



## VCE Community Advisory Committee Meeting – June 22, 2023

### Item 6 – Power Procurement / RPS Update



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# Item 6 – Power Procurement / RPS Update: 2022 Target vs Actuals

	Original Plan		Actual	
<b>Standard Green Load</b>	<b>728,826</b>		<b>732,719</b>	
<b>UltraGreen Load</b>	<b>7,288</b>		<b>7,205</b>	
<b>RPS Supply</b>	<b>139,001</b>	<b>18%</b>	<b>135,636</b>	<b>18%</b>
Aquamarine Solar	131,991		134,524	
Indian Valley	3,224		-	
Putah Creek	3,395		1,112	
Resurgence Solar	391		-	
Short Term RECs	0			
<b>Large Hydro Supply</b>	<b>35,000</b>	<b>5%</b>	<b>53,886</b>	<b>7%</b>
PG&E Allocation	35,000		53,886	

- 1) 20% “clean or GHG-free” was the minimum target for 2022. Result was slightly higher (25%).



# Item 6 – Power Procurement / RPS Update: Resurgence Solar 1



**Project size:**

**- 90 MW PV + 75MW BESS**

**Orig COD:**

**- 5/15/23**

**Proj. COD:**

**- Early July 2023**



- 1) Project delay resulting from interconnection delays by SCE.
- 2) Project is currently in “testing”
- 3) Above photo is Resurgence I & II. VCE’s share is approx. 2/3<sup>rd</sup> of above photo.



# Item 6 – Power Procurement / RPS Update: Willy 9 Chap 2<sup>2</sup>



**Project size:**  
**- 72MW PV + 36MW BESS**

**Projected COD:**  
**- 12/31/23**



- 1) Project PV portion is complete and is in commercial operation. BESS is currently under construction
- 2) Formerly Willow Springs Solar 3. CAISO requested revised naming convention.



# Item 6 – Power Procurement / RPS Update: Compliance Period 4

- VCE is executing on board adopted policy of lower RPS in early years of CP 4 and higher percentages in 2023 & 2024
- Staff will continue to monitor:
  - Load – fluctuations can be measurable depending on factors such as temperature, hydro/drought conditions, BTM applications (rooftop solar, EV, etc)
  - Performance of operational facilities - Indian Valley hydro<sup>1</sup>, Putah Creek PV+S, Aquamarine (PV)
  - Closely assess progress of Resurgence & Willy 9 Chap2
- Short-term RECs will be procured in 2024 to satisfy any remaining open position to comply with CP 4 mandate
  - Timing and quantity to be performed in collaboration with The Energy Authority (TEA)

1) Indian Valley commenced production in 6/23 after a couple of years of no production (due to drought)



VCE Community Advisory Committee Meeting – June 22, 2023

Item 7 – 80% Renewable by 2030 Policy



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# Item 7 – 80% Renewable by 2030 Policy: Outline

1. Background
2. Existing Long-term Power Contracts
3. Portfolio Modeling
4. Dispatch Curves – Seasonal & Annual Observations
5. Capacity Additions by Scenario
6. Cost Comparisons
7. RPS Content
8. Key takeaways
9. Discussion / Recommendation

# Item 7 – 80% Renewable by 2030 Policy: 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
- At the CAC’s November 2022 meeting, the Committee voted unanimously to recommend that the Board modify the existing policy to 100% Renewable and maintain the 25% renewable from local resources provision
- In Nov 2022, staff did not have the supporting analysis of the advantages/disadvantages associated with the CAC proposed modification of the current portfolio policy – specifically the 25% local component
- Staff engaged the portfolio modeling services of First Principles Advisory (FPA), the firm that performed the 2022 IRP modeling (VCE Board approved contract in Feb 2023)
  - Analyze the cost impacts of increasing VCE’s renewable portfolio content
  - Updated technology cost assumptions – including the incorporation of the Inflation Reduction Act (IRA)

