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# VCE Community Advisory Committee Meeting – November 17, 2022 via video/teleconference

## Item 9 – Power Procurement / RPS Update



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# Item 9 – Aquamarine Update

Month	Forecast (MWh)	Delivered (MWh)	Curtailed (MWh)	% of Forecast Delivered	% of Available Energy Curtailed
1	4,130	6,344	252	154%	4%
2	8,284	7,435	1,799	90%	19%
3	11,614	10,881	951	94%	8%
4	14,098	13,515	854	96%	6%
5	16,130	15,859	808	98%	5%
6	17,000	16,783	22	99%	0%
7	16,276	16,518	291	101%	2%
8	14,664	14,919	0	102%	0%
9	12,100	12,020	139	99%	1%

- 1) Generally performing as expected. Not surprising to see curtailment during shoulder months.
- 2) Curtailed energy is excess energy that grid cannot absorb, typically mid-day.
- 3) Forecast is based on original generation profile provided by counterparty.

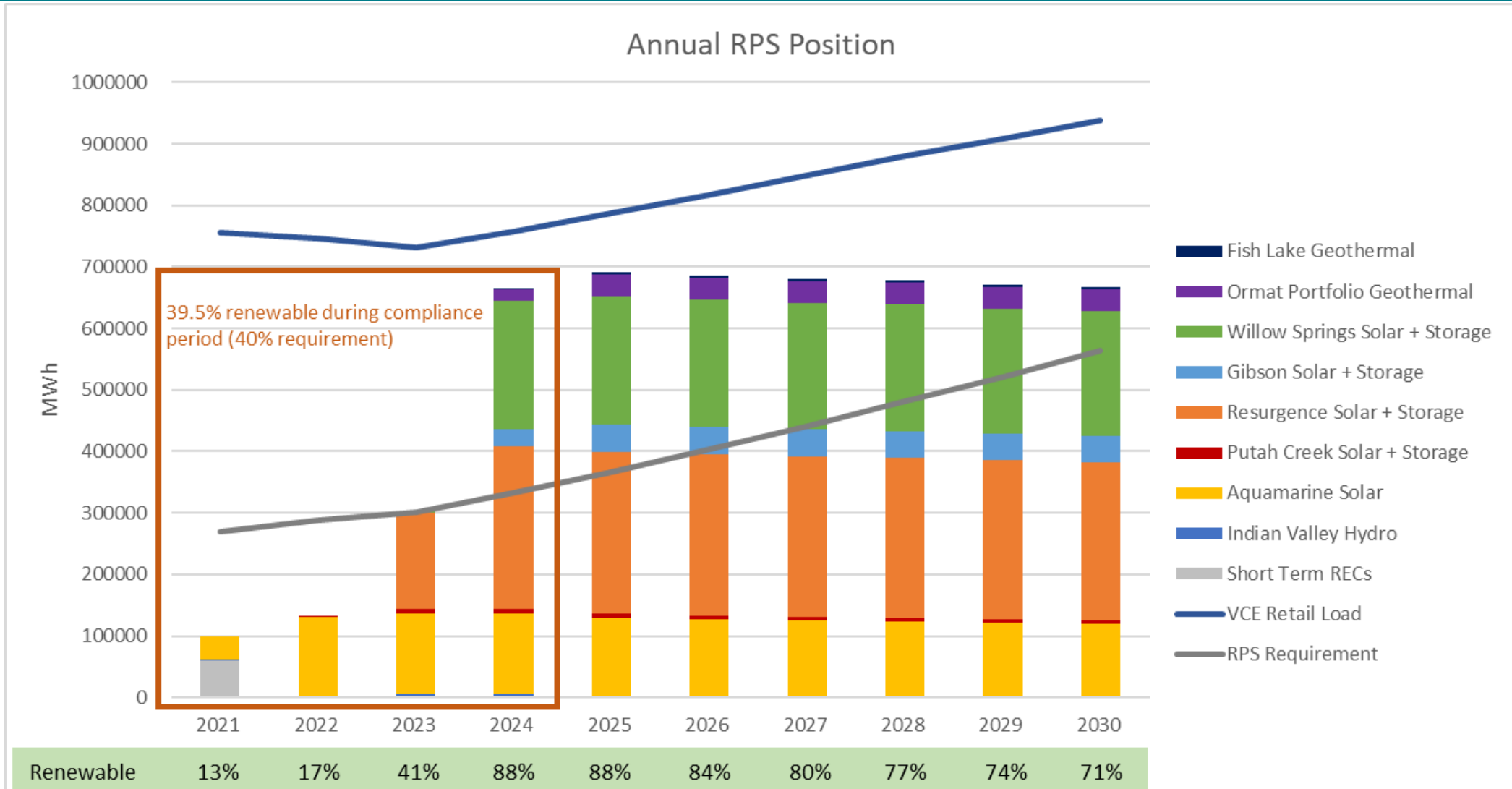
# Item 9 – 2022 Target vs Progress to Date

