Voluntary Allocation and Market Offer ("VAMO") Amendment to Delegated Authority

June 8, 2022
SVCE Board Meeting
On May 11, 2022, the SVCE Board unanimously approved delegating authority to the CEO to participate in VAMO for up to SVCE’s full allocation representing ~25% of SVCE’s annual retail sales.

Since the May 2022 Board meeting, the CPUC & PG&E have extended the election deadline to July 9, 2022, to allow participants more time to incorporate VAMO allocations in their RPS Plans should they elect to take them, as well as issuing a proposed decision to allow PCC0 classifications to be retained during the transfer.

Staff has also received interest from third-parties in purchasing a portion SVCE’s VAMO share.

Staff is requesting the ability to transact excess shares of VAMO such that the transactions mirror the product mix and term of the underlying VAMO contract.

SVCE will only engage in pricing structures tied to the market price benchmark and must have an executed third-party contract prior to accepting additional shares of VAMO beyond SVCE’s internal needs.
Recommendation

• Amend the previous authorization for SVCE’s Chief Executive Officer (CEO) to participate in Pacific Gas and Electric’s (PG&E) Voluntary Allocation Market Offer (VAMO) for SVCE’s portion of its load ratio share and execute necessary agreements including the Voluntary Allocation Confirmation under Pacific Gas and Electric (PG&E) and SVCE Master Power Purchase and Sale Agreement and resell quantities not necessary to meet SVCE’s internal needs.

• The CEO will only exercise the delegated authority should he deem it necessary to meet long-term procurement directives, or for any resales of the allocation, and will report back to the Board in a timely fashion.
Approval to Participate in California Community Power Geothermal Projects: Ormat and Open Mountain Energy

SVCE Board
June 8, 2022
Request: Delegate authority to CEO to execute necessary agreements with California Community Power for two new Geothermal Projects to meet SVCE’s Mid-term Reliability Procurement Obligations for Firm Clean Resources:

1. **Ormat Nevada Inc. (Ormat) Portfolio of Geothermal Projects**
   - Expected Participation Share: 13.4% or 16.75 MW with quantity not to exceed 20.94 MW
   - Delivery term: 20 years starting on or about June 1, 2024
   - Dollar authority: not to exceed $256,000,000

2. **Open Mountain Energy LLC., Fish Lake Geothermal (OME)**
   - Expected Participation Share: 14.0% or 1.82 MW and quantity not to exceed 2.28 MW
   - Delivery term: 20 years starting on or about April 1, 2024
   - Dollar authority: not to exceed $30,000,000
CPUC’s Mid-Term Reliability Order: SVCE’s Procurement Allocation & Technology Carve-outs

- 11.5 GW required to come online over the 2023 – 2026 timeframe
- Capacity is shown is on Net Qualifying Capacity (“NQC”), actual nameplate will be higher but is dependent on exact resource types procured.
- Long-duration storage and firm clean resources (FCR) are considered “long-lead time” and are all expected in 2026. LSEs may request extension to 2028.

LDS & FCR Procurement through CC Power

*Zero-emitting resources must be online by 2025, however for illustrative purposes we assume 1/3 will come online in 2024 as they can be used to meet an LSEs 2024 obligations. They are expected to be largely comprised of 5-hr batteries, which meet the definition of being zero-emitting and available for delivery 4-9pm daily.
MTR Procurement Efforts for New Capacity

CC Power RFO

- **MTR Requirement No 4** – Long Duration Storage (by 2026) – new storage with 8-hour minimum discharge duration
- **MTR Requirement No 3.** – Firm Clean Resources (by 2026) – new geothermal – discuss today

Joint RFO - SVCE, Sonoma Clean Power & Central Coast Community Energy

- **MTR Requirement No. 1** – Non-specific Clean Capacity (by 2023) – new demand response, stand alone batteries as RA-only or full toll
- **MTR Requirement No. 2** – “Diablo Canyon Replacement” Zero Emitting Resources (by 2025) – new renewables paired with storage (5-hours)
Background

- CC Power issued RFO in October 2021 (SJCE administered)
- Offers due December 13, 2021
  - 6 bidders, 16 projects all but one for geothermal
  - Projects located in Nevada and California
  - CA projects located in CAISO were priced substantially higher
- Project Oversight Committee evaluated offers & recommended shortlist:
  - Portfolio of projects from Ormat Nevada, Inc. (Ormat)
  - Open Mountain Energy LLC (OME) Fish Lake Geothermal
- CC Power Board approved three resolutions on May 31, 2022:
  1. Resolution 22-05-02 Waiver of 60-day Notice of Intent for the Fish Lake Geothermal and Ormat Geothermal Portfolio Projects.
  2. Resolution 22-05-03 Approval of Fish Lake Geothermal Project and Authorization to Execute Associated Agreements.
### Project Totals – CC Power – FCR

**SVCE Share of CC Power FCR Portfolio = 14% OME and 13.4% Ormat**

<table>
<thead>
<tr>
<th>Counterparty</th>
<th>Project Name</th>
<th>Term</th>
<th>Nameplate MW</th>
<th>NQC MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Mountain Energy, LLC</td>
<td>Fish Lake Geothermal LLC</td>
<td>4/2024 to 4/2044</td>
<td>13</td>
<td>10.9</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Baltazor</td>
<td>6/2024 to 6/2044</td>
<td>20</td>
<td>17.1</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Lone Mountain</td>
<td>2/2026 to 2/2046</td>
<td>20</td>
<td>16.4</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Crescent Valley</td>
<td>10/2025 to 10/2045</td>
<td>20</td>
<td>12.9</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Gerlach</td>
<td>6/2025 to 6/2045</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Coyote Canyon</td>
<td>8/2024 to 8/2044</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>Ormat Nevada, Inc.</td>
<td>Dixie Comstock</td>
<td>6/2025 to 6/2045</td>
<td>20</td>
<td>16</td>
</tr>
</tbody>
</table>

All projects are outside of the CAISO, therefore need import capability into California to count as Resource Adequacy, a requirement for the FCR procurement mandate.
Ormat Portfolio of Projects

- **Seller** – Ormat Nevada Inc.
- **Buyer** – CC Power
- **Developer** – Ormat Nevada Inc.
- **Technology** – Incremental Geothermal
- **Project** – portfolio of facilities in NV and CA with a min of 64 MW and a max of 125 MW
- **Product** – Energy, PCC1, full capacity rights
- **Location** – Various locations in Nevada and California
- **Expected COD** – Varies with project, as early as 2024
- **Price** – Fixed $/MWh, no escalation
- **Term** – 20 years
Ormat Portfolio Approach

- Ormat to offer Facilities as they become available
  - Minimum 65 MW - ~485 GWh/year
  - Maximum 125 MW - ~952 GWh/year
- SVCE’s share of Portfolio is 13.4%
  - Minimum 8.58 MW - ~65 GWh/year
  - Maximum 16.75 MW - ~127 GWh/year
- Participating CC Power members may accept or reject within 3 months
  - Lack of import capability
  - Volume not needed
- Facilities that are accepted become part of the portfolio
- If a Facility is rejected the min required offer amount is reduced by a commensurate volume
Open Mountain Energy Fish Lake Project

- **Seller** – Fish Lake Geothermal, LLC
- **Buyer** – Developer – Open Mountain Energy, LLC
- **Technology** – Incremental Geothermal
- **Project size** – 13 MW, ~107 GWh/year
- **Product** – Energy, PCC1, full capacity rights
- **Location** – Esmeralda County, Nevada
- **Expected COD** – June 1, 2024
- **Price** – Fixed $/MWh, no escalation
- **Term** – 20 years