# Item 7 – 80% Renewable by 2030 Policy: Existing Long-Term Power Contracts



## Power Resource Contracts



**Totals Contracted for Since 2018:**

- 243 MW Renewables
- 128 MW BESS\*
- 7 MW Demand Response

- 1 Aquamarine Solar Facility**  
Kings County  
50 MW PV-only  
(approx. 130,000 MWhs)  
*online now*
- 2 Putah Creek (8 hrs)**  
Yolo County  
Solar PV + Storage Project  
3 MW/3 MW BESS  
(approx. 7,600 MWhs)  
*online now*
- 3 Gibson**  
Yolo County  
Solar PV + Storage Project  
13 MW/13 MW BESS\*\*  
(approx. 50,000 MWhs)  
*anticipated online Q2 2025*
- 4 Tierra Buena Battery Storage Facility (4 hrs)**  
Sutter County  
VCE Share is 2.5 MW  
*online now*
- 5 Aggregated Demand Response**  
Statewide Resources  
VCE share is 7 MW  
*online now*
- 6 Resurgence Solar I**  
San Bernardino County  
Solar PV + Storage Project  
90 MW (PV)/75 MW BESS\*  
(approx. 250,000+ MWhs)  
*anticipated online Q2 of 2023*
- 7 Willy 9 Chap 2 (formerly Willow Springs Solar 3)**  
Kern County  
Solar PV + Storage Project  
72 MW (PV)/36 MW BESS\*  
(approx. 215,000+ MWhs)  
*anticipated online end of 2023*
- 8 Indian Valley Hydro**  
Lake County  
2.9 MW small hydro  
(approx. 6,000 MWhs)  
*online now*
- 9 Tumbleweed Long-Duration Battery Storage (8 hrs)**  
Kern County  
VCE Share 2.9 MW  
*anticipated online Q2 2026*
- 10 Goal Line Long-Duration Battery Storage (8 hrs)**  
San Diego County  
VCE Share 2.25 MW  
*anticipated online Q2 2025*
- 11 Fish Lake Geothermal**  
Esmeralda County, NV  
VCE Share 0.42 MW  
(approx. 3,460 MWhs)  
*anticipated online summer 2024*
- 12 Ormat Nevada Inc Portfolio**  
Geothermal – NV & CA  
VCE Share 4.63 MW  
(approx. 35,380 MWhs)  
*anticipated online summer 2024*

\*Battery Energy Storage System (4 hrs)  
\*\*Battery Energy Storage System (5 hrs)

Notes:  
1) Resurgence anticipated COD is early July '23  
2) Putah is a 4 hr system (not 8 hr)





# Item 7 – 80% Renewable by 2030 Policy: Portfolio Modeling Scenarios

- Scenario 1.a can be considered the base case or business as usual (BAU)
- Scenario 1.b increases the renewable percentage to 100% by 2030 as well as maintaining the 25% local renewable component
- Scenario 1.c increases the renewable percentage to 100% but only considers the two existing local PPAs<sup>1</sup>
- Scenario 1.d maintains the current 80% renewable by 2030 and only considers the two existing local PPAs<sup>1</sup>

Scenario	NG Price	2030 RPS Target	Local RPS Target
1.a	P50	80%	25%
1.b	P50	100%	25%
1.c	P50	100%	-
1.d	P50	80%	-