	Original Plan		YTD + Forecast	
<b>Standard Green Load</b>	<b>728,826</b>		738,746	
<b>UltraGreen Load</b>	<b>7,288</b>		8,558	
<b>RPS Supply</b>	<b>139,001</b>	<b>18%</b>	<b>132,404</b>	<b>17%</b>
Aquamarine Solar	131,991		131,474	
Indian Valley	3,224		0	
Putah Creek	3,395		930	
Resurgence Solar	391		0	
Short Term RECs	0		0	
<b>Large Hydro Supply</b>	<b>35,000</b>	<b>5%</b>	<b>32,195</b>	<b>4%</b>
PG&E Allocation	35,000		32,195	

- 1) Aquamarine invoices through September and forecasted generation for the rest of the year.
- 2) Forecasted generation for Putah Creek based on a 10/14/22 COD.
- 3) Hydro based on PG&E Q1-Q2 deliveries and forecast of reduced deliveries for remainder of year.
- 4) Load includes actuals through July, estimated through October, and forecast for remainder of the year.



# Item 9 – Long Term RPS Forecast / PPA Timing



Note: If renewable content % is projected to be below requirement, VCE will procure RECs closer to the end of the compliance period.

# Item 9 – Putah Creek Energy Farm



**- Project size 3MW PV + 3MW BESS**

**- 10/14/22 COD.**





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## VCE Community Advisory Committee Meeting – November 17, 2022 via video/teleconference

### Item 10 – 80% Renewable by 2030 Policy Discussion



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# Item 10 – 80% Renewable by 2030 Policy Discussion: Discussion / Plan

Staff would like to:

- Receive feedback on the future power portfolio content
- Discuss VCE's current policy of 80% renewable by 2030 and consider modifying this goal
- Engage the Board in December 2022 to initiate discussion
- Bring a formal proposal in mid-2023 for the CAC and Board to consider

# Item 10 – 80% Renewable by 2030 Policy Discussion: Background

- In 2018 the Board adopted a policy for VCE’s power content to target 80% renewables by 2030
  - The policy also set a goal that 25% of this amount should be from local resources
- Since the policy was adopted:
  - VCE has entered into a dozen power agreements
  - 5 of the 12 are operational
- Two resource portfolio studies recently completed:
  - Carbon neutral by 2030 (CNx2030)
  - 2022 Integrated Resource Plan (IRP)

