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Valley Clean Energy Board Meeting – September 14, 2023

Item 16 – Energy Markets update and Procurement Direction



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CALIFORNIA RPS PORTFOLIO CONTENT CATEGORIES & COMPLIANCE

SEPTEMBER 2023

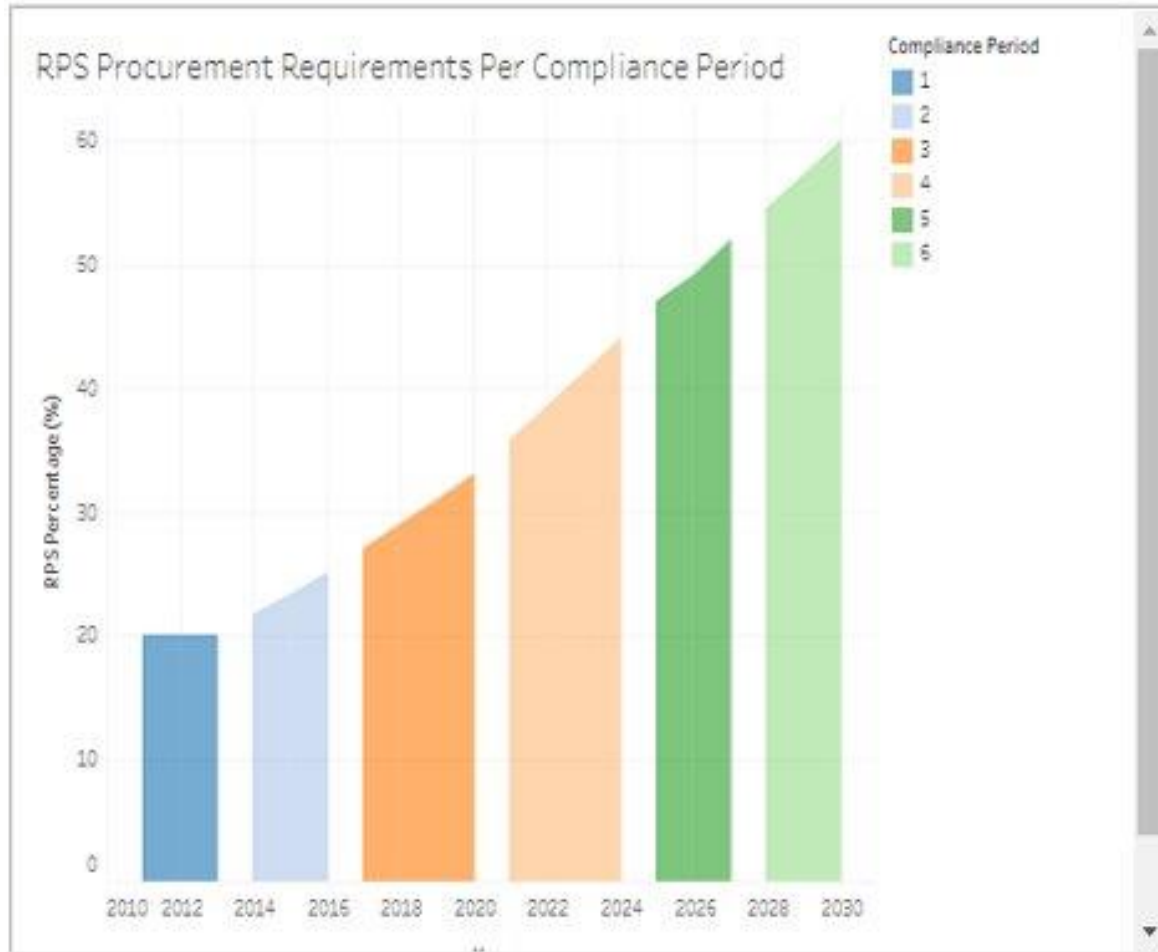
RECOMMENDATION

1. Receive presentation and provide feedback on Compliance Period 4 (CP4) short term Renewable Energy Credit (RECs) procurement.
2. Based on current market conditions, maximize the 10% allowance of Portfolio Content Category (PCC) 3 RECs.