Note: 1) Putah Creek and Gibson

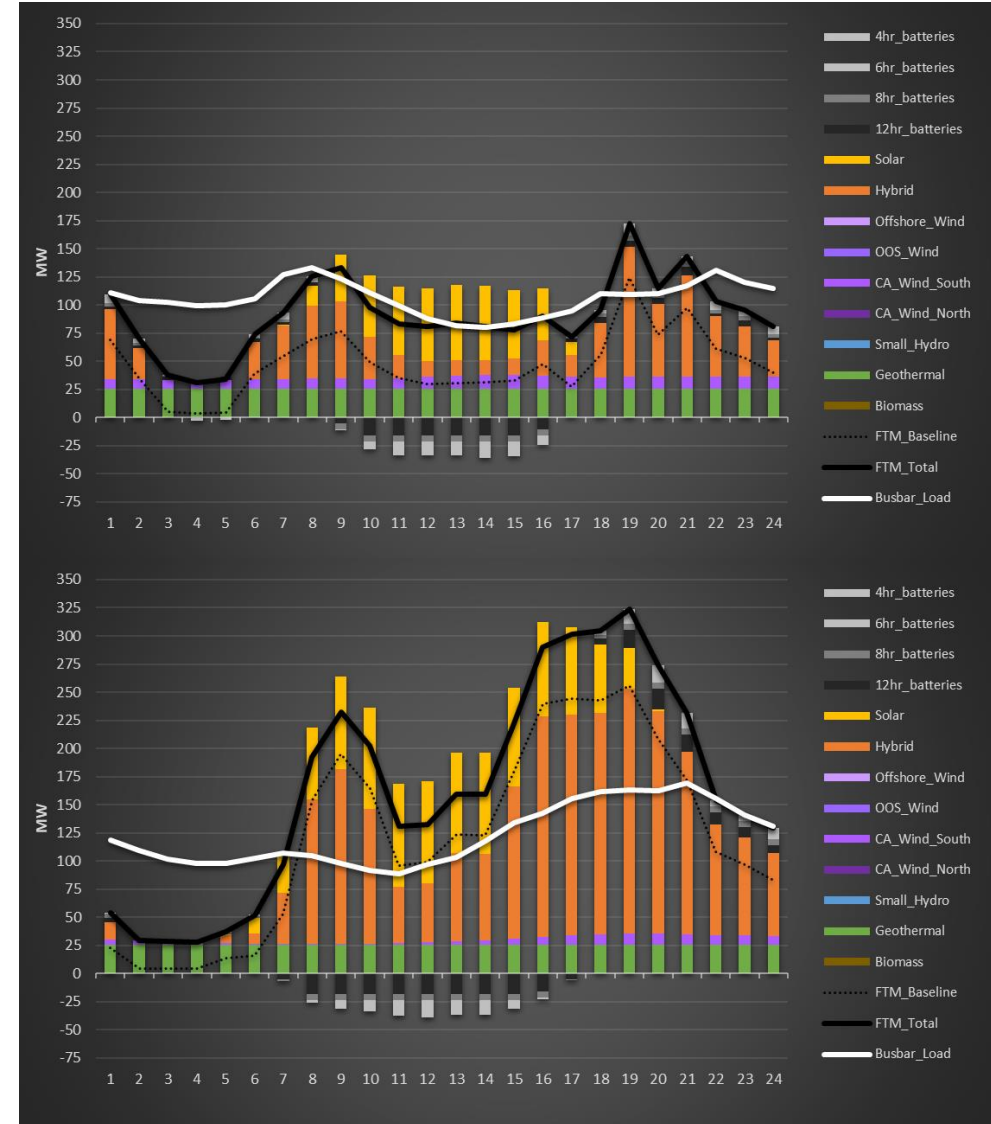
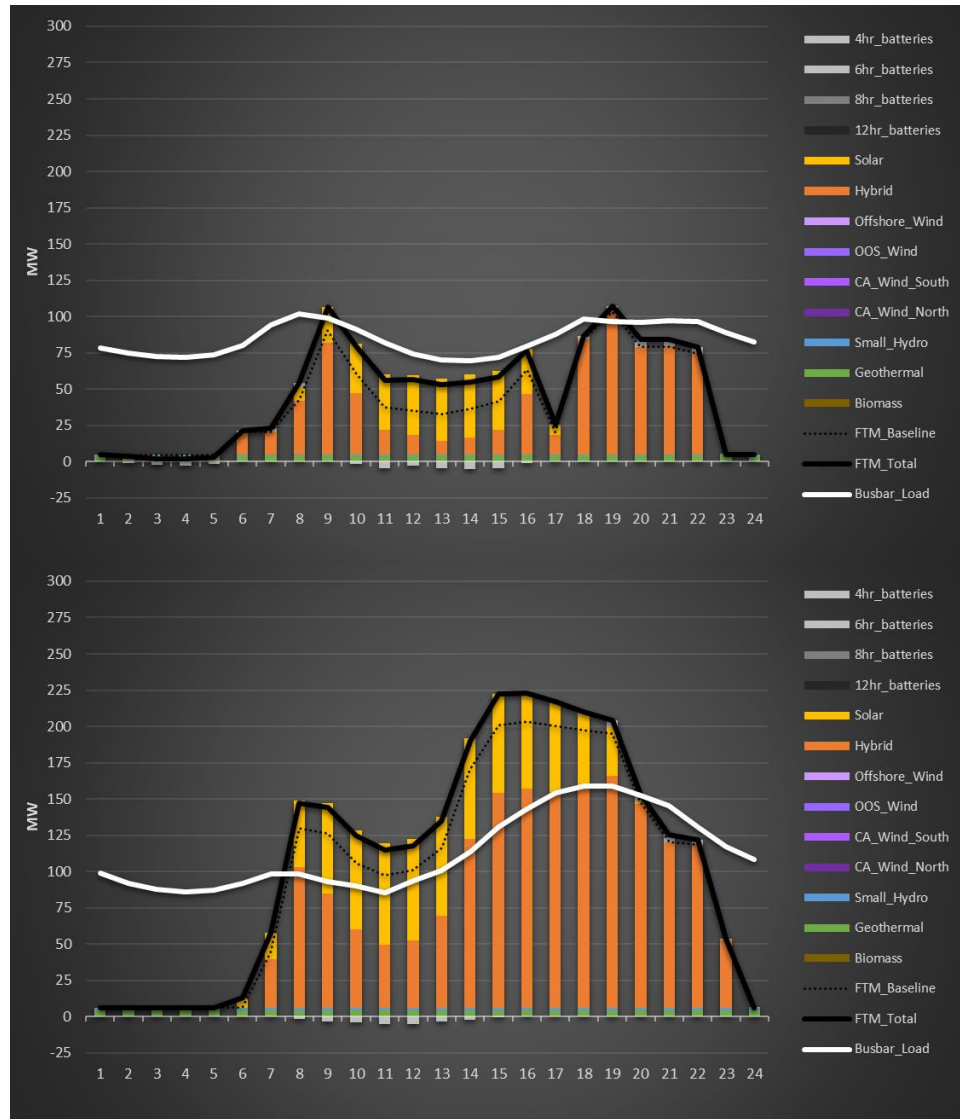
2) In addition, scenarios were performed using a higher natural gas forecast. For this presentation, however, the focus will be on the base case natural gas scenario

