

# VCEA Implementation Plan Development

September 27, 2017



# Overview

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- Purpose of Implementation Plan
- Resource Portfolio Options Modeled
- Financial Impact
- Decisions needed
  - Planned resource portfolio
  - Planned rate

# Implementation Plan

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- Perfunctory filing used to notify CPUC of intent to begin operations as a CCA
- Contains high-level overview of service area, resource mix, rate structure, finances, organizational structure, etc.
- Does not commit the organization to a specific path, and can be modified at any time

# Resource Portfolios Modeled

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Portfolio	Description	Notes
A	Minimum Renewable (PCC1) 100% Clean	Lowest cost. Meets RPS standards. Becomes more expensive in later years. May be difficult to procure enough large hydro for 100% clean.
B	50% Renewable - 75% PCC1 - 25% PCC2 75% Clean	Higher cost. Use of some PCC2. PCC2 use could be increased for the non-RPS renewable content to lower costs.
C	50% Renewable - 100% PCC1 75% Clean	Highest cost. All PCC1.

# Resource Portfolios



# Portfolio A

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

## Resource Scenario A - Minimum Renewable and Balance of Non Renewable Carbon Free (100% Clean)

<b>Total Renewable Content</b>	<b>35.0%</b>	<b>35.0%</b>	<b>35.0%</b>	<b>35.0%</b>	<b>36.5%</b>	<b>38.3%</b>	<b>40.0%</b>	<b>41.7%</b>	<b>43.3%</b>	<b>45.0%</b>
PCC 1 Calculated	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
PCC 2 Calculated	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PCC 3 Calculated	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>RPS Required Minimums</b>	<b>29.0%</b>	<b>31.0%</b>	<b>33.0%</b>	<b>34.8%</b>	<b>36.5%</b>	<b>38.3%</b>	<b>40.0%</b>	<b>41.7%</b>	<b>43.3%</b>	<b>45.0%</b>
PCC 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
PCC 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Incremental Renewables</b>	<b>6.00%</b>	<b>4.0%</b>	<b>2.0%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
PCC 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
PCC 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Non Renewable Carbon Free</b>	<b>65.0%</b>	<b>65.0%</b>	<b>65.0%</b>	<b>65.0%</b>	<b>63.5%</b>	<b>61.7%</b>	<b>60.0%</b>	<b>58.3%</b>	<b>56.7%</b>	<b>55.0%</b>
<b>Total Carbon Free</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

# Portfolio B

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

## Resource Scenario B 50% Renewable (75% PCC1 / 25% PCC2) & 25% Non Renewable Carbon Free (75%)

<b>Total Renewable Content</b>		<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>
PCC 1	Calculated	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
PCC 2	Calculated	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
PCC 3	Calculated	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>RPS Required Minimums</b>		<b>29.0%</b>	<b>31.0%</b>	<b>33.0%</b>	<b>34.8%</b>	<b>36.5%</b>	<b>38.3%</b>	<b>40.0%</b>	<b>41.7%</b>	<b>43.3%</b>	<b>45.0%</b>
	PCC 1	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
	PCC 2	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
	PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Incremental Renewables</b>		<b>21.0%</b>	<b>19.0%</b>	<b>17.0%</b>	<b>15.2%</b>	<b>13.5%</b>	<b>11.7%</b>	<b>10.0%</b>	<b>8.3%</b>	<b>6.7%</b>	<b>5.0%</b>
	PCC 1	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
	PCC 2	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
	PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Non Renewable Carbon Free</b>		<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>
<b>Total Carbon Free</b>		<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>

# Portfolio C

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

## Resource Scenario C 50% Renewable (100% PCC1) & 25% Non Renewable Carbon Free (75%)

<b>Total Renewable Content</b>		<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>50.0%</b>
PCC 1	Calculated	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
PCC 2	Calculated	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PCC 3	Calculated	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>RPS Required Minimums</b>		<b>29.0%</b>	<b>31.0%</b>	<b>33.0%</b>	<b>34.8%</b>	<b>36.5%</b>	<b>38.3%</b>	<b>40.0%</b>	<b>41.7%</b>	<b>43.3%</b>	<b>45.0%</b>
	PCC 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	PCC 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Incremental Renewables</b>		<b>21.0%</b>	<b>19.0%</b>	<b>17.0%</b>	<b>15.2%</b>	<b>13.5%</b>	<b>11.7%</b>	<b>10.0%</b>	<b>8.3%</b>	<b>6.7%</b>	<b>5.0%</b>
	PCC 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	PCC 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	PCC 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Non Renewable Carbon Free</b>		<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>	<b>25.0%</b>
<b>Total Carbon Free</b>		<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>	<b>75.0%</b>