SVCE’s share: 1.82 MW - ~15 GWh/year
## FCR Participating Members

### Participant

<table>
<thead>
<tr>
<th>Participant</th>
<th>Ormat Entitlement Share %</th>
<th>Ormat Entitlement Share MW</th>
<th>OME Entitlement Share %</th>
<th>OME Entitlement Share MW</th>
<th>Total Entitlement MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast Community Energy</td>
<td>17.90%</td>
<td>22.38</td>
<td>18.60%</td>
<td>2.42</td>
<td>24.80</td>
</tr>
<tr>
<td>Clean Power San Francisco</td>
<td>13.90%</td>
<td>17.38</td>
<td>14.50%</td>
<td>1.89</td>
<td>19.27</td>
</tr>
<tr>
<td>Peninsula Clean Energy</td>
<td>17.10%</td>
<td>21.38</td>
<td>17.80%</td>
<td>2.31</td>
<td>23.69</td>
</tr>
<tr>
<td>Redwood Coast Energy Authority</td>
<td>3.20%</td>
<td>4.00</td>
<td>2.80%</td>
<td>0.36</td>
<td>4.36</td>
</tr>
<tr>
<td>San Jose Clean Energy</td>
<td>19.60%</td>
<td>24.50</td>
<td>17.40%</td>
<td>2.26</td>
<td>26.76</td>
</tr>
<tr>
<td>Silicon Valley Clean Energy</td>
<td><strong>13.40%</strong></td>
<td><strong>16.75</strong></td>
<td><strong>14.00%</strong></td>
<td><strong>1.82</strong></td>
<td><strong>18.57</strong></td>
</tr>
<tr>
<td>Sonoma Clean Power Authority</td>
<td>11.20%</td>
<td>14.00</td>
<td>11.70%</td>
<td>1.52</td>
<td>15.52</td>
</tr>
<tr>
<td>Valley Clean Energy</td>
<td>3.70%</td>
<td>4.63</td>
<td>3.20%</td>
<td>0.42</td>
<td>5.05</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>125.00</td>
<td>100%</td>
<td>13.00</td>
<td>138.02</td>
</tr>
</tbody>
</table>
Mid-term Reliability Procurement Order

- **D.21-06-035** adopted by CPUC on June 24, 2021 to address mid-term reliability needs
- 1,000 MW of FCR by June 2026
- Minimum 10-year term
- Adjusted for Effective Load Carrying Capacity (ELCC)
- Each Participating Member seeking authority to cover:
  - Contingency should not all CCA's gain board authority for OME; and
  - 25% step-up for both

If all Ormat capacity is provided, Ormat and OME contracts meet 100% of Participating Members FCR Obligation adjusted for ELCC

<table>
<thead>
<tr>
<th>CCA</th>
<th>NQC MW Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast Community Energy</td>
<td>25.5</td>
</tr>
<tr>
<td>CleanPowerSF</td>
<td>15.5</td>
</tr>
<tr>
<td>Peninsula Clean Energy</td>
<td>19.0</td>
</tr>
<tr>
<td>Redwood Coast Energy</td>
<td>3.5</td>
</tr>
<tr>
<td>San José Clean Energy</td>
<td>21.5</td>
</tr>
<tr>
<td><strong>Silicon Valley Clean Energy</strong></td>
<td><strong>20.5</strong></td>
</tr>
<tr>
<td>Sonoma Clean Power</td>
<td>12.5</td>
</tr>
<tr>
<td>Valley Clean Energy</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
</tr>
</tbody>
</table>
SVCE will meet it’s MTR obligation for firm clean resources

<table>
<thead>
<tr>
<th>MTR FCR/Geothermal Requirement NQC MW</th>
<th>SVCE Executed Geothermal PPA</th>
<th>Remaining Need NQC MW</th>
<th>SVCE’s Share of CC Power FCR Procurement NQC MW</th>
<th>Net Open Position +Surplus/(-) Deficit NQC MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5</td>
<td>6.51</td>
<td>13.99</td>
<td>18.6</td>
<td>4.61</td>
</tr>
</tbody>
</table>
Ormat and OME Geothermal contribute towards RPS & SB350 Requirements

<table>
<thead>
<tr>
<th></th>
<th>CP#4 2021-2024</th>
<th>CP#5 2025-2027</th>
<th>CP#6 2028-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Mandated RPS per Compliance Period - % of Retail Sales</td>
<td>40%</td>
<td>50%</td>
<td>57%</td>
</tr>
<tr>
<td>2. State Mandated % of Mandated RPS (Row #1) to be Contracted Under RPS Long-term Contracts</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>3. State Mandated % of Retail Sales with RPS Long-term Contracts (Row 2* Row 1)</td>
<td>26%</td>
<td>33%</td>
<td>37%</td>
</tr>
<tr>
<td>4. SVCE: Current Compliance with Row #3: Existing RPS Achieved with Long-term Contracts (per Table 2)*</td>
<td>37.6%</td>
<td>60.6%</td>
<td>57.7%</td>
</tr>
<tr>
<td>5. SVCE: RPS Achieved with Ormat Geothermal Portfolio</td>
<td>37.8%</td>
<td>63.9%</td>
<td>60.9%</td>
</tr>
<tr>
<td>6. SVCE: RPS Achieved with Ormat and OME</td>
<td>37.9%</td>
<td>64.2%</td>
<td>61.3%</td>
</tr>
<tr>
<td>Open Position relative to State Mandate (Row #3) +Above/ (-) Short</td>
<td>+11.9%</td>
<td>+32.1%</td>
<td>+24.03%</td>
</tr>
</tbody>
</table>
Contracting structure is the same as used for Long Duration Storage with minimal changes

- Development and Performance Deposits
- Buyer’s Liability Pass Through Agreement (BLPTA) – guaranty performance by each Participating Member to CC Power & Ormat and OME
- Provided in substantively final form
- 120 days from execution (May 31, 2022) for Participating CCAs to approve agreements
- Meets CC Power Board specified labor environmental, and environmental justice preferences
  - Workforce: PLA, or comply with CA prevailing wage with audit if no PLA, and; encourage use of local labor (Nevada special conditions)
  - Environmental: meet permitting requirement; state preference that projects avoid sensitive habitats
  - Environmental Justice: Attest to not using forced labor, identify benefits to local communities
Project Participation Share Agreement

- CC Power and Participating Members
- Agreement to fund Project obligations – deposits & payments
- Sharing of Project revenue and benefits
- Step-up provision – capped at 125% of Entitlement Share per Participating Member
- Liability and insurance
- Governance & Voting structure for operating PPSA:
  - Key requirements require CC Power board vote
  - Each Participating Member gets one vote
  - Non-participating members abstain
  - Other requirements require Project Operating Committee vote, or are delegated to GM
Geothermal resources provide a reliable source of clean energy

- Provides RPS PCC1
- Reduced portfolio risk
- Enhances grid reliability
- Ancillary Services
- Resource Adequacy
- Reduces GHG emissions
- Helps achieve 2045 Carbon Neutral and 24x7 goals
Approval Process

Step 1: CC Power Board waives 60-day notice and approves Agreements
Step 2: CC Power General Manager and counterparties execute agreements – “effective date”
Step 3: Participating Members seek respective Board Approvals of PPSA and BLPTA within 120 Days

- CC Power Approves Projects: May 31, 2022
- CC Power & OME/Ormat Execute Agreements: May 31, 2022
- Participating CCAs Receive Approval of Participation Agreements: Jun–Sep 2022
**Role of POC: solicit, evaluate, direct negotiations, and recommend projects.**

