



SVCE Long-term Clean Targets

SVCE Executive Committee
October 25, 2024



What we will discuss today

Background: September Board Discussion Recap

Potential Targets:

- **Annual**
- **Monthly (new)**
- **Hourly**
- **CFE**
- **PPA Metric (new)**

Other Considerations

Staff Recommendations for Board Consideration



Key Planning and Policy Questions

What should SVCE's Clean and RPS target be for 2030, 2035, 2040, 2045?

Should we set an Annual, Hourly and/or Other Clean target?

How to balance long-term vs. short-term contracts?

Should SVCE have an additionality requirement (i.e., only new build)?

How much should SVCE rely on hydro and nuclear (market & allocations)?

How much “room” to leave for CPE and emerging technologies?

What is the role of virtual power plants and distributed energy resources in meeting targets?

Should we pursue local generation?

Given overall targets, what should customer product offerings look like?



September Board Recap and New Considerations

Board Meeting:

- Presented E3 findings including build, rate impact, and cost of achieving 24/7 carbon-free portfolio
- Discussed uncertainty due to market conditions, load and regulatory risk (esp. allocations from PG&E and CPE)
- Overall support for not adopting 24/7 given the risk, however desire to go beyond 100% clean on an annual basis

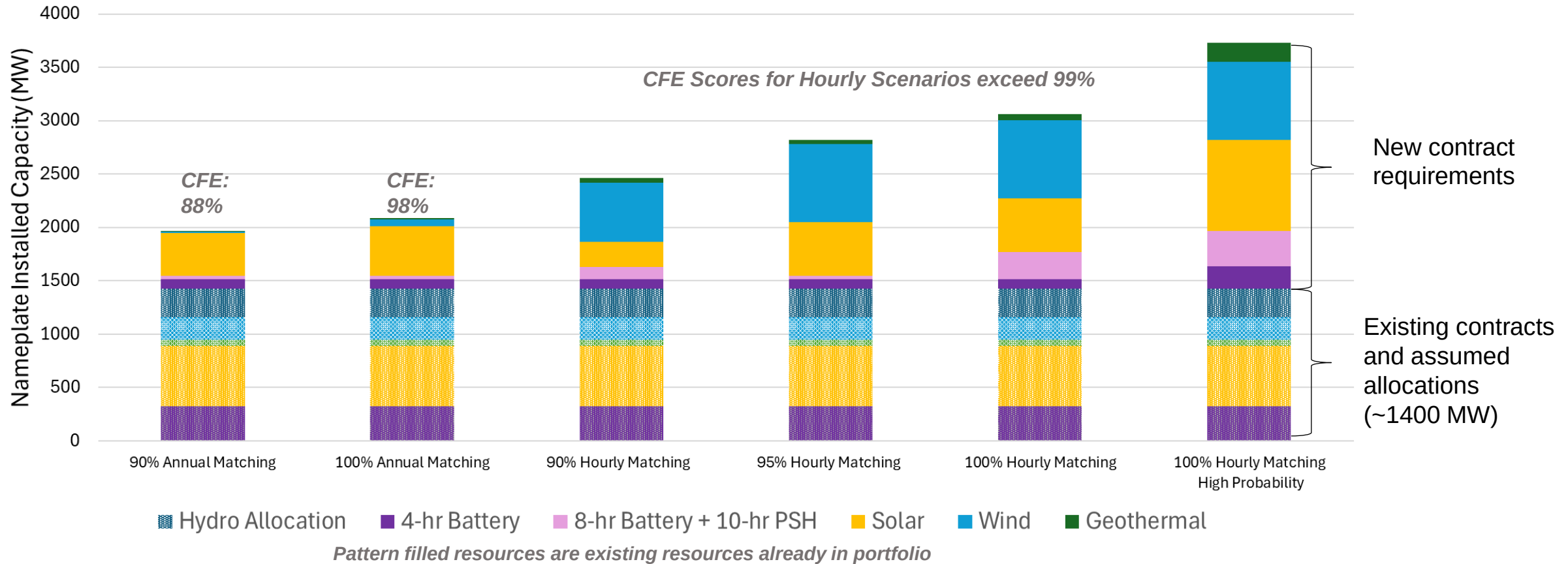
Post-meeting Additions:

- Staff assessed adding a monthly clean target and/or including a greenhouse gas (GHG) reducing metric in making portfolio decisions
- Clarification on definition of clean to align with the state's definition including line losses
- Inclusion of uncertainty bands



Capacity Additions to Meet Various Clean Targets

Installed Capacity for Select Scenarios - 2035

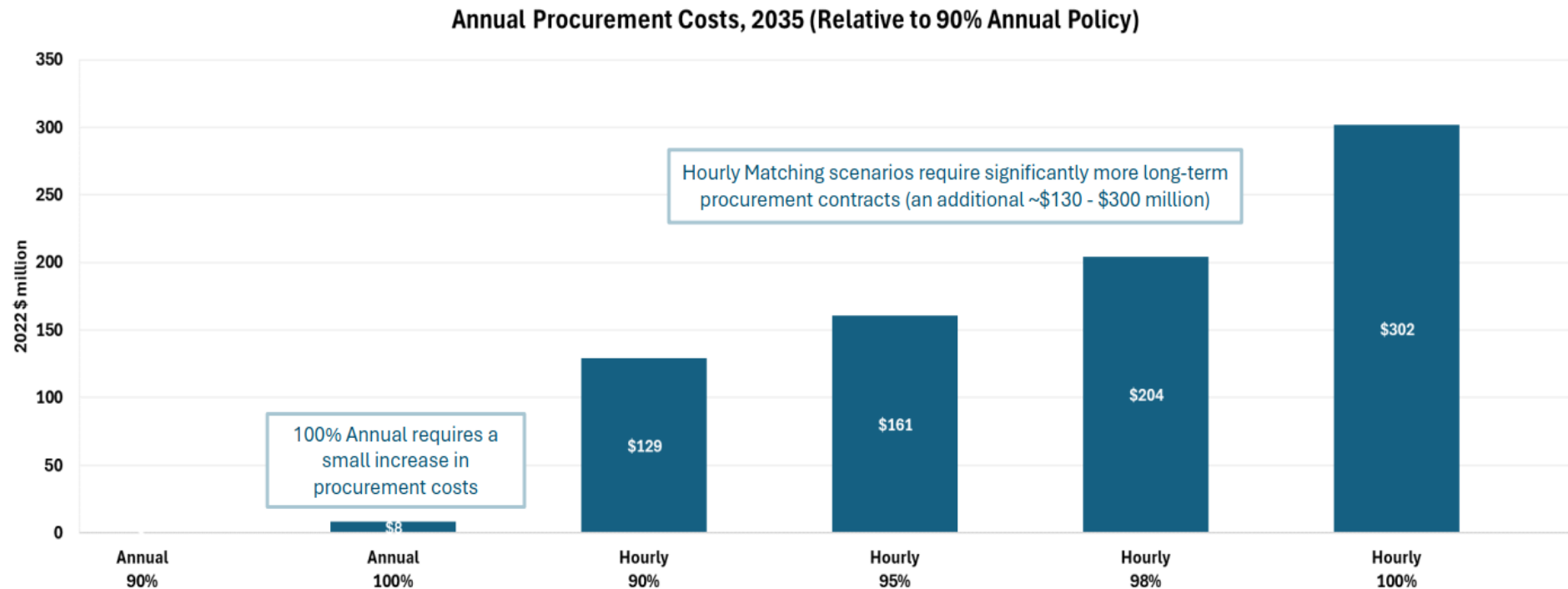


- 100% hourly matching requires 2,300 MW of new capacity by 2035 vs. 664 MW in 100% annual case
- High probability of hourly matching vs. expected hourly matching increases need 15-20%
- Wind resources are a significant contributor to hourly matching



Cost and Risk Summary

Modelled annual procurement costs increase \$300M under a 100% hourly matching scenario