# Item 7 – 80% Renewable by 2030 Policy: Dispatch Curves

January

2024

2030



July



# Item 7 – 80% Renewable by 2030 Policy: Capacity Additions

Cumulative MWs - Incremental Needs (2030 / 2035)									
	1a - 80% RPS, 25% Local		1b - 100% RPS, 25% Local		1c - 100% RPS, 8% Local <sup>3</sup>		1d - 80% RPS, 8% Local <sup>3</sup>		
	2030	2035	2030	2035	2030	2035	2030	2035	
Wind <sup>1</sup>	20	75	20	50	100	155	90	145	
Geothermal	25	35	25	35	40	50	40	50	
Storage <sup>2</sup>	34	89	37	70	55	115	50	107	
Local hybrid (PV+S)	45	65	60	84	-	-	-	-	
<b>Total</b>									
1) Wind is on-shore. Off-shore wind is not economical in this planning horizon									
2) Storage in this table includes duration from 4 hr to 12 hr									
3) "Local" in these scenarios assumes only Putah Creek and Gibson project (approx 8%)									



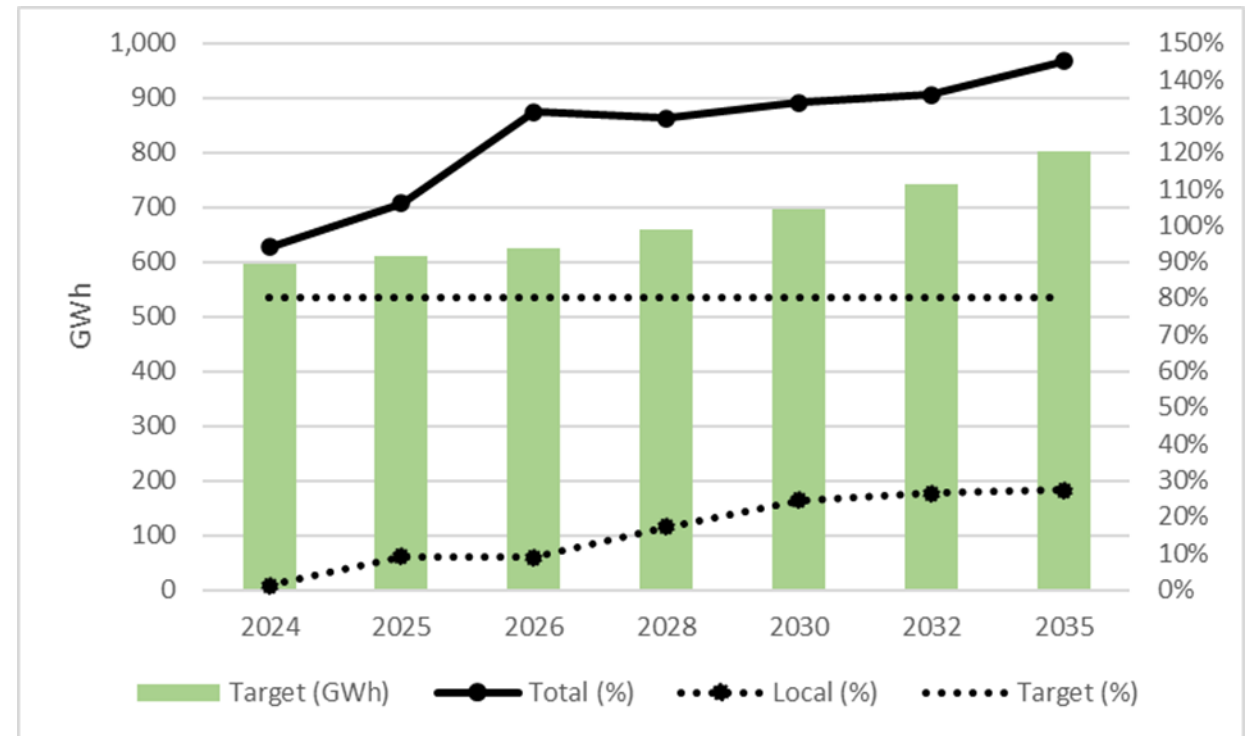
# Item 7 – 80% Renewable by 2030 Policy: Scenario Cost Comparisons

- All scenarios are measured off Scenario 1.a (BAU scenario)
- Scenario 1.b is \$23.5 million more than the BAU case
- Scenario 1.c is \$33.4 million cheaper than the BAU case (or nearly \$57 million cheaper than Scenario 1.b)
- Scenario 1.d is the lowest cost of all cases
- The incremental cost to go from 80% (1.d) to 100% (1.c) renewable is not unreasonable

Scenario	NG Price	2030 RPS Target	Local RPS Target	2024-2035	
				NPV (2022 \$M)	Delta (2022 \$M)
1.a	P50	80%	25%	619.6	0
1.b	P50	100%	25%	643.1	23.5
1.c	P50	100%	-	586.1	-33.4
1.d	P50	80%	-	575.7	-43.9

