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Valley Clean Energy Board Meeting – July 11, 2024

Item 14 – 2024 Summer Preparedness



PUBLIC COMMENTS

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CAISO and VCE Summer Readiness

- Present summer weather outlooks suggest hotter forecast than 2023
 - Generally average to above average temperatures
- CAISO reports a surplus of 2.5 GW above forecasted 2024 peak summer needs
 - Surplus includes estimates of imports from other states
- VCE is over 100% hedged on average for Summer 2024
 - Fully compliant with Wholesale Energy Procurement Risk Management Policy hedging requirements for the summer (80% to 130% in Q3, at least 100% in Heavy Load Hours, meet hedging procurement requirements by June 15th)
 - Currently considering a “final layer” of Q3 energy hedge procurement
- VCE commercially agreed on all RA procurement for Q3 to reach 100% compliance
- VCE has multiple years of summer operating history, including both challenging and relatively mild summers, to inform decisions
- TEA currently running a drill on its “Volatile Incoming Pricing Event Response” process to ensure alignment between TEA and VCE on CAISO market operations and reporting in the case of a summer heat event

July Short-Term Weather Forecast

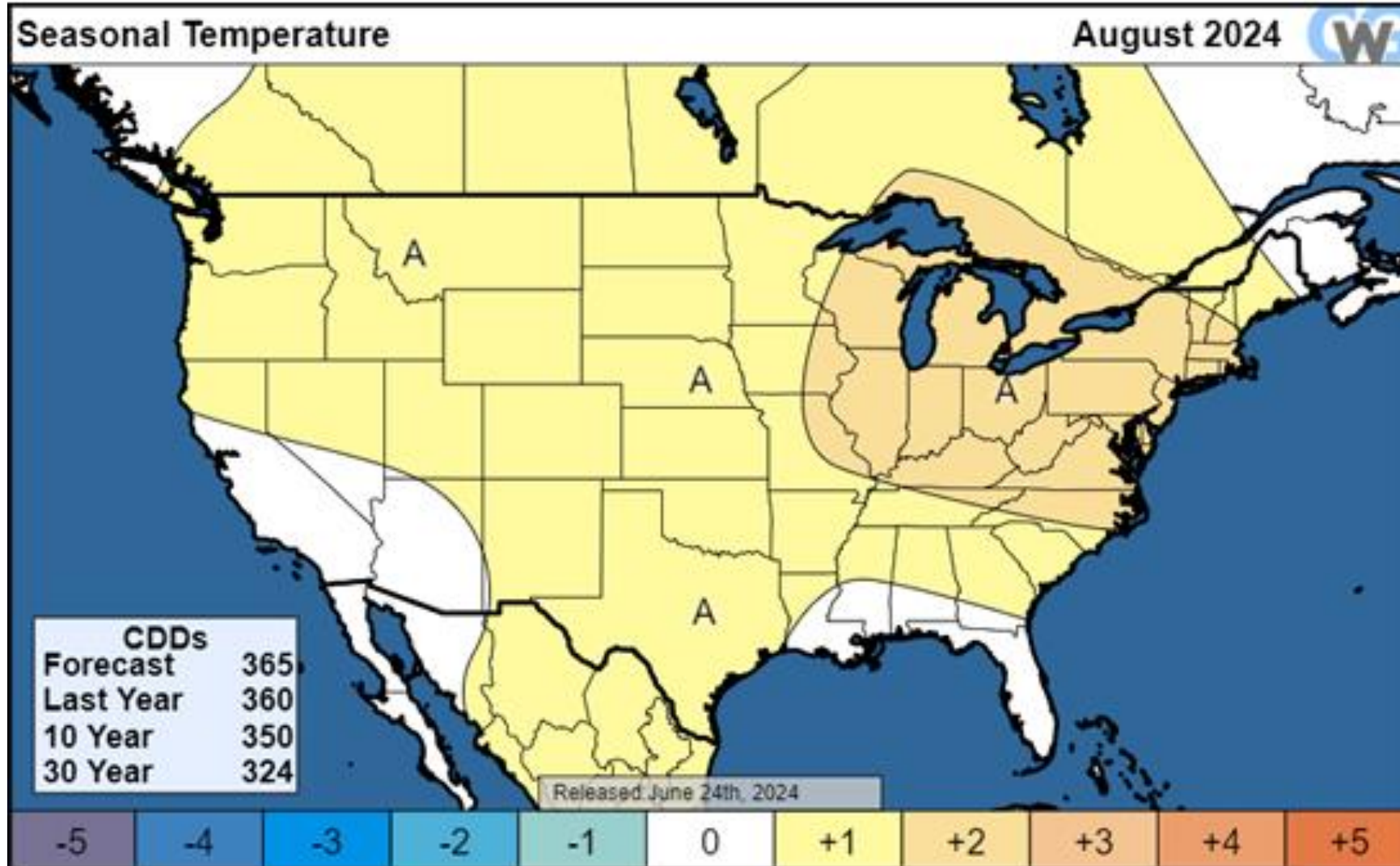
Forecast last updated: Mon, Jul 08