<table>
<thead>
<tr>
<th>CCA</th>
<th>POC Member</th>
<th>Other Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast Community Energy</td>
<td>Dennis Dyc-O'Neal</td>
<td>Jeremy Clark</td>
</tr>
<tr>
<td>CleanPowerSF</td>
<td>Michael Hyams</td>
<td>Erin Mulberg</td>
</tr>
<tr>
<td>Peninsula Clean Energy</td>
<td>Siobhan Doherty</td>
<td>Chelsea Keys</td>
</tr>
<tr>
<td>Redwood Coast Energy</td>
<td>Richard Engel</td>
<td>Jocelyn Gwynn</td>
</tr>
<tr>
<td>San José Clean Energy</td>
<td>Jeanne Solé</td>
<td>Kelly Morris</td>
</tr>
<tr>
<td>Silicon Valley Clean Energy</td>
<td>Monica Padilla</td>
<td>Oren Weiner &amp; Charles Grinstead</td>
</tr>
<tr>
<td>Sonoma Clean Power</td>
<td>Deb Emerson</td>
<td>Ryan Tracey</td>
</tr>
<tr>
<td>Valley Clean Energy</td>
<td>Gordon Samuel</td>
<td></td>
</tr>
</tbody>
</table>

**PPA Negotiation & Analytics Team:**
Deb Emerson, SCP  
Ryan Tracey, SCP  
Kevin Fox, Keyes & Fox

**Budget, RFP Process and POC Coordination:**
Jeanne Solé, SJCE  
Kelly Morris, SJCE

**PPSA & Other Legal Support:**
BBSW – Tony Braun, Justin Wynne, Brittany Iles, Kris Kirkegaard
Delegate authority to CEO to execute necessary Project Participation Share Agreements (PPSA) and Buyer’s Liability Pass Through Agreements (BLPTA) with California Community Power and Participating Members for two new Geothermal Projects:

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   - Delivery term: 20 years starting on or about April 1, 2024
   - Dollar authority: not to exceed $30,000,000
THANK YOU!
CPUC’s Mid-Term Reliability Order: Need Determination

- CPUC conducted resource stack analysis found ~11.5GW of need
- Due to nature of retiring assets (DCPP), CPUC required subset to be met with firm clean resources and 5-hr batteries (4.5 GW)
- D.21-06-035 adopted by CPUC on June 24, 2021 to address mid-term reliability needs
- SVCE given load share proportion: 237 MW
SVCE Strategic Plan
FY 23 Update
Board of Directors
June 8, 2022
Girish Balachandran
Strategic Plan & Budget Timeline

- April & May & Q3 - Staff input
- May 27 - Executive Committee (strategic plan)
- June 8 - Board (strategic plan)
- June 24 - Executive Committee (strategic plan & budget)
- August? - Finance Committee (budget)
- August 10 - Board (budget)
- September 7 – Strategic Focus Areas and Budget Approval
- October 12 – SVCE Work Plan presented to Board

May
- Board starts CEO evaluation

May-Aug
- Strategic Plan Input & Updates

September
- Approve Budget, Strategic Focus Areas

Sep-Oct
- CEO evaluation & Priorities (Sep)
- Present detailed work plan and measures (Oct)

Oct-May
- Implementation
21 Goals and 75 Measures

Each Goal associated with Measures
Input from all staff

Hakone Gardens, April 29th;

Virtual retreat all managers, May 5th;

Further synthesis, all Directors
Board supports keeping the Mission and the Overall Measure the same?

**MISSION:**
Reduce dependence on fossil fuels by providing carbon free, affordable, and reliable electricity and innovative programs for the SVCE community

**MEASURE:**
SVCE, working with SVCE member agencies, aspires to achieve energy and transportation GHG reductions of 30% from the 2015 baseline by 2021, 40% by 2025, and 50% by 2030
### Summary of Future 5 Year Goals

**From Hakone retreat April 29th; refined May 5th staff meeting; additional meetings**

<p>| | | | |</p>
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<tr>
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<tr>
<td>5. 24x7 clean energy delivery</td>
<td>6. Operationalize resources and portfolio/asset management in the wholesale market to achieve objectives</td>
<td>7. Ensure state and federal policy landscape preserve CCA autonomy + program policies</td>
<td>8. Work electrification into SVCE’s value proposition to customers</td>
</tr>
</tbody>
</table>
Goals Spotlight – Five Focus Areas

- All are important
- Shining a spotlight on incremental areas
- Workplan will include the details on how we will address these and other areas/goals (internal document)

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</table>
Executive Committee Input (May 27)

• Keep Mission and overall measure unchanged
• 24x7 Clean Energy Delivery: aspiration for the future, longer-term goal
• Keep diversity/equity focus and continue incorporating in work; use examples as how it will be put into practice across supporting measures

Public Comment
• Frame the strategic plan from the customer viewpoint and how customers benefit from the work that SVCE is undertaking
Next Steps

- April & May & Q3 - Staff input
- May 27 - Executive Committee (strategic plan)
- June 8 - Board (strategic plan)
- June 24 - Executive Committee (strategic plan & budget)
- August? - Finance Committee (budget)
- August 10 - Board (budget)
- September 7 – Strat Focus Areas and Budget Approval
- October 12 – SVCE Work Plan presented to Board

SVCE Strategic Focus Areas &
SVCE Work Plan

Staff Input & Discussion
Board Input and Discussion
Comments from Board

• Questions
• Comments
Summary of Future 5 Year Goals
From Hakone retreat April 29\textsuperscript{th}; refined May 5\textsuperscript{th} staff meeting; additional meetings

1. Employer of Choice
2. Supplier of Choice
3. Leverage Balance Sheet for Structured Financing
4. Efficient and Effective Internal Operations
5. 24x7 clean energy delivery
6. Operationalize resources and portfolio/asset management in the wholesale market to achieve objectives
7. Ensure state and federal policy landscape preserve CCA autonomy + program policies
8. Work electrification into SVCE’s value proposition to customers
9. Expand focus on C&I decarb/industrial load
10. Expand/scale digital and in-person electrification awareness and education
11. Execute on planned programs to demonstrate impacts and influence policy
12. Operationalize equity into programs
Goals Spotlight – Five Focus Areas

- All are equally important
- Shining a spotlight on incremental areas
- Workplan will include the details on how we will address these and other areas/goals (internal document)

<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Employer of Choice</td>
</tr>
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<td>2.</td>
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<td>5.</td>
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</tbody>
</table>
## FY23 Strategic Focus Areas with more detail

<table>
<thead>
<tr>
<th>Area</th>
<th>FY23 Focus Areas</th>
</tr>
</thead>
</table>
| Staff Recruitment, Retention, Development and Succession Planning | - Assess staffing needs and skill gaps  
- Recruit qualified and strong candidates  
- Develop and implement staff development plans  
- Develop succession and cross training plans |
| Clean Power Supply & Decarbonization Programs | - Maintain & implement clean power resources  
- Explore pathways to measure and achieve carbon free 24x7  
- Implement customer offerings and demand side programs (VPP)  
- Pursue local building and transportation electrification policies |
| Legislative and Regulatory Advocacy & Policies | - Ensure state and federal policy landscape preserve CCA autonomy, including rate setting/financial planning, and clean energy procurement  
- Advocate for policies that advance SVCE’s mission  
- Advocate for operational rules and regulations that preserve the value of SVCE’s portfolio of assets |
| Internal Operations & Business Process Optimization | - Deploy trade capture and settlement systems  
- Implement hybrid technology and workspace  
- Develop business process mapping & documentation |
| Rates & Financial Reserve Management       | - Complete stress test analysis and recommend reserve targets  
- Assess impacts of hedging on net revenue projections  
- Evaluate rate offerings, discount, clean offerings and trade-offs |
More Context on the 5 Strategic Focus Areas

<table>
<thead>
<tr>
<th>FY23 Strategic Focus Areas with more detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer of Choice – maintain a culture of innovation and growth</td>
</tr>
<tr>
<td>Supplier / Electric Provider of Choice</td>
</tr>
<tr>
<td>Structured Financing - Provide innovative financing solutions to customers</td>
</tr>
<tr>
<td>Efficient and Effective Internal Operations</td>
</tr>
<tr>
<td>Shape External Environment to Advance SVCE Priorities</td>
</tr>
</tbody>
</table>