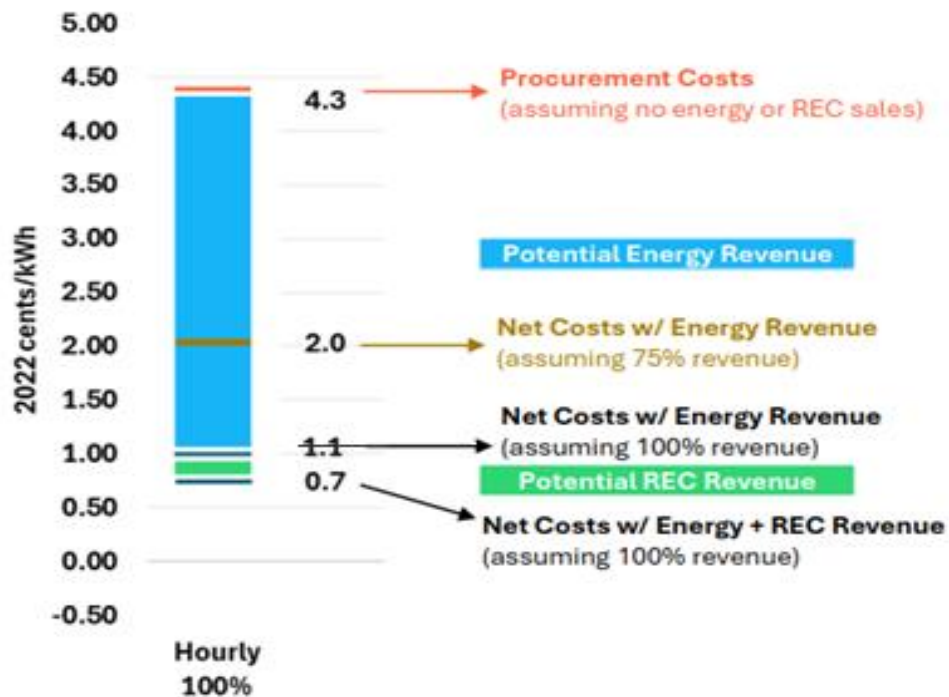


- Costs may be largely offset by revenues but there is significant market risk
- More over-procurement = more portfolio risk



Net Procurement Costs for 100% Hourly Case

Results suggest procurement costs *may* largely be offset by market revenues based on model assumptions. However, These results are highly uncertain and dependent on market conditions.



Expected Cost: 4.3 cents/kWh (\$43/MWh).

Expected Offsetting revenue: 3.6 cents/kWh (\$36/MWh)

Net costs 0.7 cents/kWh or \$7 MWh

Analysis assumes SVCE is a price-taker and market prices are based on 2024 Preferred System Plan; assumes market participants will not exceed SB100 requirements.



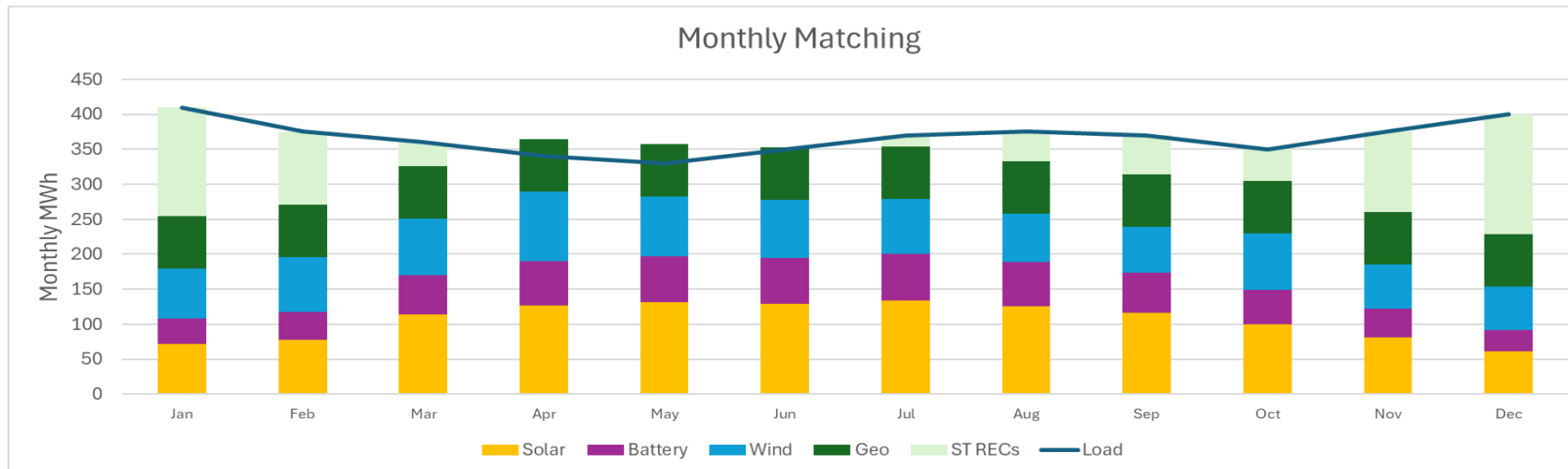
Previously Presented Merits of Clean Options

