. organizational structure that is ineffective in addressing risk (i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, ineffective internal checks and balances, incomplete, inaccurate and untimely forecasts or reporting, failure to separate incompatible functions, etc.);
2. absence, shortage or loss of key personnel or lack of cross functional training;
3. lack or failure of facilities, equipment, systems and tools such as computers, software, communications links and data services;
4. exposure to litigation or sanctions resulting from violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting and analyzing contracts effectively, etc.; and
5. errors or omissions in the conduct of business, including failure to execute transactions, violation of guidelines and directives, etc.

3.7 Liquidity Risk

Liquidity Risk is the risk that SVCE will be unable to meet its financial obligations. This can be caused by unexpected financial events and/or inaccurate pro forma calculations, rate analysis, and debt analysis. Some unexpected financial events impacting liquidity could include:

1. breach of SVCE credit covenants or thresholds; SVCE has credit covenants included in its banking and several short-term energy contracts. Breach of credit covenants or thresholds could result in the withdrawal of SVCE’s line of credit or trigger the requirement to post collateral;
2. calls for collateral from the CAISO or SVCE’s counterparties based on terms of transacting agreements; and
3. from time to time SVCE may be the subject of legal or other claims arising from the normal course of business. Payment of a claim by SVCE could reduce SVCE’s liquidity if the cause of loss is not covered by SVCE’s insurance policies.

3.8 Regulatory/Legislative Risk

Regulatory risk encompasses market structure and operational risks associated with shifting state and federal regulatory policies, rules, and regulations that could negatively impact SVCE. Some examples are the potential increase of exit fees for customers served by Community Choice Aggregators such as SVCE that would result in higher electricity rates for
SVCE’s customers, and the risk that the customers would select another supplier through an expanded Direct Access program.

Legislative risk is associated with actions by federal and state legislative bodies, such as any adverse changes or requirements that may infringe on SVCE’s autonomy, increase its costs, impact its customer base, or otherwise negatively impact SVCE’s ability to fulfill its mission.

4 Internal Control Principles

Internal controls shall be based on proven principles that meet or exceed the requirements of financial institutions and credit rating agencies and good utility practice. The required controls shall include all customary and usual business practices designed to prevent errors and improprieties, ensure accurate and timely reporting of results of operations and information pertinent to management, and facilitate attainment of business objectives. These controls are currently and shall remain fully integrated into all activities of the business and shall be consistent with stated objectives.

4.1 Segregation of duties

One of the main aspects of internal controls is the segregation of duties to ensure that the staff person that executes a transaction is not the same person that evaluates or settles the transaction. Appropriate segregation of duties is to be established and maintained throughout the system of controls over financial risks. Senior management must be diligent in ensuring that appropriate segregation of duties is adhered to within the context of organizational changes, while considering staffing limitations, SVCE’s business model as a cost hedger, and the overall level of transactions with counterparties. Segregation of duties and functions between front, middle, and back office activities is generally as follows:

- The Front Office is directly involved in resource planning, product procurement and sales transactions and implementation of strategies within authorized limits.
- The Middle Office’s functions are related to risk management and counterparty credit. The primary responsibility is ensure that all products utilized and transaction activities are undertaken in compliance with current policy.
- The Back Office is comprised of those functions responsible for verification, validation accounting, processing, reconciling and settling all transactions.

Controls over inputs and systems operations are of particular importance in ensuring the integrity of data used in risk control and management. In all cases, there will be an appropriate segregation of duties or oversight to reduce the risk of error and/or fraud.

To the maximum extent practicable given SVCE’s business model and level of staffing, Front-Office activities will be functionally independent from Middle and BackOffice activities. As a result, the Front Office will generally neither perform nor supervise Middle-Office Risk Management activities, or Back Office financial accounting or settlements. The Director of Power Resources is responsible for ensuring the Front Office’s ability to perform tasks in compliance with this Policy. This arrangement will provide independent and regular management oversight for both risk-taking and risk-control activities. It will also allow for a clear separation of duties between the Front-Office transacting and Middle Office risk-control functions.

To the maximum extent practicable given SVCE’s business model and level of staffing, Middle Office activities will be functionally independent from all Front Office and Back Office activities. The Middle Office will have primary responsibility for risk management oversight.
and policy development and compliance. If there are not adequate resources necessary to fully support a Middle Office, this function may be combined with another function provided that appropriate segregation of duties or sufficient internal controls are maintained at all times.

To the maximum extent practicable given SVCE’s business model and level of staffing, Back Office settlement activities will be functionally independent from all Front Office and Middle Office activities. The Back Office will have primary responsibility for all transaction confirmation, accounting and reconciliation processes. If there are not adequate resources necessary to fully support a Back Office, this function may be combined with another function provided that appropriate segregation of duties or sufficient internal controls are maintained at all times.

4.2 Additional Internal Controls

Besides segregation of duties, additional required operational control principles include the following, which the CEO shall implement by incorporating them into the ERM Guidelines and procedures:

1. Delegation of authority that is commensurate with responsibility and capability, and relevant training to ensure adequate knowledge to operate in and comply with rules associated with the markets in which they transact (e.g., CAISO). Contract origination, commercial approval, legal review, invoice validation, and transaction auditing shall be performed by separate staff or contractor for any single transaction. No single staff member shall perform all these functions on any transaction.
2. Defining authorized products and transactions (see Section 6.3).
3. Defining procurement authority for any transactions for which procurement authority has not already been explicitly granted as set forth in SVCE’s Purchasing Policy and any Board Resolution delegating energy procurement authority (e.g. Resolution 2016-15 which delegates authority to the CEO to execute confirmation agreements with energy service providers with whom SVCE has executed Master Agreements).
4. Defining proper trade capture process for executing power supply contracts.
5. Complete and precise capture of transaction and other data, with standardization of electronic and hard copy documentation.
6. Meaningful summarization and accurate reporting of transactions and other activity at regular intervals.
7. Consultation with legal counsel on all legal issues related to this Policy.
8. Timely and accurate risk and performance measurement at regular intervals.
9. Regular compliance review to ensure that this Policy and the Guidelines are adhered to, with specific guidelines for resolving instances of noncompliance.
10. Active participation by senior management in risk management processes.

5 Risk Management Business Practices

5.1 Risk Measurement Metrics and Reporting

A vital element of this Policy is the regular identification, measurement and communication of risk. To effectively communicate risk, all risk management activities must be monitored on a frequent basis using risk measurement methodologies that quantify the risks associated with SVCE’s procurement-related business activities and performance relative to goals.
SVCE measures and updates its risks using a variety of tools that model programmatic financial projections, market exposure and risk metrics, as well as through short term budget updates.

SVCE seeks to minimize financial exposure to higher-volatility spot market wholesale electricity using rolling hedges and net open position percentage bands. Financial exposure creates budget uncertainty. To mitigate the financial exposure to short-time horizon price volatility, SVCE continually reduces its financial exposure by reducing the quantity of energy in either open long or short positions.

The following items are measured, monitored, and reported:

1. Reserve Requirement Targets – on no less than an annual basis, SVCE staff will monitor SVCE’s reserves to ensure that they meet the targeted thresholds as outlined in SVCE’s Cash Reserve Policy.
2. Mark-to-Market Valuation – marking to market is the process of determining the current value of contracted supply. A mark-to-market valuation shall be performed at least on a monthly basis.
3. Exposure Reporting – calculates the notional dollar risk exposure of open portfolio positions at current market prices. The exposure risk calculation shall be performed at least on a monthly basis.
4. Open Position Monitoring – on a monthly basis, SVCE shall calculate/monitor its open positions for all energy and capacity products.

Consistent with the above, the Middle Office will develop reports and provide feedback to the Risk Oversight Committee. Risk measurement methodologies shall be re-evaluated on a periodic basis to ensure SVCE adjusts its methods to reflect the evolving competitive landscape.

5.2 Mark-to-Market Risk

SVCE manages its mark-to-market risk by comparing the current value of any wholesale trading positions and long-term supply contracts to the cost of the contracts. This is important if there are trading restrictions for entering into new transactions with certain counterparties based on the terms of the agreements and to counterparty credit limits. Being aware of the Mark-to-Market of the portfolio is important as it provides an indication of the competitiveness of the portfolio.

5.3 Market Price Risk

SVCE manages market price risk by determining its Load and Resource Balance which defines forecasted load, energy under contract and SVCE’s open positions in various energy product types including renewable energy, carbon free energy, system power, and SVCE’s procurement targets.

SVCE determines its NOP by comparing the forecasted use to supply resources on a monthly basis. The NOP is exposed to potentially volatile market prices. The quantity of energy SVCE will contract for in each year is guided by the NOP tolerances. Market price risk is determined by evaluating how costs could increase (or decrease) if market prices were to reach high (or low) values.

SVCE minimizes financial exposure to higher-volatility spot market wholesale electricity prices by hedging its NOP according to the NOP tolerance bands in Section 6.4. To reduce this exposure, SVCE’s practice is to close its NOP (hedge at close to 100%) for the prompt
month and quarter. The relatively tight prompt year tolerance band provides a high level of budget certainty. However, SVCE will continue to have some exposure to spot market prices due to the load changes and the difference between forecasted and actual load. These differences result in a need to purchase or sell energy in the short-term markets.

In general, SVCE will seek to spread out its long-term purchases of renewable energy to diversify exposure to market conditions and reduce the risk of concentrating purchases in any one year.

For products generally purchased through short- and medium-term contracts, SVCE follows a similar strategy of diversifying contracting over the delivery horizon.

As predominantly a net buyer, SVCE manages its market liquidity risk through purchasing at different intervals and maintaining a diverse set of counterparties to transact with.

Congestion risk is managed through the contracting process with a preference for day ahead scheduling and energy delivery at the NP 15 trading hub and through resource assessment and selection. Once energy is procured SVCE manages congestion risks through the prudent management of Congestion Revenue Rights (CRRs). CRRs are financial instruments used to hedge against transmission congestion costs encountered in the CAISO day-ahead market. SVCE uses a third-party scheduling coordinator to manage its CRR portfolio. SVCE uses CRRs to reduce its exposure to congestion and other CAISO charges, and will not use CRRs for speculative purposes.

5.4 Net Revenue Risk
SVCE manages net revenue risk by managing each of its contributing factors as described in other sections in this Policy—market price risk, load and generation volumetric risk, counterparty performance, etc. In addition, SVCE strives to provide competitively priced products that are valued by its customers to minimize opt out rates. Net revenue is monitored closely so that trend changes can be identified as early as possible and corrective action can be taken as appropriate.

5.5 Counterparty Credit and Performance Risk
SVCE evaluates and monitors the financial strength of service and energy providers. Generally, SVCE manages its exposure to energy suppliers through a preference for counterparties with Investment Grade Credit ratings as determined by Moody’s or Standard and Poor’s and through the use of security requirements in the form of cash and letters of credit. SVCE measures its mark-to-market counterparty credit exposure consistent with industry best practices. Additionally, SVCE manages counterparty credit risk by monitoring and controlling collateral, letters of credit and other forms of credit calls on the agency as well as paying bills in a timely fashion to avoid defaulting on any term of an agreement.

5.6 Load and Generation Volumetric Risk
SVCE manages energy delivery risks by ensuring that contracts include appropriate contractual penalties for non-delivery, acquiring energy from a geographically and technologically diverse portfolio of generating assets with a range of generation profiles.

SVCE manages load forecasting and related weather risks by contracting with qualified data management and scheduling coordinators who together provide the systems and data necessary to forecast and schedule load using good utility practice.
SVCE’s load scheduling strategy, as executed by its scheduling coordinator, ensures that price risk in the day ahead and real time CAISO markets is managed effectively and is consistent with good utility practice.

5.7 Operational Risk
Operational risks are managed through:

- Adherence to this Policy and oversight of procurement activity;
- Conformity to Employee Handbook;
- Staff resources, expertise and/or training reinforcing a culture of compliance;
- Ongoing and timely internal and external audits; and
- Cross-training amongst staff
- Authorized traders and others involved in any phase of transacting are prohibited to own stock in a current or potential counterparty to avoid a conflict of interest

5.8 Liquidity Risk
SVCE manages liquidity risk through adherence to its loan and power purchase agreement credit covenants, limiting commitments to provide security consistent with the Guidelines, ensuring it has adequate loan facilities, prudent cash and investment management, and adherence to its Cash Reserve Policy. SVCE monitors its liquidity (defined as unrestricted cash, investments and unused bank lines of credit) no less than weekly. SVCE utilizes scenario and sensitivity analyses while preparing budget, rate, and pro forma analyses in order to identify potential financial outcomes and ensure sufficient liquidity under adverse conditions.

5.9 Regulatory/Legislative Risk
SVCE manages its regulatory and legislative risk through active participation in working groups and advocacy coalitions such as the California Community Choice Association. SVCE regularly participates in regulatory rulemaking proceedings and legislative affairs to protect SVCE’s interests.

5.10 Reporting
Reporting of critical information to relevant parties is a key component of energy risk management. Periodic reports will be provided to the ROC that shall provide sufficient details on SVCE’s transactions, NOP, market exposure, credit exposure, counterparty credit ratings, transaction compliance, and other relevant data. The frequency and content of the reports for each oversight body shall be prescribed in the Energy Risk Management Guidelines. Should the risks associated with the portfolio or a specific transaction within the portfolio fall outside of any established risk limit, the CEO will report this fact to the ROC within one business day via email, and will evaluate the risk of holding any of the contracts in the portfolio to delivery and report to the Board within 3 months.

6 Authorized Transaction and Trading Limitations

6.1 Trader Authorization Process
The Front Office shall request that the Middle Office begin the trader authorization process. The Middle Office shall verify that the trader’s background and experience is sufficient to transact on behalf of SVCE. Before authorizing personnel to transact, the Middle Office shall:
• Require that trader affirm that they are not currently under investigation for market manipulation;
• Require that trader affirm that they have not been previously investigated for market manipulation;
• Verify that trader has read and understands SVCE’s ERM Policy and Guidelines; and
• Determine that the trader has sufficient understanding and experience of the energy markets in which SVCE participates.

The Middle Office shall maintain a list of the authorized trading personnel as part of the ERM Guidelines.

6.2 Approved Markets

Approved markets in which SVCE authorized traders can participate are as follows:
• California Independent System Operator (CAISO);
• Western Electricity Coordinating Council (WECC); and
• California Air Resources Board (CARB) emissions/carbon auctions

6.3 Approved Transactions

Authorized transactions which SVCE authorized traders can utilize must be consistent with this Policy. Transactions must be directly related to the procurement and/or administration of:
• electric energy,
• reserve capacity,
• transmission and distribution service,
• ancillary services,
• congestion revenue rights (CRRs),
• renewable energy,
• renewable energy certificates (RECs),
• basis transactions,
• greenhouse gas emissions allowances,
• tolling agreements, and
• bilateral purchases of energy products.

Prohibited transactions are those transactions that are not related to serving retail electric load and/or reducing financial exposure. Speculative buying and selling of energy products is prohibited. Speculation is defined as buying energy in excess of forecasted load plus reasonable planning reserves or selling energy or environmental attributes that are not yet owned by SVCE. In no event shall speculative transactions be permitted. Any financial derivatives transaction including, but not limited to futures, swaps, options, and swaptions are also prohibited.

6.4 Tolerance Bands

Hedging its load obligation is a key function for SVCE. The primary responsibility of the Front Office is to manage the energy portfolio and purchase energy to hedge the cost of SVCE’s load obligation. As described in Section 5.3 (Market Price Risk), SVCE ladders its energy purchases over time to access the market at different times. Every six months, the Front Office produces a Portfolio Management Plan that must be approved by the CEO. The Portfolio Management Plan must describe the current portfolio position, the recommended hedging transactions, the portfolio position after the transactions, and how the portfolio will remain within the Tolerance Bands in Table 1.
Tolerance bands for SVCE’s Net Open Position (NOP) for energy—load minus hedged and fixed-price supplies—shall fall within the tolerances outlined in Table 1 below:

<table>
<thead>
<tr>
<th>Period</th>
<th>Minimum Tolerance</th>
<th>Maximum Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt Quarter</td>
<td>85%</td>
<td>105%</td>
</tr>
<tr>
<td>Prompt Year</td>
<td>80%</td>
<td>105%</td>
</tr>
<tr>
<td>Year 2</td>
<td>70%</td>
<td>90%</td>
</tr>
<tr>
<td>Year 3</td>
<td>55%</td>
<td>75%</td>
</tr>
<tr>
<td>Year 4</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Year 5</td>
<td>0</td>
<td>50%</td>
</tr>
</tbody>
</table>

SVCE must comply with the regulatory requirements for procurement of capacity products for Resource Adequacy (RA) needs. Currently, this requirement is to show compliance for the prompt calendar year by October 31st for a portion of RA obligations, but the requirement may change to a three-year requirement for local RA. Additionally, SVCE must demonstrate, on a month-ahead basis, full compliance with its monthly RA obligations. SVCE endeavors to purchase RA products over time to meet its obligation and to diversify its purchases between suppliers and market conditions.

With respect to purchases to meet the Renewable Portfolio Standard (RPS), SVCE is guided by its Strategic Plan, which states that purchases should be staggered to accommodate regulatory uncertainty, changes in load and supply price risks and that the RPS portfolio should be diversified with respect to technologies.

6.5 Authorized Trading Limits

6.5.1 Transacting Authority Retained by the Board
The Board retains the authority to approve:
- All transactions with terms of over 12 months unless it has explicitly delegated authority to the CEO;
- All transactions with terms of over 5 years; and
- Master Agreements under which the CEO may be delegated some authority to transact

6.5.2 Authority Delegated to the CEO by the Board
Under the Board-approved Purchasing Policy, the CEO is delegated the authority to approve and execute contracts for Energy Procurement for terms of less than or equal to 12 months, which the CEO shall timely report to the Board. In addition, the Board may delegate procurement authority to the CEO from time to time to transact under Board-approved Master Agreements (e.g. Resolution 2016-15 which delegates authority to the CEO to execute confirmation agreements for terms of up to 57 months with six energy service providers with whom SVCE has executed Master Agreements).

Table 2 below lists the authorized trading limits to transact on behalf of SVCE. If the CEO delegates some of his authority, he must document any such delegations in the Energy Risk Management Guidelines.
Table 2: Authority Delegated to the CEO by the Board

<table>
<thead>
<tr>
<th>Product</th>
<th>Term Limit</th>
<th>Notional Value Limit</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy, Capacity, and CAISO Ancillary Services</td>
<td>Day Ahead and Real Time</td>
<td>As needed to meet SVCE’s obligations with the CAISO</td>
<td>CEO</td>
</tr>
<tr>
<td>Energy, Capacity, CRRs, and Environmental Products</td>
<td>Up to 12 months</td>
<td>As needed to meet SVCE’s needs (per Purchasing Policy)</td>
<td>CEO</td>
</tr>
<tr>
<td></td>
<td>Up to 60 months</td>
<td>As delegated to the CEO under Master Agreements approved by the Board</td>
<td>CEO</td>
</tr>
<tr>
<td></td>
<td>Over 60 months</td>
<td>As approved by the Board</td>
<td>Board</td>
</tr>
</tbody>
</table>

6.5.3 Limits of Authority Delegated to Authorized Personnel by the CEO

The Front Office periodically prepares a needs assessment and develops a Portfolio Plan, which defines the transactions required to meet SVCE’s needs and to remain within the Tolerance Bands of Section 6.4. The CEO must approve the Portfolio Plan and may delegate some of his authority to Authorized Personnel (as determined according to the process described in Section 6.1).