WHAT IS THE RENEWABLE PORTFOLIO STANDARD?

- California requires entities that serve retail electric load to procure a minimum percentage of eligible renewable energy
- There are multiple bills that have shaped this program, but most recently SB 100 increased the RPS target to 60% by 2030
- There are multiple types of fuel types that can be eligible renewable: wind, solar, biomass, small hydro, etc
- An instrument called a REC is used to capture this eligibility, and is “retired” to show compliance
 - A REC contains the “Green Attributes” of a unit of energy, and represents that the energy was generated with an eligible renewable fuel type
- VCE’s power purchase agreements are all with eligible renewable resources

WHAT ARE THE TARGETS?



- RPS compliance happens over multi-year periods- “Compliance Period X”
- Right now, it is still Compliance Period 4, which goes from 2021-2024
- VCE’s total RPS requirement during CP4 is about 40% of its retail load
- Targets increase over time, and compliance periods shorten to three years starting in 2025 (CP5)

HOW DOES VCE ACQUIRE RENEWABLE ENERGY CREDITS?

- VCE can acquire RECs through:
 - Long-term power purchase agreements that also include RECs
 - Example: Aquamarine Solar
 - Long-term REC purchase agreements
 - Example: VCE *could* buy a fixed volume of RECs per year from a supplier, for 10 years via contract
 - Short-term REC purchase agreements
 - Example: VCE *could* buy a fixed volume of RECs, once, from a supplier

ARE ALL RECs EXACTLY THE SAME?

- Each state with an RPS program writes the rules a little different from each other
- California has “Portfolio Content Categories” (PCC) of RECs defined in state law:
 - PCC 1: Eligible renewable resources directly connected to California’s grid
 - PCC 2: Out of state eligible renewable resources imported into California’s grid
 - PCC 3: Eligible renewable resources not brought to California’s grid (REC Only)
- There are nuances to the definitions above, but those are the basic distinctions

HOW DOES VCE COMPLY WITH THE RPS?

- VCE must retire RECs equivalent to ~40% of its load over 2021-2024
 - VCE does this annually based on the amount of RECs it has acquired each year
- Almost all of VCE's RECs come from its long-term power purchase agreements, which all qualify as PCC1 because they are located in the state of California
 - VCE has purchased some short-term PCC1 RECs earlier in the Compliance Period
- California has requirements within the RPS program regarding how much of each Portfolio Content Category shall be used