# Item 7 – 80% Renewable by 2030 Policy: RPS Content

- All scenarios meet or exceed 100% RPS by 2030
- The difference in scenarios is the technological make-up of the selected renewable technologies
- Scenario 1.c is a lower cost portfolio as it incorporates more cost-effective technology types that VCE does not currently have & generates additional sale opportunities
  - This scenario also generates the greatest amount RPS credits thanks to a more diverse aggregate generation profile



# Item 7 – 80% Renewable by 2030 Policy: Key Takeaways

- Primary available renewable technology in Yolo County is solar + storage
  - VCE's portfolio is already heavily concentrated in solar+4hr storage; mandating the 25% carve out will limit the organization's ability to diversify its supply with other technologies
  - Onshore wind, geothermal, and storage greater than 4 hours in duration constitute a greater share of contracted supply for the scenarios where the local constraint is not active
  - Large scale solar is challenging to permit in Yolo County
- Combined, the recently passed IRA legislation and the current strained market conditions for li-ion based storage projects have significantly increased the opportunity cost associated with VCE's local generation policy
- Increasing the RPS target to 100% and keeping the 25% local carveout will result in an additional NPV expense of ~\$23M relative to the baseline scenario
- Increasing the current 80% renewable policy to 100%, excluding add'l local, will decrease costs
- In all scenarios, VCE needs additional stand-alone storage. Easier to permit due to smaller footprint (compared to solar)



# Item 7 – 80% Renewable by 2030 Policy: Discussion / Recommendation

- Receive presentation and provide feedback on VCE's power portfolio content goals
- Discuss VCE's current policy of 80% renewable by 2030 of which 25% is generated from local renewable resources and consider modifying this goal

## Staff's Recommendation:

- Increase the current 80% renewable policy by 2030 to 100% renewable by 2030 and substitute the 25% renewable local component goal with a goal of 25% of future storage amounts to be from local installations



VCE Community Advisory Committee Meeting – June 22, 2023

Item 8 – Allocation of 2022 Net Margin



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# Item 8 – Allocation of 2022 Net Margin

## Overview

The VCE Rate Structure & Dividend Program Guidelines provides the structure of allocating VCE's of the audited net margin for each year. This process takes into account the Dividend Program parameters, as well as available and forecast cash reserves, the Board has various options for determining how to allocate the 2022 \$5.3 million audited net margin.

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

- Background of 2022 Net Margin
- Present 2022 Net Margin Allocation
- Recommended 2022 Net Margin Allocation



# Item 8 – Allocation of 2022 Net Margin

## Dividend Program Formula

The adopted Dividend Program formula recommends allocating the net margin as follows:

- Net margin up to 5% is to be allocated as follows:
  - At least 5% (of the 5%) goes to LPR for program implementation
  - The balance goes to cash reserves
  
- Net margin above 5% is to be allocated as follows:
  - At least 50% to cash reserves
  - Remainder allocated amongst dividends and LPR

Description		Audited 2022 Results	
Electricity Sales		86,662,000	
Operating Expense		80,897,000	
Operating Margin		5,765,000	
Prinipal Debt Payments		441,000	
Adjusted Net Margin less prinicipal Debt Payments		5,324,000	
Adjusted Net Margin Pectentage		6.14%	
Allocation Amount <=5%		4,333,000	
Allocation Amount > 5%		991,000	
Alocation of Net Margin up to 5%		Perectage	Allocation Amount
Cash Reserves Allocation		95%	4,116,000
Local Programs Allocation		5%	217,000
Minimum			
Alocation of Net Margin above 5%		Perectage	Allocation Amount
Allocation to Cash Reserves		50%	495,500
Minimum			
Discretionary Allocation (After Cash Reserves)		50%	495,500
Maximum			

# Item 8 – Allocation of 2022 Net Margin

## Discretionary Allocation

Staff considered the following factors in related to this recommendation.

- additional cash reserves not have a material
- dividends less than a 1% discount; small impact
- ~2.5%/\$1M annually in discounts (CARE and FERA)
- Additional program funds needed for VCE’s 3-Year Programs Plan

### Scenario 1: Additional Programs Funds (Staff Recommended)

Discretionary Allocation (After Cash Reserves)	50%	495,000	Maximum
Cash Reserves	0%	-	
Local Programs (Targeted 2024 Spend)	100%	495,500	
Customer Dividends (Targeted 2024 Spend)	0%	-	

### Scenario 2: Additional Cash Reserves

Discretionary Allocation (After Cash Reserves)	50%	495,000	Maximum
Cash Reserves	100%	495,500	
Local Programs (Targeted 2024 Spend)	0%	-	
Customer Dividends (Targeted 2024 Spend)	0%	-	

### Scenario 3: Customer Dividends

Discretionary Allocation (After Cash Reserves)	50%	495,000	Maximum
Cash Reserves	0%	-	
Local Programs (Targeted 2024 Spend)	0%	-	
Customer Dividends (Targeted 2024 Spend)	100%	495,500	

# Item 8 – Allocation of 2022 Net Margin

## **Considerations**

Actual and forecasted cash reserves are an important consideration.