Although the CEO may delegate some of his authority to Authorized Personnel, the Board limits the authority he can delegate as shown in Table 3 below:

Table 3: Limits of Authority Delegated to Authorized Personnel by the CEO

<table>
<thead>
<tr>
<th>Product</th>
<th>Term Limit</th>
<th>Notional Value Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy, Capacity, and CAISO Ancillary Services</td>
<td>Day Ahead and Real Time</td>
<td>As needed to meet SVCE’s obligations with the CAISO</td>
</tr>
<tr>
<td>Energy</td>
<td>Balance of the month</td>
<td>$5 Million</td>
</tr>
<tr>
<td></td>
<td>Prompt month</td>
<td>$7.5 Million</td>
</tr>
<tr>
<td></td>
<td>Up to 12 months</td>
<td>$25 Million</td>
</tr>
<tr>
<td>Capacity (Resource Adequacy Products), CRRs</td>
<td>Prompt month</td>
<td>As needed to meet SVCE’s obligations</td>
</tr>
<tr>
<td></td>
<td>Balance of compliance year</td>
<td>As needed to meet SVCE’s obligations</td>
</tr>
<tr>
<td></td>
<td>Up to 12 months</td>
<td>$15 Million</td>
</tr>
<tr>
<td>Environmental Products (Carbon Free and Renewable Energy Resources)</td>
<td>Up to 12 months</td>
<td>$15 Million</td>
</tr>
</tbody>
</table>

6.6 Conflict of Interest

All SVCE employees who are involved in any aspect of transacting for energy or energy-related resources are prohibited from investing in any company with whom SVCE transacts, including those with whom it has executed enabling agreements. Prior to engaging in evaluation of, negotiation with, transacting with, or oversight of a transaction or potential transaction with any company, all involved employees must ensure that they are divested in direct holdings with that company. The ban on investment and requirement to divest is regardless of whether the investment would require disclosure on the employee’s FPPC Form 700.
7 Risk Management Policy Governance

7.1 SVCE Board of Directors
The SVCE Board is responsible for adopting this Policy and reviewing it as needed every two calendar years. The Board also approves SVCE’s annual budget, contracting authorities and delegates responsibilities for the management of SVCE’s operations to its CEO.

7.2 Risk Oversight Committee
SVCE’s CEO formed the Risk Oversight Committee (ROC) and is responsible to inform the ROC about any risk management issues and to provide assurance that this Policy is implemented. The CEO shall provide the ROC information and analysis that illustrate that all transactions are consistent with the risk tolerances and that risk management controls and practices are sufficient to monitor and manage risks that SVCE is exposed to.

The ROC shall meet at least once per calendar quarter, or as otherwise called to order by the CEO.

The ROC shall from time to time review the Energy Risk Management Guidelines defining in detail the internal controls, strategies and processes for managing market risks incurred through or attendant upon wholesale trading, retail marketing, long-term contracting, CRR trading and load and generation scheduling. The ROC shall receive and review information and reports regarding risk management, wholesale trading transactions, and the administration of supply contracts. The ROC will also review counterparty credit lines and cash reserves to ensure proper levels are maintained for credit, operations and liquidity. In addition, the ROC shall review any instances of non-compliance with any provisions of the Policy or Guidelines.

7.3 Internal Risk Oversight Committee
The CEO formed the Internal Risk Oversight Committee (IROC) to review in more detail any risk management issues that arise. The IROC comprises members of the Front, Middle, and Back Office and is used to coordinate any activities related to transacting. The IROC regularly reviews SVCE’s risks and risk management strategies and assists the CEO to ensure that proper controls are in place. The IROC is responsible to develop, approve and update Energy Risk Management Guidelines that implement the Energy Risk Management Policy.
Energy Risk Management Policy

May 10, 2017
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1 Overview

Silicon Valley Clean Energy’s (SVCE) Energy Risk Management (ERM) policies and procedures is a comprehensive framework to manage the strategic, operational, regulatory and reporting risks associated with the acquisition of power supply. SVCE’s ERM Policy and related framework sets out a methodology and process for identifying risks, defining responsibilities, and establishing controls and procedures for reporting on risks and results against metrics to the SVCE Risk Oversight Committee and appropriate SVCE staff and management.

ERM encompasses the implementation of cost-effective controls and contingency plans with the intent of exceeding goals and objectives subject to approved risk tolerances, including the minimization of costs and liabilities.

The SVCE Board is responsible for review of the ERM policies and procedures. Periodically, but no less than once every two years, the Board is responsible for verifying that any updates to the ERM policies and procedures are consistent with SVCE’s mission and risk tolerance, as well as those that may be required to address industry and regulatory changes.

The ERM Risk Oversight Committee is responsible for establishing and reviewing SVCE’s risk tolerance, reviewing risk exposures, adequacy of controls and reporting mechanisms, limit breaches, and financial adequacy to support trading objectives. In addition, the ERM Risk Oversight Committee is responsible for attesting to the adequacy of procedures and controls required to comply with outside entities’ rules, regulations and requirements for risk monitoring and control. The ERM Risk Oversight Committee also reviews all major strategies and positions for their impact on the risks facing SVCE.

The Trading Group (Front Office) is responsible for developing and implementing strategies designed to fill SVCE’s Net Open Position (NOP), while comporting to boundaries and limits established by the trading and credit policies. NOP is based on forward forecasts of load and supply volumes over a future period (next month, next quarter, next year and beyond) and the value at risk for the unhedged open position based on forward price curves and volatility.

The Front Office is also responsible for complying with all controls and procedures including the capture of executed transactions, notifying the Middle Office of market trends, and changes to market rules or procedures that affect market dynamics. Finally, the Front Office is tasked with immediately reporting to the Middle Office discrepancies or deviations from accepted practices, policies or procedures, including breaches of established trading and risk limits, unauthorized trading activities and failure of controls.

The Risk Group (Middle Office) is responsible for overseeing the risk management framework and reviewing the effectiveness of key mitigation strategies. This includes determining SVCE’s NOP, value of the NOP relative to current market prices, costs and revenue relative to expected costs, contract performance, hedging effectiveness,
investigation of trade discrepancies, monitoring risk limits and ensuring that trades can be tracked from cradle to grave. The Middle Office conducts quarterly reviews to ensure that emerging risks, such as those from changes in market structure and design, organizational restructures and operational issues, are identified and responses are developed.

The Settlement Group (Back Office) is responsible for ensuring that trades executed by the Front Office are settled in accordance with the terms and conditions of the contract and payment of invoices and receipt are consistent with timing specified by the governing documents. The Back Office is also responsible for ensuring that trades captured by the Front Office are transferred correctly to the settlement system. Finally, the Back Office is responsible for providing feedback to the Front Office of other charges or payments that affect the value of the trading strategy and monitoring changes in rules, regulations and procedures that affect the value of trading strategies.

2 Energy Risk Management Objective
SVCE is committed to providing competitively priced power to its customers, serving the following objectives:

- Maintaining risk within desired tolerances for a defined period in the future
- Participating in the energy markets primarily for hedging purposes, while taking advantage of market opportunities within defined policy limits
- Mitigating the effect of price volatility to its customers
- Maintaining stable cash flow

3 Governance Structure Roles and Responsibilities
3.1 SVCE Board
The SVCE Board consists of the following representatives:

- Campbell
- Cupertino
- Gilroy
- Los Altos
- Los Altos Hills
- Los Gatos
- Monte Sereno
- Morgan Hill
- Mountain View
- Santa Clara County
- Saratoga
- Sunnyvale

The SVCE Board is responsible for:

- Reviewing and approving ERM policies and procedures
- Annually affirming that the ERM policies reflect changes to SVCE’s mission and risk tolerance
- Reviewing, and if warranted approving, participation in commodity markets and derivative instruments
- Establishing guidance by which counterparty credit limits are set and monitored, and delegating development and implementation to SVCE’s Risk Oversight Committee
3.2 Risk Oversight Committee
The Risk Oversight Committee (ROC) is formed by SVCE’s Chief Executive Officer to:

- Define and ensure that all transaction strategies are consistent with SVCE’s risk tolerance
- Develop the framework for the Middle Office to develop risk management controls, practices and procedures that are sufficient to monitor and maintain potential loss of value and increased costs within acceptable tolerances
- Report risks, procurement activities and financial information to its SVCE Board of Directors

3.3 Front Office
The Trading Group (Front Office) is established to transact within the Western Electricity Coordinating Council (WECC) to satisfy SVCE’s load obligations and resultant NOP. The Front Office is responsible for transacting within limits established and authorized by the ROC, recording all transactions in the deal capture system and reporting activities to the Middle Office, including potential Risk Policy violations.

3.4 Middle Office
The Risk Group (Middle Office) is responsible for:

- Ensuring that SVCE’s accounting, financial and treasury function, internal control, risk management and compliance systems satisfy the ERM policies
- Overseeing and monitoring the accountability process and the quality of internal and external reporting
- Reporting regularly to the ROC on each of its purposes and duties and notify the ROC immediately upon findings of discrepancies or breach of limits or procedures that are of material significance or have the potential to result in material significance
- Performing routine internal audits
- Not less than annually, reviewing Front Office resources, including qualifications, skills, experience, funding and equipment
- Developing and approving procedures consistent with this policy
- Ensuring that key risk profiles, material changes to the profiles, trends, emerging risks, and the risk management program are reported to the ROC
- Reviewing with the ROC the effectiveness of internal controls, compliance and risk management systems
- Reviewing the controls in place for unusual transactions and significant risk exposures
- Publishing a quarterly risk report that notifies the ROC of any issues of concern and requires an annual assurance from the ROC that effective risk management processes in relation to material business risks are in place

3.5 Back Office
The Settlement Group (Back Office) is responsible for:
• Settling transactions based on agreed upon terms and conditions specified by the agreement governing the transaction
• Receiving amounts owed and paying amounts due, and ensuring that collateral and postings are sufficient to allow the Front Office to effectively perform its functions
• Ensuring that trade details (price, location, product, tenor, counterparty) transacted by the Front Office and recorded by the trade capture system are accurately reflected in the settlement system and reporting any discrepancies to the Middle Office and if necessary, the ROC

4 Hedging
4.1 Hedging Policy and Objectives
SVCE’s hedging policy is designed to satisfy the following objectives:
• Effectively identify and quantify financial and regulatory risks to SVCE
• Accurately monitor those risks
• Execute transactions to appropriately balance risk with minimizing cost and price stability to SVCE’s customers
• Provide transparency of the procurement process as appropriate throughout the SVCE organization

4.2 Net Open Position (NOP) Definition and Assessment
The NOP is defined as the difference between demand obligations and supply relative to market prices over a forward period. The NOP is calculated consistent with Risk Management procedures with the following results:
• NOP capacity, energy, renewable portfolio standards (RPS) and carbon-free volumes by period from prompt month through the next five years
• Conversion of NOP to tradeable products (for example, on-peak and off-peak blocks)
• Expected dollar value of the NOP
• Forward price curves
• Volatility of forward prices
• Load obligation forecast in MW and MWh
• Supply expectation in MW and MWh

4.3 NOP Management
NOP is to be managed to ensure stable, competitive rates to SVCE customers. To achieve that goal, the management of the NOP requires a matching of supply with load at rates designed to minimize exposure to price volatility while ensuring compliance with RPS mandated volumes. NOP shall be closed consistent with percentages established in the ERM Policy over periods as shown below:
• Prompt month
• Prompt quarter
• Remaining quarters over the next 12 months (four quarters)
• Year after the next 12 months
• Next five years after the next 12 months

4.4 Measuring NOP
The Middle Office shall calculate SVCE’s NOP based on the following criteria:
• Supply contracts expected delivery
• Failure rate of supply contracts
• Load forecast and customer acquisition/retention outlook
• Forward market prices
• Forward market price volatility
• Optionality of supply and demand contracts (dispatchability based on market prices)
• Contract tenor
• Contract delivery and customer load location
• RPS compliance period requirements
• Greenhouse gas allowances and obligations
• Type of revenue streams (fixed vs. floating)
• Type of contract costs (fixed vs. floating)

4.5 Monitoring NOP
Results of monitoring SVCE’s NOP shall include the following:
• Volume in MWh, MW by standard on-peak and off-peak periods for the following periods:
  o Prompt month
  o Prompt quarter
  o Balance-of-year
  o Prompt calendar year
  o 2-5 years
• Value in dollars
• Impact to rates to SVCE customers
• Renewable Energy Certificates (RECs) by compliance period
• Greenhouse gas emissions-free energy volume

4.6 Closing NOP
There are two processes for closing SVCE’s NOP: the first is a result of the NOP being out of tolerance; the second is implementing a hedging strategy to maintain the NOP within tolerances.

Transactions to bring the NOP into tolerance shall be executed by the Front Office as soon as practical upon notification from the Middle Office. The Front Office shall notify the Middle Office that the transactions have been executed no later than the close of business on the day that the transactions were executed.

Transactions that are executed as a result of strategies designed to maintain the NOP within tolerances shall be consistent with the strategies. The resultant NOP shall be
updated to reflect the new transactions as soon as practical but no later than the next business day.

NOP energy tolerances shall be set at the following:

<table>
<thead>
<tr>
<th>Period</th>
<th>Minimum Tolerance</th>
<th>Maximum Tolerance</th>
<th>Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt month</td>
<td>90% of load</td>
<td>105% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Prompt quarter</td>
<td>85% of load</td>
<td>105% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Balance-of-year</td>
<td>85% of load</td>
<td>105% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Prompt calendar year</td>
<td>80% of load</td>
<td>105% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Second calendar year</td>
<td>70% of load</td>
<td>90% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Third calendar year</td>
<td>55% of load</td>
<td>75% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Fourth calendar year</td>
<td>40% of load</td>
<td>60% of load</td>
<td>n/a</td>
</tr>
<tr>
<td>Fifth calendar year</td>
<td>0% of load</td>
<td>50% of load</td>
<td>n/a</td>
</tr>
</tbody>
</table>

NOP RPS tolerances shall be set at the following:

<table>
<thead>
<tr>
<th>Period</th>
<th>Minimum Tolerance</th>
<th>Maximum Tolerance</th>
<th>Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2017 to December 31, 2017</td>
<td>90% of forecast</td>
<td>110% of forecast</td>
<td>25% of 2017 of retail sales</td>
</tr>
<tr>
<td>January 1, 2018 to December 31, 2018</td>
<td>80% of forecast</td>
<td>100% of forecast</td>
<td>25% of 2017 and 2018 retail sales</td>
</tr>
<tr>
<td>January 1, 2019 to December 31, 2019</td>
<td>70% of forecast</td>
<td>90% of forecast</td>
<td>25% of 2017 through 2019 retail sales</td>
</tr>
<tr>
<td>January 1, 2020 to December 31, 2020</td>
<td>55% of forecast</td>
<td>75% of forecast</td>
<td>25% of 2017 through 2019 retail sales + 33% of 2020 retail sales</td>
</tr>
<tr>
<td>Post 2020</td>
<td>40% of forecast</td>
<td>60% of forecast</td>
<td>33% of retail sales</td>
</tr>
</tbody>
</table>

NOP Capacity tolerances shall, at a minimum, be set at the following:

<table>
<thead>
<tr>
<th>Period</th>
<th>Minimum Tolerance</th>
<th>Maximum Tolerance</th>
<th>Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt month +1</td>
<td>100% of req’d</td>
<td>100% of req’d</td>
<td>115% of peak load</td>
</tr>
<tr>
<td>Prompt month +2</td>
<td>100% of req’d</td>
<td>100% of req’d</td>
<td>115% of peak load</td>
</tr>
<tr>
<td>Prompt quarter</td>
<td>100% of req’d</td>
<td>100% of req’d</td>
<td>115% of peak load</td>
</tr>
<tr>
<td>Balance-of-year</td>
<td>75% of req’d system and flex; 100% of req’d local</td>
<td>100% of req’d</td>
<td>115% of peak load</td>
</tr>
<tr>
<td>Prompt calendar year (as of August)</td>
<td>50% of req’d</td>
<td>90% of req’d</td>
<td>n/a</td>
</tr>
<tr>
<td>Prompt calendar year (as of October)</td>
<td>75% of req’d system and flex; 100% of req’d local</td>
<td>100% of req’d</td>
<td>103.5% of summer months peak load for system and flexible capacity; 100% of obligation for local</td>
</tr>
<tr>
<td>Post Prompt Year</td>
<td>0% of req’d</td>
<td>50% of req’d</td>
<td>n/a</td>
</tr>
</tbody>
</table>
5 Authorized Transaction and Trading Limitation

5.1 Energy Trading and Authority Policy Objectives
SVCE’s Energy Trading and Authority (ETA) policy is designed to satisfy the following objectives:

- Ensure that market participation is consistent with SVCE’s customer needs
- Provide SVCE with viable market tools with which to transact without exposing SVCE to undue risk
- Provide SVCE’s traders and origination team with structure upon which to transact
- Ensure that agreements that govern transactions and allow for trading are suitable for transacting and do not expose SVCE to undue risk

5.2 Trader and Origination Team Authorization Process
The Front Office shall request that the Middle Office begin the trader authorization process. The Middle Office shall verify that the trader’s background is consistent with the criteria established by the ERM Risk Oversight Committee. Criteria shall consist of the following:

- Trader name
- Experience
- Verification that trader is not currently under investigation for market manipulation
- Verification that trader has not been previously investigated for market manipulation
- Verification that trader has read and understands SVCE’s trader policies regarding closing SVCE’s NOP, and prohibition of speculation and market manipulation

Once the trader is authorized to transact on behalf of SVCE, the Middle Office shall then notify the Front and Middle Offices of that decision. The Middle Office shall add the trader to the trade capture system with the appropriate limits and authorizations. The Middle Office shall maintain documentation indicating SVCE’s authorized traders, origination team members along with markets, trading instruments and term for which they are approved.

5.3 Approved Market Participation
Approved markets in which SVCE authorized traders and origination team members can participate are as follows:

- Bilateral energy and capacity within the WECC
- Bilateral renewable energy within the WECC
- Bilateral transmission and associated services within the WECC
- Bilateral carbon and emissions within California
- California Air Resources Board (CARB) emissions/carbon auctions
- Bilateral financial energy
- California Independent System Operator (CAISO)
Day-Ahead energy and ancillary services
- Real-Time energy and ancillary services
- Congestion Revenue Rights (CRRs)
- Virtual bidding

5.4 Trading Instruments
Approved trading instruments in which SVCE authorized traders and origination team members can utilize are as follows:
- Physical energy, capacity and transmission transactions
- CAISO energy, ancillary services, inter-scheduling coordinator trades (ISTs), CRRs and virtual bidding
- Financial energy fixed-for-floating swaps
- Financial contracts-for-differences
- Basis transactions
- Greenhouse gas emissions allowances
- Renewable Energy Certificates (RECs)
  - Portfolio Compliance Category 1 (PCC1)
  - PCC2
  - PCC3

5.5 Enabling Agreements
Approved enabling agreements under which SVCE transactions are governed are as follows:
- Western System Power Pool (WSPP)
- Edison Electric Institute (EEI)
- CAISO Tariff
- Individual Power Purchase Agreements approved by the SVCE Board of Directors

5.6 Authorized Trading Limits
The table below lists authorized trading limits for personnel authorized to transact on behalf of SVCE.