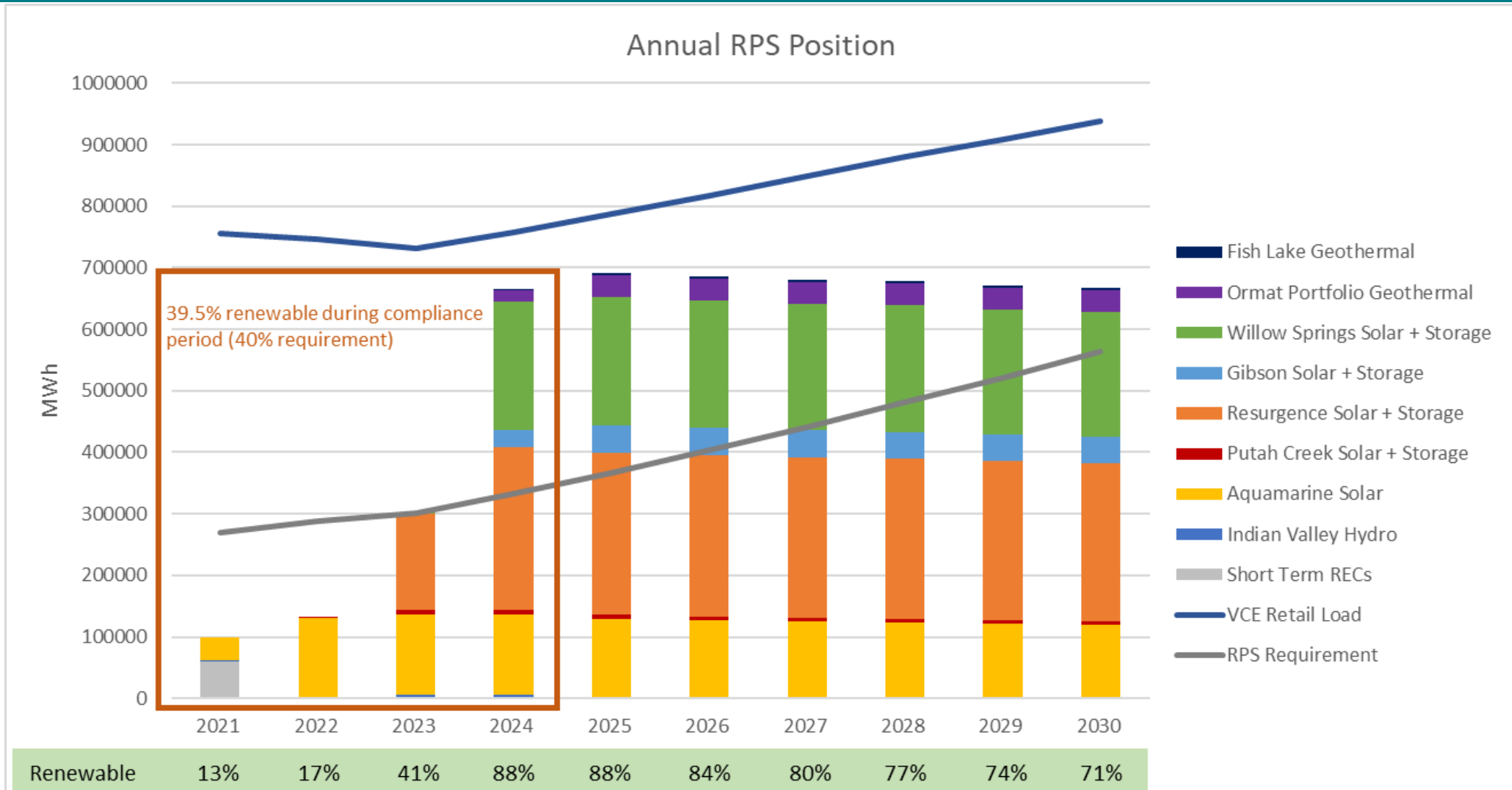
# Item 10 – 80% Renewable by 2030 Policy Discussion: Current Power Agreements



Note: Putah Creek recently went online, 10/14/2022



# Item 10 – 80% Renewable by 2030 Policy Discussion: RPS Forecast / PPA Timing



Note: 1) If renewable content % is projected to be below requirement, VCE will procure RECs closer to the end of the compliance period.

2) Above illustration reflects current VCE long term PPA commitments.

# Item 10 – 80% Renewable by 2030 Policy Discussion: Future Resources

- From the IRP study, VCE needs to add additional battery storage (BESS) and wind resources
  - This portfolio is at or below emission thresholds and produces the lowest cost
  - BESS provide resource adequacy value as well as the ability to absorb low-cost energy during the day and discharge in the evening hours
  - Wind resources help diversify the existing portfolio and complement the solar profile
  - Either the BESS or wind can be local, in-state, or out of state (as long as they can be delivered to the CAISO)

# Item 10 – 80% Renewable by 2030 Policy Discussion: VCE Portfolio per 2022 IRP

Year		2024	2026	2030	2035
Estimated Resources	BTM PV	66	77	103	134
	CAM Capacity <sup>1</sup>	26	12	6	6
	RA Only Resources	33	42	27	80
Operational Resources	Solar PV	50	50	50	50
	Small Hydro	3	0	0	0
	Demand Response	7	7	7	0
	Battery (4-hr)	3	3	3	0
In-Development Contracted Resources	Hybrid Solar	185	185	185	185
	Geothermal	5	5	5	5
	Battery (8-hr)	0	5	5	5
IRP-Identified Future Resources	Battery (4-, 6-, 8-hr)	20	20	73	70
	Onshore Wind	0	20	39	39
	Offshore Wind	0	0	9	35
<b>Cumulative Total Resources</b>		<b>394</b>	<b>426</b>	<b>512</b>	<b>609</b>