- VCE ended 2022 with \$3.8 M in unrestricted cash.
- Ongoing power cost increases and regulatory pressures on resource adequacy
- 2023 Reserve targets to increase to 180+ days of cash on hand
- Cash Reserves are utilized primarily to enhance rate stability

## **Summary**

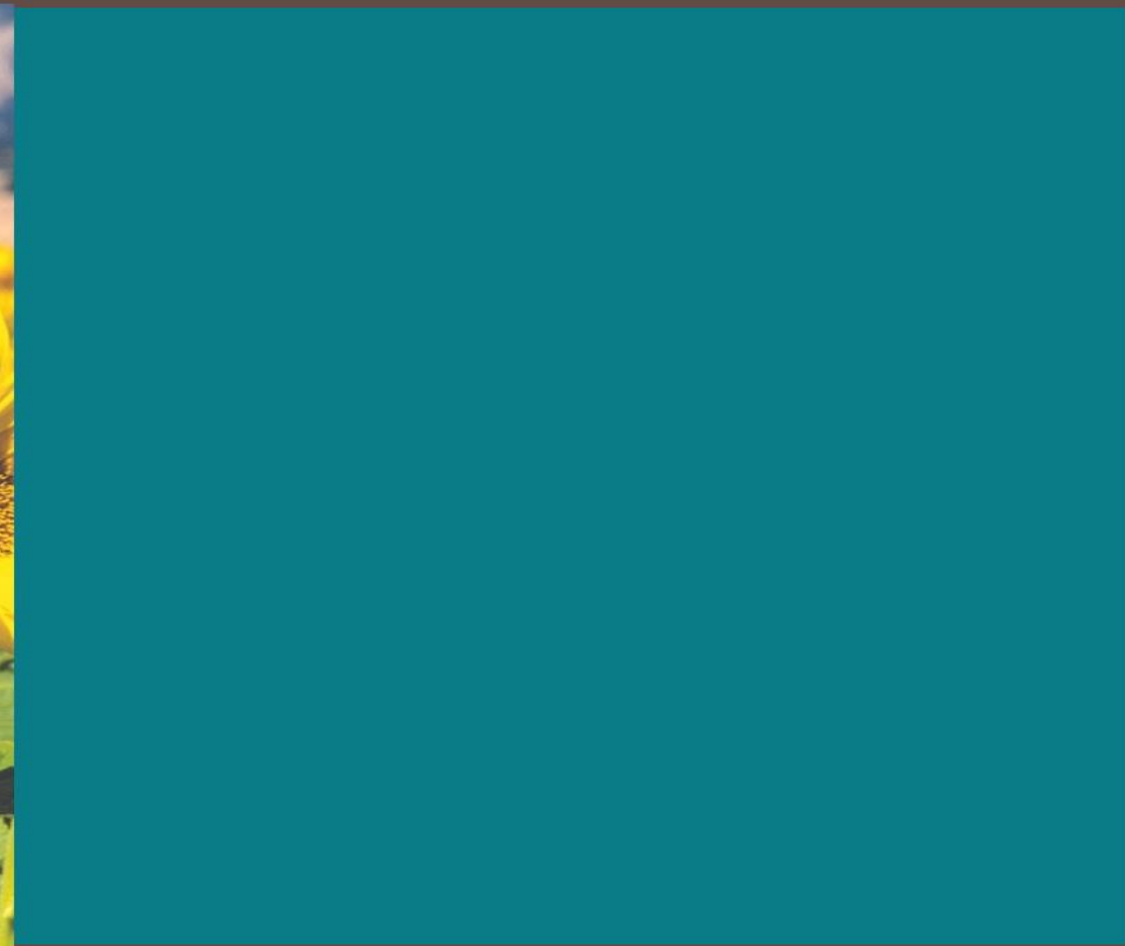
Staff believes its recommendation for VCE's Rate Adjustment Policy is fiscally prudent considering the factors and options.

# Item 8 – Allocation of 2022 Net Margin

## Recommendation & Discussion

- Staff is seeking a CAC recommendation that the VCE Board of Directors approve the following:
  - \$712,500 to the Local Programs Reserve (LPR)
  - \$0 to dividends, given the ending cash balance and reserve targets
  - The balance of \$4,611,000 to cash reserves to reach cash reserve targets.





VCE Community Advisory Committee Meeting – June 22, 2023

Item 9 – Strategic Plan Update Guidelines



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# Item 9 – Strategic Plan Update Guidelines: Overview

## Overview

Upon further consideration and feedback from Community Advisory Committee Strategic Plan Task Group, Staff has drafted Strategic Plan Guidelines to update the approach and timeline for extending the 2021-2023 Strategic Plan beyond the current end of the planning period (end of 2023) and a process for developing future plans.