1 Note that except for CRRs and Convergence Bids, all limits are expressed in notional value of the contract, that is price times quantity. For example, 5 MWh x $20/MWh is a notional value equal to $100. CRRs and Convergence Bids are expressed in Value at Risk, that is the amount that the value of the CRR can expected to vary within a confidence interval. The confidence interval for CRRs and Convergence bids is 95%.
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Real-Time</td>
<td>Balance-of-period until next unscheduled Day-Ahead Period</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
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<tr>
<td>Capacity</td>
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<tr>
<td>Transmission</td>
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<tr>
<td>Financial Energy</td>
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</tr>
<tr>
<td>Energy</td>
<td>Day-Ahead</td>
<td>Balance-of-period until next unscheduled Day-Ahead Period</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
<td>Amount necessary to balance SVCE load and resources</td>
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<tr>
<td>Capacity</td>
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<tr>
<td>Transmission</td>
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<tr>
<td>Financial Energy</td>
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<td></td>
</tr>
<tr>
<td>Energy</td>
<td>Balance-of-Month</td>
<td>Next unscheduled Day-Ahead Period until end of current month</td>
<td>$5,000,000 100</td>
<td>$2,500,000 50</td>
<td>$2,000,000 50</td>
<td>$1,000,000 50</td>
</tr>
<tr>
<td>Capacity</td>
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<tr>
<td>Transmission</td>
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<tr>
<td>Financial Energy</td>
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<td></td>
</tr>
<tr>
<td>Energy</td>
<td>Prompt Month</td>
<td>One Month</td>
<td>$7,500,000 200</td>
<td>$2,000,000 50</td>
<td>$2,000,000 50</td>
<td>$1,000,000 50</td>
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<td>Capacity</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>Energy</td>
<td>Balance-of-Year</td>
<td>One Year</td>
<td>$25,000,000 250</td>
<td>$6,250,000 50</td>
<td>$6,250,000 50</td>
<td>$3,000,000 50</td>
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<tr>
<td>Capacity</td>
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<tr>
<td>Transmission</td>
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<td>Financial Energy</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>Current Month through 36 Months</td>
<td>Three Years</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
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<tr>
<td>Capacity</td>
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<tr>
<td>Transmission</td>
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<tr>
<td>Energy</td>
<td>Current Month through 60 Months</td>
<td>Five Years</td>
<td>Approval Required by SVCE CEO</td>
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<td>Transmission</td>
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<tr>
<td>Financial Energy</td>
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<td></td>
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</tr>
<tr>
<td>CAISO Energy</td>
<td>Real-Time and Day-Ahead</td>
<td>Through Next CAISO Day-Ahead Period</td>
<td>Amount necessary to schedule SVCE load and resources</td>
<td>Amount necessary to schedule SVCE load and resources</td>
<td>Amount necessary to schedule SVCE load and resources</td>
<td>Amount necessary to schedule SVCE load and resources</td>
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<td>CAISO Ancillary Services</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>CAISO Convergence Bids</td>
<td>Day-Ahead</td>
<td>24 Hours</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>CAISO CRRs</td>
<td>Month</td>
<td>1 Month</td>
<td>$5,000,000 1,000 MW per on-peak and off-period</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Quarter</td>
<td>3 Months</td>
<td>$15,000,000 1,000 MW per on-peak and off-period</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td></td>
<td>Year</td>
<td>1 Year</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
<td>Approval Required by SVCE CEO</td>
</tr>
</tbody>
</table>
6 Counterparty Credit

6.1 Credit Risk Policy Objective
SVCE’s Energy Credit Risk policy is designed to satisfy the following objectives:
- Ensure that counterparty risk is recognized and managed to prevent financial loss and regulatory noncompliance due to nonperformance
- Provide SVCE with a broad range of viable counterparties
- Provide SVCE with enough counterparty diversity to obtain market-representative products, prices and location

6.2 Credit Authorization Process
For each potential new counterparty, the Middle Office will develop a counterparty credit template that will be used as the basis for vetting the counterparty’s suitability for transacting with SVCE. The counterparty credit template shall consist of the following:
- Counterparty name
- Investment grade
- Financial measures such as assets-to-liability ratio and debt-to-equity ratio
- Organization’s size (personnel, assets, dollars)
- Payment history
- Reputation in industry
- Depth of resources
- Enabling agreement type (WSPP, EEI, or custom)
- Litigations in progress and concluded
- Government entity
- Counterparty limits as described in Section 6.5 below (if counterparty is approved)

Once the credit template is completed, the Middle Office is responsible for determining whether the counterparty is suitable for transacting with SVCE and if so, corresponding limits and collateral if necessary. The Middle Office shall then notify the Front and Middle Offices of their determination. For approved counterparties, the Middle Office shall add the counterparty to the trade capture system with the appropriate limits.

6.3 Counterparty Credit Limits
Counterparty credit limits that are entered in the trade capture system and monitored are as follows:
- Total dollars owed or are owed
- Total volume sold or purchased (MW and MWh) remaining to be delivered or received
- Total dollar value of transaction
- Total transaction volume sold or purchased (MW and MWh)
- Percentage of dollars owed or are owed relative to all counterparties
• Percentage of volume sold or purchased relative to all counterparties

Prior to entering into any new transaction, the effect of the potential transaction shall be incorporated to ensure that limits prescribed to the potential counterparty shall not be breached. If any of the limits are breached, the transaction shall not be executed.

6.4 Counterparty Credit Monitoring
Counterparty credit monitoring shall be originated using the counterparty credit monitoring template. All pertinent information shall be included and updated using the counterparty credit template. The counterparty credit template shall be used by Middle Office personnel to enter relevant information into the trade capture system for tracking against transactions and settlements.

The transaction capture system shall compare the effect of potential transactions prior to executing a transaction. Transactions that are within limits can then be executed. Transactions that exceed limits shall not be executed.

6.5 Counterparty Credit Limit Exceedances
Counterparty credit limit exceedances shall result in immediate suspension of trading with that specific counterparty. Should that occur, the following actions to remedy shall be performed:
• No new transactions shall be executed with the affected counterparty
• Middle Office shall be notified immediately
• Middle Office shall investigate and identify the root cause of the exceedance
• Middle Office shall notify the ERM Risk Oversight Committee
• The exceedance shall be rectified as soon as possible via actions recommended by the Middle Office and reviewed by the ERM Risk Oversight Committee
• A comprehensive report shall be developed by the Middle Office and provided to the ERM Risk Oversight Committee and subsequently the SVCE Board of Directors

7 Reporting
As described in the ERM procedures, the Middle Office will develop reports to provide feedback to the SVCE Risk Oversight Committee regarding NOP management, risk management and pertinent issues affecting SVCE. They will also develop reports for the Front Office to state how well the contracts and transactions performed relative to expectations. At a minimum, reports shall consist of the following:
• Summary of energy risk management meetings
• NOP summary
  o NOP by period and type (energy, capacity, RPS, and carbon-free)
  o Value of NOP in dollars
  o Transactions executed and resultant change to NOP during the month
  o Strategies for closing NOP
  o Transactions that were required to close NOP as a result of tolerance exceedance
- Result of transactions on NOP
- Contract performance
- Summary of new transactions
- Financial report (costs and revenues associated with load obligations, contracts, resources and resultant NOP)
- Identification of violations of the Risk Policy along with mitigation measures
- Counterparty summary
  - List of counterparties
  - Credit limits (approved values)
  - Current dollar and volume amounts and remaining limits
  - Current credit rating
  - Total dollar value and quantity of transaction by counterparty
  - Ratio of contract value per counterparty to all contracts
  - Transactions that exceeded limits
    - Counterparty
    - Transaction type
    - Dollar amount of transaction
    - Quantity of transaction
    - Limit that was exceeded
    - Root cause of exceedance
    - Resolution
- RPS status
- Transaction Summary Report (quarterly or as requested by CEO to Risk Oversight Committee)
  - List of transactions
  - Volume and dollar amounts of transactions
  - Types of transactions
  - Effect of transactions on NOP
- Exceptions (as requested by CEO to Risk Oversight Committee)
  - Transactions that exceeded limits
  - Counterparty
  - Transaction type
  - Dollar amount of transaction
  - Quantity of transaction
  - Limit that was exceeded
  - Root cause of exceedance
  - Resolution
Reviewed and Approved by:

Rob Rennie – Chair, Silicon Valley Clean Energy Authority Board of Directors

Date: 5/12/17

**Policy History**

<table>
<thead>
<tr>
<th>Version: 3.0</th>
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</tr>
<tr>
<td>Last review: May 10, 2017</td>
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<td>Last updated: May 11, 2017</td>
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Staff Report – Item 1e

To:   Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 1e: Approve Amendment to Financial Policy 6 – Purchasing Policy to Grant the Authority of the CEO to Execute Contracts Implementing the Decarbonization Strategy and Programs Roadmap

Date: 1/9/2019

RECOMMENDATION
Staff recommends the Board approve amendment to Financial Policy 6 – Purchasing Policy to grant the CEO authority to execute the contracts implementing the Decarbonization Strategy and Programs Roadmap that are within the budget approved by Resolution No. 2018-20.

BACKGROUND
On May 11, 2016, the Board authorized the CEO to execute agreements up to $25,000, provided that 1) the expenditures authorized by these agreements are consistent with the approved budget and 2) service agreements are reported at the Board’s next meeting.

At the March 8, 2017 Board of Directors meeting, Financial Policy 6 – Purchasing Policy was adopted by the Board.

At the December 12, 2018 Board of Directors meeting, Financial Policy 6 – Purchasing Policy was amended to increase the authority of the CEO to $100,000 to approve and execute contracts.

ANALYSIS & DISCUSSION
At the December 12, 2018 Board of Directors meeting, the Decarbonization Strategy and Programs Roadmap was adopted with Resolution No. 2018-20. To make the purchasing policy consistent with the intent of the Resolution, staff recommends amending the purchasing policy to clearly state the CEO has the authority to execute contracts implementing the roadmap that are within the budget approved by Resolution 2018-20.

Staff recommends additional amendments in the purchasing policy to allow the execution of contracts for additional decarbonization programs approved in the future.

STRATEGIC PLAN
The recommendation supports the overall strategic plan.

ALTERNATIVE
Staff is open to suggestions from the Board regarding the recommendation.

FISCAL IMPACT
There is no fiscal impact to the agency with the adoption of the recommendation.

ATTACHMENTS
1. FP6- Purchasing Policy
PURCHASING POLICY

1. Delegation to the Chief Executive Officer

The CEO shall have all necessary and proper authority to approve and execute:

a. contracts for Energy Procurement for terms of less than or equal to 12 months, which the CEO shall timely report to the Board;

b. contracts with a not-to-exceed maximum dollar amount of less than or equal to $100,000 per vendor for a given scope of work, per fiscal year;

c. amendments or addenda to existing contracts, regardless of the existing contract’s price or total amount, which improves the terms of the contract to SVCE’s benefit without increasing the contract’s non-to-exceed maximum dollar amount; and

d. in the event of an emergency situation contracts with a not-to-exceed maximum dollar amount of;
   i. $150,000 in the aggregate; or
   ii. $500,000 in the aggregate with the prior written consent of three (3) Executive Committee members

e. Contracts implementing decarbonization programs approved by the Board of Directors pursuant to Resolution No. 2018-20 and any subsequent Board resolutions provided that any such contract does not exceed the Board approved budget for the decarbonization program implemented by the contract.

f. Any other contracts authorized by the Board of Directors to be executed by the CEO.

In order to avert or alleviate damage to property, to protect the health, safety and welfare of the community and SVCE’s employees, or to repair or restore damaged or destroyed property of SVCE.
An “emergency situation” for purposes hereof is a situation creating an imminent danger to life or property or other material financial loss that calls for immediate action with inadequate time for prior Board approval. The Chief Executive Officer shall within thirty (30) days of the emergency, deliver a report to the Board of Directors explaining the necessity for the action, a listing of expenditures made under these emergency powers and any recommended future actions.
Staff Report – Item 2

To: Silicon Valley Clean Energy Board of Directors  
From: Girish Balachandran, CEO 

Item 2: CEO Report 

Date: 1/9/2019 

REPORT 

SVCE Staff Update  
Justin Zagunis joined SVCE on January 2nd as a Decarb & Grid Innovation Analyst. Justin has a bachelor’s degree in Environmental Engineering from California Polytechnic State University and a master’s degree in Civil and Environmental Engineering from Stanford. Prior to SVCE, he was a resource planner at the City of Palo Alto Utilities working on demand side management program design, development, deployment and evaluation. 

2019 SVCE Rates  
As discussed at the December Board Meeting, SVCE anticipates that PG&E’s 2019 generation rates and PCIA values will be released in late February, to become effective March 1st. SVCE will present proposed 2019 rates for approval at the March 13th Board meeting, at a 1% discount level to PG&E’s 2019 rates. This reduced discount level was planned for in SVCE’s 2019 operating budget - to keep SVCE rates competitive with PG&E while offsetting a significant increase in the PCIA and decrease in PG&E generation rates. 

Approach for Incorporating Community Input in Policies and Programs  
Staff is currently formulating a recommendation for collecting and integrating community input into policy, program and advocacy activities after the December 2018 conclusion of the Customer Program Advisory Group (CPAG). Staff are reviewing a comprehensive array of options for collecting input from key stakeholders (e.g. surveys, focus groups, stakeholder workshops, ad hoc topically-focused webinars, a standing committee, etc.) to identifying which options are most appropriate given SVCE’s organizational priorities in the coming 6-12 months. The proposal will incorporate the feedback and perspective from the CPAG and other community groups, as well. 

CEO Agreements Executed  
The following agreements have been executed by the CEO, consistent with the authority delegated by the Board:  

1) Donna Musselman: Facility Consultation services, not to exceed $13,750 

CEO Power Supply Agreements Executed  
The following power supply agreements have been executed by the CEO, consistent with the authority delegated by the Board;
## Agenda Item: 2

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<thead>
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<th>Counterparty Name</th>
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These agreements are attached.

### ATTACHMENTS

1. Regulatory/Legislative Update, January 2019
2. Account Services & Community Relations Update, January 2019
3. Agenda Planning Document, January 2019 – April 2019
4. Power Supply Agreements Executed
Regulatory Summary

The last month of 2018 was a mashup of beginnings and endings (or approaching endings) on the regulatory front, and both influence the regulatory landscape we will have to navigate in 2019.

On the side of beginnings, the PCIA stands out. As you heard at last month’s meeting, Phase 2 of the PCIA proceeding (R.17-06-026) is officially kicked off. The biggest development this month was the prehearing conference (PHC) that took place on 12/19/18. The purpose of a prehearing conference is to reach agreement on the scope, schedule, and other logistics of a new proceeding, and a major theme of this one was who should chair the various stakeholder working groups that will be part of Phase 2. The discussion confirmed that the tensions and dynamics between the CPUC, the IOUs, CalCCA, and other major stakeholders that characterized Phase 1 are alive and well. Phase 2 is likely to be heavily contentious and resource-intensive, and will be a major regulatory focus for the upcoming year. As a next step, we await a Scoping Ruling that will finalize the judge’s decisions on PHC topics.

Elsewhere in beginnings, we are still looking for implementation of SB 237, the direct access expansion, to begin. This will be another high priority once it starts, and we are expecting an announcement from the CPUC any time. In the meantime, we are already incorporating expanded DA into internal SVCE planning on a variety of fronts.

On the other end of the proceeding lifecycle, resource adequacy (R.17-09-020), integrated resource planning (R.16-02-007), the tree mortality non-bypassable charge (A.16-11-005), and 2019 ratemaking are all approaching important conclusions. The Phase 2 Resource Adequacy (RA) Proposed Decision (PD) released back at Thanksgiving is scheduled for a vote on 1/10/19, so we’re in the final sprint of outreach and ex parte meetings with CPUC staff trying to convey the many issues that should keep that document from being passed as-is. Whether the PD passes on 1/10 or not, Phase 3 of the RA proceeding is expected to continue through the greater part of 2019 and will continue to be a high priority.

The Integrated Resource Planning (IRP) proceeding awaits a Proposed Decision, which we expect in January 2019 and which will reveal the final emissions modeling results of the procurement planned by LSEs around the state between now and 2030. If the PD is released in a timely fashion, the CPUC will wrap up this proceeding and be ready to start California’s second IRP cycle by spring 2019. The early part of the IRP cycle tends to focus more on output from the CPUC than from stakeholders, so our resource requirements there are likely to be lighter through mid-2019. On 12/13 the Commission voted to approve a final Decision in the tree mortality proceeding that was largely favorable to CPUC arguments, bringing our efforts on that proceeding to a close.

Finally, ratemaking for 2019 is inching towards a conclusion but remains significantly delayed. While we received a Proposed Decision containing 2019 PCIA rates on 12/9/17, this was followed by an update from the judge on 12/27 that corrected the numbers and requested further comment on a timeline stretching into January. In light of this correction, the Commission will not vote on the Proposed Decision before 1/10/19 at the earliest. Moreover, we have yet to receive the
December update to the Annual Electric True-up, which finalizes PG&E’s 2019 generation rates and is usually released in time for a 1/1 implementation launch. Given the numerous points of delay, we do not expect new PCIA and IOU generation rates to be implemented before March 1, 2019.

### Regulatory Update

| PCIA Reform Rulemaking (R. 17-06-026) | **Recall:** On 7/10/17 the California Public Utilities Commission (CPUC) released an Order Instituting Rulemaking (OIR) “to Review, Revise, and Consider Alternatives to the Power Charge Indifference Adjustment.” The OIR dismisses the investor owned utilities’ (IOUs’) PAM application, and opens a new proceeding to consider reforms to the PCIA more broadly. On 4/2/18, CalCCA submitted Opening Testimony that lays out a portfolio of suggested improvements to the PCIA. These range from incremental improvements to the market price benchmark to longer-term structural changes, such as securitization of utility-owned generation and an auction of IOU RPS and GHG-free resources to more accurately assess their market value. Rebuttal testimony and briefs followed. Administrative Law Judge released a Proposed Decision on 8/1/18, and Commissioner Carla Peterman released an Alternate Proposed Decision on 8/14/18. After pushing the vote back twice from its original scheduled date, on 10/11/18 the Commission voted unanimously to accept Commissioner Carla Peterman’s Alternate Proposed Decision (APD). On 11/29, the CPUC released a Ruling opening Phase 2 of the PCIA proceeding. 