	Chart	Latest Hour	So Far	Mon 07-08	Tue 07-09	Wed 07-10	Thu 07-11	Fri 07-12	Sat 07-13	Sun 07-14	Mon 07-15	Tue 07-16	Wed 07-17	Thu 07-18	Fri 07-19	Sat 07-20	Sun 07-21	Mon 07-22
KSEA		84	67/84	64 93	63 93	60 88	60 83	57 83	56 85	58 86	59 85	59 84	59 84	60 84	60 86	59 82	61 86	60 85
KPDX		84	67/84	65 101	65 101	63 92	63 88	60 89	59 89	60 90	63 91	63 88	63 89	62 90	63 91	62 89	64 92	63 92
KSAC		82	62/82	63 99	60 97	59 105	64 107	64 100	64 98	59 89	58 95	55 93	56 93	56 92	57 93	58 94	60 96	60 98
KBUR		80	64/80	63 89	66 95	71 96	71 96	70 94	68 92	66 89	67 90	63 85	63 85	63 84	63 86	64 86	66 89	67 90
KLAS		107	89/107	92 114	88 118	89 118	91 119	90 116	89 115	88 110	87 110	87 111	88 110	87 110	88 110	87 109	88 110	88 112
KPHX		106	91/106	89 116	89 116	91 117	91 116	92 116	93 113	93 108	91 109	92 110	91 110	90 110	90 111	90 111	91 111	92 113
KDEN		74	53/74	52 82	56 90	57 91	61 96	66 100	67 100	67 100	68 99	63 90	61 89	61 92	62 93	65 97	63 96	63 97
KSLC		86	65/86	66 93	66 98	68 101	70 103	72 103	74 103	79 102	78 101	74 101	73 101	74 101	74 102	75 101	76 102	77 102
KBOI		91	65/91	66 100	65 102	69 107	70 105	68 105	72 107	74 105	73 105	72 105	69 105	71 105	72 106	72 105	75 108	76 108
KABQ		74	66/76	67 84	62 90	65 92	66 93	68 95	69 95	70 96	71 97	70 95	69 95	69 93	68 92	67 92	67 91	68 92
T(°F)				-15	-8	-5	-3		0	3	5	8	15					