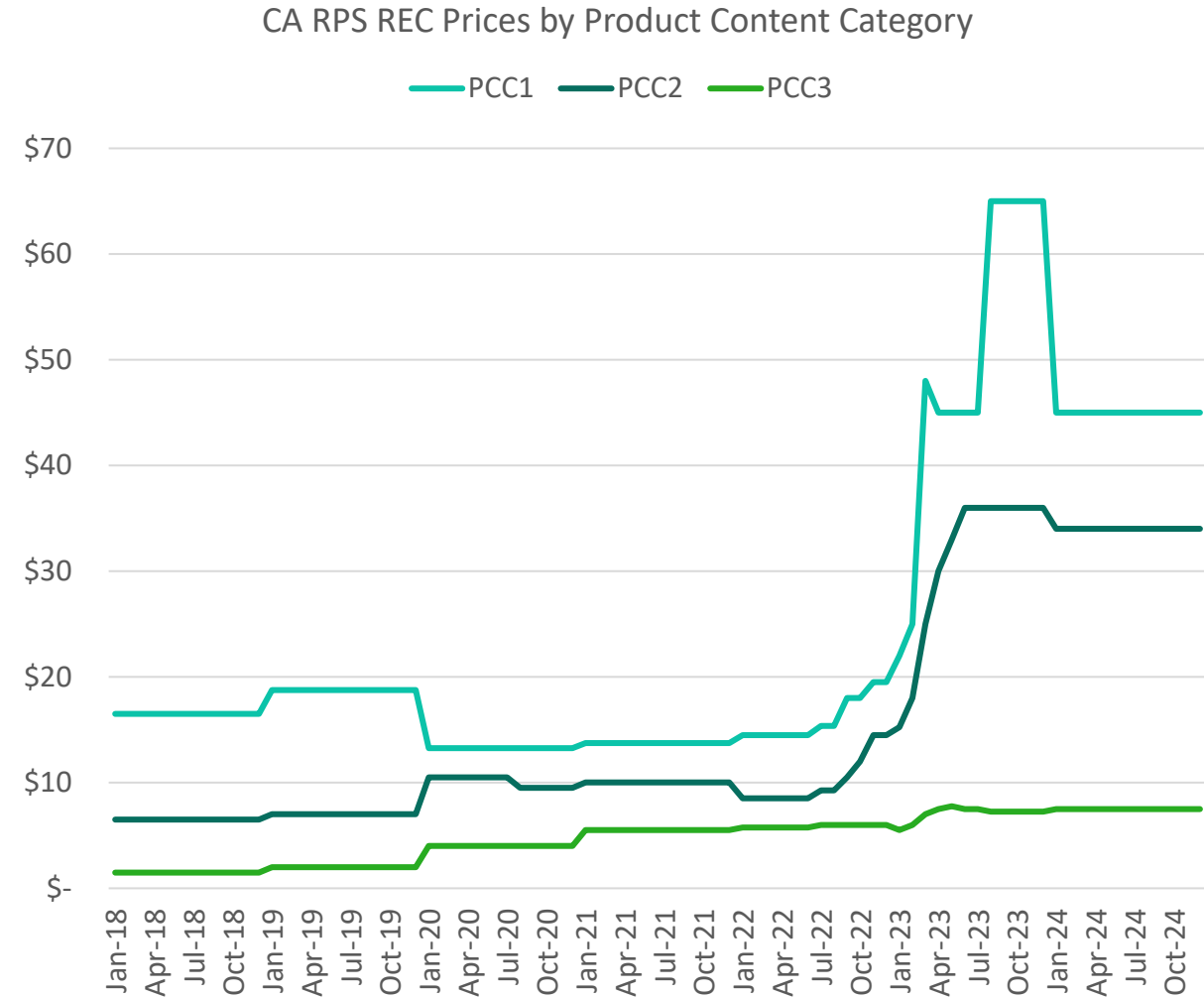
PCC & CONTRACTING REQUIREMENTS IN THE RPS

- Beginning in Compliance Period 4, as a percentage of VCE's RPS requirement:
 - 75% of RECs used must be from PCC1
 - 65% of RECs used must be from contracts of at least 10 years in duration (Long-Term)
 - No more than 10% of RECs used can be from PCC3
- VCE has not used any PCC3 thus far in CP4, and has its entire 10% limit available
 - 10% of 40% is 4%, so VCE can essentially use 4% of its load's worth of PCC3

DIFFERENT TYPES OF RECs HAVE DIFFERENT PRICES

Product Content Category	2018 Average Price	2023 Average Price	2024 Forward Price
PCC 1	\$16.50/REC	\$50.00/REC	\$45.00/REC
PCC 2	\$6.50/REC	\$31.00/REC	\$34.00/REC
PCC 3	\$1.50/REC	\$7.00/REC	\$7.50/REC

- REC prices have risen dramatically since VCE’s launch
- All types have increased, but PCC 1 and 2 have risen the most
- The penalty for any shortfall is \$50 for each “missing” REC
- PCC 1 has traded as high as \$65/REC this year



VCE's CP4 LONG-TERM RENEWABLE CONTRACTS

VCE's has signed seven renewable PPAs consisting of photovoltaic (PV), hybrid (PV + storage) and geothermal of which four of the PPAs will impact CP4

Long Term PPAs	Actual or Expected COD	Capacity*
Resurgence Solar I	8/3/2023	90 MW PV, 75 MW BESS (250,000 MWhs)
Aquamarine Solar	9/22/2021	50 MW PV (130,000 MWhs)
Putah Creek Energy Farm	10/15/2022	3 MW PV, 3 MW BESS (7,600 MWhs)
Willy 9 Chap 2**	12/31/2023	72 MW PV, 36 MW BESS (210,000 MWhs)

* All BESS are 4-hour duration, except the Gibson Solar project is a 5-hour battery system. Approx annual MWhs shown.