- A prehearing conference was held on 12/19 to set the scope and schedule for Phase 2 of the PCIA proceeding. One of the major themes of the discussion was who should chair the various working groups that the 11/29 Ruling identifies as necessary for Phase 2 to be successful. Several of the working groups will be co-chaired by IOU and CCA representatives, but the IOUs expressed reservations at the conference about the prospects for progress with such opposed parties tasked with co-chairing. We expect a ruling from the judge shortly that will formalize the working group leadership and other logistics so that Phase 2 can move forward.

| Integrated Resource Planning (IRP) (R. 16-02-007) | **Recall:** This rulemaking was opened for the purpose of implementing the electricity sector’s share of CA’s GHG emissions mitigation goals as put forth in SB 350. The IRP process requires load serving entities (LSEs) to develop long-term procurement roadmaps and share them with the CPUC to facilitate sector-wide planning.

- On 9/19/17, the CPUC released the Proposed Reference System Plan (RSP). The RSP is a statewide study that serves as a benchmark for what the Integrated Resource Plans (IRPs) of all the LSEs need to achieve in aggregate in order to meet CA’s GHG emission reduction goals.

- On 12/28/17, the CPUC released a Proposed Decision (PD) containing further requirements for IRP content and compliance protocol. This PD significantly expanded CPUC authority over CCA IRPs, allowing the CPUC to review and approve them despite the language in SB 350 specifying certification only. Despite strong advocacy from the CCA community, the PD was passed unanimously at the 2/28/18 Commission meeting. |
On 4/3/18, the CPUC released a Ruling on the GHG accounting methodology to be used in the IRP process. The ruling adopts the Clean Net Short (“CNS”) methodology, which was originally proposed by PG&E and struck from the 2/8 IRP Decision after opposition from CalCCA and other stakeholders. CNS is based on hourly comparison between supply and demand curves for each load serving entity.

On 8/1/18, SVCE and CCAs around the state submitted Integrated Resource Plans to the CPUC.

Parties continue to await the release of a Proposed Decision in January 2019, which will contain the final Preferred System Plan (PSP) developed from the aggregated individual IRPs.

### CCA Rulemaking

(2017-2018)

- **Recall:** On 7/7/17, SVCE and other CCAs filed testimony through CalCCA proposing an updated methodology for calculating the Financial Security Requirement (FSR, aka bond) that new CCAs must pay as insurance against failure and dissolution. In contrast to the IOUs’ argument for including an estimated cost of emergency procurement for involuntarily returning customers, CalCCA proposed that the FSR should cover only the administrative costs of re-incorporation. Evidentiary hearings and briefs were held and filed, respectively, in fall 2017.
- **Recall:** On 4/6/18, the Commission released a Proposed Decision (“PD”) in this proceeding with a methodology for the new CCA bond requirement. The Financial Security Requirement (“FSR, aka “CCA bond”) was to include both the administrative costs of customer transition back to the IOU as well as an estimate of six months of incremental procurement costs. Incremental procurement costs were be estimated as the difference between market energy rate and the IOU generation retail rate, so in low-price market conditions the net incremental procurement cost could be negative. Negative procurement costs were allowed to offset administrative costs down to a total FSR of $0. On 5/29 the CPUC released an updated Proposed Decision that, among other small changes, raised the minimum FSR to $147k. This is the same minimum used in the bond methodology for Energy Service Providers (“ESPs,” aka direct access energy providers). The updated PD was approved by the Commission on 5/31.
- Although this proceeding is officially closed, informal collaboration between CCAs, IOUs, and Commission staff continues in order to clarify implementation details of the new FSR amounts. However, SVCE’s new, customized FSR has been confirmed at $147k, the minimum amount required by the new methodology.
- **No New Updates:** CCA staff continue to work with the IOUs and the CPUC on FSR implementation.

### Resource Adequacy

(2018-2019)

- **Recall:** On 9/28/17, the CPUC issued an Order Instituting Rulemaking (OIR) opening a new Resource Adequacy (RA) proceeding. This proceeding is the successor to R.14-10-010, and is implementing the RA program for RA compliance years 2019 and 2020. However, in addition to conducting routine program administration, the OIR for R.17-09-020 calls for making structural improvements to the RA program and asks stakeholders to suggest such improvements.
- The CPUC released a Scoping Memo on 1/18/18. The Scoping Memo divides the proceeding into three tracks in order of decreasing urgency. The most urgent issues, including questions about compliance and cost allocation related to load migration (ie CCA launches and expansions) are included in Track 1. In February and March 2018, a group of Joint CCA Parties including SVCE submitted Track 1 Proposals with changes to the RA program, followed by comments and reply comments on the proposals of other parties.
On 5/22, the CPUC released a Proposed Decision (“PD”) in Track 1 of this proceeding. The PD addressed system, local, and flexible RA obligations for 2019 (ie, how much RA is needed system-wide in each of these three categories), and then delved into the structure of the RA program itself. The PD found that for local RA, which is used to prevent capacity shortages in transmission-constrained areas, the status quo of an annual compliance requirement was insufficient. The PD determined that there should be a multi-year local RA requirement, extending the length of local RA contracts to three to five years. It also found that local RA procurement should be done by a central buyer rather than individual LSEs, a measure designed to prevent the occurrence of sublocal RA deficiencies despite all LSEs having fulfilled their RA obligations. The PD set up the opportunity for stakeholders to propose program structures in Track 2 that meet the requirements of a three- to five-year local RA obligation procured by a central buyer.

The Commission approved the Track 1 PD on 6/21/18. Given the potential impacts of this proceeding on all CCAs, CalCCA took over from the Joint CCA Parties in Track 2. CalCCA has assembled an RA Working Group tasked with participating in this proceeding on behalf of CalCCA’s entire membership. SVCE is an active contributor to the working group.

CalCCA submitted Phase 2 opening testimony on 7/10/18. As in the PCIA proceeding, CalCCA proposed a two-part solution divided into short- and long-term solutions. In the short term, CalCCA proposed a 3-year local RA requirement with CAISO playing the role of central buyer. However, CalCCA’s solution allows load serving entities (LSEs) to maintain most of their RA procurement autonomy. Rather than procuring all local RA, the central buyer would contract only with a) plants identified at the beginning of the local RA procurement process as critical to reliability regardless of the status of other plants in the region, and b) plants identified at the end of the local RA procurement process as critical to reliability given what other local RA resources LSEs have already procured in the region. In between, LSEs would continue their local RA procurement as before, with a slightly lower capacity requirement reflective of the initial round of critical procurement conducted by the central buyer. In the longer term, CalCCA’s proposes a process for identifying and developing non-wires alternatives aimed at eliminating local RA requirements altogether.

The original schedule for this proceeding had rebuttal testimony due 8/8/18. However, after opening testimony was submitted, it quickly became apparent to both stakeholders and the Commission that the breadth of ideas represented and the extent of the changes they would make to existing market structures was too great to be adequately addressed in the original schedule for the proceeding. At a prehearing conference held on 8/1/18, the Commission suspended the existing schedule and asked that rather than producing rebuttal testimony on 8/8/18, stakeholders submit procedural comments suggesting a more appropriate scope and schedule for the proceeding.

After submission of the procedural comments, the proceeding was functionally suspended until, on 10/5/18, the Commission issued an atypical Ruling requesting comments specifically on proposals submitted by Southern California Edison (SCE).

On 11/21, the Commission released a Proposed Decision for Phase 2 of this proceeding. The PD designates the IOUs as the central buyers in a three-year planning process for local RA. The central buyer will procure all local RA within its service territory (so PG&E will buy for SVCE), and the cost of this procurement will be allocated across the load-serving entities in its service territory on a pro rata basis through the existing Capacity Allocation Mechanism (CAM) charge on the delivery
**AB 1110 Implementation**

- **Recall:** AB 1110 (Ting, Chapter 656, Statues of 2016) was passed in 2016 for the purpose of augmenting the information available to electricity consumers in the annually-distributed Power Content Label (PCL). AB 1110 requires that, starting in 2020, the PCL will include the greenhouse gas emissions intensity (in lbs CO₂e/MWh) of each LSE’s portfolio (or, if it offers multiple electricity products, of each individual product) in addition to portfolio resource composition. AB 1110 also directs the California Energy Commission (CEC) to develop guidelines on how to treat unbundled RECs when calculating the power mix and GHG intensity metrics.
- On 6/27/17, the CEC released its proposed implementation plan for AB 1110. The proposal contained several provisions that would guarantee a non-zero emissions intensity for SVCE. Most importantly, the CEC proposed that for the purposes of calculating carbon intensity, PCC2 (aka “bucket 2”) RECs would have the emissions profile of the substitute energy that firms and shapes the energy product (usually gas) rather than that of the zero-carbon resource that generates the RECs. Secondly, PCC3 (unbundled) RECs would be reported in a footnote but not included in power mix or GHG intensity calculations. MWh for which SVCE has purchased unbundled RECs would thus no longer be carbon-free either.
- On 1/17/18, the CEC issued an updated version of the AB 1110 Implementation Proposal. However, the updates did not change the treatment of PCC2 (ie “bucket 2”) renewables.
- On 10/9/18, the California Energy Commission (CEC) released an updated AB 1110 implementation plan. The new proposal assigns PCC2 resources the emissions factor of their substitute firming-and-shaping energy, so PCC2 still isn’t carbon-free unless it’s firmed and shaped with carbon-free energy such as hydro.
- Parties await final proposed regulatory language from the CEC staff early in 2019.

**Tree Mortality NBC (A. 16-11-005)**

- **Recall:** In 2016, an emergency proclamation by Governor Brown and a bill passed by the legislature (SB 692) separately ordered the IOUs to procure extra energy from biomass in order to dispose of trees killed by the drought. SB 692 explicitly authorized the IOUs to recover the above-market cost of this procurement through a new non-bypassable charge (NBC), while Governor Brown’s proclamation did not. The IOUs advocated for combining the procurement costs of these two mandates and recovering both through a single new NBC. On 7/14/17, CalCCA submitted a Motion challenging a pre-hearing conference ruling in which the Administrative Law Judge (ALJ) erroneously determined the IOUs’ proposed combined NBC to be legal and acceptable.
- A workshop was held on 12/12/17, in which CCA and IOU representatives discussed the methodology for valuing the biomass resources that would form the basis of the new tree mortality NBC. The conversation revealed some common ground, particularly regarding the importance of consistency with the outcome of the ongoing PCIA reform proceeding. However, the workshop agenda explicitly excluded discussion of whether procurement mandated by Governor Brown’s
emergency proclamation, which was not explicitly authorized for cost recovery via NBC, could be lumped in with the SB 692 procurement in the new NBC.

➢ On 3/14/18, the Commission responded to and denied CalCCA’s July 2017 Motion on the treatment of procurement costs associated with Governor Brown’s 2016 emergency proclamation.

➢ On 4/17/18, the CPUC released a ruling laying out the methodology for calculating the tree mortality NBC. The methodology was straightforward, calculating the above-market costs of the biomass procurement by subtracting energy and ancillary services revenue plus the average 2016 per-MWh RPS contract cost from the per-MWh cost of the biomass contracts.

➢ On 5/30/18 the CPUC released a (very late) Scoping Memo for this proceeding, including a proceeding schedule that added testimony, hearings, and briefing.

➢ On 6/28/18, CalCCA submitted brief testimony reiterating our position from the December workshop. CalCCA maintained that the CPUC should avoid litigating the value of similar types of resources in multiple proceedings at the same time. The biomass contracts at the center of this proceeding should be valued according to the PCIA methodology, or whatever alternative comes out of the current PCIA proceeding.

➢ CalCCA submitted rebuttal testimony, a closing brief, and a reply brief on 7/18/18, 8/13/18, and 8/31/18 respectively. The materials maintain CalCCA’s position that the valuation methodology adopted in the PCIA proceeding should be used to value the biomass contracts at issue in this one, including after reviewing the PCIA PD released on August 1st.

➢ On 11/8, the Commission released a Proposed Decision in this proceeding that is largely in line with CalCCA’s arguments about how to structure the nonbypassable charge.

➢ On 12/21, the Proposed Decision (PD) was approved by the Commission with edits that favorably addressed CalCCA’s comments on the PD. This concludes our work on the official part of this proceeding. However, we will continue to be involved in the implementation process for the new non-bypassable charge, and also with issues such as the implementation of SB 901 where the Decision from this proceeding may be cited as precedent.

Recall: The ERA is the annual proceeding in which (among other features) the PCIA methodology is combined with PG&E’s cost and contract inputs to calculate the PCIA for the following year. The ERA is generally treated as a “number crunching” proceeding, in that Commissioners seldom permit substantive policy or methodological changes to be made there. However, it’s an important proceeding because it provides the actual PCIA rates using PG&E’s confidential inputs.

➢ SVCE is participating in this proceeding as part of the Joint CCAs, which includes seven CCAs from PG&E’s service territory. CalCCA generally does not participate in proceedings covering only one IOU’s service territory. On 11/7/18, PG&E released the final major estimate of 2019 PCIA values before the final rates are set in December.

➢ The Proposed Decision containing final PCIA numbers for 2019 was released on 12/7/18. The CCA Parties including SVCE submitted comments and reply comments on 12/17 and 12/24 respectively.

➢ On 12/27/18 the Administrative Law Judge in the proceeding issued an email update with corrected numbers and invited parties to comment by Jan 4th. At the time of writing the Proposed Decision is still scheduled for a vote at the
1/10/19 Commissioner voting meeting, but given these recent updates there is a good chance that it will be held until a future meeting.

- **Parties are still waiting for the final update to the Annual Electric True-up**, which finalizes PG&E’s generation rates and is thus as critical for SVCE rate planning as the PCIA rates generated in the ERRA proceeding.
- **Given the lack of the final AET update and the delayed vote on the ERRA Proposed Decision**, new PG&E generation and PCIA rates are unlikely to be implemented before March 2019.

### California Customer Choice Project (CCCP)

- **Recall**: Starting in spring 2017, the California Public Utilities Commission (CPUC) has hosted a series of stakeholder engagement events devoted to re-opening broader retail competition in the electricity sector. This started with an En Banc Hearing on consumer and retail choice in May 2017. On 10/31/17, the CPUC held an all-day workshop in Sacramento featuring presentations from several state and countries (Texas, the UK, New York, Illinois, etc) that have at least partial competition in their retail electricity markets.
- On 5/3/18, the CPUC released a white paper (the **“Green Book”**) on the future of customer choice in California. The paper reviewed several case studies from other states and countries that have implemented versions of retail choice in their electricity markets, and characterized California’s situation as a precarious one at risk for another energy crisis. CalCCA submitted comments on the Green Book on 6/11/18, and an en banc hearing to take public stakeholder comment was held on 6/22/18.
- The final, revised version of the Green Book was released on 8/7/18. The final version did not contain significant changes and did not generate the level of media or public attention that the original did.
- On 10/23/18, the CPUC released a **“Gap Analysis”** designed to be a follow-up to the Green Book. The Gap Analysis identifies perceived weak spots where remedial action could better protect the fundamental principles of affordability, reliability, and decarbonization. The Gap Analysis was the subject of an en banc hearing in Sacramento on 10/29/18, where the familiar major theme was the amount of centralized oversight needed to ensure achievement of state policy goals. Given that the Gap Analysis is not part of an official proceeding, there is no required action associated with this conversation. Any desired changes will need to be deliberated, approved, and implemented through the relevant proceedings.
- **No new updates**: Parties await follow-up action from the Commission on the Gap Analysis.

### Petition for Modification of D. 12-12-036

- **Recall**: On January 30, the three investor-owned utilities (IOUs: PG&E, SCE, and SDG&E) filed a Petition for Modification of D. 12-12-036. This Decision, passed in 2012, established a Code of Conduct and accompanying enforcement mechanisms related to IOU interactions with CCAs. D 12-12-036 was passed as part of the implementation process for SB 790, a 2011 law requiring limitations on IOU activities that was motivated by PG&E’s misuse of ratepayer resources and information while attempting to stymie the formation of MCE in 2010. The Petition for Modification (PfM) argues for removal of the limitations on both public marketing and lobbying of elected officials about CCAs, grounding the request in 1st Amendment arguments about free speech combined with the increasing popularity of the CCA model across the state. The IOUs can already do both of these things if they establish Independent Marketing Divisions (IMDs) that meet certain criteria for independence set by the CPUC (SDG&E is the only one of the three that has done this so far). However, this
PfM would abolish the IMD requirement and allow the IOUs to engage directly in marketing and lobbying activities with no firewall. CalCCA submitted a response to the Petition for Modification (PfM) on 3/1/18.

- No new updates: Parties continue to await the Commission’s response to the PfM.

Legislative Update

The 2019 legislative session commenced last month with the swearing-in of new legislators and some early bill introductions, but the action will begin in earnest when the legislature reconvenes on January 7th. Stay tuned for invitations to a round of session kickoff meetings with legislators in the upcoming weeks. Meanwhile, SVCE staff are also working with Aaron Read and Associates to screen introduced bills for threats and further our own legislative initiatives for the session.
Account Services & Community Relations Update
January 2019

1. Events and Presentations

The holiday season is a quiet period for outreach events and presentations, but staff has been working on scheduling presentations to community groups in 2019. Staff is also planning out community event sponsorships and exhibits at events throughout the year.

Completed and Upcoming Events:

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<tr>
<td>December 4</td>
<td>6 – 7 PM</td>
<td>Morgan Hill Youth Action Council – presentation</td>
<td>Centennial Recreation Center, Morgan Hill</td>
</tr>
<tr>
<td>January 5</td>
<td>8 – 9 AM</td>
<td>Sunnyhills Neighborhood Association – presentation</td>
<td>Sunnyhills United Methodist Church, Milpitas</td>
</tr>
<tr>
<td>January 15</td>
<td>6 – 7 PM</td>
<td>Bike to the Future Orientation</td>
<td>Sunnyvale Community Center</td>
</tr>
<tr>
<td>January 31</td>
<td>6 – 7 PM</td>
<td>City of Los Altos Council - presentation</td>
<td>Council Chambers, Los Altos</td>
</tr>
<tr>
<td>February 15</td>
<td>8 AM – 1 PM</td>
<td>Joint Venture State of the Valley – sponsor and tabling</td>
<td>San Jose Convention Center</td>
</tr>
</tbody>
</table>

2. Upgrade and Opt Out Update

Below is the number of GreenPrime Upgrades and Opt Outs as of December 26, as well as the total opt out percentage in overall accounts, and opt out percentage by load.

<table>
<thead>
<tr>
<th></th>
<th>Upgrade</th>
<th>Opt Out</th>
<th>Opt Out by Account Type</th>
<th>Total Opt Out, All Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>1,099</td>
<td>8,644</td>
<td>3.19%</td>
<td>3.14%</td>
</tr>
<tr>
<td>Commercial</td>
<td>2,004</td>
<td>841</td>
<td>2.74%</td>
<td></td>
</tr>
</tbody>
</table>

3. SVCE to Receive Sunnyvale Chamber of Commerce Award

The Sunnyvale Silicon Valley Chamber of Commerce Board of Directors selected Silicon Valley Clean Energy as the recipient of the 2018 award for Outstanding Collaboration in Carbon Free Electricity.

Every year the Silicon Valley Chamber of Commerce in Sunnyvale acknowledges elite members of the Sunnyvale community and the region for their outstanding
accomplishments in innovation, technology, and community. The 54th annual Chamber of Commerce event will be held on February 23, 2019.