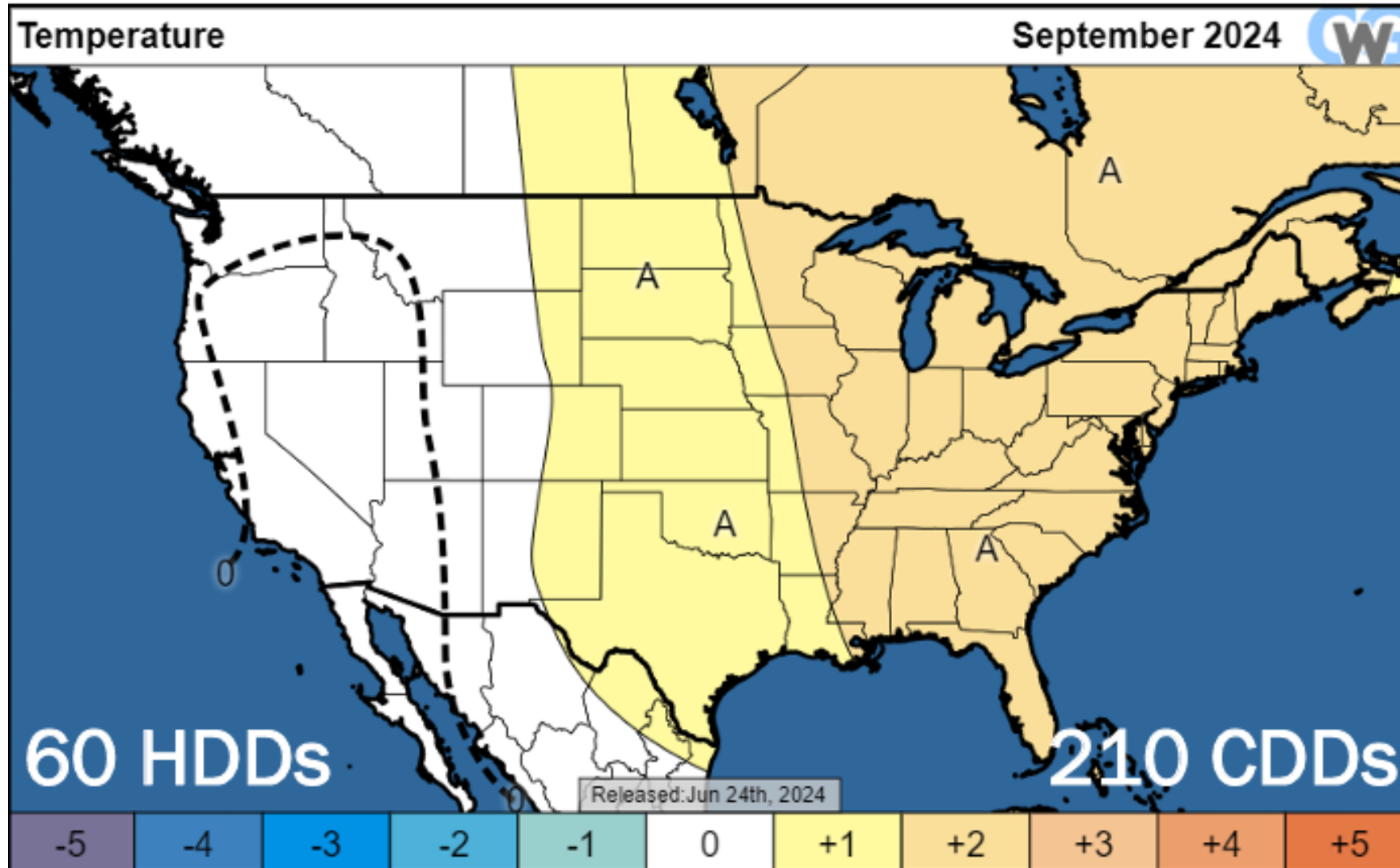
Bold values indicate record forecasts

- We had expected some July heat, and the early part of the month lived up to it
- Sacramento area expected to cool off somewhat in the middle of the month