### Employer of Choice – maintain a culture of innovation and growth
- Differentiate ourselves as the “innovative” CCA
- Attract the right “type” of employee – mission-driven and entrepreneurial
- Develop and retain employees – provide growth and learning opportunities

### Supplier / Electric Provider of Choice
- Re-launch (Define and communicate) our value proposition to our customers
- Maintain Competitive Rates
- Offer all-electric rates to advance beneficial electrification
- Carbon-free or RPS? Which path to 24/7?
- Customer-Centric Technology – positive impact, negative, both?
- Attract and retain DA customers

### Structured Financing - Provide innovative financing solutions to customers
- Continue building Strong Financial Reserves
- Strategically use / lean into our strong balance sheet to advance our mission
- Develop partnerships with local member agencies, companies, and customers
- Operationalize equity into programs (could expand to social justice, org-wide)

### Efficient and Effective Internal Operations
- Business Process Optimization
- Cybersecurity / Business Continuity
- Process Improvements / Productivity Tools
- Internal Controls / Governance
- Effective Risk Management – Re-visit Hedging Strategy / Stress Testing
- Ensure state and federal policy landscape to preserve CCA autonomy
- Monitor Municipalization efforts by others
- PCIA Reform (going negative); NBCs
- Leveraging available public funding
- Diablo Extension (opportunities / threats)
- What if PG&E broken up / no longer POLR / add’l bankruptcy
- New technology disruptions – Supply-side
More Context on the 5 Strategic Focus Areas

**FY23 Strategic Focus Areas with more detail**

**SF1**: Clearly integrate electrification into SVCE's value proposition to customers
- Move beyond cleaner electricity at competitive rates
- Explore concepts such as a discounted 'all electric' rate, and/or structured financing for decarb retrofits

**SF2**: Deliver new 24/7 clean energy service, and evaluate related growth opportunities with strategic customers
- Successfully launch innovative 24/7 service with Cust Y
- Explore related longer-term growth opportunities with top commercial customers in the area

**SF3**: Expand online decarb resources and assess pilot opportunities in the C&I sector
- C&I represents ~40% of SVCE gas use
- Complex, and highly concentrated with large customers
- Add online resources, assess/launch targeted pilot(s)

**SF4**: Continue to expand digital & in-person electrification awareness, education and resources in the residential sector
- 'Digital pivot' has shown strong results, big potential
- Expand promotions, contractor & buying resources
- Couple with physical demonstration projects

**SF5**: Explore strategic decarb product and service development relationships with top tech customers
- Decarb emerging as a strategic priority for top tech co's, integrating decarb into global product/platform dev
- Explore unique SVCE value-adds as innovation partner
More Context on the 5 Strategic Focus Areas

FY23 Strategic Focus Areas with more detail

**Employer**
- Attract, develop and retain talented workforce
- Grow teams and structure to meet needs

**Energy**
- Operationalize PPAs
- Explore 24x7, resource options and projected procurement needs
- Meet obligations and influence state policy

**Programs**
- Prioritize efforts; focus on big impacts, be bold and take smart risks (emphasize Double Down initiatives)
- Explore financing options, how to leverage SVCE balance sheet
- Work with jurisdictions on local policies for existing buildings

**Awareness**
- Promote customer and contractor education
- Expand customer-facing tools and resources
- Develop decarbonization narrative

**Affordability**
- Consider all-electric and other rates
- Include in SVCE's value proposition
- Ensure transition supports all customers
Current (FY 21-22) Strategic Focus Areas

FY22 Strategic Focus Areas

- Additional Staffing to Maintain Capacity & Organization Succession Planning
- Operations Mode with PPA’s coming online
- Procurement, Clean Energy Mix & Integration
- Financial Stability & Trade-Offs
- Internal Operations & Cyber Risk Management
- Grow the organization to expand our strategic efforts on climate change and decarbonization
FY 21-22
6 Focus Areas with a little more context

Additional Staffing to Maintain Capacity
- New positions to manage operational risk and support maturation
- Organization succession planning

Operations Mode with PPA’s coming online
- $1.6 billion in 13 PPA investments over last 3 years
- First PPA online December 2021
- Operations, optimization, settlement

Procurement, Clean Energy Mix & Integration
- Long-term RPS% Policy & Procurement
- Mandated procurement, emerging technologies, demand flexibility
- CAISO involvement, Grid Integration

Financial Stability & Trade-Offs
- FY21 – SVCE in the red
- Power Prepay
- Energy Risk Management
- Trade-off’s (RPS % policy, Clean Energy, Discount, etc.)

Internal Operations
- Business Process Optimization
- Cyber & Physical Risk
- PostCOVID hybrid work for staff and Board

Grow the organization to expand our strategic efforts on climate change and decarbonization
- Double-down decarbonization strategy
- Consider increasing resource allocation substantially
- Focus on areas where SVCE can make incremental impact
FY 20-21
Strategic Focus Areas

Additional Resources & Efficiencies
Enterprise-wide systems, metrics & tools
Focus on Equity
Digital Pivot - Customer & Community engagement
Community outreach and leverage
Aggressive State Goals are Now Supported by Changes at the Federal Level

Statewide GHG Emissions
(including electricity, natural gas, transportation, agriculture and industrial sectors)

Electricity makes up only **18%** of allowable statewide emissions in **2030**.

Graph based on data from the California Climate Change Scoping Plan:
SVCE has set aggressive carbon reduction goals.

SVCE Emissions Reduction Goals

- SVCE launched service in 2017; baseline data starts in 2015
- 2021 GOAL: 30% BELOW 2015 LEVELS
- 2025 GOAL: 40% BELOW 2015 LEVELS
- 2030 GOAL: 50% BELOW 2015 LEVELS
Over the last 4 years SVCE has reduced emissions tremendously

2020 emissions were 35% below 2015 due to COVID, exceeding 2021 target of 30%

Energy & Transportation Emissions by Subsector

SVCE GHG Reduction Targets
2021: 30% below 2015
2025: 40% below 2015
2030: 50% below 2015

2020 emissions: 2.6 million MT CO2e
Stress Test Analyses

Amrit Singh
Board of Directors Meeting
June 8, 2022
Purpose
Present findings of the stress test analyses

Presentation Highlights
• Construction of Stress Test Cases
• Expectation vs Results
• Risk Mitigations and Next Steps
Stress Test Scenarios

Extreme but plausible scenarios that can deplete reserves and make SVCE uncompetitive.

• Ensure adequacy of reserves and organizational resiliency
• Guide development of strategic plan
• Shape FY 22-23 budget and reserve targets
• Price uncertainty Drives the first 4 scenarios

Stress Scenarios for CY 2023 to CY2027 (five-year horizon):

1. Significant drop in energy prices including REC
   • Higher PCIA and lower PG&E Gen Rate

2. Insufficient financial liquidity
   • Price collapse triggers credit downgrade
   • Collateral calls from counterparties and CAISO
   • Increase in POLR (Provider of Last Resort) funding (called FSR – Financial Security Requirement)

3. PPAs default, renegotiate for higher prices, and/or delay start
   • RPS non-compliance penalty
   • Replacement at higher prices

4. Load loss due to direct access and distributed load

5. Threat to Public Services or Facilities
Revenue sensitivity to market prices via PCIA and PG&E Gen rate impacts dwarf other stress factors.

<table>
<thead>
<tr>
<th>Stress Case</th>
<th>Expectation</th>
<th>Results from Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prices Collapse</td>
<td>Significant reduction in revenues and large draw of reserves</td>
<td>Same as expected</td>
</tr>
<tr>
<td>2. Price Collapse leads to insufficient liquidity</td>
<td>Large draw of reserves</td>
<td>Price collapse does not trigger any significant liquidity needs. New POLR requirements require $35 million in liquidity.</td>
</tr>
<tr>
<td>3. PPAs default/delay/renegotiate for higher prices</td>
<td>Price increases result in higher replacement cost and higher compliance penalties</td>
<td>Price increases lead to substantial increases in revenues which far exceed expected increase in procurement costs.</td>
</tr>
<tr>
<td>4. Load Loss</td>
<td>Price Collapse leads to stranded assets</td>
<td>Load loss helps the bleeding from negative margins caused by significant reduction in revenues. Results are better than stress case 1.</td>
</tr>
</tbody>
</table>

Assumes current rate setting methodology continues.
Past, Current, and Stress Case Modeled Commodity Prices

• Forward prices are at all time high.
  • Extreme case of runup in prices

• Most of the increase occurred in the last 12 months.