** Formerly Willow Springs Solar 3. Name changed at the request of the CAISO.

VCE HAS MULTIPLE ROUTES TO COMPLIANCE

- Example: Assume VCE needs 100,000 Short-Term RECs in 2024 to meet the CP4 target
- Option A – Purchase all PCC1s: $100,000 \text{ RECs} * \$45.00/\text{REC} = \$4.5 \text{ million in expenses}$
- Option B – Purchase all PCC3s: $100,000 \text{ RECs} * \$7.50/\text{REC} = \$750 \text{ thousand in expenses}$
- Option C – Purchase 50/50 PCC1s and PCC3s: $\$2.625 \text{ million in expenses}$

Note: Based on load variations and PPA performance, it is anticipated that VCE will need to procure 100,000-150,000 RECS

WHAT ABOUT THE POWER CONTENT LABEL?

- Example: 100,000 MWh of load, 80,000 MWh of a Solar PPA (PCC1), 10,000 MWh of Short-Term Solar PCC1

- Example: 100,000 MWh of load, 80,000 MWh of a Solar PPA (PCC1), 10,000 MWh of Short-Term Solar PCC3

Option A	Adjusted Net Procured (MWh)	Percent of Total Retail Sales
Renewable Procurements	90,000	90.0%
Biomass & Biowaste	-	0.0%
Geothermal	-	0.0%
Eligible Hydroelectric	-	0.0%
Solar	90,000	90.0%
Wind	-	0.0%
Coal	-	0.0%
Large Hydroelectric	-	0.0%
Natural gas	-	0.0%
Nuclear	-	0.0%
Other	-	0.0%
Unspecified Power	10,000	10.0%
Total	100,000	100.0%

Total Retail Sales (MWh)	100,000
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GHG Emissions Intensity (converted to lbs CO₂e/MWh)	94
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Percentage of Retail Sales Covered by Retired Unbundled RECs	0.0%
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Option B	Adjusted Net Procured (MWh)	Percent of Total Retail Sales
Renewable Procurements	80,000	80.0%
Biomass & Biowaste	-	0.0%
Geothermal	-	0.0%
Eligible Hydroelectric	-	0.0%
Solar	80,000	80.0%
Wind	-	0.0%
Coal	-	0.0%
Large Hydroelectric	-	0.0%
Natural gas	-	0.0%
Nuclear	-	0.0%
Other	-	0.0%
Unspecified Power	20,000	20.0%
Total	100,000	100.0%

Total Retail Sales (MWh)	100,000
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GHG Emissions Intensity (converted to lbs CO₂e/MWh)	189
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Percentage of Retail Sales Covered by Retired Unbundled RECs	10.0%
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EMISSIONS AND RECs

- RECs are meant to capture the “Green Attributes” of a unit of power generation
- In theory, a unit of power generated by a renewable resource is one less unit of power generated by an emitting resource
- In practice, that sort of depends on the timing, but it has some truth to it, regardless of whether it is generated in the state of California or not
- The Power Content Label only considers PCC 1 to be emission-free as a baseline, even though PCC 2 and 3 are eligible renewable energy credit types under state law

CONCLUSION

- Staff believes it is prudent to utilize PCC1 as well as the maximum permissible amount of PCC3 in order to meet CP4 target.
- For two reasons staff believes all options should be used to satisfy the CP4 requirement:
 - 1) the costs are material dollars and need to be a factor in the decision,
 - 2) staff recognizes that there are perceived emission intensity differences that are identified on a PCL, but also realizes these are product of the tool that has been created and not a reflection on what truly is occurring in the broader environment



Valley Clean Energy Board Meeting – September 14, 2023

Item 17 - VCE Strategic Plan Minor Update and Extension through 2025



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Overview

Present the minor update of the 2021-2023 Strategic Plan and extended current end of the planning period to the end of 2025.