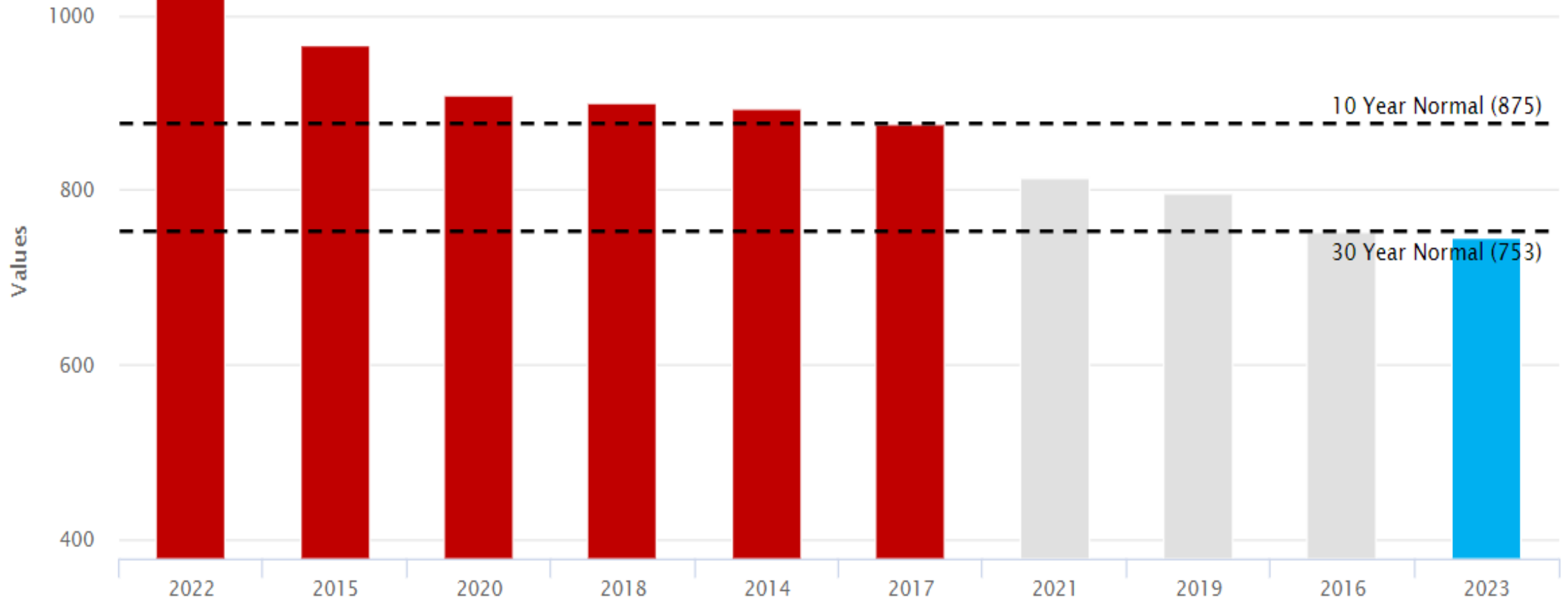
August Weather Forecast