4. Community Engagement Grant Update
Grant recipient, Acterra will be hosting several “energy clinics” at community centers, senior centers and other community meeting places throughout the SVCE service area. With the cold winter weather comes higher energy bills, so the first set of clinics are a good time to remind customers that higher energy bills are typically due to increased gas use for heating. Also, ongoing education and awareness for understanding SVCE charges on bills is a constant outreach need.

The first set of clinics are scheduled at the following locations:
- Monday, 1/28, 11 AM – 1 PM, Mountain View Senior Center, 266 Escuela Ave.
- Wednesday, 2/6, 10 AM – 1 PM, Gilroy Senior Center, 7371 Hanna St.
- Tuesday, 2/12, 10 AM – 1 PM (special lunchtime entertainment), Sunnyvale Senior Center, Remington Dr.
- Thursday, 2/21, 10 AM – 1 PM, Morgan Hill Senior Center, 171 W. Edmundson Ave.

Acterra is also working to schedule clinics in Milpitas, Gilroy and Morgan Hill. Acterra will also leverage the partnerships of other grant recipients who will be able to provide interpretation services for Spanish, Chinese and Vietnamese speaking communities.

5. Member Agency Working Group Update
The Member Agency Working Group (MAWG) did not meet in December 2018.

6. Media
Press releases:
- SV Clean Energy Expands Plan to Help Communities Fight Climate Change, 12-13-2018

Articles:
- Sunnyhills’ Breakfast w/ Silicon Valley Clean Energy, The Milpitas Beat, 12-28-2018
- Milpitas calendar of events for the week of Jan. 4 – Special Events, The Mercury News, 01-02-2018
<table>
<thead>
<tr>
<th>JANUARY 2019</th>
<th>FEBRUARY 2019</th>
<th>MARCH 2019</th>
<th>APRIL 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Board of Directors, Jan. 9:</strong></td>
<td><strong>Board of Directors, Feb. 13:</strong></td>
<td><strong>Board of Directors, March 13:</strong></td>
<td><strong>Board of Directors, April 10:</strong></td>
</tr>
<tr>
<td>Consent: Minutes</td>
<td>Consent: Minutes</td>
<td>Consent: Minutes</td>
<td>Consent: Minutes</td>
</tr>
<tr>
<td>CPAG Report</td>
<td>Troutman Sanders Engagement Letter</td>
<td>Regular Calendar</td>
<td>Regular Calendar</td>
</tr>
<tr>
<td>Power Contracts Approval</td>
<td>Regular Calendar</td>
<td>Strategic Plan</td>
<td>SVCE 2019 Rates</td>
</tr>
<tr>
<td>Regular Calendar</td>
<td>SVCE Mid Year Budget</td>
<td>Additional Committee Selections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer Advisory Group Recommendation</td>
<td>IT/Financial Audit Results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BAAQMD Grant *tentative</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Executive Committee - TBD:</strong></td>
<td><strong>Executive Committee - TBD:</strong></td>
<td><strong>Executive Committee - TBD:</strong></td>
<td><strong>Executive Committee - TBD:</strong></td>
</tr>
<tr>
<td>Executive Committee Regular Meeting Schedule</td>
<td>Executive Committee Regular Meeting Schedule</td>
<td>Executive Committee Regular Meeting Schedule</td>
<td>Executive Committee Regular Meeting Schedule</td>
</tr>
<tr>
<td>Confirm Chair/Vice Chair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audit Committee - Week of Jan. 14</strong></td>
<td><strong>Audit Committee - February 4</strong></td>
<td><strong>Audit Committee - TBD:</strong></td>
<td><strong>Audit Committee - TBD:</strong></td>
</tr>
<tr>
<td>External Auditor Overview</td>
<td>Receive Financial Audit</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Finance &amp; Admin Committee, Jan. 25:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year End Financial Results</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment Strategy Discussion</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
This Transaction Confirmation (this “Confirmation”) is entered into this 21 day of December, 2018 (“Effective Date”), by and between Silicon Valley Clean Energy Authority, a California Joint Powers Authority (“Buyer” or “SVCEA”) and Shell Energy North America (US), L.P. (“Shell Energy”), each referred to herein individually as a “Party” and collectively as the “Parties”, regarding the purchase and sale of the Product (as defined below) under the terms and conditions herein. Capitalized terms used in this Confirmation and not defined herein have the meaning assigned thereto in the Master Agreement or Schedule R (each as defined below). The Master Agreement and this Confirmation shall be collectively referred to herein as the “Agreement.”

**Seller:** Shell Energy

**Buyer:** SVCEA (WREGIS Account Holder Name: Silicon Valley Clean Energy Authority)

**Master Agreement:** This Confirmation shall be governed by the terms and conditions of the Master Power Purchase and Sale Agreement between the Parties dated effective November 28, 2016. This Confirmation incorporates Schedule R of the WSPP Agreement promulgated by WSPP, Inc. as amended from time to time, (“Schedule R”). The Master Agreement, including Schedule R, shall govern this REC Transaction, except as modified in this Confirmation. References herein to sections in Schedule R shall appear, for example, as “Section R-2.3.4”. References in Schedule R to “Renewable Energy Facility” shall be interpreted as references to a Project (as defined below in this Confirmation).

**Product:** As used herein, “Product” shall mean Portfolio Content Category 1 (“PCC 1”)-Resource Contingent Bundled RECs consisting of Energy produced hourly by the Projects that is simultaneously bundled with the RECs generated therefrom under the Applicable Program that together qualify as a Resource Contingent Bundled REC as described in Section R-2.3.4 of Schedule R.

**Environmental Attributes:** The only Environmental Attributes conveyed under this Confirmation as part of the Product are Program Attributes under the Applicable Program, which for purposes of this Confirmation is the California Renewables Portfolio Standard (as defined in the Definitions section hereof).

**Project:** As used herein “Project” shall mean any facility qualifying as an ERR (as defined in Special Provision (A)(1)) below.

**Contract Quantity:** [Redacted] MWhs of Product.
**Contract Price:**
The price for each MWh of Product delivered to Buyer (the "Contract Price") is [redacted] per MWh (i.e., per REC) of Product conveyed to Buyer or Buyer's Designee, as applicable, in accordance with the terms of this Confirmation.

**Delivery Period:**
Commencing January 1, 2019, through December 31, 2019 (also referred to as the "Delivery Term" in Sections A(1) and A(3) of the Special Provisions below), and continuing through the completion of the transfer of all RECs to Buyer through WREGIS and the payment of amounts due pursuant to this Confirmation.

**Delivery Point:**
California ISO

**Scheduling:**
Seller will perform all scheduling and tagging requirements as may be applicable to the transaction contemplated hereunder. These services will be performed consistent with all applicable California ISO and WECC Scheduling Protocols. If applicable, Seller shall be the electricity importer for purposes of California Global Warming Solutions Act, California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, also referred to as Cap and Trade Regulations.

**REC Transfer:**
Via WREGIS

**Settlements and Payment:**
Seller shall deliver the Product by (a) delivering Energy to the California ISO on behalf of Buyer at the Delivery Point in accordance with the California ISO requirements and procedures and (b) transferring the RECs, with associated NERC e-Tags (if any) through WREGIS, to Buyer's (or Buyer's Designee's) designated WREGIS account(s). California ISO shall pay Seller directly for the Energy portion of the Product in accordance with the California ISO requirements and procedures and Buyer shall not be required to pay any additional amount to Seller in respect of such Energy. Buyer shall pay the Contract Price to Seller on or before the later of (i) the twenty-fifth (25th) day of the month or (ii) ten (10) days following receipt of Seller's invoice, subsequent to the transfer of the RECs.

**Supporting Data:**
In the event that the Product being transferred from Seller to Buyer originates from a Project(s) from outside of the state of California, Seller shall provide Buyer a reconciliation consisting of hourly meter data, tag data and associated calculations, lesser of each by hour, for each vintage month of RECs delivered to Buyer under this Confirmation.

**Change in Law Provisions:**
The REC Transaction under this Confirmation is Regulatorily Continuing as defined in Section R-5.2.2(b) of Schedule R, requiring that Seller make commercially reasonable efforts to obtain compliance with Changes in Law in the designated Applicable Program, provided that the costs for which shall not be greater than [redacted] during the Delivery Period.

**Compliance With RPS:**
Seller represents and warrants to Buyer that the purchase and sale of Product pursuant to this Confirmation is a resale and meets the following additional requirements:

i. The original upstream third party contract(s) meets the criteria of California Public Utilities Code Section 399.16(b)(1)(A);

ii. this Confirmation transfers only Energy and RECs that have not yet been generated prior to the effective date of this Confirmation;

iii. in connection with the transfer of the Energy and associated RECs that comprise the Product purchased and sold under this Confirmation the Energy transferred by this Confirmation is transferred to Buyer in real-time via sale by Seller to, and purchase by Buyer from, the California ISO; and
iv. if applicable, the California Renewables Portfolio Standard-eligible energy is scheduled from one or more eligible renewable energy resource that are not interconnected to a California balancing authority into a California balancing authority without substituting electricity from another source, and the original hourly or subhourly schedule is maintained.

SPECIAL PROVISIONS:

A. Non-Modifiable Standard Terms and Conditions

(1) Eligibility: Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource (“ERR”) as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project’s output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law. [STC 6, Non-Modifiable. (Source: D.07-11-025, Attachment A) D.08-04-009]

(2) Applicable Law: Governing Law. This Agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflicts of law. To the extent enforceable at such time, each Party waives its respective right to any jury trial with respect to any litigation arising under or in connection with this Agreement. [STC 17, Non-Modifiable. (Source: D.07-11-025, Attachment A) D.08-04-009]

(3) Transfer of Renewable Energy Credits: Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the renewable energy credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law. [STC REC-1, Non-modifiable. D.11-01-025]

(4) Tracking of RECs in WREGIS: Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract. [STC REC-2, Non-modifiable. D.11-01-025]

B. Additional Terms and Conditions

(1) Seller Representations and Warranties: Seller represents and warrants:

(a) Seller has not sold the Product to be transferred to Buyer to a third party; and

(b) the Energy component of the Product produced by a Project and purchased by Seller for resale to Buyer hereunder is not being sold by Seller back to the Project or Project owner.

(2) Buyer Representations and Warranties. Buyer represents and warrants that Buyer has taken all necessary steps to establish a WREGIS account to receive the RECs to be transferred from Seller to Buyer prior to the first delivery under this Confirmation.

(3) Review. To monitor compliance with this Confirmation, each Party reserves the right to review during normal business hours and at its own expense, for up to two (2) years following delivery of the Product, and with reasonable advance notice to the other Party and to the extent that such other Party is in possession of such information reasonably required to verify that the Product sold under this Confirmation was not otherwise sold by Seller to a third party. Any claim that Product sold under this Confirmation was sold by Seller to a third party is waived if not brought within such two (2) year period referred to in the preceding sentence.
(4) **Mutual Representations and Warranties.** The Parties agree this Confirmation constitutes a sale of a nonfinancial commodity for deferred shipment or delivery that the parties intend to be physically settled and is excluded from the term “swap” as defined in the Commodity Exchange Act under 7 U.S.C. § 1a(47) and related rules. During the Delivery Period, each Party represents and warrants to the other that: (i) it is an “eligible commercial entity” and an “eligible contract participant” within the meaning of United States Commodity Exchange Act §§1a(17) and 1a(18), respectively, and this Transaction has been subject to individual negotiation by the Parties.

(5) **Data Privacy.** The Parties may provide each other with information related to an identified or identifiable individual (“Personal Data”), the processing and transfer of which will be done in accordance with applicable data protection law.

**DEFINITIONS/INTERPRETATIONS:**

For purposes of this Confirmation, the following definitions and rules of interpretations shall apply:

“California Renewables Portfolio Standard” means the renewable energy program and policies, codified in California Public Utilities Code Sections 399.11 through 399.32 and California Public Resources Code Sections 25740 through 25751, as such provisions are amended or supplemented from time to time.

“CEC” means the California Energy Commission or its regulatory successor.

“CPUC” means the California Public Utilities Commission or its regulatory successor.

“FERC” means the Federal Energy Regulatory Commission or its regulatory successor.

“STC” stands for Standard Terms and Conditions of the CPUC relating to purchase and sales of the Product.

“WECC” means the Western Electricity Coordinating Council or its successor organizations.

“WREGIS” means the Western Renewable Energy Generation Information System or its successor systems.

Notwithstanding anything contained in the Master Agreement to the contrary, this Confirmation shall only be effective when executed by both Parties. Please sign and return by facsimile to Shell Energy at (713) 767-5414.

IN WITNESS WHEREOF, the Parties have signed this Confirmation effective as of the Transaction Date.
CONFIRMATION

Reference:
Master Power Purchase and Sale Agreement
Between Exelon Generation Company, LLC, a Pennsylvania limited liability company ("Seller")
And
Silicon Valley Clean Energy Authority, a California joint powers authority ("Buyer")
dated November 28, 2016
Transaction Date: December 18, 2018 (the "Effective Date")

RECITALS:

WHEREAS, pursuant to California Public Utilities Code Sections 366.1, et. seq., Buyer has been registered as a Community Choice Aggregator (the "CCA");

WHEREAS, Buyer is a California joint powers authority, which has established Silicon Valley Clean Energy for purposes of delivering CCA service to certain customers located within the County of Santa Clara;

WHEREAS, pursuant to California Public Utilities Code Section 366.2, Buyer submitted Buyer’s CCA Implementation Plan and Statement of Intent ("Implementation Plan") to the CPUC;

WHEREAS, the CPUC certified the Implementation Plan on September 27, 2016;

WHEREAS, Seller and Buyer desire to set forth the terms and conditions pursuant to which Seller shall supply the Product to Buyer, and Buyer shall take and pay for such supply of Product subject to satisfaction of the conditions herein; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements in this Confirmation and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1. DEFINITIONS. Any capitalized terms used in this Confirmation but not otherwise defined below shall have the meaning ascribed to such term in the Master Agreement:

"ACS" means "asset-controlling supplier" as that term is defined in the Cap and Trade Regulations.

"Applicable Law" means any statute, law, treaty, rule, tariff, regulation, ordinance, code, permit, enactment, injunction, order, writ, decision, authorization, judgment, decree or other legal or regulatory determination or restriction by a court or Governmental Authority of competent jurisdiction, or any binding interpretation of the foregoing, as any of them is amended or supplemented from time to time, that apply to either or both of the Parties, the Project(s), or the terms of the Agreement.

"Buyer Facilities" has the meaning set forth in Section 10 hereof.
“CAISO” means the California Independent System Operator Corporation or the successor organization to the functions thereof.


“Cap and Trade Regulations” means the Mandatory Greenhouse Gas Emissions Reporting and California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms regulations (California Code of Regulations Title 17, Subchapter 10, Articles 2 and 5 respectively) promulgated by the California Air Resources Board of the California Environmental Protection Agency pursuant to the California Global Warming Solutions Act of 2006.

“Carbon Free Energy” means Energy deliveries from Carbon Free Sources.

“Carbon Free Source” means any energy source, except for nuclear-powered generation assets, that is located within the WECC and that is considered by the State of California to have zero Greenhouse Gas emissions in accordance with the Cap and Trade Regulations. Carbon Free Source does not include any Category 3 Renewables, ACS resources or any energy source with an e-tag with a source point associated with a nuclear or coal-fired generating facility.

“Category 1 Renewable” means Renewable Energy that satisfies the requirements of Section 399.16(b)(1) of the California Public Utilities Code, as applicable to the REC Vintage transferred hereunder.

“Category 2 Renewable” means Renewable Energy that satisfies the requirements of Section 399.16(b)(2) of the California Public Utilities Code, as applicable to the REC Vintage transferred hereunder.

“Category 3 Renewable” means the Renewable Energy Credits that satisfy the requirements of Section 399.16(b)(3) of the California Public Utilities Code, as applicable to the REC Vintage transferred hereunder.

“CEC” means the California Energy Commission.

“Change in Law” has the meaning set forth in Section 2.2 hereof.

“Commercially Reasonable Efforts” for the purposes of this Confirmation, “commercially reasonable efforts” or acting in a “commercially reasonable manner” shall not require a Party to undertake extraordinary or unreasonable measures.

“Compliance Obligation” has the meaning set forth by the Cap and Trade Regulations.
“CPUC” means the California Public Utilities Commission.

“Customers” means the residential, commercial, industrial, and all other retail end use customers that have not opted out of the Silicon Valley Clean Energy Program, as designated from time to time by Buyer as being served by Buyer within the jurisdictional boundaries of the County of San Mateo.

“Delivery Period” shall be the period beginning on the Start Date and ending on the End Date, as set forth in Section 3 below.

“Debt Service” means the obligations payable by Buyer for interest on loans outstanding and any principal repayments and any capital leases, but excluding any interest on or principal repayments of inter-company working capital loans between Buyer and one or more of its Affiliates.

“Debt Service Coverage Ratio” means, the ratio of (a) EBITDA to (b) Debt Service, for the preceding twelve (12) month period measured annually as of each fiscal year end, beginning September 1, 2017.

“Delivery Point” has the meaning set forth in Section 4 hereof.

“Effective Date” has the meaning set forth in the Reference Section at the beginning of this Confirmation.

“Eligible Renewable Energy Resource” or “ERR” means an Eligible Renewable Energy Resource as such term is defined in Public Utilities Code Section 399.12 or Section 399.16.

“Energy” means electrical energy, measured in MWh.

“Energy Contract Price” means the price ($/MWh) to be paid by Buyer to Seller for the Energy Contract Quantity delivered hereunder, as set forth on Exhibit A.

“Energy Contract Quantity” means the quantity of Energy set forth in Exhibit A, which will be delivered to the CAISO by Seller and scheduled to Buyer’s Third Party SC as an IST.

“Exhibits” shall be those certain Exhibits, which are attached hereto and made a part hereof.

“FERC” means the Federal Energy Regulatory Commission.

“GAAP” means generally accepted accounting principles as in effect from time to time in the United States.

“Governmental Authority” means any federal, state, local or municipal government, governmental department, commission, board, bureau, agency, or instrumentality, or any judicial, regulatory or administrative body, or the CAISO or any other transmission authority, having or asserting jurisdiction over a Party or the Agreement.

“Implementation Plan” has the meaning set forth in the Recitals hereof.
“Inter-SC Trade” or “IST” has the meaning set forth in the Tariff.

“Mandatory Reporting Rule” means the regulations entitled Mandatory Greenhouse Gas Emissions Reporting set forth in Article 2 of Subchapter 10 of Title 17 of the California Code of Regulations.

“MW” means megawatt.

“MWh” means megawatt-hour.

“PG&E” means the Pacific Gas and Electric Company, its successors and assigns.

“Product” shall have the meaning set forth in Section 2.1 below.

“Project” shall mean the Eligible Renewable Energy Resource(s) used to provide Renewable Energy hereunder.

“Prudent Industry Practices” means any of the practices, methods, techniques and standards (including those that would be implemented and followed by a prudent operator of generating facilities similar to the Project(s) in the United States during the relevant time period) that, in the exercise of reasonable judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result, giving due regard to manufacturers’ warranties and recommendations, contractual obligations, the requirements or guidance of Governmental Authority, including CAISO, Applicable Law(s), the requirements of insurers, good business practices, economy, efficiency, reliability, and safety. Prudent Industry Practice shall not be limited to the optimum practice, method, technique or standard to the exclusion of all others, but rather shall be a range of possible practices, methods, techniques or standards.