• Can’t predict future but price trends could reverse, and prices could drop equally or more.

• Prices were trading at the modeled stress test levels as recently as 12 months ago.
Base Case

- High forward prices result in low PCIA and high PG&E Gen rates resulting in healthy SVCE Margins
- If current forward prices are realized and other model assumptions prevail:
  - Significant growth in reserves from forecast 2022 level of $227 to $322 at the end of 2023
  - Continued strong growth in margins over the next 5 years
- Caveats:
  - PCIA and PG&E Gen Rate portfolio assumptions based on public data as best modeled by NewGen Consultants
  - PG&E’s portfolio management strategy and portfolio contents may change from those modeled
  - CPUC may moderate rate impacts
  - Uncertainty increases further out in time
- Focus on delta of base case to stress test results

Stress Case

- Scenario Two is the most consequential scenario
- Scenario two combines the impact of price collapse ($178 million) with additional requirement for POLR FSR ($35 million)
- If the modeled scenario were to occur, reserves would be drawn down by $213 million by the end of 2024.
  - Days Cash on Hand (DCOH) Projection:
    - 2024: 137
    - 2025: 92
    - 2026: 43
    - 2027: (5)
  - Below minimum target of 120 DCOH.
Best mitigation is to hold sufficient financial reserves.

Use results of these analyses to propose reserve target for next fiscal year’s budget

• Example:
  • Build reserves such that if scenario 2 were to occur, reserves do not fall below the minimum reserve threshold of holding 120 DCOH over the next 2 years and 60 days DCOH over years 3 to 5.

• Level selected determines funds for additional customer discounts and decarbonization programs

Other Risk Mitigation:

• Revisit current energy hedging strategy
  • Allow for loss in revenues from price collapse to be mitigated by reduction in power supply costs

• Challenges:
  • Determining level of hedging given uncertainty in modeling PCIA and PG&E Generation Rates
  • Increased volatility in Power Supply Costs and Budget
June 24, 2022
Staff presents FY 2022 - 2023 budget framework to the Executive Committee; uses stress test analyses to recommend holding higher reserve levels.

August 2022
Staff presents preliminary budget proposal to the Finance and Administration Committee.

August 10, 2022
Board reviews and provides staff feedback on the proposed budget.

September 7, 2022
Board approves FY 2022 – 2023 budget.
Appendix
Summary of Base Case Results

High forward prices result in low PCIA and high PG&E Gen Rates resulting in healthy SVCE Margins.

### $ millions

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$398</td>
<td>$410</td>
<td>$391</td>
<td>$374</td>
<td>$375</td>
</tr>
<tr>
<td>Power Supply Cost</td>
<td>$271</td>
<td>$281</td>
<td>$279</td>
<td>$272</td>
<td>$272</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>$127</td>
<td>$129</td>
<td>$112</td>
<td>$102</td>
<td>$102</td>
</tr>
<tr>
<td>Other Costs</td>
<td>$32</td>
<td>$32</td>
<td>$33</td>
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<tr>
<td>Net Contribution to Reserves</td>
<td>$95</td>
<td>$97</td>
<td>$79</td>
<td>$69</td>
<td>$69</td>
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<tr>
<td>Projected Reserve Balance</td>
<td>$322</td>
<td>$418</td>
<td>$497</td>
<td>$566</td>
<td>$635</td>
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<tr>
<td>Days Cash on Hand</td>
<td>388</td>
<td>487</td>
<td>582</td>
<td>677</td>
<td>758</td>
</tr>
</tbody>
</table>

**Current Reserve Targets:**
- Minimum: 120 days
- Goal: 230 days
- Maximum: 320 days
# Summary of Stress Test Results

## Stress Case 1 - Significant Drop in Energy Prices

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Power Supply Cost</th>
<th>Operating Margin</th>
<th>Other Costs</th>
<th>Net Contribution to Reserves</th>
<th>Projected Reserve Balance</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>$398</td>
<td>$271</td>
<td>$127</td>
<td>$32</td>
<td>$95</td>
<td>$322</td>
<td>388</td>
</tr>
<tr>
<td>2024</td>
<td>$112</td>
<td>$257</td>
<td>$(145)</td>
<td>$33</td>
<td>$(178)</td>
<td>$144</td>
<td>181</td>
</tr>
<tr>
<td>2025</td>
<td>$240</td>
<td>$246</td>
<td>$(5)</td>
<td>$33</td>
<td>$(38)</td>
<td>$106</td>
<td>138</td>
</tr>
<tr>
<td>2026</td>
<td>$236</td>
<td>$240</td>
<td>$(5)</td>
<td>$34</td>
<td>$(38)</td>
<td>$67</td>
<td>90</td>
</tr>
<tr>
<td>2027</td>
<td>$236</td>
<td>$239</td>
<td>$(3)</td>
<td>$34</td>
<td>$(36)</td>
<td>$31</td>
<td>41</td>
</tr>
</tbody>
</table>

## Stress Case 2 - Insufficient Liquidity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Power Supply Cost</th>
<th>Operating Margin</th>
<th>Other Costs</th>
<th>Net Contribution to Reserves</th>
<th>Projected Reserve Balance</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>$398</td>
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</tr>
<tr>
<td>2024</td>
<td>$112</td>
<td>$257</td>
<td>$(145)</td>
<td>$33</td>
<td>$(178)</td>
<td>$144</td>
<td>181</td>
</tr>
<tr>
<td>2025</td>
<td>$240</td>
<td>$246</td>
<td>$(5)</td>
<td>$33</td>
<td>$(38)</td>
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<tr>
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<td>$(5)</td>
<td>$34</td>
<td>$(38)</td>
<td>$67</td>
<td>90</td>
</tr>
<tr>
<td>2027</td>
<td>$236</td>
<td>$239</td>
<td>$(3)</td>
<td>$34</td>
<td>$(36)</td>
<td>$31</td>
<td>41</td>
</tr>
</tbody>
</table>

## Stress Case 3 - PPAs Default

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Power Supply Cost</th>
<th>Operating Margin</th>
<th>Other Costs</th>
<th>Net Contribution to Reserves</th>
<th>Projected Reserve Balance</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>$398</td>
<td>$258</td>
<td>$139</td>
<td>$32</td>
<td>$107</td>
<td>$334</td>
<td>420</td>
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<td>$112</td>
<td>$239</td>
<td>$(127)</td>
<td>$33</td>
<td>$(159)</td>
<td>$175</td>
<td>235</td>
</tr>
<tr>
<td>2025</td>
<td>$240</td>
<td>$229</td>
<td>$(11)</td>
<td>$33</td>
<td>$(22)</td>
<td>$153</td>
<td>212</td>
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<tr>
<td>2026</td>
<td>$236</td>
<td>$227</td>
<td>$9</td>
<td>$34</td>
<td>$(25)</td>
<td>$128</td>
<td>179</td>
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<tr>
<td>2027</td>
<td>$236</td>
<td>$226</td>
<td>$(11)</td>
<td>$34</td>
<td>$(23)</td>
<td>$105</td>
<td>148</td>
</tr>
</tbody>
</table>