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

- Brief background on strategic plan
- Present an updated approach and timeline - Strategic Plan Guidelines
- Discussion

# Item 9 – Strategic Plan Update Guidelines: Background

## Background of the Strategic Plan Guidelines

### Initial strategic plan “Rolling” update

- One-year extensions each year so that the Plan is always 1+ years from expiration to
- Maintain a three-year outlook starting in 2023.

### Updated Strategic Plan Guidelines

- Extend the current 2021-2023 Strategic Plan with “Minor” Update through 2025
- Minor Updates to within plan (two years) by Staff
- Major updates every four years
- Major Update years do not align with Integrated Resource Plan (IRP) updates

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	



# Item 9 – Strategic Plan Update Guidelines: Definitions

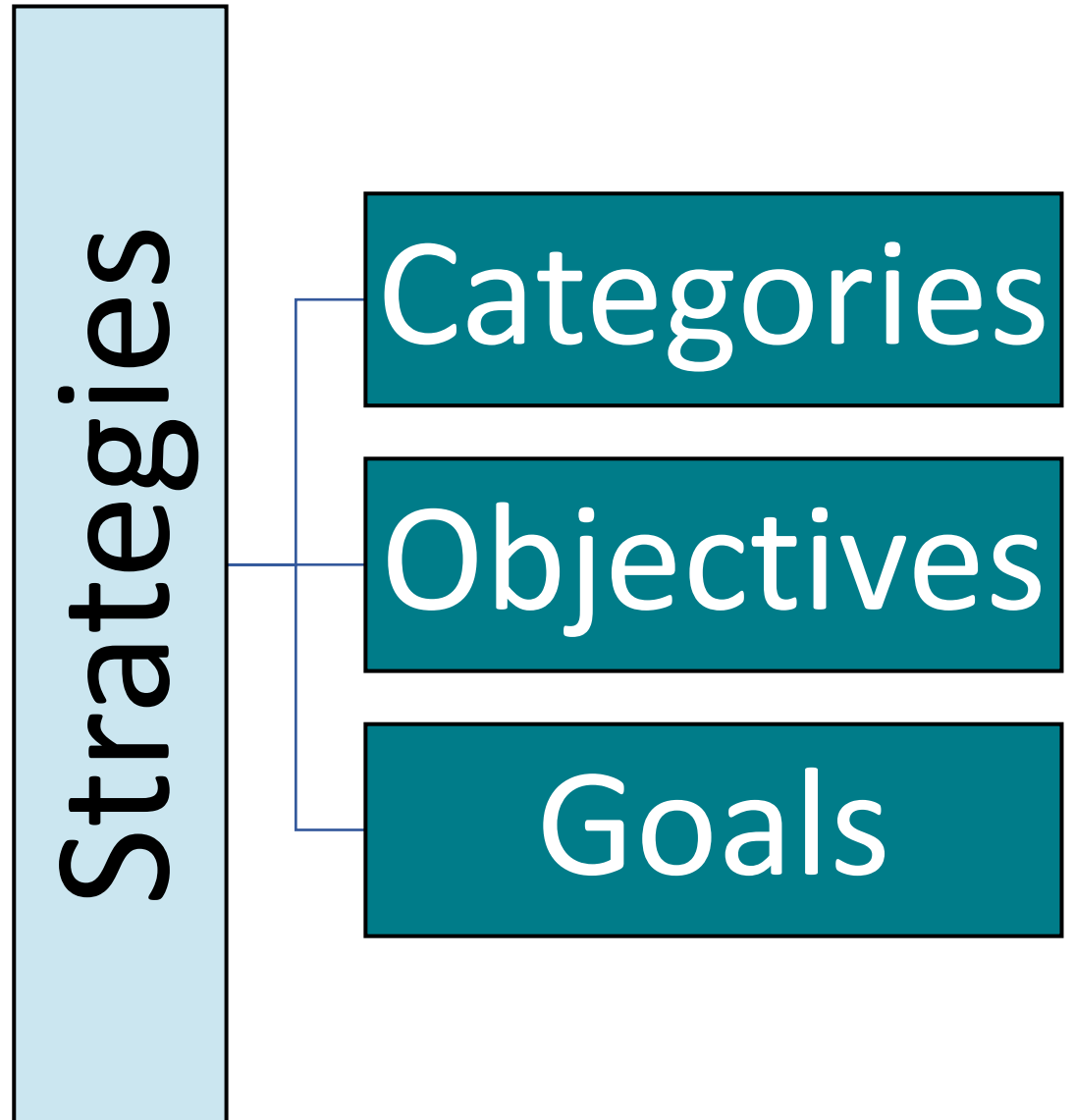
## Strategic Plan Definitions

**Categories** – Key areas of focus VCE has chosen to act as VCE’s foundational pillars

**Goals** - Aspirational ambitions outlined to provide guidance

**Objectives** - High-level and measurable outcomes

**Strategies** – Aligns VCE’s efforts to achieve organization’s goals and objectives



# Item 9 – Strategic Plan Update Guidelines: Objectives

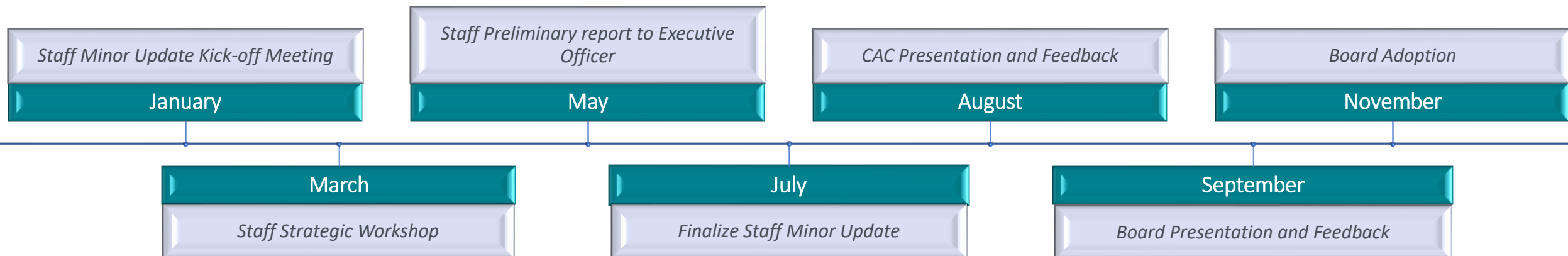
## Key Objectives of Strategic Plan Minor Updates

Minor Update – The purpose would be a relatively high-level review/update to existing goals and objectives **performed by staff** to incorporate plan adjustments associated with changing legislative, regulatory, customer, economic, etc. requirements, as well as plan milestones achieved.

Key activities would include:

- Evaluate Strategic Plan to update and re-align strategic goals and objectives where necessary.
- Short-term adjustments based on changed external/internal requirements and recent accomplishments.