	Minimum Compliance	Annual (90 to 100%)	Hourly – 24x7	CFE
2035 Target	90% annual	90 to 100%	100%	90%+
Clean GHG reduction		 	  	 
Reliable Meets RA				
Affordable Rate Impact	\$	\$ \$	\$ \$ \$	\$ \$
Comments	Higher compliance risk (no built-in excess)	- Current SVCE policy - Short-term challenges - Aligns with SB100	- Hard to set achievable target - Risk of stranded assets due to over procurement	Incents putting resources in “dirtier” hours without islanding the LSE



New Option: Monthly

- What: Achieve 100% clean on a monthly basis (vs. annual)
- How: Purchase monthly Short-term renewable energy credits (RECs) and/or carbon-free to fill gaps in long-term portfolio.
- Why: Closer to 24x7 than annual requirement.
- Why Not: Emissions follows a daily pattern; limited seasonal benefits. Seasonal patterns for LT resources creates difficult to fill (or sell) open positions. Likely expensive given resource availability.



***Not recommended as
part of Clean Targets.***



New Option: PPA GHG Metric

- What: Evaluate each long-term PPA for emissions impact on SVCE portfolio
- How: Estimate SVCE emissions and system-wide reduction in gas dispatch for each project. Exact details to be determined.
- Why: Ensures SVCE’s long-term portfolio and impact on grid dispatch minimize GHG emissions without “islanding” SVCE.
- Why Not: Shifts focus away from solely economic/ risk evaluation. Forecast emissions may be inaccurate.

SVCE CEO already has the authority to establish evaluation metrics and has considered GHG in previous evaluations. Recommend that we monitor and report as part of Clean Targets.

SVCE Example Results: With and without wind project:

CO ₂	Unit	2030	2035
Total	MMt/yr	0.36	0.21
Average emissions intensity	tCO ₂ /MWh	0.094	0.053

CO ₂	Unit	2030	2035
Total	MMt/yr	0.32	0.18
Average emissions intensity	tCO ₂ /MWh	0.084	0.044



How would we measure clean hours

By including GHG-emissions in evaluation efforts, SVCE will increase value of resources which emit in “dirtier” hours, thereby improving its hourly clean outlook.

- Starting in 2028 SVCE will begin reporting hourly emissions as part of SB 1158.
- Hourly emissions can be calculated based on:
 - Carbon Free Energy Score
 - Whether SVCE’s clean portfolio met its demand in a given hour
 - How much of SVCE’s clean portfolio met its demand in a given hour
- CFE calculation includes emissions which are out of SVCE’s control (CAISO dispatches gas plants and therefore emissions as needed).
- Staff therefore recommends using Portfolio Specific data to report to the board:
 - How many hours SVCE was 100% clean
 - Heat map of how much SVCE is covering its hourly demand with its clean portfolio