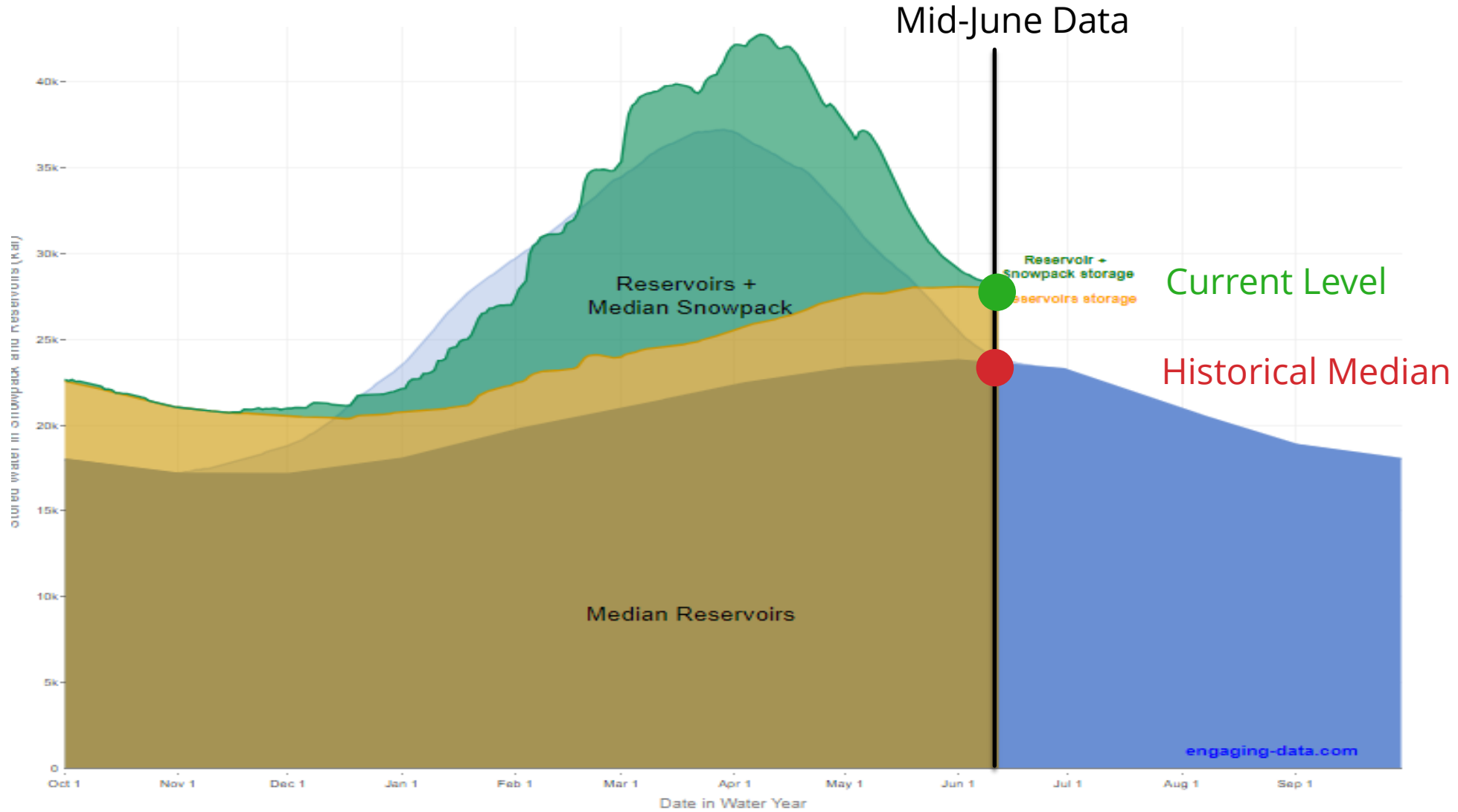
September Weather Forecast