# Financial Impact – Overview

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- Ran three rate scenarios:
  - Net of PCIA fee, customers see:
    - 3% discount relative to PG&E
    - 1% discount relative to PG&E
    - Same rate as PG&E
  - Note: discount applies to only the generation portion of the bill, so a 1% reduction in generation may result in only ~0.5% reduction overall.
- Each rate scenario was run for each portfolio
- Assume 3% PCIA increase annually 2018-2021
- Funding for local development, DER, EE, and more aggressive NEM/FIT rates not included. These would need to be funded out of remaining net income.

# Draft Pro Forma – 1% rate discount, Portfolio A

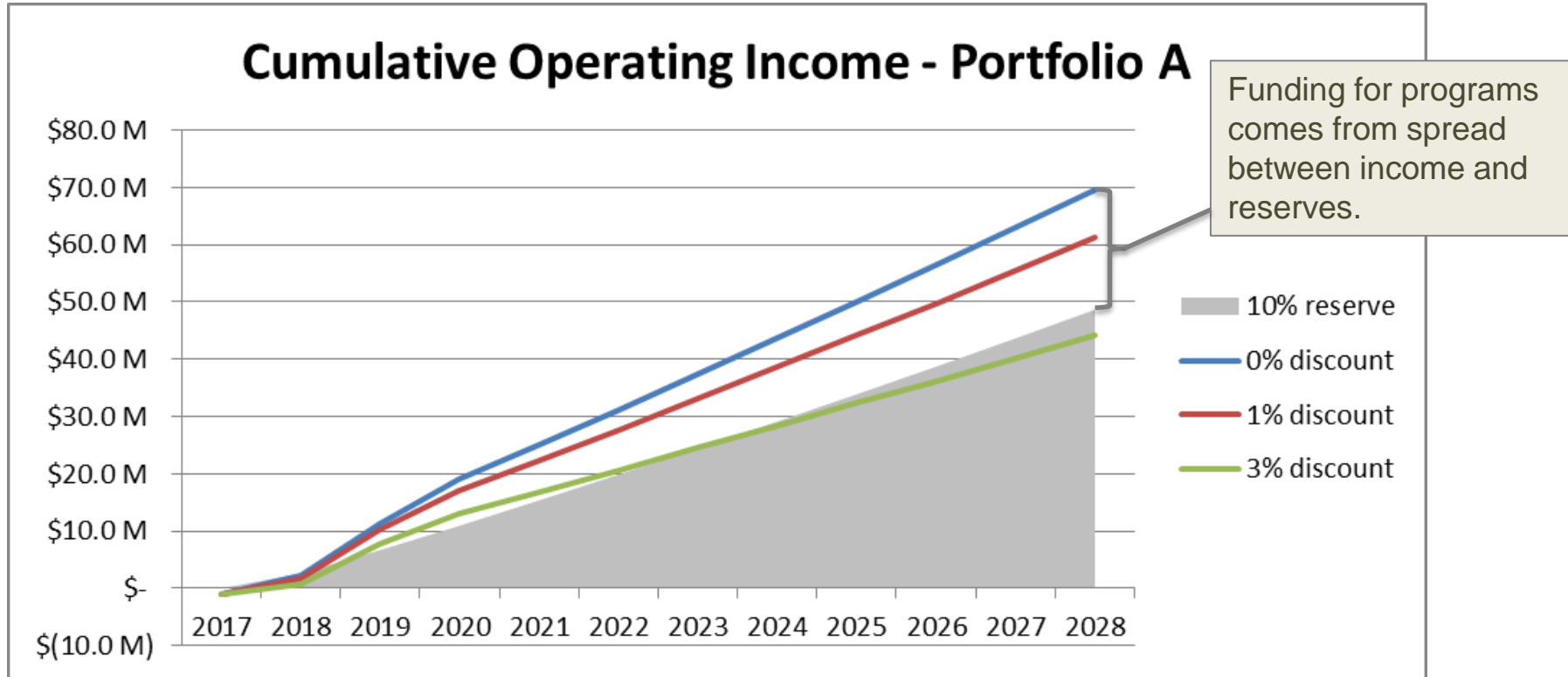
Approximate reserves built in 2019 and 2020 for each combination of rate discount and resource portfolio