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	73%	75%	75%	72%	68%	72%	74%	87%	93%	93%	95%	96%	96%	97%	94%	93%	82%	66%	65%	65%	65%	68%	71%	72%
2	75%	77%	77%	77%	73%	72%	76%	89%	93%	93%	95%	95%	97%	97%	96%	97%	93%	70%	67%	66%	66%	69%	72%	74%
3	91%	91%	91%	91%	87%	80%	93%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	83%	74%	75%	81%	87%	90%	90%
4	92%	94%	96%	95%	92%	90%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	92%	82%	83%	89%	91%	91%	92%
5	95%	95%	96%	95%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	87%	87%	92%	95%	95%	95%
6	90%	93%	94%	93%	90%	97%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	97%	87%	86%	90%	90%	90%	90%
7	74%	77%	79%	78%	77%	84%	94%	99%	100%	100%	100%	100%	100%	100%	100%	99%	97%	89%	79%	79%	80%	76%	72%	74%
8	66%	69%	71%	69%	66%	76%	88%	93%	97%	98%	99%	99%	99%	98%	98%	96%	92%	79%	73%	74%	72%	66%	65%	66%
9	63%	66%	66%	65%	62%	66%	83%	92%	98%	100%	100%	99%	100%	99%	98%	95%	85%	73%	72%	72%	69%	66%	66%	66%
10	79%	81%	82%	81%	77%	74%	90%	94%	99%	100%	100%	100%	100%	100%	100%	99%	82%	70%	69%	68%	70%	72%	74%	77%
11	67%	70%	74%	73%	74%	73%	80%	94%	98%	100%	100%	100%	100%	100%	99%	92%	65%	64%	64%	64%	64%	65%	66%	68%
12	64%	65%	66%	65%	66%	67%	69%	82%	82%	89%	92%	93%	93%	93%	91%	81%	66%	63%	62%	61%	62%	62%	63%	64%