“REC Vintage” means the date of Energy generation found on a WREGIS Certificate.


“Renewable Energy Contract Price” shall mean the price ($/REC) to be paid by Buyer to Seller for Renewable Energy delivered hereunder, as set forth on Exhibit B.

“Renewable Energy Contract Quantity” shall mean the quantity of RECs to be delivered by Seller to Buyer hereunder, as set forth on Exhibit B.

“Renewable Energy Credits” or “REC” has the meaning set forth in California Public Utilities Code Section 399.12(h) and CPUC Decision D.08-08-028, as applicable to the specific REC Vintage(s) transferred hereunder. For avoidance of doubt, the Parties agree that RECs do not include any production tax credits associated with the construction or operation of an ERR or other financial incentives in the form of credits, reductions, or allowances associated with an ERR that are created by state or federal tax laws.
“RPS Adjustment” means the reduction in the Compliance Obligation of an electricity importer authorized by and calculated in accordance with section 95852 (b)(4) of the Cap and Trade Regulations and section 95111(b)(5) of the Mandatory Reporting Rule.

“Security Documents” has the meaning set forth in the Master Agreement.

“Silicon Valley Clean Energy Program” means the community choice aggregation program operated by Buyer.

“Specified Sources of Power” means electricity that is traceable to a specific generation source by any auditable contract (e.g., a Transaction Confirmation).

“Tariff” means the FERC-approved California Independent System Operator Tariff, including any current CAISO-published “Operating Procedures” and “Business Practice Manuals,” as may be amended, supplemented or replaced from time to time.

“Third Party SC” means a third party designated by Buyer to provide the Scheduling Coordinator (as defined in the Tariff) functions for the benefit of Buyer.

“Unspecified Sources of Power” means electricity that is not traceable to a specific generation source (e.g., what is commonly known as “market” or “system” power) by any auditable contract (e.g., a Transaction Confirmation).

“WECC” means the Western Electricity Coordinating Council, or its successor.

“WREGIS” means the Western Renewable Energy Generation Information System or any successor renewable energy tracking program.

“WREGIS Certificate” means “Certificate” as defined by WREGIS in the WREGIS Operating Rules.

“WREGIS Operating Rules” means the operating rules and requirements adopted by WREGIS.

2. **PRODUCT.**

2.1 **Seller Delivery Obligation.** Throughout the Delivery Period, Seller shall sell and deliver or make available, or cause to be sold and delivered or made available to Buyer, the “Product,” which is comprised of one or more of the following:

(a) the quantity of Energy determined in accordance with Section 7.1;

(b) the quantity of Renewable Energy determined in accordance with in Section 7.2; and

(c) the quantity of Carbon Free Energy determined in accordance with Section 7.3.
For avoidance of doubt, Product does not include any resource adequacy or capacity attributes.

2.2 Change in Law.

If due to (i) any action by the CPUC or any other Governmental Authority, or (ii) any change in Applicable Law, including any modification of the California RPS or the Cap and Trade Regulation (i and ii, collectively, a “Change in Law”) occurring after the Effective Date that results in material changes to Buyer's or Seller's obligations with regard to the Products sold hereunder and that has the effect of changing the transfer and sale procedure set forth in this Confirmation so that the implementation of this Confirmation becomes impossible or impracticable, the Parties shall work in good faith to try and revise this Confirmation so that the Parties can perform their obligations regarding the purchase and sale of Products sold hereunder or Buyer's compliance with California RPS obligations in order to maintain the original intent of the Parties under this Confirmation. In the event the Parties cannot reach agreement on any such amendments to this Confirmation within 60 days following the Change in Law, to the extent practicable and lawful, Seller shall perform its obligations hereunder with regard to any Product hereunder or compliance with California RPS obligations in accordance with the Applicable Law immediately prior to the Change in Law; provided, however, that notwithstanding the foregoing or anything to the contrary herein, Seller shall not be obligated to perform any obligation hereunder to the extent that doing so would cause Seller to be materially adversely affected. These Change in Law provisions are independent of those set forth in the RPS Standard Terms and Conditions below and in Section 2.8.

2.3 RPS Standard Terms and Conditions.

STC 6: Eligibility

Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Period of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource (“ERR”) as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

STC REC-1: Transfer of Renewable Energy Credits

Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Period of this Agreement the renewable energy credits transferred to Buyer conform to the definition and attributes required
for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

**STC REC-2: Tracking of RECs in WREGIS**

Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under this contract.

2.4 **No New Construction.** Seller does not intend to construct any new facilities in California to meet its supply obligations hereunder. Notwithstanding the foregoing, to the extent that Seller constructs any new facilities in California to meet its supply obligation hereunder, Seller covenants and agrees that the construction and operation of such facility(ies) will be in accordance with any and all Applicable Law.

2.5 **Resources.** For Category 1 Renewable Energy and Carbon Free Energy delivered under this Confirmation, Seller shall use Specified Sources of Power. For other Energy deliveries, if any, Seller may use either (i) Unspecified Sources of Power or (ii) Specified Sources of Power; provided that any such Energy delivered under this Confirmation (including incremental energy associated with Category 2 Renewable products) from Specified Sources of Power shall not be procured from nuclear or coal-fired resources. The Energy supplied in connection with any Renewable Energy shall comply with applicable California RPS requirements for such Product.

2.6 **Delivery of WREGIS Certificates.** Buyer and Seller agree that the obligation to deliver RECs hereunder shall be evidenced by the delivery of WREGIS Certificates in WREGIS. Throughout the Delivery Period, following generation of the Renewable Energy by the Project(s), Seller shall, at its sole expense, take all actions and execute all documents or instruments necessary to ensure that all WREGIS Certificates associated with the Renewable Energy Contract Quantity are issued and tracked for purposes of satisfying the requirements of the California Renewables Portfolio Standard for Buyer. Prior to the start of each calendar quarter, Seller shall provide Buyer with an indicative, non-binding forecast of the amount of RECs it expects to deliver during such calendar quarter. Such indicative, non-binding forecast shall also identify, if known to Seller, the Eligible Renewable Energy Resource(s) that Seller expects to generate the RECs.
Seller shall comply with all Applicable Law, including, without limitation, the WREGIS Operating Rules, regarding the certification and transfer of such WREGIS Certificates to Buyer and Buyer shall be given sole title to all such WREGIS Certificates. The Parties acknowledge and agree that, as of the Effective Date, the WREGIS Certificates associated with the Renewable Energy Contract Quantity for a month are not available for transfer to Buyer until approximately ninety (90) days after the end of such month. Seller shall transfer such WREGIS Certificates in a timely manner after such WREGIS Certificates are available for transfer to Buyer and in any event no later than May 1 following the delivery year.

Upon receiving written or electronic confirmation from WREGIS that a transfer order has been initiated by Seller, Buyer shall confirm such transfer order in WREGIS within fourteen (14) days to the extent that the WREGIS Certificates included in such transfer conform to the specifications reflected in this Confirmation. In the event that certain WREGIS Certificates fail to conform to the specifications reflected in this Confirmation, Buyer shall be entitled to reject the transfer of any non-conforming WREGIS Certificates and Seller shall promptly replace the non-conforming WREGIS Certificates with an equivalent amount of WREGIS Certificates of the same REC Vintage and that meet the specifications reflected in this Confirmation; provided, however, that if replacement WREGIS Certificates are not immediately available, Seller may provide replacements once available, but in any event shall provide replacement WREGIS Certificates to Buyer within ninety (90) days after Seller’s rejection of such non-conforming WREGIS Certificates.

Upon either Party’s receipt of notice from WREGIS that a transfer of WREGIS Certificates was not recognized, that Party will immediately notify the other Party, providing a copy of such notice, and both Parties will cooperate in taking such actions as are necessary and commercially reasonable to cause such transfer to be recognized and completed. Each Party agrees to provide copies of its records to the extent reasonably necessary for WREGIS to verify the accuracy of any fact, statement, charge or computation made pursuant hereto if requested by the other Party.

2.7 **Retirement of RECs.** To facilitate compliance with obligations of suppliers of Renewable Energy as first deliverers of electricity, as defined in Title 17, California Code of Regulations ("CCR") Section 95802, to comply with mandatory greenhouse gas reporting requirements in Title 17 CCR Section 95101 et seq., and to comply with the requirements of the Cap and Trade Regulations in Title 17 CCR Section 95111 and 17 CCR Section 95852 with respect to such Renewable Energy, Buyer agrees to retire the RECs purchased from Seller hereunder for each renewable generation period and to provide WREGIS reports to Seller by no later than May 15 of the year following delivery that (1) evidence retirement of the RECs and (2) provide REC serial numbers.

2.8 **RPS Adjustment.** The Parties acknowledge that the RPS Adjustment is currently applicable to the Category 2 Renewable Product. In the event that the RPS
Adjustment is eliminated from the Cap and Trade Regulations and is no longer applicable to the Category 2 Renewable Product, the Parties agree to discuss in good faith amendments to this Transaction. In the event that the Parties are unsuccessful in revising or amending this Transaction or unable to agree upon a mutually acceptable resolution within thirty (30) days after the request of either Party to amend the Transaction pursuant to this Section 2.8 by either Party, either Party may, by written notice to the other, immediately terminate the undelivered portion of Renewable Energy Contract Quantities of Category 2 Renewable Product without penalty, termination payment or liability of either Party.

3. **DELIVERY PERIOD.** This Confirmation shall be in full force and effect as of the Effective Date. The terms set forth herein shall apply from the Start Date through the End Date, which entire period will comprise the Delivery Period. This Confirmation shall terminate on the date on which both Parties have completed the performance of their obligations hereunder, unless earlier terminated pursuant to the terms hereof.

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>End Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2019</td>
<td>December 31, 2019</td>
</tr>
</tbody>
</table>

4. **DELIVERY POINT.**

<table>
<thead>
<tr>
<th>Product</th>
<th>Delivery Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>TH_NP15_GEN-APND</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>Any scheduling point within the CAISO system</td>
</tr>
<tr>
<td>Carbon Free Energy</td>
<td>Any scheduling point within the CAISO system</td>
</tr>
</tbody>
</table>

5. **SCHEDULING.** The Product will be scheduled to Buyer’s Third Party SC on a Day-Ahead basis using an Inter-SC Trade.

6. **PRICING.**

6.1 **Energy Contract Price and Payment.** For each month during the Delivery Period, Buyer will pay Seller an amount equal to the Energy Contract Quantity delivered and scheduled in accordance with this Confirmation multiplied by the Energy Contract Price specified in Exhibit A.

6.2 **Renewable Energy Contract Price and Payment.** For each month during the Delivery Period, Buyer will pay Seller an amount equal to: a) the applicable
Renewable Energy Contract Price as specified in Exhibit B multiplied by the portion of the Renewable Energy Contract Quantity transferred from Seller to Buyer through WREGIS during such month plus b) the Day-Ahead LMP (as defined under the Tariff) at the Delivery Point for each MWh of the Renewable Energy Contract Quantity delivered and scheduled in accordance with this Confirmation in such month.

6.3 Carbon Free Energy Price and Payment. For each month during the Delivery Period, Buyer will pay Seller an amount equal to the Carbon Free Energy Contract Quantity delivered in such month multiplied by the Carbon Free Energy Price specified in Exhibit C plus b) the Day-Ahead LMP at the Delivery Point for each MWh of the Carbon Free Energy Contract Quantity delivered and scheduled in accordance with this Confirmation in such month.

7. CONTRACT QUANTITIES.

7.1 Energy. Energy Contract Quantities and the Energy Contract Prices pursuant to this Confirmation relate to the quantities set forth in Exhibit A.

7.2 Renewable Energy. Renewable Energy Contract Quantities and Renewable Energy Contract Prices pursuant to this Confirmation relate to the quantities set forth in Exhibit B. The Renewable Energy sold by Seller to Buyer shall also include any and all Renewable Energy Credits associated with such Renewable Energy.

7.3 Carbon Free Energy. Carbon Free Energy Contract Quantities and Carbon Free Energy Prices pursuant to this Confirmation relate to the quantities set forth in Exhibit C.

8. MONTHLY BILLING SETTLEMENT.

8.1 Collection of Customer Payments. In accordance with the Security Documents, Buyer shall direct PG&E to deposit into a lockbox account, all of the proceeds of all of the Customer account receipts (net of the amounts to be paid to PG&E) received from the sale of the Product to the Customers. Seller shall receive, in accordance with the Security Documents, payments for its invoices due and payable, and after Seller’s invoice is paid and agreed to reserves have been funded, the amounts remaining in such lockbox shall be immediately released to Buyer or its designee in accordance with the Security Documents. The Parties agree that the lockbox account shall be in the name of Buyer, and any interest earned thereon shall accrue to Buyer, as more fully set forth in the Security Documents.

8.2 Monthly Invoice Timeline. Seller agrees to use commercially reasonable efforts to deliver each monthly invoice to Buyer not later than the fifteenth (15th) day of each month for the previous calendar month. The Parties hereby agree that all invoices under this Confirmation shall be due and payable on the twenty-fifth (25th) day of the month following the month in which Seller delivered such invoice, provided that if such day is not a Business Day, then such invoice will be due and payable on the next Business Day that occurs after the twenty-fifth (25th) day of the month.
9. **COMPLIANCE REPORTING.** Buyer shall be responsible for submitting compliance reports to the CPUC and/or other Governmental Authorities on behalf of Silicon Valley Clean Energy and will require resource information, electronic tagging information, and other documentation to be provided by Seller. Seller shall provide all reasonable information to Buyer necessary for Buyer to timely comply with periodic compliance reporting requirements and as otherwise required by Applicable Law with respect to any Product. Each party shall provide all reasonable information to the other party necessary to timely comply with periodic compliance reporting requirements and as otherwise required by Applicable Law with respect to any Product. Buyer agrees to cooperate with any informational requests Seller may receive from a Governmental Authority, including but not limited to supplying WREGIS reports for Seller’s compliance with Cap and Trade Regulations.

10. **NO RESTRICTION.** Nothing in this Confirmation shall limit Buyer’s ability to develop its own generation facilities (“Buyer Facilities”) or prevent Buyer from purchasing energy from other parties or Seller from selling energy to other parties.

11. **STANDARD OF CARE AND GOOD FAITH.** When performing its obligations hereunder, Seller shall act in good faith and shall perform all work in a manner consistent with Prudent Utility Practices.

12. **SECURITY PROVISIONS.**

12.1 **Compliance with Security Documents.** During the entire period that this Confirmation remains in effect, Buyer shall comply with the Security Documents. Upon the occurrence of an Event of Default (after giving effect to any applicable cure periods) by Buyer under any Security Document or a termination of any Security Document by Seller due to Buyer’s failure to perform in accordance with the terms thereof, such event shall constitute an Event of Default of Buyer in accordance with Article Five of the Master Agreement and Buyer shall therefore be the ‘Defaulting Party’ with regard to such failure to perform.

12.2 **Buyer Reporting Requirements.** During the entire period this Confirmation remains in effect, Buyer shall provide Seller with the report(s) required below and shall also provide Seller with any clarifications requested regarding such report(s) and such other information that Seller reasonably requests regarding Buyer’s financial performance, Buyer’s performance of its obligations under this Confirmation or any Security Document or the ongoing viability of the CCA. In the event Buyer fails to provide Seller with any required reports set forth below in Section 15.2(a) and such failure is not remedied within fifteen (15) Business Days of Seller’s written request therefore and notice of a potential Event of Default, such failure shall be an Event of Default of Buyer in accordance with Article V of the Master Agreement and Buyer shall therefore be the ‘Defaulting Party’ with regard to such failure to perform; provided, however, that should any such reports, not be available on a timely basis due to a delay in preparation or certification, or otherwise outside of the reasonable control of Buyer, such delay shall not be an
Event of Default of Buyer so long as Buyer diligently pursues the preparation and delivery of the required reports.

(a) **Monthly Reports.** The following reports shall be provided by Buyer to Seller not later than twenty (20) days following the end of each calendar month for items (i) through (vi) below, and each report shall be with regard to such previous calendar month or other period as applicable:

(i) Customer deposit report including a complete and detailed report of all collateral Buyer is holding from any Customer in the format agreed to between the Parties but shall not include the identity or personal details (name, address, telephone number, family size, social security number, bank account number, credit score, payment history, etc.) of any Customer nor any information that may allow Seller to determine a Customer’s identity;

(ii) Customer on-bill prepayment report including a complete and detailed report of all Customer on-bill payments that were deposited into the Primary Secured Account (as defined in the Security Documents);

(iii) Cash reconciliations and bank statements for each of Buyer’s banking accounts;

(iv) Summary of payments made by Customers or other entities to Buyer and a summary of delinquent accounts regarding Customers, such information to be provided on an aggregate basis (i.e. not by Customer) and shall include information segregated for delinquencies for each of the following time periods: 30 days, 60 days, 90 days and 120 days, plus the total account receivable balance owed to Buyer from its Customers; and

(v) Summary of all net meter data, grossed-up meter data and the difference between the two amounts on a daily and hourly interval basis.

(b) **Annual Reports.** The following report shall be provided by Buyer to Seller not later than 180 days following the end of Buyer’s fiscal year, shall be with regard to such previous fiscal year and shall be as follows: Buyer’s financial reports consisting of, at a minimum, statement of revenues, expenses and changes in fund net assets, statement of net assets, and statement of cash flows on a consolidating basis (as applicable), each as prepared in accordance with generally accepted accounting principles and audited by an independent certified public accountant.

12.3 **Debt Service Coverage Ratio Covenant** From September 1, 2017 through the remainder of the Delivery Period, Buyer shall establish and maintain a Debt Service Coverage Ratio of at least 1.25 to 1.0 (measured annually as of each fiscal year end
beginning September 1, 2017). If at any time after September 1, 2018, Buyer fails to maintain such Debt Service Coverage Ratio for the prior fiscal year, such event shall constitute an Event of Default of Buyer in accordance with Article V of the Master Agreement and Buyer shall therefore be the ‘Defaulting Party’ with regard to such event.

[SIGNATURE PAGE FOLLOWS]
This Confirmation is being provided pursuant to and in accordance with the Master Power Purchase and Sale Agreement dated November 28, 2016 (the “Master Agreement”) between Buyer and Seller, and constitutes part of and is subject to the terms and provisions of such Master Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Master Agreement. This Confirmation and the Master Agreement, including any appendices, exhibits or amendments thereto, shall collectively be referred to as the “Agreement.”

<table>
<thead>
<tr>
<th>This Confirmation is subject to the Exhibits identified below and that are attached hereto:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhibit A – Energy Contract Quantity and Price Schedule</td>
</tr>
<tr>
<td>Exhibit B – Renewable Energy Contract Quantity and Price Schedule</td>
</tr>
<tr>
<td>Exhibit C – Carbon Free Energy Contract Quantity and Price Schedule</td>
</tr>
</tbody>
</table>

EXELON GENERATION COMPANY, LLC

Sign: 
Print: 
Title: SVP, Portfolio Management and Strategy

SILICON VALLEY CLEAN ENERGY AUTHORITY, a California joint powers authority

Sign: Girish Balachandran
Print: Girish Balachandran
Title: CEO
# Exhibit A

## Energy Contract Quantity and Price Schedule

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MW Per Month</td>
<td>2019</td>
<td>$/MWh</td>
</tr>
<tr>
<td>Month</td>
<td>Peak MWh</td>
<td>Off Peak MWh</td>
</tr>
<tr>
<td>Jan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb</td>
<td></td>
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<tr>
<td>Mar</td>
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<td>Apr</td>
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<td>May</td>
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<td>Nov</td>
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<tr>
<td>Dec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Peak" means Mondays through Saturdays, Hours Ending 07:00-22:00 Pacific Prevailing Time, not including NERC Holidays.