## Timeline of Strategic Plan Minor Update



# Item 9 – Strategic Plan Update Guidelines: Objectives (con't)

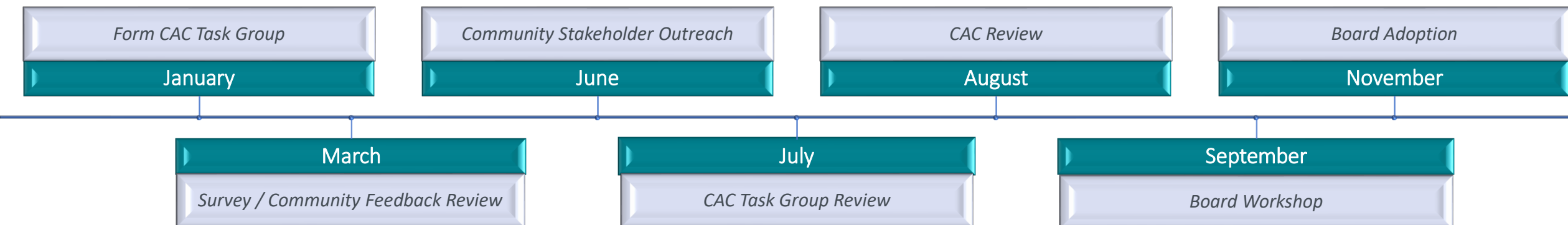
## Key Objectives of Strategic Plan Major Updates

Major Update – The purpose would be a more detailed review/update of the Plan, including a review of VCE’s Vision/Mission and existing goals and objectives. Major Plan updates would be comprehensive reviews incorporating workshops at various levels of the organization, including community stakeholder engagement. The baseline activities would incorporate those enumerated in the Minor Update.

Key activities in a Major Update would include:

- Identify changes in the overall CCA environment (economics, policy, technology, etc.) and describe their relevance for VCE (also listed as VCE Staff activity below)
- Review key organizational fundamentals (Mission, Vision, and Strategic Plan Goals)
- Long-term adjustments based on strategic and customer requirements

## Timeline of Strategic Plan Major Update



# Item 9 – Strategic Plan Update Guidelines: Summary / Recommendation

## **Continuous improvement and reporting**

VCE staff will report annually key metrics, status and mitigations where appropriate annually to the Board and CAC.

- **Quarterly Report to VCE Management** - Staff will report quarterly to the Executive Officer on the status of goals, objectives and metrics for which they are responsible.
- **Annual Report to Board and CAC** - Staff will report annually to the Board and CAC on the status of goals, objectives and metrics.

## **Summary**

Staff believes the recommended guidelines represent a balanced, comprehensive approach to align the strategic plan with VCE's multi-year time horizon and provide consistent update benefits associated with the "rolling" approach.

## **Recommendation**

Staff is seeking a recommendation from the CAC on the Strategic Plan Guidelines for Plan updates.