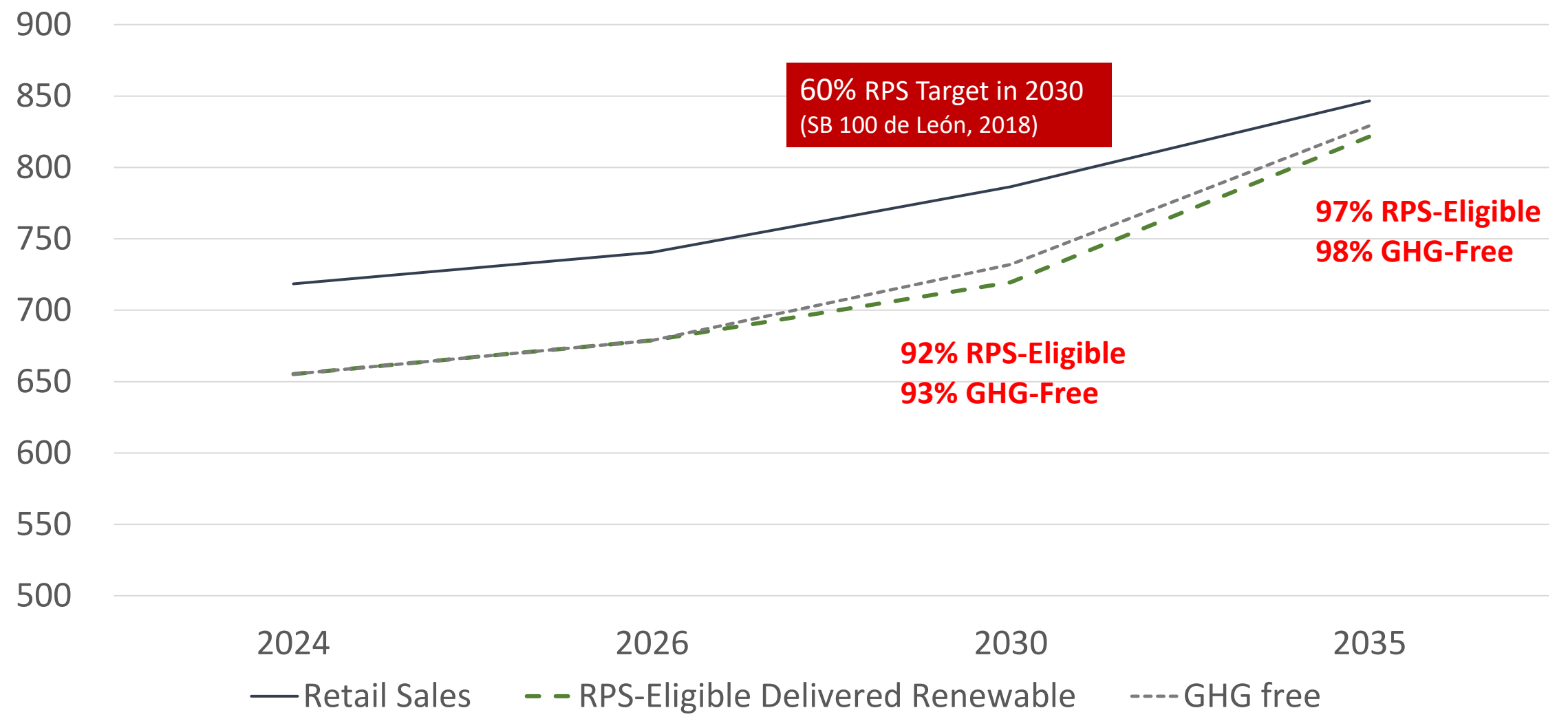
Note: 1) Cost Allocation Mechanism (CAM) for legacy PG&E resources.  
 2) Cumulative MW nameplate capacity.  
 3) The above table represents the preferred conforming portfolio from the IRP.



