Valley Clean Energy Board of Directors Meeting – June 9, 2022
via video/teleconference

Item 15 – NEM 3.0 Update
To Provide Public Comment on any agenda item please:

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Item 15 – NEM 3.0 Update

• NEM 3.0 decision stalled in January
  • Significant public backlash, including from Governor Newsom and solar industry
  • Proposed Decision contained significant new charges for solar customers, though existing customers and low-income customers may not be subject to the same charges.

• California Public Utilities Commission (CPUC) reopened the record on the proceeding May 9; is seeking public input:
  • Administrative Law Judge (ALJ) of the CPUC asking specific questions about the glide path approach, non-bypassable charges (NBCs) and Distributed Energy Resources (DERs)
    • “Glide path approach” would give customers a fixed export adder in addition to the avoided cost calculator rate - the adder would step down over time; low-income customers may get a higher adder
    • Proposed NBC charge to imports as well as behind-the-meter consumption (from Sierra Club)
    • DERs – whether low-income customers could benefit from tariff changes similar to the Community Solar/Disadvantaged Community Green Tariff
Item 15 – NEM 3.0 Update

• Most notably, no questions or feedback about about the proposed new grid charge
  • Could be as high as $50-100/month
  • Major focus of public (and solar industry) backlash

• Opening comments are due by June 10, reply comments are due by June 24
• To make a comment, go to: https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2008020 and click on “Add Public Comment”
CCAs are not uniform in response, but many do not support the NEM 3.0 Proposed Decision

CAC supports making VCE’s position public

Option: send letter to CPUC on behalf of VCE

We urge the CPUC to re-evaluate the expensive grid charges

They are a financial burden to customers considering solar, especially low-income customers

Disincentivize customers from going solar, putting roadblocks in the way of the state’s climate goals

Battery storage should be more highly incentivized
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Item 16 – Overview of VCE Forecasting
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Item 16 – Overview: Load and Power Costs Forecasting

**Budget Adoption**
- Comprehensive Financial Model (Annual & Long-term)

**Revenues & Administrative Costs**
- Total Power Costs
- Revenue Model (Rates)
- Administrative Costs

**Base Cost Models**
- VCE Generation Power Costs Model
- PCIA COSTS (PG&E ERRA PROCEEDING)

**External Models and Forecasts**
- VCE Load Update (Demand)
- Power Costs (Supply)
- CalCCA Model
- MRW

**Market Price Benchmarks (MPBs)**
- ACES
- S&P Platts
- Intercontinental Exchange (ICE)
Item 16 – Forecasting: Retail Load by Customer Class

Wholesale load = retail load + 6% distribution losses
Item 16 – Forecasting: VCE Territory Historical Temperature Data

Temps are modestly changing but isolated temperature events are becoming more pronounced

Notes: 1) Currently the average temperature is increasing by 0.36 degrees Fahrenheit per decade
2) Increasing the avg daily temp 1 degree Fahrenheit (across the entire year) resulted in a little over 1% increase in load annually (increase in summer and decrease in winter)
Monitoring the adoption of building electrification as well as EV’s is critical

- 2.2% load increase from electrification in 2022, 42.7% load increase from electrification (EV & Building) by 2035
- Load increase from EV adoption grows more quickly than building electrification
- In 2022, 26% of the electrification load increase is from EV adoption, 23% is from water heating electrification, 52% is from space heating electrification
- By 2035, 63% of the electrification load increase is from EV adoption, 12% is from water heating electrification, 25% is from space heating electrification

Note: VCE’s current peak load is approximately 230 MWs
Item 16 – Forecasting: Total Power Costs and Revenues

**Power Cost Risks**
Annual Load - Overall performance of VCE’s load within an acceptable accuracy of 5% annually.
- Energy Costs - Main driver of power cost overages. Annual budget process vs hedging.
- Resource Adequacy (RA) - Increasing CPUC mandated requirements & decommissioning

### Load Forecast
VCE’s Annual forecast informs energy, resource adequacy (RA), renewable portfolio standard position, and multiple regulatory filings.

### Energy Costs
The risk of extreme fluctuations associated with commodity prices, including energy prices, resource adequacy, and other energy portfolio components, remains.