2019 Annual Op Ir Rate Disc			
Resource Portf	0%	1%	3%
A	\$9,166	\$8,427	\$6,944
B	\$8,924	\$8,185	\$6,702
C	\$7,949	\$7,209	\$5,727
2020 Annual Op Ir Rate Disc			
Resource Portf	0%	1%	3%
A	\$7,637	\$6,886	\$5,382
B	\$7,452	\$6,701	\$5,197
C	\$6,473	\$5,722	\$4,218

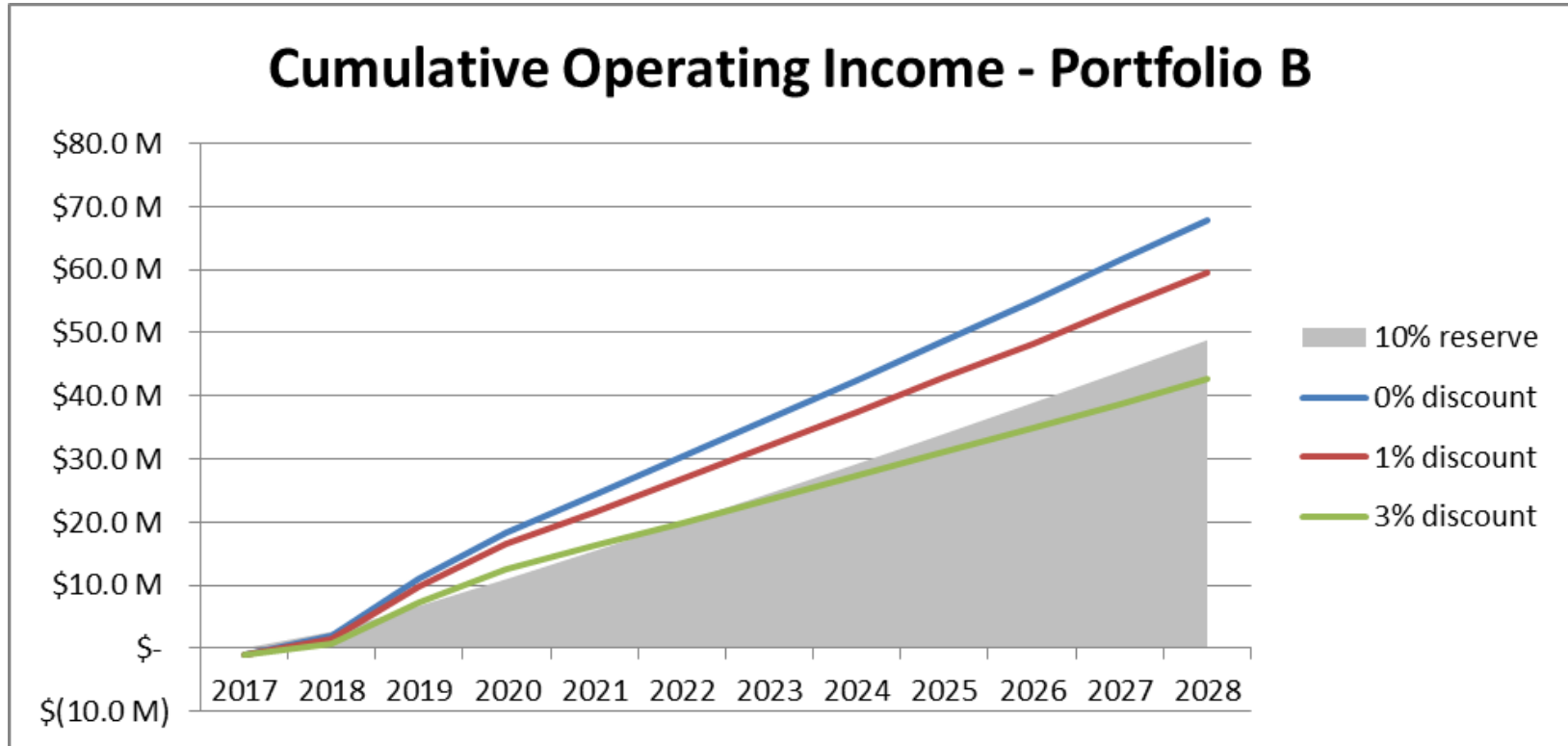
Cumulative reserves built through first 5 and 10 years

5yr Cumulative Op Ir Rate Disc			
Resource Portf	0%	1%	3%
A	\$37,342	\$33,080	\$24,537
B	\$36,360	\$32,098	\$23,555
C	\$30,823	\$26,560	\$18,018
10yr Cumulative C Rate Disc			
Resource Portf	0%	1%	3%
A	\$69,630	\$61,209	\$44,329
B	\$67,966	\$59,545	\$42,666
C	\$57,049	\$48,628	\$31,749