# Item 10 – 80% Renewable by 2030 Policy Discussion: Future % RPS

- From the IRP study, if VCE were to “build out” per the preferred conforming portfolio:
  - The resulting portfolio would exceed the current Board policy of 80% renewable by 2030 (90%+)
    - In addition, this would be approximately 30% higher than the state mandate
  - This portfolio would meet customer demand 80% of the time and rely on the “grid” 20% of the time
    - Grid power will continue to “green” over time as more renewables replace fossil resources
    - Depending when the reliance on the grid takes place – this can be financially favorable

# Item 10 – 80% Renewable by 2030 Policy Discussion: Renewable & GHG-Free Energy, GWh (per 2022 IRP)



Note: 1) Results from 25 MMT Clean System Power Calculator.  
2) CA RPS target is 100% by 2045.



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# VCE Community Advisory Committee Meeting – November 17, 2022 via video/teleconference

## Item 11 – Rate Adjustment System / Policy





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# Item 11 – Rate Adjustment System / Policy

## Overview

At the September 22, 2022, CAC meeting, Staff introduced a conceptual rate adjustment framework. Staff is seeking a CAC recommendation on the draft Rate Adjustment System and Policy.

The draft policy provides a framework to make timely within-year customer rate changes within Board approved parameters, to reflect external cost variations outside VCE's direct control.

### **This presentation will provide:**

- Quick Recap of Rate Adjustment Policy
- Rate Adjustment Examples
- Discussion

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Drivers:

- Price shocks are quite common in the power business
- VCE has an obligation to serve and obligation to pay suppliers
- Aligning more closely the "cost event(s)"
- VCE does not have guaranteed "cost recovery" or balancing accounts
- PG&E rates / PCIA / regulatory mandates

Rate Adjustment System tempers the annual rate adjustment requirements



# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy - Authorizations

Type of Rate Adjustment	Authorized Adjustments
Energy Cost Adjustments	<ul style="list-style-type: none"><li>• No more than 1/mo</li><li>• Individual adjustment no more than a 7.5% increase/decrease</li></ul>
Regulatory Adjustments (actions by regulatory bodies and/or PG&E)	<ul style="list-style-type: none"><li>• No more than 1/mo</li><li>• Individual adjustment no more than a 7.5% increase/decrease</li><li>• Calculate and implement any such Regulatory Adjustment within 90 days following PG&amp;E's implementation of such actions.</li></ul>
Annual Cumulative Limit	<ul style="list-style-type: none"><li>• No more than 15%/yr. The Board may modify this limit.</li></ul>

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Energy Cost Adjustment (ECA) Example

### Power Cost Increase by \$5M

- Wholesale power supply costs increase by \$5.0 million (\$90.0 million to \$95.0 million)
- VCE's pre-adjustment total average generation rate was \$0.13109 / kWh.

#### ECA Calculation:

$$\text{ECA} = \frac{(-\$5,000,000) + (*)(b) + (c) + (d)}{(686,550,000 \text{ kWh})} = \$-0.00800 / \text{kWh}$$

Test 1: Is the ECA  $\geq$  2% of VCE's average generation rate? NA, this is a rate decrease.

Note: in this instance the Base Green product average generation rate and monthly bills do not change for either conventional or CARE/FERA Base Green customers due to the Base Green's fixed (0.5%) discount to PG&E on compared average total bill basis.

\* Includes other power costs changes that may be included in the power supply costs such as renewable portfolio standard, demand side management costs, unallocated balance of accumulated costs/savings not included in prior rate setting.