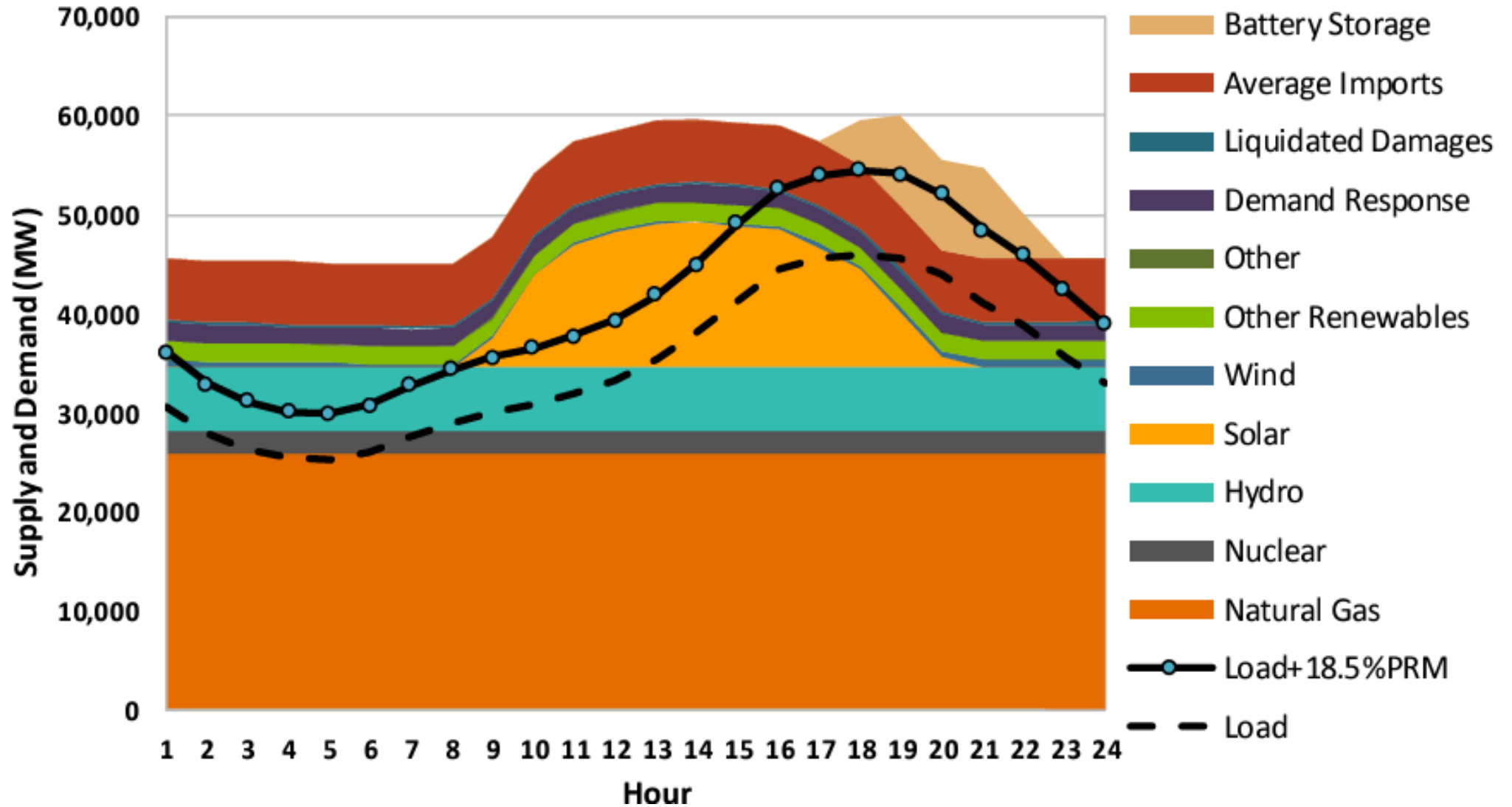
Q3 CAISO Historical Population Weighted CDDs