## Stress Case 4 - Load Loss

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Power Supply Cost</th>
<th>Operating Margin</th>
<th>Other Costs</th>
<th>Net Contribution to Reserves</th>
<th>Projected Reserve Balance</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>$398</td>
<td>$271</td>
<td>$127</td>
<td>$32</td>
<td>$95</td>
<td>$322</td>
<td>388</td>
</tr>
<tr>
<td>2024</td>
<td>$112</td>
<td>$257</td>
<td>$(145)</td>
<td>$33</td>
<td>$(178)</td>
<td>$144</td>
<td>181</td>
</tr>
<tr>
<td>2025</td>
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<td>$210</td>
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<td>$33</td>
<td>$(26)</td>
<td>$118</td>
<td>137</td>
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<tr>
<td>2026</td>
<td>$212</td>
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<td>$8</td>
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<td>177</td>
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<tr>
<td>2027</td>
<td>$189</td>
<td>$168</td>
<td>$(21)</td>
<td>$34</td>
<td>$(13)</td>
<td>$79</td>
<td>141</td>
</tr>
</tbody>
</table>

## Days Cash on Hand

- Stress Case 1: 388, 181, 138, 90, 41
- Stress Case 2: 346, 137, 92, 43
- Stress Case 3: 420, 235, 212, 179, 148
- Stress Case 4: 388, 181, 177, 141, 143
Scenario Two is the most consequential scenario. If the modeled scenario were to occur, reserves would be drawn down by about $213 million by end of 2024.

<table>
<thead>
<tr>
<th>Projected Reserve Balance ($ millions)</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prices Collapse</td>
<td>$322</td>
<td>$144</td>
<td>$106</td>
<td>$ 67</td>
<td>$ 31</td>
</tr>
<tr>
<td>2. Price Collapse leads to insufficient liquidity</td>
<td>$287</td>
<td>$109</td>
<td>$ 71</td>
<td>$ 32</td>
<td>(4)</td>
</tr>
<tr>
<td>3. PPAs default/delay/renegotiate for higher prices</td>
<td>$334</td>
<td>$175</td>
<td>$153</td>
<td>$128</td>
<td>$105</td>
</tr>
<tr>
<td>4. Load loss</td>
<td>$322</td>
<td>$144</td>
<td>$118</td>
<td>$ 92</td>
<td>$ 79</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corresponding Days Cash on Hand (DCOH)</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prices Collapse</td>
<td>388</td>
<td>181</td>
<td>138</td>
<td>90</td>
<td>41</td>
</tr>
<tr>
<td>2. Price Collapse leads to insufficient liquidity</td>
<td>346</td>
<td>137</td>
<td>92</td>
<td>43</td>
<td>(5)</td>
</tr>
<tr>
<td>3. PPAs default/delay/renegotiate for higher prices</td>
<td>420</td>
<td>235</td>
<td>212</td>
<td>179</td>
<td>148</td>
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<tr>
<td>4. Load loss</td>
<td>388</td>
<td>181</td>
<td>177</td>
<td>141</td>
<td>143</td>
</tr>
</tbody>
</table>

- Draw on Reserves of $178 million.
- Below minimum target of 120 DCOH.
- Add'l $35 million for POLR FSR.
Key Takeaways – Price Uncertainty Stress Scenarios (1-4)

Biggest contributor to risk: PCIA and PG&E Generation Rate Uncertainty.

PCIA and PG&E Gen Rate determine SVCE Rates and therefore Revenues

Revenues decline when prices decline
Key Takeaways – Price Uncertainty Stress Scenarios – Cont’d

Big contributor to PCIA and PG&E Generation Rate Uncertainty is **Market Prices.**

Next Year’s PCIA &
PG&E Gen Rate

Current Year’s actual realized Prices &
Forecast of Next Year’s Market Prices

Can’t fully bank current year’s margin

- Deviations between actual and forecast costs are tracked in balancing accounts and trued up next year
- If prices drop, then there can be substantial draw from reserves

- $PCIA_{2023} = PCIA Balancing Account_{2022} + Forecast Balance$
  - Balancing Account = (Prior Year’s Forecast Prices$_{2022}$ - Actual Prices$_{2022}$) * PCIA Portfolio
  - Forecast Balance = (Legacy Contract Costs – Forecast Prices$_{2023}$) * PCIA Portfolio

- PG&E Gen Rate Set Similarly
  - PG&E Gen Rate = ERRA Balancing Account + Forecast Costs

* Simplified representation of concepts
Key Takeaways – Price Uncertainty Stress Scenarios – Cont’d

*Price collapse poses biggest financial risk.*

- Revenues drop significantly
- Loss of revenues far exceed savings from lower power procurement costs
  - Power procurement savings dampened by existing hedges

<table>
<thead>
<tr>
<th></th>
<th>2023 Prices ↑</th>
<th>2023 Prices ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2022 Prices ↑</strong></td>
<td>PCIA ↓</td>
<td>PCIA ↑</td>
</tr>
<tr>
<td></td>
<td>PG&amp;E Rate ↑</td>
<td>PG&amp;E Rate ↓</td>
</tr>
<tr>
<td></td>
<td>SVCE Revenues ↑</td>
<td>SVCE Revenues ↓</td>
</tr>
</tbody>
</table>
Illustrative Methodology: Target reserves such that if scenario 2 were to occur, reserves do not fall below the minimum reserve threshold of holding 120 days of cash (DCOH) on hand over the next 2 years.

Base Case Reserve Projection: $322 million
Less Reserve Target: $275 million
Available for Add'l Expenditure: $47 million

* Based on current base case modeling.
1. Significant Drop in Prices

Stress Scenario Construction*

- Energy: Statistical 1% low case prices
- RECs: 50% of current equilibrium curve
- RA: 50% of current RA cost
- Term: CY2023 to CY2027
- PCIA and PG&E gen-rate forecasts: NewGen Model
- Price drops at once for all forward months and stays at that level
- Hedges executed per ERM thresholds (hedge to max targets)

Mitigation Strategies

- Current:
  - Reserves to withstand the shocks
- Additional
  - Additional reserves if needed
  - Consider revising hedging strategy to account for PCIA / gen-rate variability to energy prices in the hedge plan

*Most stressful year modeled for term
## 2. Insufficient Financial Liquidity

### Stress Scenario Construction
- Persistent price raise followed by a steep/quick price collapse
  - e.g., 2006 to 2008 price raise followed by the credit crisis scenario happens in year 4.
- Take nat. gas forwards from 2006 to 2008 and replicate the % changes to current energy price levels.
- All new hedges to the generic counterparty - avg. unsecured credit given to us.
- Ratable execution based on ERM thresholds
- Increase POLR funding/ FSR impact – is additional cash impact – ~$ 35M - depending on methodology adopted

### SVCE Mitigation Strategies
- Current:
  - Lockbox
  - Reserves
- Additional
  - Exploring more counterparties in lockbox
  - Reframing of credit policy
  - Additional reserves if needed
### Stress Scenario Construction

- Some assets default and rest of them not online yet will be delayed by ~6 months
- Valuation will include
  - MTM of the defaulted assets and delays (replacement at higher costs)
  - SB350 penalties
  - MTR penalties

### SVCE Mitigation Strategies

- **Current:**
  - Diversify technology
  - Diversify counterparty
  - Contractual language for delay damages and default provisions
  - Reserves to withstand the shocks
  - Adding 10-year existing asset PPA to exceed CP4 limits.

- **Additional**
  - Additional reserves if needed
### Stress Scenario Construction

- Load Loss of 10% in Year 3 and another 10% in Year 5
- DER – replicate the IEPR scenarios delta from baseline to high DER scenario
- Prices in years 3-5 collapse to one percentile (load loss creates stranded asset risk)

### SVCE Mitigation Strategies

- **Current:**
  - Custom Pricing to lock Customers to 10 years
  - DER - NEM reform
- **Additional:**
  - Seek non-bypassable charges (NBC) from CPUC. PG&E has it, we don't.
  - Additional reserves if needed

---

**SVCE Mitigation Strategies**

- **Current:**
  - Custom Pricing to lock Customers to 10 years
  - DER - NEM reform
- **Additional:**
  - Seek non-bypassable charges (NBC) from CPUC. PG&E has it, we don't.
  - Additional reserves if needed
Other Potential Stress Test Scenarios

These could be considered in future analyses.