### Resource Adequacy
Risk of additional regulatory requirements increasing complexity and cost of operations

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
<th>2021 Risk</th>
<th>2022 Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Forecast</td>
<td>VCE’s Annual forecast informs energy, resource adequacy (RA), renewable portfolio standard position, and multiple regulatory filings.</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Resource Adequacy</td>
<td>Risk of additional regulatory requirements increasing complexity and cost of operations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Power Cost - Corrective Actions Taken**
- Power purchase agreements (PPA) – 238 MW of Renewable, 80% Energy costs, RA
- 2020-22 Power content policy adjustments – Temp reduced the risk of energy costs.
- Financial Calendar (Fiscal to Calendar year-end)
**Revenues Risks**

- Power Cost Forecast – Central pillar to setting rates.
- Customer Rates
  - Matching Rate Policy (PG&E Based)
  - Cost-based Rate Policy
- Customer Retention – as forecasted approximately 90% of eligible customers in service territory.

**Revenues Corrective Actions Taken**

- Power Cost Forecasts – VCE has worked with SMUD to upgrade power cost model components that incorporate load update and forward market costs.
- Customer Rate options - VCE evaluating customer rate options, as described in CAC companion Item 8 on this agenda, to ensure customer retention as a priority.

### Risk Description

<table>
<thead>
<tr>
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<th>Description</th>
<th>2021 Risk</th>
<th>2022 Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Cost Forecast</strong></td>
<td>VCE’s Power Cost Forecast accuracy is essential to VCE's ability to adjust customer rates to recover costs, maintain reserves, and allow for timely rate changes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer Rates</strong></td>
<td>Risk of rate design for cost of service (non-time of use (TOU), PCIA, demand charges, varying generation rates) has been reduced. VCE will continue to develop rate option(s) support risk reductions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer Retention</strong></td>
<td>VCE’s launch in 2018 and the addition of Winters, have the most risk of customer opt outs. Risk of higher than expected opt-out level could increased with rising rates.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Item 16 – Forecasting: Total Power Costs and Revenues

**VCE Budget Risks**
- Power Charge Indifference Adjustment (PCIA) - Volatile PCIA (+46% for 2021 and -57% for 2022)
- Use of VCE Reserves to stabilize customer rates, policies, and customer retention.
- Administrative Costs – Minimized during volatile PCIA and Rates adjustments.

**Budgeting Corrective Actions Taken**
- Power Cost Contingency – $1.5M for approximately 2% of power costs budgeted
- PCIA Forecasting – CalCCA Modeling
- Collections Policy – VCE adopted a collections policy to maintain healthy receivables
Item 16 – Forecasting: Total Power Costs and Revenues

VCE Annual Budget
- Revenues (Generation Rate)
- Power Costs
- PCIA (Power Charge Indifference Adjustment)

VCE

SMUD & ACES (POWER COSTS)

Market Analyst Reports

CalCCA (Provides shared resource platform)

Including input and feedback from other CCAs

MRW
New Gen
Keys & Fox

PG&E
CPUC (Energy Division)

S&P
PLATS
Moody’s

S&P (Moody’s, SMUD & ACES, MRW, New Gen, Keys & Fox, PG&E, CPUC, VCE)
Item 16 – Forecasting: Summary

• An inaccurate forecast can result in short term financial impacts
• Overshooting the forecast results in:
  • Higher RA obligations
  • Unnecessary procurement
• Undershooting the forecast results in:
  • RPS compliance risk (across compliance period)
  • Need for additional procurement

• VCE Budget forecasting has been within 9% of actual financial performance
• Energy Market Volatility - Budget Impacts will decrease significantly with Power Purchase Agreements. (90% of Budgeting)
• Continuous Improvement - Working with Partners and developing tools as necessary (e.g. CalCCA)
  • Identifying Risks & Corrective Actions
  • Forecasting is imperfect
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Item 17 – Updated Draft Customer Rate/Product Options
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Overview

- Background
- Updated draft customer rate/product options
- Tentative Timeline & Next Steps
- Discussion
Background - Policy Drivers

- **2017 - VCE Implementation Plan:** Program rates must collect sufficient revenue from participating customers to fully fund VCE’s budget, including the need to establish sufficient operating reserve funds.
- **2020 – Strategic Plan:** Maintain financial stability while continuing to offer customer choice, competitive pricing and establishment of local programs.
- **2018 – 2021:** Strong upward pressure on rates due to regulatory (PCIA, RA) and market conditions (power market price increases in 2020-22). VCE systematically analyzed policy options and implemented strategies to stabilize customer rates, reduce cost, and manage reserves.
  - e.g.: Discontinue rate discount; temporary scale back REC purchases; sign long-term renewable PPA’s
- **Nov. 2021 – Board adopts cost-based rates and temporary rate increase; directs staff to bring back additional customer rate option in mid-2022.**
Background - Primary Rate Setting Considerations

• Power Charge Indifference Adjustment (PCIA). A net 46% increase in the PCIA from 2020/21
• Resource Adequacy (RA) mandates and pricing
• Power Prices. Average forward market power prices have increased by nearly 60% since April-2021.