"Off Peak" means Mondays through Saturdays, Hours Ending 01:00-HE 06:00 and HE 23:00-HE 24:00 Pacific Prevailing Time, and all hours Sundays and NERC Holidays.
Exhibit B
Renewable Energy Contract Quantity and Price Schedule

N/A
Exhibit C
Carbon Free Energy Contract Quantity and Price Schedule

N/A
AGREEMENT BETWEEN
Powerex Corp. * and Silicon Valley Clean Energy Authority
Powerex Deal No. FZM324

This document ("Confirmation" or "Agreement") confirms the agreement reached on the Trade Date between Powerex Corp.* ("Powerex" or "Seller") and Silicon Valley Clean Energy Authority, a California joint powers authority ("SVCEA" or "Buyer") regarding the sale and purchase of the Product in accordance with the EEI Master Power Purchase and Sale Agreement dated as of November 28, 2016, together with any and all exhibits, schedules or supplements thereto or incorporated therein by reference, each in force and effect from  time to time between the Parties and as amended and supplemented by this Confirmation (collectively, the "Master Agreement") under the following terms and conditions. Consistent with Section 2.2 of the Master Agreement, this Confirmation, together with all other transactions, confirmations and the Master Agreement, form a single integrated agreement between the Parties and are not separate contracts. This Agreement supersedes and replaces any prior oral or written confirmation or agreement, including broker confirmations, regarding this Transaction.

Seller: Powerex
Buyer: SVCEA
Trade Date: December 17, 2018
Transaction: This Transaction is for Buyer to procure Bundled Renewable Energy, all in accordance with the terms and conditions of this Confirmation.
Generation Term: For the purposes of this Confirmation and the Bundled Renewable Energy to be delivered pursuant hereto, the generation term for Bundled Renewable Energy is January 1, 2019, to December 31, 2019, inclusive.
Product: "Bundled Renewable Energy", which is comprised of energy generated by the Project(s) and the associated Green Attributes.
Delivery: The Parties recognize that a schedule of energy to the CAISO Balancing Authority is a delivery to the CAISO and not directly to Buyer. Scheduling Energy to the CAISO Balancing Authority shall constitute delivery of Bundled Renewable Energy to Buyer, provided the WREGIS Certificates evidencing the Green Attributes comprised in the Bundled Renewable Energy are delivered to Buyer as provided in this Confirmation.

Energy

Buyer elects to take delivery of the energy by either Delivery Method 1 (Category 1 Product) or Delivery Method 2 (Category 2 Product), or both, as specified under the “Contract Quantity” section. The Parties intend that the Product as procured by Buyer and as delivered by Seller in accordance with (i) Delivery Method 1 will meet the Category 1 Product Eligibility Requirements and (ii) Delivery Method 2 will meet the Category 2 Product Eligibility Requirements.

Green Attributes

Green Attributes to be delivered to Buyer hereunder shall be represented by WREGIS Certificates. Seller shall use WREGIS to transfer title to the 'Green
2

Attributes to Buyer. The transfer of WREGIS Certificates through WREGIS shall be deemed to transfer title to all of the Green Attributes associated with the Product.

Due to WREGIS Timelines, completion of delivery of the Green Attributes may occur after the Generation Term or Generation Sub-term, as applicable, however such delay shall not constitute a failure to deliver the WREGIS Certificates by Seller. Seller will match WREGIS Certificates with e-Tags prior to transferring WREGIS Certificates to Buyer (unless there are no e-Tags associated with the Energy delivery).

Contract Quantity: During the Generation Term, Buyer shall procure [REDACTED] MWh of Bundled Renewable Energy from Seller ("Contract Quantity") to be delivered by Seller in accordance with the Delivery Method Election elected by Buyer in the table below:

## Delivery Method Election

<table>
<thead>
<tr>
<th>Quantity (MWh)</th>
<th>Delivery Method / Category Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8</strong></td>
<td>&quot;Delivery Method 1&quot; - (Category 1 Product) - Energy directly delivered from the Project on an hourly, sub-hourly or real-time basis to the Delivery Point without substituting electricity from another source (&quot;Project Energy&quot;).</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td>&quot;Delivery Method 2&quot; - (Category 2 Product) - Energy generated by a source other than the Project, delivered to the Delivery Point in substitution for, and in an amount matching the amount of, Project Energy (&quot;Substitute Energy&quot;).</td>
</tr>
</tbody>
</table>

If both boxes are checked, Buyer is deemed to have selected a combination of Delivery Method 1 and Delivery Method 2 as detailed above.

### Energy Delivery Profile

The Energy shall be delivered by Seller in compliance with the applicable minimum and maximum amounts for each Generation Sub-term as set forth in the table below. For greater certainty, Seller's delivery obligations shall be based on delivery of the minimum amounts specified for each Generation Sub-term and delivery of the Contract Quantity for the Generation Term.

<table>
<thead>
<tr>
<th>Generation Sub-term</th>
<th>Category 1 Product (MWh)</th>
<th>Category 2 Product (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>January 1, 2019, through December 31, 2019</td>
<td>[REDACTED]</td>
<td>[REDACTED]</td>
</tr>
</tbody>
</table>

Seller may schedule or cause to be scheduled the Energy during any or all hours in the Generation Term.

### Contract Price:

In this Confirmation,

"CAISO Credit" means the Energy Price paid by the CAISO for the Energy.
“Category 1 GA Price” means: $... MWh for each MWh of the Category 1 Product delivered to Buyer.

“Category 2 GA Price” means: $N/A.

“Energy Price” means, for each MWh of Energy delivered, the applicable Locational Marginal Price, as defined in the CAISO Tariff and published by CAISO, at the CAISO Point where CAISO models the physical injection of such Energy.

“GA Price” means the Category 1 GA Price or the Category 2 GA Price, as applicable.

For each MWh of Category 1 Product or Category 2 Product delivered to Buyer, the Contract Price shall consist of the sum of the Energy Price and the applicable GA Price, less the CAISO Credit, calculated as follows:

\[
\text{Contract Price} = (\text{Energy Price} + \text{applicable GA Price}) - \text{CAISO Credit}
\]

Facilities: Bundled Renewable Energy procured under this Confirmation will be generated by one or more of the facilities listed in Schedule “A”. For the purposes of delivering Category 1 Product, Seller may add additional facilities from time to time by providing Buyer with an updated Schedule “A” (with additional facilities listed in Part B) which shall replace the existing Schedule “A” to this Confirmation, provided such additional facilities are wind, solar (photovoltaic) or small hydroelectric generation facilities.

Delivery Point: Seller may deliver Energy to any CAISO Point. For greater certainty, in the event an e-Tag includes more than one CAISO Point, the Delivery Point shall be the last point of delivery (POD) or “sink” CAISO Point on such e-Tag.

Scheduling, Tagging and WREGIS Transfers:

Scheduling

Seller shall schedule or cause to be scheduled, at its sole discretion, Energy to the CAISO Balancing Authority on a day-ahead, hour-ahead, sub-hourly and/or real-time basis.

All Energy shall be scheduled in accordance with Generally Accepted Utility Practice.

E-tagging

Seller shall generate all e-Tags required to schedule the Energy to the Delivery Point and such e-Tags will be in accordance with generally accepted e-tagging practices and standards in the WECC region. For greater certainty, no e-Tags will be generated for deliveries from a Project within the CAISO Balancing Authority. Each e-Tag will include the following, depending on the Category Product:

<table>
<thead>
<tr>
<th>E-Tag Location</th>
<th>Category 1 Product</th>
<th>Category 2 Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last CA (Control Area) under ‘Physical Path’</td>
<td>CAISO Balancing Authority</td>
<td>N/A</td>
</tr>
</tbody>
</table>
First ‘POR/ POD’ under ‘Physical Path’ | A single Project | N/A  
---|---|---  
Last or ‘sink’ PSE (Purchasing Selling Entity) under ‘Physical Path’ | ZES001 | N/A  
Misc (Token/Value) field | RPS ID for that Project | N/A  
Comment field | Silicon Valley Clean Energy | N/A  

If a “sink” PSE is not specified above by Buyer, Seller may, and Buyer authorizes Seller to, use a sink PSE (including its own) consistent with generally accepted tagging practices and standards in the WECC region (including CAISO deliveries).

**WREGIS Transfers**

For Category 1 Product, WREGIS Certificates will be transferred to Buyer following applicable WREGIS Timelines. For Category 2 Product, WREGIS Certificates will be transferred to Buyer following the later of (i) applicable WREGIS Timelines and (ii) the month after delivery of associated Substitute Energy. WREGIS Certificates will be transferred to the WREGIS account named Silicon Valley Clean Energy Authority WREGIS #1214.

In the event WREGIS changes the WREGIS Operating Rules in effect on the Trade Date (or its application thereof) such that WREGIS Certificates cannot be transferred to Buyer as required this Confirmation, the Parties will negotiate in good faith using commercially reasonable efforts to revise or amend this Confirmation to the extent possible to enable the transfer of WREGIS Certificates to Buyer.

**Invoicing and Payment:**

For the purposes of this Transaction, invoicing and payment for Energy and Green Attributes delivered to Buyer shall be in accordance with Article 6 of the Master Agreement. The CAISO Credit will be reflected in the Energy invoice. The Parties acknowledge that invoicing and payments for the Energy may not occur in the same month as invoicing and payments for the Green Attributes associated with such Energy due to the delivery of the Green Attributes following WREGIS Timelines. Seller shall be entitled to retain for its account all revenues received from the CAISO associated with the delivery of Energy to the CAISO Balancing Authority.

Seller’s invoices may be delivered by email from Seller to Buyer.

**SPECIAL CONDITIONS**

1. **Definitions.** The defined terms in Schedule “B” shall apply to this Confirmation.

2. **Eligibility Requirements.** If, at any time, a Category Product does not meet the applicable Eligibility Requirements (a “Failing Category Product”), it shall not be an Event of Default for the purposes of the Master Agreement. If a Failing Category Product does not meet or satisfy the
Eligibility Requirements for any reason other than a Buyer Eligibility Failure, a Seller Eligibility Failure or Force Majeure, the following shall apply:

(a) the Parties will negotiate in good faith using commercially reasonable efforts to revise or amend this Confirmation as appropriate so that the Failing Category Product meets or satisfies the applicable Eligibility Requirements in a manner consistent with the intent of the Parties as set out in this Confirmation.

(b) If the Parties are unsuccessful in revising or amending the Confirmation as provided in (a) above:

(i) the Parties will have no liability to each other for any failure to schedule, deliver or purchase the Failing Category Product that is not then delivered (provided, for greater certainty, that Buyer shall remain liable for any Green Attributes associated with Energy already delivered to Buyer); and

(ii) either Party may, by written notice to the other, immediately terminate the Transaction, without penalty, termination payment or liability of either Party to the other except as provided in sub-paragraph (i) above.

3. **Failure to Deliver/Receive.** For purposes of this Transaction, the determination of the Replacement Price and Sales Price shall be based on the energy and Green Attributes components of the Product and damages will be calculated in a commercially reasonable manner consistent with Article 4 of the Master Agreement. For greater certainty: (i) any quantity of Category Product that does not meet or satisfy the applicable Eligibility Requirements as a result of a Seller Eligibility Failure shall be considered a failure to deliver by Seller, and (ii) Seller shall not be liable to Buyer for any quantity of Category Product that does not meet or satisfy the applicable Eligibility Requirements as a result of a Buyer Eligibility Failure. If WREGIS Certificate(s) are not transferred as required by this Confirmation solely as a result of an error or omission of WREGIS or the CAISO, it shall not be a failure to deliver or receive, however the Parties shall use commercially reasonable effort and cooperate in good faith to cause WREGIS to correct its error or omission to complete such transfer.

4. **Waived Shortfall – Category 2 Product.** If Seller reasonably anticipates that it will be unable to deliver the required quantity of Category 2 Product with respect to any Generation Sub-term or the Generation Term, Seller may provide written notice to Buyer on or before sixty (60) days prior to the end of the applicable Generation Sub-term and, upon Buyer’s receipt of such notice, the Parties will negotiate in good faith using commercially reasonable efforts to determine whether Seller may deliver a product comparable to the Category 2 Product generated by or attributable to an Alternate Eligible Facility or Alternate Source (“Alternate Supply”). If the Parties mutually agree to such arrangements for Alternate Supply, they will enter into a separate agreement respecting same and Buyer will waive the shortfall and any related liquidated damages that may otherwise be payable pursuant to this Confirmation for the amount of such Alternate Supply.

5. **Force Majeure.** For purposes of this Transaction, the Products shall be subject to Force Majeure and Section 3.3 of the Master Agreement. For greater certainty, a change in law shall not be an event of Force Majeure for the purposes of this Transaction. The Master Agreement is hereby amended by editing paragraph (iii) of the definition of Force Majeure in Section 1.23 to read as follows:

“the loss or failure of Seller’s supply, except, with respect to the Green Attributes, to the extent Seller’s supply is itself subject to an event of Force Majeure;”

6. **Events of Default; Remedies.** For purposes of this Transaction:
6

(a) For the purposes of determining payments under Section 5.2 of the Master Agreement, with respect to this Transaction, the economic benefits or losses of the Non-Defaulting Party resulting from termination of this Transaction shall be based on the energy and Green Attributes components of the Product.

(b) The remedies for failure to deliver the Product (including Green Attributes) provided for in the Master Agreement as amended by this Confirmation are the sole and exclusive remedies and all other remedies are waived.

7. Importer of Energy/Compliance Obligation. For any Energy imported into California, Seller will be the electricity importer into California for purposes of the Cap and Trade Regulations. The Parties acknowledge that Seller will be responsible for satisfying the Compliance Obligation under the Cap and Trade Regulations associated with the energy which Seller shall schedule and import into the CAISO Balancing Authority as part of the Product to be delivered under this Confirmation and that Seller may and shall have the right to claim that any Energy that Seller has scheduled and imported into the CAISO Balancing Authority is from a Specified Source and claim the RPS Adjustment with respect to Substitute Energy. Buyer agrees to assist Seller in making the Specified Source and RPS Adjustment claims, including agreeing as follows:

(a) Specified Source – Category 1 Product. Buyer agrees, by May 15 following the end of each calendar year in the Generation Term, to provide Seller with a written attestation providing a detailed breakdown of the total quantity of WREGIS Certificates transferred under this Confirmation associated with the Category 1 Product that have been placed in a WREGIS retirement subaccount and those that remain in a WREGIS active subaccount and the name of each such account.

(b) RPS Adjustment – Category 2 Product. Buyer agrees to provide Seller with the information required by Seller for the purpose of claiming the RPS Adjustment including, but not limited to, providing by May 15 following the end of each calendar year in the Generation Term a written attestation to Seller that the quantity of WREGIS Certificates transferred under this Confirmation associated with the immediately previous calendar year in the Generation Term as Category 2 Product have been placed in Buyer’s WREGIS retirement subaccount and that the RECs represented by such WREGIS Certificates have been designated for retirement for the purposes of Buyer’s compliance with the California RPS Program for the applicable year in the Generation Term in accordance with the Cap and Trade Regulation (and shall promptly notify Seller of any changes (e.g. subsequent withdrawal of WREGIS Certificates from Buyer’s WREGIS retirement subaccount) after delivery of the attestation with information as may be required by Seller to comply with Section 95111.g.1.M.2 of the Mandatory Reporting Rule (or any similar or successor provision)).

(i) In the event Buyer re-sells Category 2 Product, Buyer shall continue to provide the attestation provided in this Section 7(b) and references to “Buyer’s WREGIS retirement subaccount” and “Buyer’s compliance with the California RPS Program” shall be read to include the subsequent purchaser’s WREGIS retirement subaccount and compliance with the California RPS Program.

(ii) If Seller does not meet the conditions for the RPS Adjustment as a result of any act or omission of Buyer (including failure to place WREGIS Certificates in Buyer’s own WREGIS retirement subaccount and designate the RECs represented by the WREGIS Certificates for retirement for the purposes of Buyer’s own compliance with the California RPS Program), Buyer shall reimburse or pay Seller the cost of Allowances (as defined in Cap and Trade Regulation 93802(a)(8)) purchased or required by Seller as a result of Seller’s inability to claim the RPS Adjustment, at the price established at the next succeeding auction of Allowances hosted by CARB or, failing which, prevailing market prices.
This Section 7 is based on the Cap and Trade Regulations and Mandatory Reporting Rule as of the Trade Date of this Confirmation. In the event that the regulatory requirements for mitigating the Compliance Obligation change after the Trade Date, Buyer shall make commercially reasonable efforts to assist Seller in meeting such regulatory requirements. This provision shall survive expiry or earlier termination of this Transaction until such time as the information contemplated herein in respect of the last year of the Generation Term is provided to Seller by Buyer.

8. Resale. Seller makes no representation or warranty that the Category 1 Product or Category 2 Product will satisfy applicable Eligibility Requirements if re-sold to a third party by Buyer. In the event all or any portion of the Category Product(s) purchased or to be purchased by Buyer hereunder is re-sold by Buyer, any such resale does not affect Buyer’s obligations hereunder and Buyer remains primarily liable to Seller for all Buyer’s obligations hereunder.


(a) This Agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflicts of law. To the extent enforceable at such time, each Party waives its respective right to any jury trial with respect to any litigation arising under or in connection with this Agreement. [STC 17]

(b) Seller shall be responsible for ensuring that: (i) each Project is certified as an eligible renewable energy resource for the California RPS Program prior to delivery of Category 1 Product or Category 2 Product hereunder from such Project; and (ii) the Green Attributes have been or will be transferred to Seller and will be transferrable to Buyer through or using WREGIS, or such similar generation information or attributes tracking system as may be approved by or other method of transfer acceptable to the Energy Commission;

(c) Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract [STC REC-2];

(d) Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project; and

(e) For the purposes of this Transaction:

(i) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law [STC 6]; and

(ii) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision
of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law. [STC REC-1]

For the purposes of STC 6 above, for the Category 2 Product, the Parties acknowledge that Substitute Energy, in substitution for Project Energy, and Green Attributes are delivered to Buyer.

As used in Section 9(e) of this Confirmation, “Delivery Term” has the same meaning as “Generation Term” provided that, for the purposes of STC 6 above with respect to any facility listed in Schedule A, the Parties agree that the representation and warranty therein applies only to the portion of such Delivery Term that is after the eligibility date issued by the CEC and during which the output from that facility is being delivered to Buyer.

The Parties agree that, so long as the Seller has used commercially reasonable efforts to comply with a change in law resulting in either of the above representations and warranties becoming incorrect, Buyer shall receive and pay for any Product supplied hereunder notwithstanding any non-compliance with the California RPS Program resulting from the change in law.