This presentation will provide:

- Strategic Plan Guidelines (Recap)
- Strategic Plan Minor Update and Extension through 2025
- Summary and Recommendation

Item 17 - 2021-23 Strategic Plan Minor Update : Guidelines Recap

Strategic Plan Guidelines

VCE's Strategic plan guidelines set out the process and timeline for Plan updates. The Guidelines included a proposed timeline for extending the 2021-23 plan through 2025 with a minor update as part of that process.

Extension of 2021-2023 Plan			Strategic Plan				Strategic Plan			
2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Minor Update		Major Update		Minor Update		Major Update		Minor Update		Major Update
	IRP WORK		IRP WORK		IRP WORK		IRP WORK		IRP WORK	

2021-2023 Minor Update

The minor update is a relatively high-level review/update to existing goals and objectives performed by Staff to incorporate plan adjustments associated with changing legislative, regulatory, customer, and economic requirements, as well as plan milestones achieved.

Item 17 - 2021-23 Strategic Plan Minor Update : Update & Extension

2021-2023 Strategic Plan Draft Minor Update & Extension through 2025

- General update replacing “VCEA” with “VCE”
- Investment Grade Credit Rating (Objective 1.2) – From 2024 to 2028 (COVID-19 pandemic)
- Manage Customer Rates (Objective 1.4) – Lowering customer costs.
- Long Range Financial Model (Objective 1.5) – Long-Range Financial Model focused on VCE’s financial health (Reserves) and rate stability.
- Renewables Update (Goal 2 / Objective 2.1) – Increase the renewable goal to 100% and procurement of local storage resources.
- Customers and Community (Goal 3) –Updated to include implementation during the extension period.

Item 17 - 2021-23 Strategic Plan Minor Update : Recommendation

Community Advisory Committee Recommendation

The CAC recommended approval of the strategic plan minor update extension with no recommended changes.

Summary

Staff believes the recommended 2021-2023 strategic plan minor update represent a balanced approach for extending the 2021-23 plan through 2025. As outlined in the strategic plan guidelines, Staff will continue to review and update the Plan on an annual basis to ensure that VCE remains on track and course corrects if necessary.

Recommendation

Staff is seeking Board approval of the 2021-2023 strategic plan minor update and extension of the plan through 2025.



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VCE Board of Directors Meeting – September 14, 2023

Item 18 – Phase 2 of VCE’s Electric Vehicle (EV) Rebate Pilot Program



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Item 18 – Electric Vehicle Rebate Pilot Program Phase 2



EV Rebate Program Phase 2 Development Current Status

Big Program Changes to California Vehicle Rebate Program (CVRP) Announced

- VCE currently uses CVRP eligibility as proxy for eligibility for EV Rebate Pilot Program (Phase 1, planned Phase 2)
- Effective immediately: apps after 9/6/23 are on a waitlist; funding nearly exhausted and will not be renewed.
- Program changes for 2024: only low-income residents receive incentives up to \$12,000
- Upper income limits: \$43,740 for an individual/\$90,000 for a family of four

Item 18 – Electric Vehicle Rebate Pilot Program Phase 2

EV Rebate Program Phase 2 Development Current Status

VCE Developed Phase 2 Concept, Received CAC Recommendation

- To address strong demand, staff recommended lowering rebate amounts in order to provide more customers with rebates
 - Low Income (BEV or PHEV) \$3000, Standard BEV \$2000, Standard PHEV \$1500
- Staff and CAC recommended additional incentives including:
 - Home charging equipment up to \$500
 - Residential panel upgrades up to \$500
 - Multi-family housing charging \$3000/charger, up to \$21,000/property
- Phase 3 could address bidirectional charging if other grants do not

Item 18 – Electric Vehicle Rebate Pilot Program Phase 2



Next Steps:

- Communicate with customers on EV Rebate Waitlist
- Develop full list of eligibility criteria with terms and conditions
- Research methods and cost of new eligibility criteria verification process
 - Adjust proposed budget as necessary
- Outline and establish new proposed customer application process
- Discuss new direction with POTG and/or CAC
- Return to Board for approval