California Seasonal Water Storage

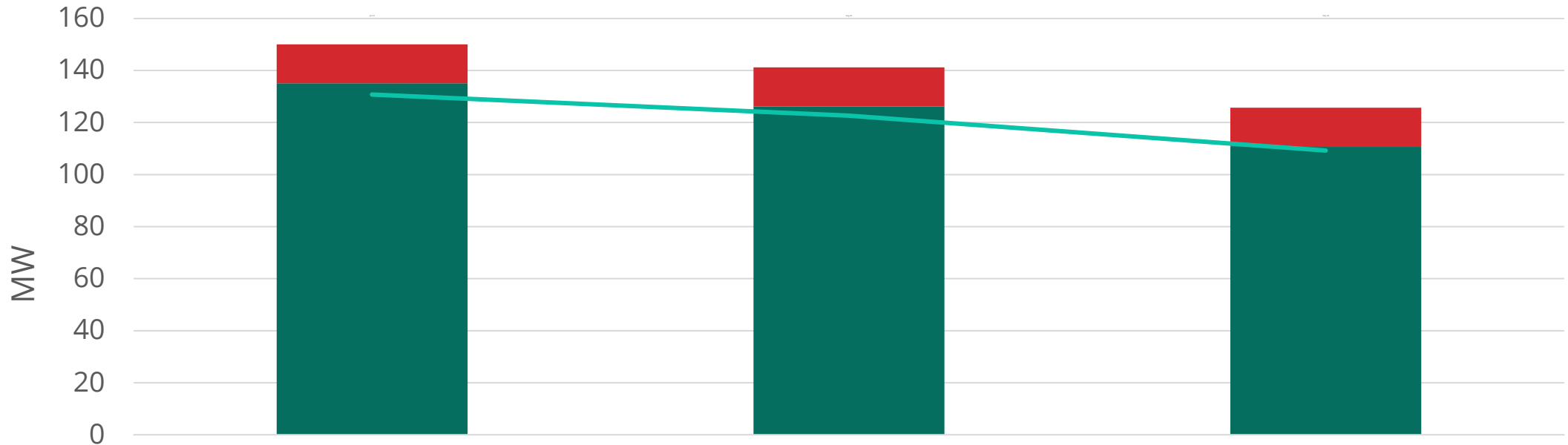


CAISO 2024 September Peak Analysis



VCE Summer Energy Position

VCE Monthly Energy Position (Total HLH)



	Jul-24	Aug-24	Sep-24
HLH Hedge	15	15	15
HLH PPA	135	126	111
HLH Load	131	123	109
HLH % Hedged	115%	115%	115%



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Item 15 – Renewable Energy Credit Optimization



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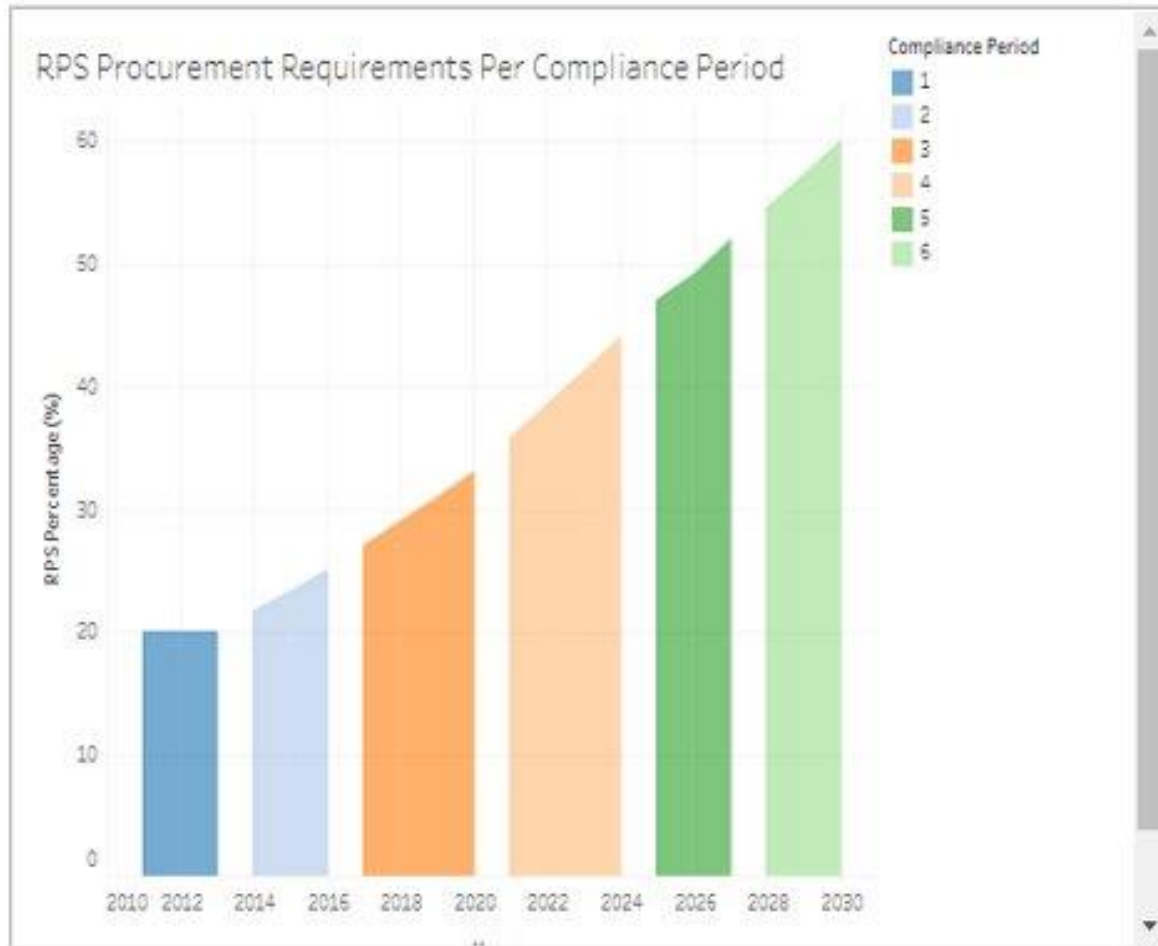
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WHAT IS THE RENEWABLE PORTFOLIO STANDARD?