Other key rate setting considerations:
• Western Community Energy Bankruptcy. Regulatory financial oversight pressure
• Implementation of Programs. Ample revenues and reserves required
• PG&E Rate Adjustments.
• Geopolitical Climate. The conflict in Ukraine
• Supply chain interruptions. COVID Pandemic and U.S. trade restrictions
• VCE Cash Reserves – Rate Stabilization
Background – Additional Customer Rate Option

• 2020 – During budget adoption, Board direction to investigate additional customer rate option.

• 2020-21 – Staff, in consultation with CAC, research and develop additional customer rate option for Board consideration.

• Nov 2021 – Board postpones consideration of additional customer rate option. Directs staff to bring back in mid-2022.
## Item XX – Updated Draft Customer Rate/Product Options

### Background (CCA Community)

<table>
<thead>
<tr>
<th>CCA</th>
<th>IOU Territory</th>
<th>Customer Accounts</th>
<th>Number of Rate Options</th>
<th>% Difference to IOU Gen Rate (default product)</th>
<th>Renewable Content Target (default product)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley Clean Energy</td>
<td>PG&amp;E</td>
<td>63,509</td>
<td>2</td>
<td>0% (match)</td>
<td>42%</td>
</tr>
<tr>
<td>Clean Power SF</td>
<td>PG&amp;E</td>
<td>311,777</td>
<td>2</td>
<td>0% (match)</td>
<td>50%</td>
</tr>
<tr>
<td>East Bay Community Energy</td>
<td>PG&amp;E</td>
<td>546,707</td>
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<td>-1%</td>
<td>40%</td>
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<tr>
<td>MCE Clean Energy</td>
<td>PG&amp;E</td>
<td>473,826</td>
<td>3</td>
<td>-6%</td>
<td>60%</td>
</tr>
<tr>
<td>Peninsula Clean Energy</td>
<td>PG&amp;E</td>
<td>287,987</td>
<td>2</td>
<td>-5%</td>
<td>50%</td>
</tr>
<tr>
<td>Pioneer Community Energy</td>
<td>PG&amp;E</td>
<td>87,704</td>
<td>2</td>
<td>-6%</td>
<td>33%</td>
</tr>
<tr>
<td>San Jose Clean Energy</td>
<td>PG&amp;E</td>
<td>350,000</td>
<td>3</td>
<td>8%</td>
<td>60%</td>
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<tr>
<td>Silicon Valley Clean Energy</td>
<td>PG&amp;E</td>
<td>225,973</td>
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<td>-0.50%</td>
<td>50%</td>
</tr>
<tr>
<td>Sonoma Clean Power</td>
<td>PG&amp;E</td>
<td>243,436</td>
<td>2</td>
<td>-0.50%</td>
<td>49%</td>
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<tr>
<td>Clean Power Alliance</td>
<td>SCE</td>
<td>1,000,000</td>
<td>3</td>
<td>-6%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Desert Clean Energy</strong></td>
<td>SCE</td>
<td>37,375</td>
<td>2</td>
<td>14%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Notes:**

1. The above information is based on recent publicly available data and is subject to change per IOU and/or CCA rate activities and PCIA adjustments.
2. VCE's current year target renewable content rate is 20% due to cost-cutting strategies.
3. Due to the PCIA structure, each CCA has a specific "vintage" date based on what year it launched service and how it phased in its customer base.

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**23**
Current Customer Rate/Product Options
• VCE currently offers two retail energy product categories:
  1) "Standard Green" which is at least 75% carbon-free and 25% renewable
  2) "UltraGreen" which is both 100% carbon-free and 100% renewable.
• VCE Rate Policy: Match PG&E + Customer Dividend
• Discount for CARES and FERA

Updated Draft Customer Rate/Product Options
• Draft customer product structure with three options could be established by implementing a new "GreenSaver" option.
  Proposed “GreenSaver” option:
  1. Increased customer choice by adding a new least-cost customer option
     • Approximately 0.5% below PG&E (Total Bill)
  2. 5% more renewable than California RPS requirements

Note: VCE's existing customer dividend program would continue to provide VCE with a mechanism to credit eligible customers when VCE reaches its financial/reserve objectives.
### Draft Customer Rate Structure (Design)