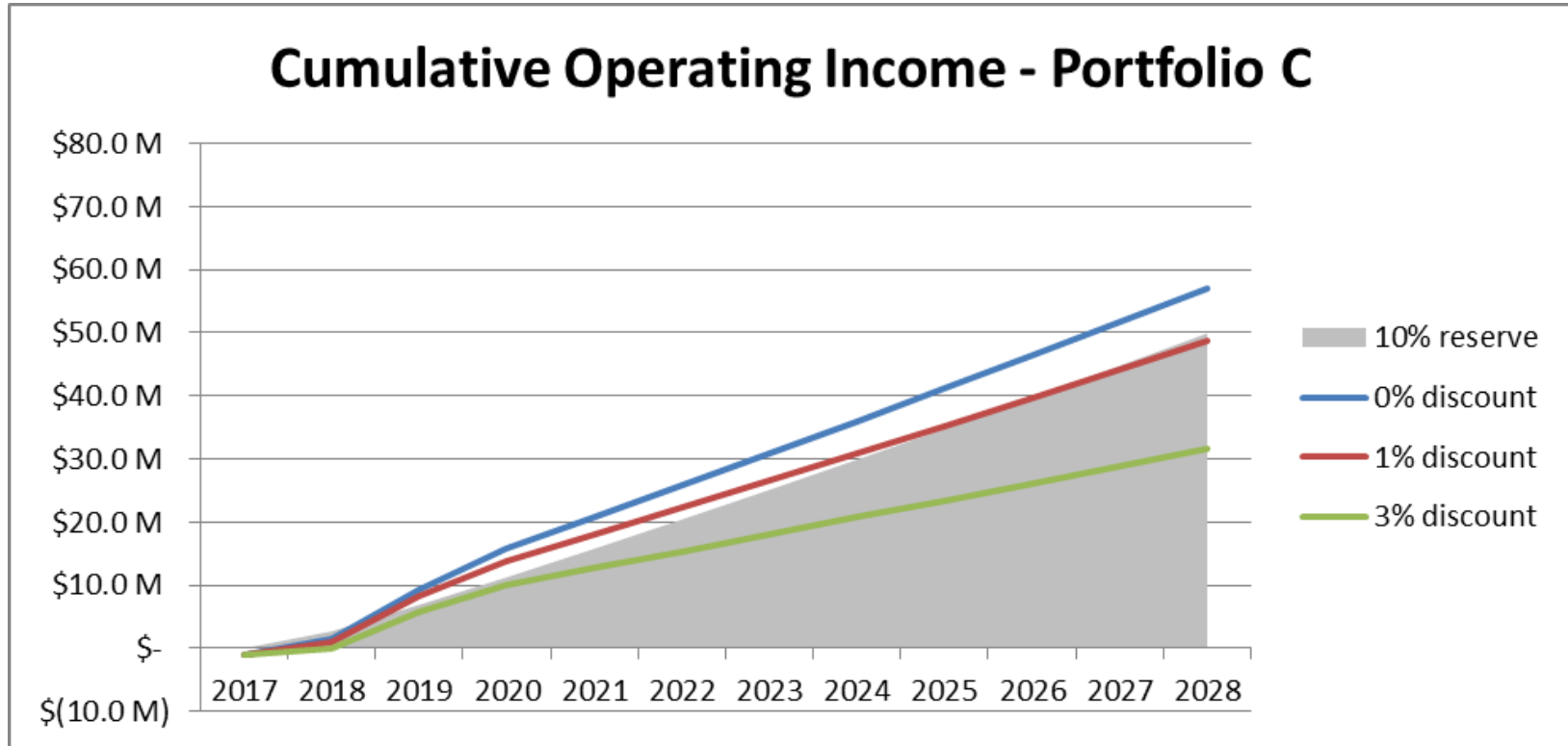
# Financials – Portfolio A



# Financials – Portfolio B



# Financials – Portfolio C



# Notes

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- Local control of tradeoffs is a key reason for CCA existence.
- Building up a larger reserve quickly will provide flexibility in implementing future programs, and buffer against legislative and regulatory risks.

# Discussion and Next Steps

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- Desired Portfolio and Rates – CAC discussion
- Next Steps:
  - Present to VCEA Board
  - Continue to refine model
    - Improved load forecast
    - Potential contract prices
    - Updated breakdown of rate classes