- 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 eligible renewable fuel types: wind, solar, biomass, small hydro ($\leq 20\text{MW}$), 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/CPX”
- It is currently Compliance Period 4 (CP4), which goes from 2021-2024.
 - VCE’s total RPS requirement during CP4 is ~40% of its retail load
- Targets increase over time, and compliance periods shorten to three years starting in 2025 (CP5)
 - VCE’s total RPS requirement during CP5 is ~50% of its retail load

*VCE's 2025 Linear RPS Requirement is 47%

PCC & CONTRACTING REQUIREMENTS IN THE RPS

- 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)
- Beginning in Compliance Period 4, as a percentage of VCE’s RPS requirement:
 - 75% of RECs used must be from PCC 1
 - 65% of RECs used must be from contracts that are at least 10 years in duration (Long-Term)
 - No more than 10% of RECs used can be from PCC 3

ENVIRONMENTAL ACCOUNTING CONSIDERATIONS

- VCE has long-term offtake contracts for large volumes of renewable energy resources inside California
- These resources will continue to produce and be associated with VCE's portfolio for the life of its offtake contracts
- Selling surplus attributes from these projects to other parties helps them meet their environmental goals while VCE gains greater financial security
- Overall emissions in California are unchanged, VCE simply can not "count" the attributes it sells any longer in compliance filings – the buyer is paying for that right thus the buyer would reflect the RECs on their power content label (PCL)

REC PRICING

Portfolio Content Category	2018 Average Price	2023 Average Price	2024 Forward Price	2025 Forward Price
PCC 1	\$16.50/REC	\$52.00/REC	\$73.00/REC	\$83.00/REC
PCC 2	\$6.50/REC	\$38.00/REC	\$67.00/REC	\$70.00/REC
PCC 3	\$1.50/REC	\$7.00/REC	\$7.00/REC	\$8.00/REC

- REC prices have risen substantially since VCE's launch
- All types display upward trends with PCC 1 and PCC 2 exhibiting the greatest year-over-year increases
- The penalty for any shortfall is \$50/REC for each "missing" REC
- 2025 PCC 1 bids observed in \$80-85 range presently

2025 OPTIMIZATION

- VCE's renewable project offtake provides attributes well above its needs for compliance
- Examples:
 - Option A: VCE maintains compliance with Linear RPS Compliance of 47% in 2025
 - Sell 160,000 PCC 1 RECs at \$83.00/REC = \$13.28MM in portfolio optimization
 - Option B: VCE targets RPS percentage of 53% in 2025
 - Sell 120,000 PCC 1 RECs at \$83.00/REC = \$9.96MM in portfolio optimization
 - Option C: VCE does not sell any length in 2025
 - 2025 RPS Compliance will be ~70-80%

*Above examples have built in "buffers" for potential resource outages, curtailment, and higher than expected load.

*Above examples are for illustrative purposes and not meant to represent the only options available.

CONCLUSION

- Staff believes it is prudent to optimize VCE's portfolio by selling length without jeopardizing state compliance, VCE's Base Green & Standard Green rates, or VCE's long-term goals (100% renewable by 2030)
- Staff believes actions similar to Options A and B should generally be used as:
 1. The power cost reduction from the length sale is material and will be used to fund other procurement needs in VCE's portfolio
 2. VCE has ample remaining attributes to meet or exceed state RPS compliance consistent with Board direction

Note: VCE's Base Green is 0-5% above compliance and Standard Green rate is 5% above Base Green