(a) A Party required to use or make “commercially reasonable efforts” pursuant to this Agreement shall not be required to incur more than [redacted] in aggregate direct or indirect costs, including lost profits, and out-of-pocket costs and expenses, to comply with such “commercially reasonable efforts”, and then only to the extent incurring such costs would be reasonably likely to achieve the desired effect.

(b) In the event an issue or circumstance requiring a Party to use or make commercially reasonable efforts similarly affects one or more other transactions between the Parties, the limit set forth in paragraph (a) above shall apply to all such transactions between the Parties and shall not be cumulative to any limits applicable to such other transactions.

This Confirmation is being provided pursuant to and in accordance with the Master Agreement, and constitutes part of and is subject to the terms and provisions of the Master Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Master Agreement.
The Parties agree it is their intention that the Transaction provided for in this Confirmation is not capable of being agreed to orally and shall only become binding on the Parties when this Confirmation is executed by both Parties.

ACKNOWLEDGED AND AGREED TO:

POWEREX CORP.*

[Signature]
Mark Holman
Managing Director

Name:
Title:
Date: 12/17/2018
*doing business in California as Powerex Energy Corp

Contact:
Anthony Des Lauriers
Tel: (604) 891-6018
Fax: (604) 891-5056

Scheduling:
Tel: (604) 891-5007 (Prescheduler)
Tel: (604) 891-5091 (Real Time)
Tel: (604) 891-5057 (Mid-Office Agreement)
Fax: (604) 891-5045
E-mail: cash.desk@powerex.com

SILICON VALLEY CLEAN ENERGY AUTHORITY, a California joint powers authority

[Signature]
Girish Balachandran
CEO

Name:
Title: CEO
Date: 12/17/2018

Contact:
Monica Padilla
Tel: (408) 721-5301
Fax: (408) 721-5301

Scheduling:
Tel: 916-221-4327 (Prescheduler)
Tel: 916-221-4327 (Real Time)
Tel: 916-221-4327 (Mid-Office Agreement)
Fax: N/A
E-mail: eric@zglobal.biz
### SCHEDULE “A”

#### Project(s)

**Part A – Initial Projects**

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>State / Province</th>
<th>Technology</th>
<th>RPS ID</th>
<th>Total Facility Nameplate (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dokie Wind Energy Project</td>
<td>BC</td>
<td>Wind</td>
<td>61360A</td>
<td></td>
</tr>
<tr>
<td>Quality Wind Project</td>
<td>BC</td>
<td>Wind</td>
<td>62247A</td>
<td></td>
</tr>
<tr>
<td>Cape Scott Wind</td>
<td>BC</td>
<td>Wind</td>
<td>60600A</td>
<td></td>
</tr>
<tr>
<td>Meikle Wind Energy Project</td>
<td>BC</td>
<td>Wind</td>
<td>63268A</td>
<td></td>
</tr>
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<td>White Creek Wind I</td>
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<td>Wind</td>
<td>60721A</td>
<td></td>
</tr>
<tr>
<td>Shinish Creek Wind Farm</td>
<td>BC</td>
<td>Wind</td>
<td>TBA**</td>
<td></td>
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<tr>
<td>Pennask Wind Farm</td>
<td>BC</td>
<td>Wind</td>
<td>TBA**</td>
<td></td>
</tr>
<tr>
<td>Moose Lake Wind Project</td>
<td>BC</td>
<td>Wind</td>
<td>TBA**</td>
<td></td>
</tr>
</tbody>
</table>

**To be assigned. An RPS ID has not yet been assigned to this facility**

**Part B – Additional Projects for Category 1 Product**

[to be added under the terms of the section - “Facilities” as required]
11
SCHEDULE “B”

Additional Definitions

For the purposes of this Confirmation, the following terms shall have the following meanings:

(a) “Alternate Eligible Facility” means an alternate generation facility that is certified as an eligible renewable energy resource for the California RPS Program and from which Seller is entitled to energy and associated Green Attributes generated during the Generation Term (or portion thereof in respect of which bundled energy and associated Green Attributes to be delivered hereunder are generated by such facility).

(b) “Alternate Source” means an alternate source of supply of energy and associated Green Attributes generated by the same facility as a Project during the Generation Term and which Seller is entitled to pursuant to its purchase agreements for output from the facility.

(c) “Buyer Eligibility Failure” means a failure of a Category Product to meet or satisfy the applicable Eligibility Requirements or any element or component thereof which are in the direct control of Buyer to meet or satisfy as a result of or if caused by or attributable to an act or omission of Buyer, including use of the Product other than for its own California RPS Program compliance purposes, a failure by Buyer to accept an applicable transfer on WREGIS, to provide information and data available to Buyer (including as provided by Seller) as may be required to verify the Green Attributes comprised in the Products or failure to retire or designate for retirement the RECs for the purposes of compliance with the California RPS Program.

(d) “CAISO Balancing Authority” has the meaning set forth in the CAISO Tariff.

(e) “CAISO Point” means any Location in the CAISO Balancing Authority or CAISO Controlled Grid, including any Scheduling Point (as such terms are defined in the CAISO Tariff).

(f) “CAISO Tariff” means the applicable tariff and protocol provisions of the California Independent System Operator (“CAISO”) (as amended from time to time).

(g) “California RPS Program” or “California Renewables Portfolio Standard” means the “California Renewables Portfolio Standard” program jointly administered by the CEC, the CPUC and the California Air Resources Board, as such program exists as of the Trade Date, including without limitation all applicable eligibility criteria and requirements thereof in force and effect as of the Trade Date.

(h) “Cap and Trade Regulations” means the regulations entitled California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms set forth at Article 5 of Subchapter 10 of Title 17 of the California Code of Regulations.

(i) “Category 1 Product” means the Product where Buyer has elected to have the energy delivered as Project Energy in accordance with Delivery Method 1.

(j) “Category 1 Product Eligibility Requirements” means, with respect to the Category 1 Product only, any applicable criteria or requirements of the California RPS Program in force and effect as of the Trade Date regarding the eligibility or qualification of the Category 1 Product to meet the criteria of Section 399.16(b)(1) of the California Public Utilities Code or this Confirmation or the Transaction confirmed hereby for the California RPS Program, including without limitation any eligibility criteria applicable to an out-of-state resource.

(k) “Category 2 Product” means the Product where Buyer has elected to have Substitute Energy delivered in substitution for Project Energy in accordance with Delivery Method 2.
(l) “Category 2 Product Eligibility Requirements” means, with respect to Category 2 Product only, any applicable criteria or requirements of the California RPS Program in force and effect as of the Trade Date regarding the eligibility or qualification of the Category 2 Product to meet the criteria of Section 399.16(b)(2) of the California Public Utilities Code or this Confirmation or the Transaction confirmed hereby for the California RPS Program, including without limitation any eligibility criteria applicable to an out-of-state resource.

(m) “Category Product” means Category 1 Product or Category 2 Product, as applicable.

(n) “change in law” refers to any determination, decision, application of, or change in law or policy after the Trade Date by or of the CEC or the CPUC or other applicable legislative, governmental or regulatory authority or third party having authority or jurisdiction.

(o) “Compliance Obligation” has the meaning set forth by the Cap and Trade Regulations.

(p) “CPUC” means the California Public Utilities Commission.

(q) “Eligibility Requirements” means Category 1 Product Eligibility Requirements or Category 2 Product Eligibility Requirements, as applicable.

(r) “Energy” means Project Energy or Substitute Energy, as applicable.

(s) “Energy Commission” or “CEC” means the California Energy Commission.

(t) “Generally Accepted Utility Practice” means a practice established by the Western Electricity Coordinating Council (“WECC”) or any successor regional reliability council, as such practice may be revised from time to time, or if no practice is so established, means a practice otherwise generally accepted in the WECC region.

(u) “Generation Sub-term” means any sub-period within the Generation Term as specified in the Energy Delivery Profile Table under the heading “Delivery Method Quantity” (and for greater certainty means Generation Term if only one Generation Sub-term).

(v) “Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere; (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other

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1 Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.
financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or "tipping fees" that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.

(w) "Green Tag" and "Green Tag Reporting Rights" have the meanings set forth in the definition of "Green Attributes", and for the purposes of this Transaction, "Green Tag Purchaser" means Buyer.

(x) "Mandatory Reporting Rule" means the regulations entitled Mandatory Greenhouse Gas Emissions Reporting set forth at Article 2 of Subchapter 10 of Title 17 of the California Code of Regulations.

(y) "Party" means Buyer or Seller, and "Parties" means both Buyer and Seller.

(z) "Project" means a facility listed in Schedule "A" provided that, for the purposes of Sections 9(d) and 9(e) of this Confirmation and the definition of Green Attributes, the term "Project" shall be read to refer to all such facilities listed in Schedule "A" but only to the extent of Seller's contractual rights to the energy and Green Attributes produced by such facilities. Seller must be contractually entitled to all or a portion of the bundled energy and associated Green Attributes generated by the facilities listed in Schedule "A" during the Generation Term (or portion thereof in which the Product is generated by or attributed to such facility). Buyer acknowledges that Seller (i) may deliver the Product from any or all Projects, and (ii) may not have a contractual right to the entire output of such facilities.

(aa) "Renewable Energy Credit" or "REC" means a renewable energy credit as defined by and in accordance with the California Public Utilities Code.

(bb) "RPS Adjustment" means the reduction in the Compliance Obligation of an electricity importer authorized by and calculated in accordance with section 95852 (b)(4) of the Cap and Trade Regulations and section 95111(b)(5) of the Mandatory Reporting Rule.

(cc) "RPS ID" means the "California Energy Commission RPS certification number", the "identification number" and/or the "RPS ID", as such terms are used by the CEC to describe the identification number for an eligible renewable energy resource that has been certified (or will be certified for the period of deliveries) as such by the CEC for the purposes of the RPS. The RPS ID for each Project is set out beside the applicable facility under the column "RPS ID" in the table attached hereto as Schedule "A".

(dd) "Scheduling Point" has the meaning set forth in the CAISO Tariff, including (without limitation) the SYLMARDC_2_N501 and MALIN_5_N101 Scheduling Points.

(ee) "Seller Eligibility Failure" means a failure of (i) Category 1 Product or Category 2 Product to meet or satisfy the applicable Eligibility Requirements as a result of any requirements set forth in Section 9(b) of this Confirmation not being satisfied, or (ii) any other Eligibility Requirements or element or component thereof applicable to a Category Product which are in the direct control of Seller to meet or satisfy as a result of or if caused or attributable to an act or omission by Seller unless, in either the case of (i) or (ii), such failure is excused by Force Majeure.

(ff) "Specified Source" means "specified source", as such term is defined in the Mandatory Reporting Rule.
(gg) "WREGIS" means the Western Renewable Energy Generation Information System or any successor renewable energy tracking program.

(hh) "WREGIS Certificate" means a "Certificate" as defined by WREGIS in the WREGIS Operating Rules and designated by law as eligible for complying with the California RPS Program and for evidencing the Green Attributes associated with the Product.

(ii) "WREGIS Operating Rules" means the operating rules and requirements adopted by WREGIS, as amended from time to time.

(jj) "WREGIS Timelines" means the time line for WREGIS Certificate creation by WREGIS in accordance with WREGIS Operating Rules as applied by WREGIS.
To: Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 3: Elect a Chair and Vice Chair of the SVCE Board of Directors for 2019

Date: 1/9/2019

RECOMMENDATION
Staff recommends that the Board elect a Chair and Vice Chair of the Silicon Valley Clean Energy Board of Directors to serve for 2019.

BACKGROUND
Section 4.11.1 of the SVCEA Joint Powers Agreement specifies that the Directors shall select, from among themselves, a Chair who shall be the presiding officer of all board meetings, and a Vice Chair, who shall serve in the absence of the Chair. The Agreement also specifies that the term of office continues for one year and there is no limit on the number of terms held by either office.

ANALYSIS & DISCUSSION
The Directors listed below have formally expressed interest in serving as Chair or Vice Chair of the Board:

Chair
Director Abe-Koga, City of Mountain View

Vice Chair
Director Miller, City of Saratoga
Director Smith, City of Sunnyvale

These letters of interest are attached to the report.

STRATEGIC PLAN
The recommendation supports SVCE’s overall strategic plan.

ALTERNATIVE
N/A

FISCAL IMPACT
There is no fiscal impact to the agency as a result of selecting a Chair and Vice Chair of the board.

ATTACHMENTS
1. Director Statement of Interest
December 26th, 2018

Dear Colleagues,

I write to respectfully request your appointment as Chairperson for the 2019 Silicon Valley Clean Energy Board.

It has been an honor to work with all of you on the SVCE Board since 2017. Having been a part of the early beginnings of the SVCE in 2014, when I championed Mountain View’s leadership in forming SVCE, and because of Mountain View’s large share in the organization, I have endeavored to take an active role on the Board of Directors.

I have served on the Executive Committee and appreciated the in depth discussions we had on upcoming agenda items and major issues, especially as we navigated through program roll out. I would like to continue this work as we confront new challenges and revise our strategy, to adjust to the changing landscape.

Last year, I volunteered and served on the searching/hiring subcommittee, and I am thrilled with our choice in Girish Balachandran, who, I believe has taken SVCE to the next level.

Our greatest challenges have come from the legislative and regulatory front, and I have actively engaged on the Ad Hoc Legislative Committee, offering my experience working in the State Legislature and the networks I’ve built over the years to advocate for SVCE’s interests. I believe we need to continue in this regard, and strengthen our voice by building coalitions with other constituencies that share our interests and work together to advance issues of mutual concern. I’ve already begun outreach efforts to such groups as business and labor, and believe that being Chair will help in those endeavors.

Having worked closely with Chair Corrigan this past year as her Vice-Chair, I believe I have the experience and knowledge base to serve as Chair, and would be honored to have your vote.

Sincerely,

Margaret Abe-Koga
SVCE Board Vice-Chairperson, Mountain View Representative
I was out of town for a few days...and just saw this. So here is by belated letter (It it is too late, I can do it at the meeting...let me know):

I am applying as Vice Chair for SVCE. I have been heavily involved with SVCE since the JPA was formed. I have served on both CEO search committees, service on the original executive and continue to serve on the risk oversight and finance committees. I was heavily involved in recruiting Milpitas to join SVCE, including attending several of their council meetings. As an engineering I have a background and interest to understand some of the complex technical issues. And as elected officials we are all aware of the extreme challenges we face in the ever changing legislative landscape. My background and experience position me to be able to help lead SVCE thought the coming challenges.

Thanks!

Howard...

On Dec 24, 2018, at 2:01 PM, Andrea Pizano <Andrea.Pizano@svcleanenergy.org> wrote:

Hello Directors,

Merry Christmas Eve! Sending a reminder to please submit letters of interest for the position of Chair/Vice Chair to me by this Friday, 12/28, for inclusion in our Board packet for the January 9th meeting.

Hope you all have a safe and happy holiday.

Best,

Andrea
This letter was sent and delivered by email

December 27, 2018

Andrea Pizano  
Board Clerk/Executive Assistant  
Silicon Valley Clean Energy  
333 W. El Camino Real, Suite 290  
Sunnyvale, CA 94087

Dear Ms. Pizano,

I’m writing to let you know of my interest in seeking the position of Vice Chair of the Board of Silicon Valley Clean Energy. My commitment and experience would serve the organization well.

During my first year of service on the SCVE Board, I worked hard on the Legislative Action committee to advocate for the interests of not just the local agency, but CCAs throughout the state. Also, I succeeded in building connections between CalCCA and state municipal leaders through the California League of California Cities Conference last September. As often as possible, I work to help SVCE in its role to reduce GHG emissions while providing benefits to our customers and community.

Examples of my executive and leadership accomplishments over the years show I am no stranger to Board leadership. While acting as Chair of the Santa Clara Valley Water District Environmental and Water Resources Board, I took advantage of a change in Board Policy to create working groups to allow committee members to meet on topics of interest. My efforts resulting in several policy changes benefiting endangered salmonid populations and management of creeks impacted by homeless people. I’ve helped found numerous companies and non-profits, including the Third Street Community Center in San Jose.

If the other members of the Board of Directors of Silicon Valley Clean Energy elect me as Vice Chair, I would be honored as I continue to commit enthusiasm and experience to service of SVCE and it’s mission.

Yours in service,

Nancy Smith

cc: Kent Steffans, City Manager, City of Sunnyvale
Staff Report – Item 4

To: Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 4: Appoint Directors to the SVCE Executive Committee for 2019

Date: 1/9/2019

RECOMMENDATION
Staff recommends that the Board select and appoint SVCE’s Executive Committee for 2019.

BACKGROUND
The SVCEA Joint Power Agreement Section 4.6 specifies that the Board may establish an executive committee consisting of a smaller number of Directors and that the Board may delegate to the executive committee such authority as the Board might otherwise exercise, subject to limitations specified in the Agreement or in the Operating Rules and Regulations.

The duties of the Executive Committee will continue to be to review and provide advice to the Chief Executive Officer and the entire Board on policy, operational and organizational matters and perform such other responsibilities, tasks or activities as delegated to it by the Board.

ANALYSIS & DISCUSSION
Following is a snapshot of the 2018 Executive Committee as well as members who have expressed interest in serving for 2019:

<table>
<thead>
<tr>
<th>Frequency of Meetings</th>
<th>Composition</th>
<th>Current Members</th>
<th>Directors who have Expressed Interest for 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly, Currently Fourth Tuesday</td>
<td>Chair</td>
<td>Chair Corrigan</td>
<td>Chair Corrigan</td>
</tr>
<tr>
<td></td>
<td>Vice Chair</td>
<td>Vice Chair Abe-Koga</td>
<td>Vice Chair Abe-Koga</td>
</tr>
<tr>
<td></td>
<td>Three Additional Board members (5 total)</td>
<td>Director Gibbons</td>
<td>Director Gibbons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Director Sinks</td>
<td>Director Sinks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Director Smith</td>
<td>Director Smith</td>
</tr>
</tbody>
</table>

STRATEGIC PLAN
The recommendation supports SVCE’s overall strategic plan.

ALTERNATIVE
N/A

FISCAL IMPACT
There is no fiscal impact to the agency as a result of selecting members of the Executive Committee.
Staff Report – Item 5

To: Silicon Valley Clean Energy Board of Directors

From: Girish Balachandran, CEO

Item 5: Executive Committee Report

Date: 1/9/2019

No report as the committee has not met since December 4, 2018.
Staff Report – Item 6

To: Silicon Valley Clean Energy Board of Directors
From: Girish Balachandran, CEO

Item 6: Finance and Administration Committee Report
Date: 1/9/2019

No report as the committee has not met since September 4, 2018.
Staff Report – Item 7

To: Silicon Valley Clean Energy Board of Directors
From: Girish Balachandran, CEO

Item 7: Legislative Ad Hoc Committee Report
Date: 1/9/2019

No report as the committee has not met since November 30, 2018.
Staff Report – Item 8

To: Silicon Valley Clean Energy Board of Directors
From: Girish Balachandran, CEO

Item 8: Audit Committee Report
Date: 1/9/2019

No report as the committee has not met since December 5, 2018.