- Operational Risks
  - Modeling Errors
  - Process Failures
  - Governance and Risk Control Weaknesses

- Additional Risks from Regulatory and Legislative Actions

- Additional Areas of Risks that can affect SVCE’s Services and Facilities
Digital Engagement & Customer Awareness
Update & Takeaways

Don Bray, Director of Energy Services & Community Relations
Pamela Leonard, Communications Manager
Provide an update and key takeaways on digital engagement and customer awareness in relation to SVCE and electrification initiatives

- Key digital engagement goals and metrics
  - Website engagement
  - Email outreach
  - Online promotions

- Key takeaway and results of recent customer engagement survey
SVCE highlighted a ‘digital pivot’ - a shift to increase customer digital engagement, as a FY '20 - '21 Strategic Focus Area

- Electronic communications are scalable, high-reach and low cost
- Digital Engagement Tools & Updates Implemented
  - eHub – Online content, resources & services
  - Granicus GovDelivery – Email marketing service
  - Website redesign and content update

Homepage before redesign
Background – Goals of eHub

Supporting customer’s electrification journeys

Strategic Goal 11: Empower customers with the awareness, knowledge and resources needed to make effective clean energy choices

Inspiration & Awareness
- Bring electrification to customer’s minds
  - Emails
  - Advertising
  - Messaging
  - Website content
  - Sweepstakes
  - Promotions

Educate
- Provide knowledge to customers of electrification benefits
  - Online resources
  - Website content & digital collateral
  - Emails
  - Promotions
  - Sweepstakes

Action
- Assist customers to take action
  - Rebates
  - Purchasing portals
  - Concierge services
  - Connecting customers to SVCE programs and outside resources
  - Have the information to start the buy > install > operate process
Education through Digital Engagement
Website Engagement Grows After Digital Pivot

Increased number of users to the SVCE website by 280% with the digital pivot

- Website user comparison before and after ‘digital pivot’
  - Before: 65,732 users - September 1, 2018 - April 30, 2020
  - After: 249,852 users - September 1, 2020 - April 30, 2022

- Tactics used to increase engagement include
  - Email marketing with online promotions and sweepstakes
  - Digital, in-language and out-of-home advertising
  - Member community cross-marketing
  - Social media

- Conducted user testing to continue to further improve and optimize the website for customer use and education
Customers are engaging with eHub resources and services

FY 21-22 Goal: Reach 200,000 unique users with eHub resources

Surpassed FY 20-21 goal of reaching 20,000 unique users by reaching over 74,000 unique users to eHub resources
Customers are spending time learning with the eHub resources

The high average time on page shows how customers are engaging with the content and materials on the website

<table>
<thead>
<tr>
<th>eHub Resource</th>
<th>Unique Visits</th>
<th>Average Time on Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVCE eHub Webpages</td>
<td>26,951</td>
<td>2 min 39 seconds</td>
</tr>
<tr>
<td>EV Assistant</td>
<td>17,633</td>
<td>2 min 15 seconds</td>
</tr>
<tr>
<td>Solar+Battery Assistant</td>
<td>9,425</td>
<td>1 min 34 seconds</td>
</tr>
<tr>
<td>Appliances Assistant</td>
<td>89,370</td>
<td>1 min 41 seconds</td>
</tr>
</tbody>
</table>

*54 seconds is the average time on page for all industries and between 2-3 mins is considered good. ([Contentsquare’s 2021 Digital Experience Benchmark report](https://example.com))
Inspiration & Education through Email Campaigns
Direct email campaigns produce a significant increase in electrification education and online engagement

FY 21-22 Goal: Deliver 2 million emails to customers with a 30% open rate

Exceeded FY 20-21 Goal of sending 1 million outbound emails by delivering over 2.1 million emails

SVCE's average open rate to date is 35%. Industry-standard is about 22% (Enervee Performance Benchmarks)
Implementing learned best practices for email content and design

- Crafting emails to provide education on electrification with fun, easy to digest language and calls-to-action
- Video content is an effective educational tool within emails that receive high engagement
- Creating an understanding of what earns customers' attention through A/B testing
- In-language email content increases in-language website engagement
Inspiration & Action with eHub Promotions
Ran promotions to inspire action and build electrification education and awareness

Expanding and evaluating promotions to implement lessons learned for future offers

- Through promotions, customers received money off a purchase of eligible electric items up to $50.
- 1,097 total rebates claimed through the Appliances Assistant with SVCE promotions.
Engaged customers through two online sweepstakes to share electrification resources and education on the benefits of all-electric homes

Sweepstakes Engagement

6,549 Users
39,495 Actions

- Sweepstakes incentivized learning about the benefits of induction cooking and an all-electric home, and features eHub resources.
- Prizes included the choice of an e-bike, induction hob and Le Creuset cookware set, all-electric yard care equipment, bill credits or e-gift cards.
- Hosted sweepstakes in June 2021 and April 2022
Providing 'concierge service' for customers interested in home solar+battery storage

With the Solar+Battery Assistant, customers can identify their needs, have a system designed, and receive quotes from multiple local contractors.

- **387** Leads
- **189** Proposals
- **36** Sales
- **20** Sales that include a battery

- Customers can get $1,000 off the installation price of a main service panel upgrade for a battery or solar+battery installation.

**Glossary:**
- **Leads** - customers who have created an account through the solar portal
- **Proposals** - leads that have completed a consultation call, provides necessary information, and received offers
- **Sales** - leads that have selected an offer and signed a contract

"I can't remember the last time I experienced such good customer service. Our solar system is up and running and we couldn't be happier with our decision." - Michele B.
Customer Awareness Survey

Key Findings & Takeaways
SVCE has deployed two customer awareness surveys through third-party ADM

Goal: Measure SVCE customer awareness and engagement

• First survey conducted September - October 2020
  o Presented findings to the Board of Directors at Jan. 2021 meeting

• Recent survey conducted March – April 2022
Methodology – 2022 Survey

- Administered via phone and email
  - Provided in English, Traditional Chinese, Spanish and Vietnamese
- 481 survey respondents
- Survey responses received in equal numbers from customers in four census tract groupings - ‘SEVI Quartiles’
Majority of customers stated that they heard of SVCE

- Unaided recall of SVCE was 10% of respondents
- Once prompted with the name SVCE 73% of respondents heard of SVCE  
  - No statistically significant increase from 2020 survey
- 38% of respondents were aware of programs offered by SVCE

**Key takeaway:** Most customers think of PG&E first as their power provider; SVCE awareness requires differentiated branding and messaging, and continued outreach and education efforts.
Survey showed a significant increase in SVCE website visits from 2022 compared to 2020

• 22% of respondents answered that they had visited the SVCE website

• This is a statistically significant increase from 14% in 2020

Key takeaway: Continue marketing efforts to increase website visits and engagement
Cost and health and safety were the most important in making purchasing decisions

- Costs were more important for individuals in SEVI 3 and 4 compared to SEVI 1 and 2
- Convenience and performance were more important for individuals in SEVI 1

Key takeaway: Increase education on cost savings and information on rebates to customers in SEVI 3 and 4, and health/safety messaging in overall marketing efforts

<table>
<thead>
<tr>
<th>Average Rank</th>
<th>SEVI 1</th>
<th>SEVI 2</th>
<th>SEVI 3</th>
<th>SEVI 4</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost*</td>
<td>2.5</td>
<td>2.8</td>
<td>2.9</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Health and safety</td>
<td>2.7</td>
<td>2.7</td>
<td>2.9</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Convenience/Performance*</td>
<td>2.8</td>
<td>2.6</td>
<td>2.4</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Environmental impacts</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*Indicates statistically significant difference across all groups at the p < .05 level.
Note: Responses recoded so that factors ranked higher have larger values.
On average customers are moderately concerned about their fossil fuel usage.