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Energy Cost Adjustment (ECA) Example

Pre- and Post Load Share, Generation Rate, Total Bill and Revenue Share									
Customer Product Class	Pre&Post ECA Load (MWh)	Pre ECA Genr. Rate \$/kWh	Pre ECA Rev Share \$	Post ECA Genr. Rate \$/kWh	Post ECA Rev Share \$	Pre ECA Average Mo Bill	Post ECA Average Mo Bill	Change in Mo Bill	% Change Mo Bill
Base Green	34,328	\$0.12851	\$4,411,334	\$0.12851	\$4,411,334	\$174.84	\$174.84	\$0.00	0.0%
Base Green, CARE/FERA	27,462	\$0.12851	\$3,529,067	\$0.12851	\$3,529,067	\$174.84	\$174.84	\$0.00	0.0%
Standard Green	583,568	\$0.13090	\$76,071,921	\$0.13836	\$80,742,250	\$176.07	\$179.90	\$3.83	2.2%
Ultra Green	41,193	\$0.14590	\$5,987,678	\$0.15336	\$6,317,348	\$183.77	\$187.59	\$3.83	2.1%
Total or Avg	686,550	\$0.13109	\$90,000,000	\$0.13837	\$95,000,000	\$176.42	\$179.91	\$3.48	2.0%

- The ECA is applied to Standard and Ultra Green customer generation charges only
- ~2% increase to average total monthly bills.
- VCE's average generation rate increases from \$0.13109 to \$0.13837 per kWh
- overall average customer monthly bill increases by \$3.48

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Energy Cost Adjustment (ECA) Example

### Power Cost decrease by \$5M

- Wholesale power supply costs decrease by \$-5.0 million (\$90.0 million to \$85.0 million)
- VCE's pre-adjustment total average generation rate was \$0. 0.12851 / kWh.

#### ECA Calculation:

$$\text{ECA} = \frac{(-\$5,000,000) + (*)(b) + (c) + (d)}{(686,550,000 \text{ kWh})} = \$-0.00800 / \text{kWh}$$

Test 1: Is the ECA >= 2% of VCE's average generation rate? NA, this is a rate decrease.

Note: in this instance the Base Green product average generation rate and monthly bills do not change for either conventional or CARE/FERA Base Green customers due to the Base Green's fixed (0.5%) discount to PG&E on compared average total bill basis.

\* Includes other power costs changes that may be included in the power supply costs such as renewable portfolio standard, demand side management costs, unallocated balance of accumulated costs/savings not included in prior rate setting.



# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Energy Cost Adjustment (ECA) Example

Power Cost decrease by \$5M

Pre- and Post Load Share, Generation Rate, Total Bill and Revenue Share									
Customer Product Class	Pre&Post ECA Load (MWh)	Pre ECA Genr. Rate \$/kWh	Pre ECA Rev Share \$	Post ECA Genr. Rate \$/kWh	Post ECA Rev Share \$	Pre ECA Average Mo Bill	Post ECA Average Mo Bill	Change in Mo Bill	% Change Mo Bill
Base Green	34,328	\$0.12851	\$4,411,334	\$0.12851	\$4,411,334	\$174.84	\$174.84	\$0.00	0.0%
Base Green, CARE/FERA	27,462	\$0.12851	\$3,529,067	\$0.12261	\$3,367,190	\$174.84	\$171.82	-\$3.02	-1.7%
Standard Green	583,568	\$0.13090	\$76,071,921	\$0.12261	\$71,552,795	\$176.07	\$171.82	-\$4.25	-2.4%
Ultra Green	41,193	\$0.14590	\$5,987,678	\$0.13761	\$5,668,681	\$183.77	\$179.52	-\$4.25	-2.3%
Total or Avg	686,550	\$0.13109	\$90,000,000	\$0.12381	\$85,000,000	\$176.42	\$172.43	-\$3.99	-2.3%

### Rate Adjustment Summary

- ~2% decrease to average total monthly bills.
- VCE's average generation rate decreases from \$0.12851 to \$0.12261 per kWh
- Overall average customer monthly bill reduction by \$3.02 for CARE/FERA and \$4.25 per month applied to Standard and Ultra Green

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Regulatory Adjustment Example

Wtd. Average All Classes	PG&E	VCEA Base Green	VCEA Base Green CARE/FERA	VCEA Standard Green	VCEA Ultra Green
Generation Rate (\$/kWh)	\$0.12433	\$0.12851	\$0.12851	\$0.13036	\$0.14536
PG&E Del Rate (\$/kWh)	\$0.19168	\$0.19168	\$0.19168	\$0.19168	\$0.19168
PG&E PCIA/FF (\$/kWh)	\$0.02653	\$0.02064	\$0.02064	\$0.02064	\$0.02064
Total Electric Cost (\$/kWh)	\$0.34254	\$0.34083	\$0.34083	\$0.34268	\$0.35768
Average Monthly Bill (\$)	\$175.72	\$174.84	\$174.84	\$175.79	\$183.49
Avg Usage = 513 kWh/month	% +/- PG Bill	-0.50%	-0.50%	0.04%	4.42%