**“GreenSaver”** *(New “Least Cost” product: Priced 0.5% below PG&E with energy sources at least 5% above RPS target)*

- **Standard Green** *(Existing Default: cost-based rate)*
- **UltraGreen** *100% Renewable* *(Existing Opt-Up: cost-based rate)*

### VCE Draft Customer Products (Content and Pricing Strategy)

<table>
<thead>
<tr>
<th>Customer Rate Option</th>
<th>Rate</th>
<th>Portfolio</th>
<th>Notes</th>
</tr>
</thead>
</table>
| **GreenSaver (new)**         | Less than PG&E (-0.5%) total bill comparison | 5% above RPS requirements                     | 1. Ineligible to participate in customer dividend program; reduced access to full customer program benefits  
                               |                                     |                                               | 2. CARE/FERA customers maintain the existing VCE multi-year portfolio mix for Standard Green default through 2023 |
| **Standard Green - Default (existing)** | Cost-based | Maintain existing VCE multi-year portfolio mix | 1. Portfolio minimum percent renewable content above GreenSaver to maintain product differentiation  
                               |                                     |                                               | 2. Eligible for customer dividend program and full customer program benefits |
| **UltraGreen – Opt-up (existing)** | Cost-based | Maintain existing 100% renewable portfolio | 1. Eligible for customer dividend program and full customer program benefits |
Draft Customer Rate/Product Analysis

- Based on staff research, CCA programs with additional customer product options and cost-recovery rates have not experienced significant "opt-out" or "opt down" activity. (residential and commercial/industrial)
- VCE would continue as planned to grow its overall environmentally beneficial portfolio

*Sample Residential Cost Comparison

<table>
<thead>
<tr>
<th></th>
<th>GreenSaver</th>
<th>Standard Green</th>
<th>UltraGreen</th>
<th>PG&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approximately 5% above RPS Target</td>
<td>45% Renewable</td>
<td>100% Renewable</td>
<td>**29% Renewable</td>
</tr>
<tr>
<td>Average Total Costs</td>
<td>$171.15</td>
<td>$172.46</td>
<td>$180.97</td>
<td>$172.46</td>
</tr>
<tr>
<td>Electric Generation</td>
<td>$64.15</td>
<td>$65.46</td>
<td>$73.97</td>
<td>$79.46</td>
</tr>
<tr>
<td>PG&amp;E Added Fees</td>
<td>$14.00</td>
<td>$14.00</td>
<td>$14.00</td>
<td>$14.00</td>
</tr>
<tr>
<td>PF&amp;E Delivery Charges</td>
<td>$93.00</td>
<td>$93.00</td>
<td>$93.00</td>
<td>$93.00</td>
</tr>
<tr>
<td>Average lower by 0.5% of Total Bill (1-2% Gen Discount)</td>
<td></td>
<td>Average $7-10 Per Month</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Represents the most recent (2019) power content data reported to the California Energy Commission’s Power Source Disclosure Program
Draft Customer Rate/Product – CAC Initial Feedback

- Product Differentiation – Standard Green → "GreenSaver"
- Analysis of how long to provide this option as VCE moves toward a 100% renewable future.
- Marketing framework for introducing the new product
- Organizational Cost/Benefit – Value of additional customer choice vs. the effort/value added and risk of customer "opt down."
**Example Reserves Timeline**

**Forecasted Cumulative Net Margin & Days Cash**

- **Cumulative Net Margin (1,000's)**
  - 2021: 10,000
  - 2022: 15,000
  - 2023: 20,000
  - 2024: 25,000
  - 2025: 30,000

- **Days Cash**
  - 2021: 100
  - 2022: 200
  - 2023: 300
  - 2024: 400
  - 2025: 500

**Targeted Reserves of 180+ Days**
Draft Customer Rate/Product - Tentative Timeline

- May 2022: CAC Introduction/feedback on updated draft rate options. **Completed.**
- June 2022: Board Introduction/feedback on updated draft rate options. **Current.**
- June 2022: CAC consideration/recommendation on updated draft rate options.
- July 2022: Board consideration of final updated draft rate options.

Initial Findings

- Adding a least-cost GreenSaver customer rate/product option enhances local control, customer choice, and cost competitiveness
- Adding GreenSaver does not alter VCE's overall portfolio or progress toward 2030 renewable goals.
- Set rates to meet costs/build reserves with lower customer opt-out risk
- Enhances VCE's ability to execute local programs.
- Enhances ability to attract new member jurisdictions.