- Level of worry about fossil fuels use was lower in 2022 than 2020

**Key takeaway:** The 'current events' landscape in which the surveys were administered are different. Messaging can be flexed/tailored to lead with other benefits of going all-electric and include the reduction of fossil fuel as an additional benefit of all-electric technologies.

<table>
<thead>
<tr>
<th>Fossil Fuel Attitude</th>
<th>2020 Weighted Average</th>
<th>2022 Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent to which feels personally responsible for climate change</td>
<td>7.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Extent to which has thought about their fossil fuel use</td>
<td>6.0</td>
<td>6.2</td>
</tr>
<tr>
<td>Extent to which worried about our use of fossil fuels</td>
<td>6.7</td>
<td>5.9</td>
</tr>
</tbody>
</table>
Understanding customer interest and barriers to electric technologies inform messaging and program design.

Interest:
• Most respondents have some level of interest in electric vehicles
• Few homeowners have a heat pump water heater or have heard of one

Barriers:
• Cost is among the top 5 barriers to adoption for each electric technology
• Technology-specific barriers:
  o EVs – driving range & charging locations
  o Heat pump water heaters - Not having enough information, need to upgrade electric system/panel, technology reliability
  o Solar+battery – Not enough information, reliability of technology and “other” barriers such as economics, space, and residence restrictions

Key takeaway: When delivering content on specific all-electric technologies, it is important to directly address top customer concerns and provide relevant resources
New Construction
Reach Code Update

Zoe Elizabeth, Deputy Director of Decarbonization Programs and Policy
June 2022
Objectives

1. Provide a quick status update
2. Answer the most important FAQs

*Why is SVCE's 2022 model code all-electric?*
New Activities:
- SVCE supporting outreach in Los Altos and Los Gatos
- TRC providing support in Gilroy, Los Altos, and Los Altos Hills

Upcoming Priorities:
- Conduct community engagement
- Hold council information sessions
- Request SVCE meet with additional council members

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Initial Boardmember and Staff Meetings</th>
<th>Signed LOI</th>
<th>Council/Board Item Agendized</th>
<th>SVCE Supported Outreach</th>
<th>1:1 Technical Consultation w/ Consultants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbell</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cupertino</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilroy</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Los Altos</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Altos Hills</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Gatos</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milpitas</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monte Sereno</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morgan Hill</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain View</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Clara Co.</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saratoga</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunnyvale</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Three Reasons Our 2022 Model Code is All-Electric

1. All-electric is required to exceed the 2022 California code.
2. Any gas appliances requires a leaky distribution system.
3. Gas appliances will soon become stranded assets.
This list can help you track progress.

- SVCE can provide technical assistance and outreach support throughout the process.

<table>
<thead>
<tr>
<th>Action</th>
<th>Suggested Completion Date</th>
<th>Done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend first meeting w/SVCE staff</td>
<td>2/1/2022</td>
<td></td>
</tr>
<tr>
<td>Identify your ideal level of reach (your goal)</td>
<td>3/31/2022</td>
<td></td>
</tr>
<tr>
<td>Confirm appropriate staff are engaged and aware of your goals</td>
<td>3/31/2022</td>
<td></td>
</tr>
<tr>
<td>Confirm council info sessions and vote sessions are agendized</td>
<td>4/30/2022</td>
<td></td>
</tr>
<tr>
<td>Confirm City Manager signed LOI</td>
<td>4/30/2022</td>
<td></td>
</tr>
<tr>
<td>Vote</td>
<td>10/31/2022</td>
<td></td>
</tr>
</tbody>
</table>
Thank you!

svcleanenergy.org

Zoe.Elizabeth@svcleanenergy.org
The 2022 State Code is Electric Preferred.

New Construction Energy Code (Part 6)

• Electric heat pumps are prescribed for:
  • Residential HVAC
  • Nonresidential – most include one or both of water heating and HVAC, depending on building type

• Residential
  • Performance credit for all-electric buildings
  • Required higher ventilation rate for gas stoves
  • Pre-wiring required for residential dwellings
  • Energy storage readiness

• Nonresidential - Solar PV and Battery Storage required
Even small gas appliances require a large, expensive distribution system.

A gas range is not just a gas range. It is the tailpipe of a complex system.

Gas Supply Chain Leaks

Source: The Gas Index, 2020
Any natural gas appliances installed today becomes a costly stranded assets.

**Illustrative example:**

Assume 3500 new housing units are built per year for the next three years with gas cooking and gas water heating. A future incentive program to replace these appliances would cost:

- $5.25M for cooktops ($500 incentive)
- $21M for water heaters ($2000 incentive)

**Plus:** Building all-electric today can be less expensive than building mixed fuel.
Six jurisdictions have an all-electric code and six have a code with at least one exception.

<table>
<thead>
<tr>
<th>Type</th>
<th>How it works</th>
<th>SVCE Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Preferred</td>
<td>Allows mixed-fuel buildings with high energy performance. Electrification-ready panel and wiring in mixed-fuel buildings.</td>
<td>2 – Milpitas, Monte Sereno</td>
</tr>
<tr>
<td>Mostly-Electric</td>
<td>Water and space heating must be electric, exemptions for other appliances. Electrification-ready panel and wiring in mixed-fuel buildings.</td>
<td>4 – Campbell (res), Los Altos, Los Altos Hills (res), Saratoga</td>
</tr>
<tr>
<td>All-Electric</td>
<td>All appliances must be electric, with very limited exemptions.</td>
<td>5 – County of Santa Clara, Cupertino, Los Gatos (res), Mountain View, Sunnyvale</td>
</tr>
<tr>
<td>Gas Ban</td>
<td>No gas hookup (via municipal ordinance). Limited exceptions.</td>
<td>1 – Morgan Hill</td>
</tr>
<tr>
<td>No Reach</td>
<td>Meet state code minimum requirements.</td>
<td>1 – Gilroy</td>
</tr>
</tbody>
</table>
## 2022 Model Reach Codes – New Buildings

<table>
<thead>
<tr>
<th>Code Approach</th>
<th>Benefits</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-Electric Municipal Ordinance</td>
<td>• Avoids CEC review and approval</td>
<td>• Must exceed future code updates to stay relevant (i.e., most effective for all-electric with limited exceptions)</td>
</tr>
<tr>
<td></td>
<td>• Flexible (i.e., time-certain or existing buildings policies can be included)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Avoids triennial cycle</td>
<td></td>
</tr>
<tr>
<td>CALGreen – All-Electric amendment</td>
<td>• Avoids CEC review and approval</td>
<td>• Requires triennial update or more if intervening cycle</td>
</tr>
</tbody>
</table>

*Model code language for both approaches can be found at [BayAreaReachCodes.org](http://BayAreaReachCodes.org)*
In Summary

• Our 2022 model code is all-electric to help our communities to prepare for an all-electric future.

• Member jurisdictions can tailor the codes with exceptions as they deem appropriate.

• The model code includes both an energy code amendment and the municipal ordinance option.

Your efforts matter. We look forward to supporting you.
Member Agency Reach Code Tasks and Milestones

- Feb  Define Goals
- Mar  Agendize
- Mar  Engage Staff
- Apr  Define Approach
- Apr  LOI
- May  Write Code Language
- May  Conduct Outreach
- Jun  Council Info Sessions
- Jul  Vote
- Sep  Potential CEC Submittals
- Oct  Effective

Orange text indicates a Boardmember task

Goals and Approach Defined
Reach Codes Agendized
City Manager LOI Signed
Staff Responsibilities Defined

Proposed Code language complete
Outreach conducted
Council informed

Final code language complete
Vote complete, same meeting as state code adoption
Documentation done