### Scenario

- PG&E generation rate increases \$0.02/kWh
- PG&E delivery rate increases \$0.03 / kWh
- PCIA charge decreases \$0.02 / kWh.
- VCE's costs were unchanged

Wtd. Average All Classes	PG&E	VCEA Base Green	VCEA Base Green CARE/FERA	VCEA Standard Green	VCEA Ultra Green
Generation Rate (\$/kWh)	\$0.144330	\$0.148357	\$0.129234	\$0.129234	\$0.144234
PG&E Del Rate (\$/kWh)	\$0.22168	\$0.22168	\$0.22168	\$0.22168	\$0.22168
PG&E PCIA/FF (\$/kWh)	\$0.00653	\$0.00064	\$0.00064	\$0.00064	\$0.00064
Total Electric Cost (\$/kWh)	\$0.37254	\$0.37068	\$0.35155	\$0.35155	\$0.36655
Average Monthly Bill (\$)	\$191.11	\$190.16	\$180.35	\$180.35	\$188.04
Avg Usage = 513 kWh/month	% +/- PG Bill	-0.50%	-5.63%	-5.63%	-1.61%
Percent Bill Change fr Before	8.8%	8.8%	3.1%	2.6%	2.5%

# Item 11 – Rate Adjustment System / Policy

## Rate Adjustment Policy – Regulatory Adjustment Example

Wtd. Average All Classes	PG&E	VCEA Base Green	VCEA Base Green CARE/FERA	VCEA Standard Green	VCEA Ultra Green
Generation Rate (\$/kWh)	\$0.144330	\$0.148357	\$0.129234	\$0.129234	\$0.144234
PG&E Del Rate (\$/kWh)	\$0.22168	\$0.22168	\$0.22168	\$0.22168	\$0.22168
PG&E PCIA/FF (\$/kWh)	\$0.00653	\$0.00064	\$0.00064	\$0.00064	\$0.00064
Total Electric Cost (\$/kWh)	\$0.37254	\$0.37068	\$0.35155	\$0.35155	\$0.36655
Average Monthly Bill (\$)	\$191.11	\$190.16	\$180.35	\$180.35	\$188.04
Avg Usage = 513 kWh/month	% +/- PG Bill	-0.50%	-5.63%	-5.63%	-1.61%
Percent Bill Change fr Before	8.8%	8.8%	3.1%	2.6%	2.5%

### Rate Adjustment Summary

- PG&E bundled rates went up 8.8%
- Base Green customer average bills went up the same percentage as PG&E's.
- Base Green generation rates accordingly and the proportion of VCE's revenues recovered from Base Green customers.
- VCE's Standard and Ultra Green customer total bills increased a lesser percentage.
- VCE's overall average generation rate and total revenues are unchanged.

# Item 11 – Rate Adjustment System / Policy

## Updated Schedule

- November 2022 – Return to the CAC for recommendation on the proposed Rate Adjustment System policy (**CURRENT**)
- December 2022 – Rate Adjustment System for 2023
  - Present Draft Proposed Customer Rate Adjustment System policy for consideration
  - If approved, consolidate with 2023 Budget & Rates Adoption (2023 Implementation)

## Summary

Staff believes its recommendation for VCE's Rate Adjustment Policy is fiscally prudent and connects key fundamentals.

- VCE's Budget Policy
- Rates policy
- Reserve policy
- 2021-2023 Strategic Plan.



# Item 11 – Rate Adjustment System / Policy

## **Recommendation**

Staff is seeking a CAC recommendation that the VCE Board of Directors approve the following:

Adopt the Draft - Rate Adjustment Policy including the following key elements:

- a. Customer rate adjustments shall be calculated no more than once per month;
- b. Such monthly adjustment shall not result in more than a 7.5% increase/decrease to VCE's weighted average total generation rate;
- c. The net annual cumulative limit for within-year customer rate adjustments authorized under this policy is a total of 15% unless modified by the Board;
- d. Rates are reviewed annually by VCE Board as part of the annual budget process.