**Hours clean:
3,579 (41%)**



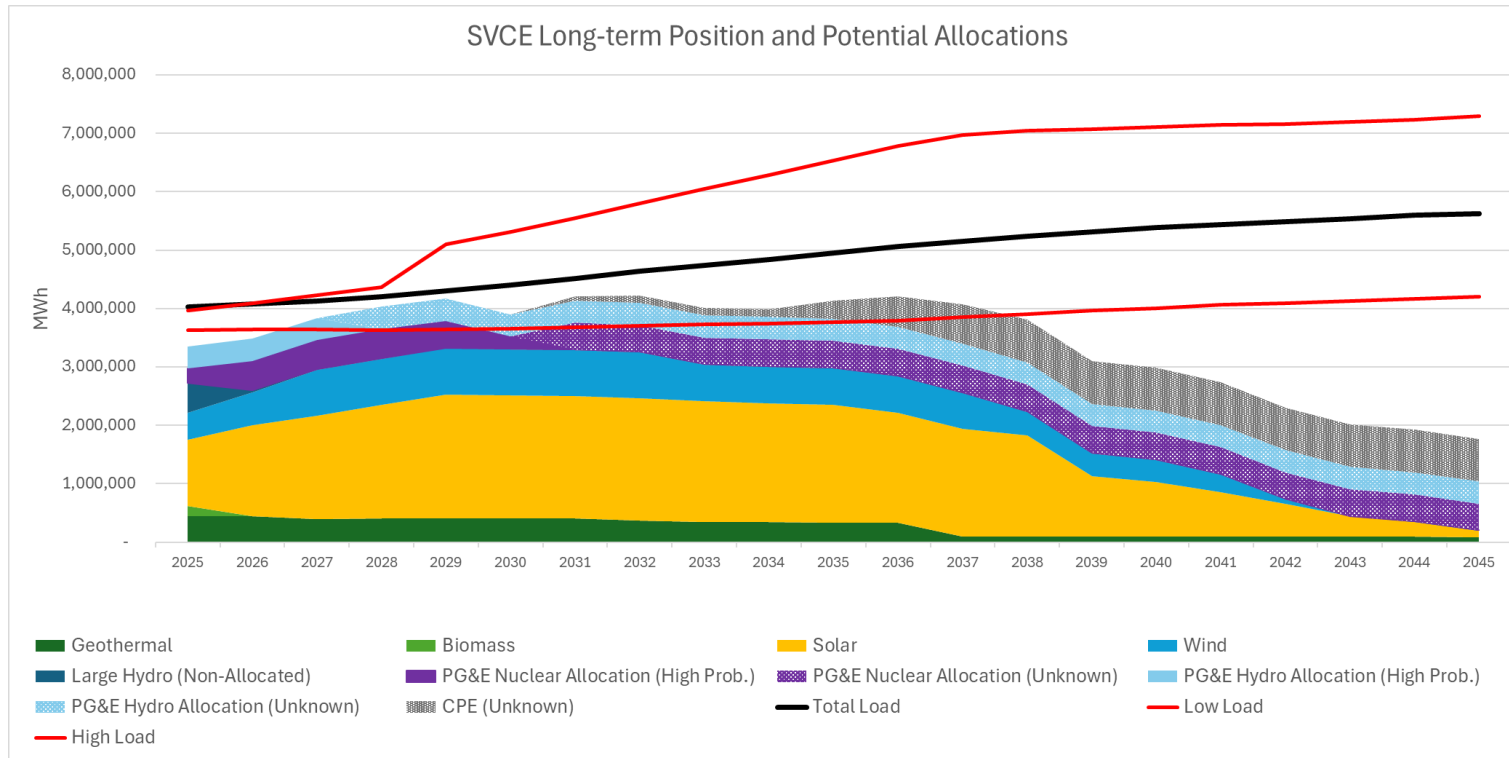
Defining 100% Clean

- Eligible Resources – new and existing:
 - All Renewable Portfolio Standard (RPS) eligible resources. Note “buckets” for Power Content Categories (“PCC”), may change beyond 2030. In such a case staff will return to board to seek guidance
 - Carbon-free Large Hydro
 - Carbon-free Nuclear
- Line Losses
 - SVCE has historically bought to cover “line losses” – the energy lost over transmission and distribution lines as it is transmitted from the generation facility to the customer.
 - Compliance obligations are historical on “retail sales” and therefore ignore line losses (SB100), however increasingly line losses are being considered.
 - Historically losses has been assumed to be 6% but new regulations have created additional volatility in its value.



Long-term Portfolio Uncertainty

SVCE has uncertainties on both the supply and demand side.



- **Significant allocation uncertainty**
- **May need room for additional procurement orders (not shown)**
- **“Laddering” strategy requires room for short-term contracts**
- **Supply constraints expected to increase until new clean capacity comes on-line**
- **Setting a single target is difficult to achieve.**



Managing Uncertainty

Staff needs flexibility in managing such uncertainty.

Renewable Portfolio Standard (RPS) & Overall Clean Target (RPS plus Carbon Free) as a percent of Retail Sales

Year	Compliance Req.(a) per SB 100	SVCE Proposed Target (b)	Amount Above Compliance (a – b)	Proposed Uncertainty Band below Clean Target	SVCE minimum clean position
2030	60% RPS N/A Clean	75% RPS 106% Clean	15% 46%	10%	65% RPS 96% Clean
2035	60% RPS 90% Clean	100% RPS 106% Clean	40% 16%	10%	90% RPS 96% Clean
2040	60% RPS 95% Clean	100% RPS 106% Clean	40% 11%	10%	90% RPS 96%Clean
2045	60% RPS 100% Clean	100% RPS 106% Clean	40% 6%	6%	90% RPS 96% Clean



Staff Recommendation for Board Approval

Establish the following Clean targets for SVCE (as a % of retail sales):

- 2030-2034: 75% RPS/ 106% Clean measured annually
- 2035-2045: New Target 100% RPS/106% Clean measured annually
- Allow for 10% margin of error on targets to help manage risk. If expected shortfall exceeds 10% staff would return to the board for additional guidance.

Additionally:

- Direct staff to include GHG emissions impact as part of PPA evaluation process.
- Direct staff to report on an annual basis the number of clean hours each year.
- Define clean to align with state definition of clean under SB100 which as of now includes the following resources: RPS eligible resources*, nuclear and large hydro.

*RPS eligible resources, or at least “buckets” for Power Content Categories (“PCC”), may change. In such a case staff will return to board to seek guidance on what RPS resources it should procure.

SVCE Participation in CPUC Hourly Flex Pricing Pilot

SVCE Executive Committee Meeting
October 2024



Purpose of Presentation

Purpose: ask the Executive Committee to recommend that the Board approve SVCE's participation in the California Public Utilities Commission's (CPUC) Hourly Flex Pricing (HFP) pilot

Key Info:

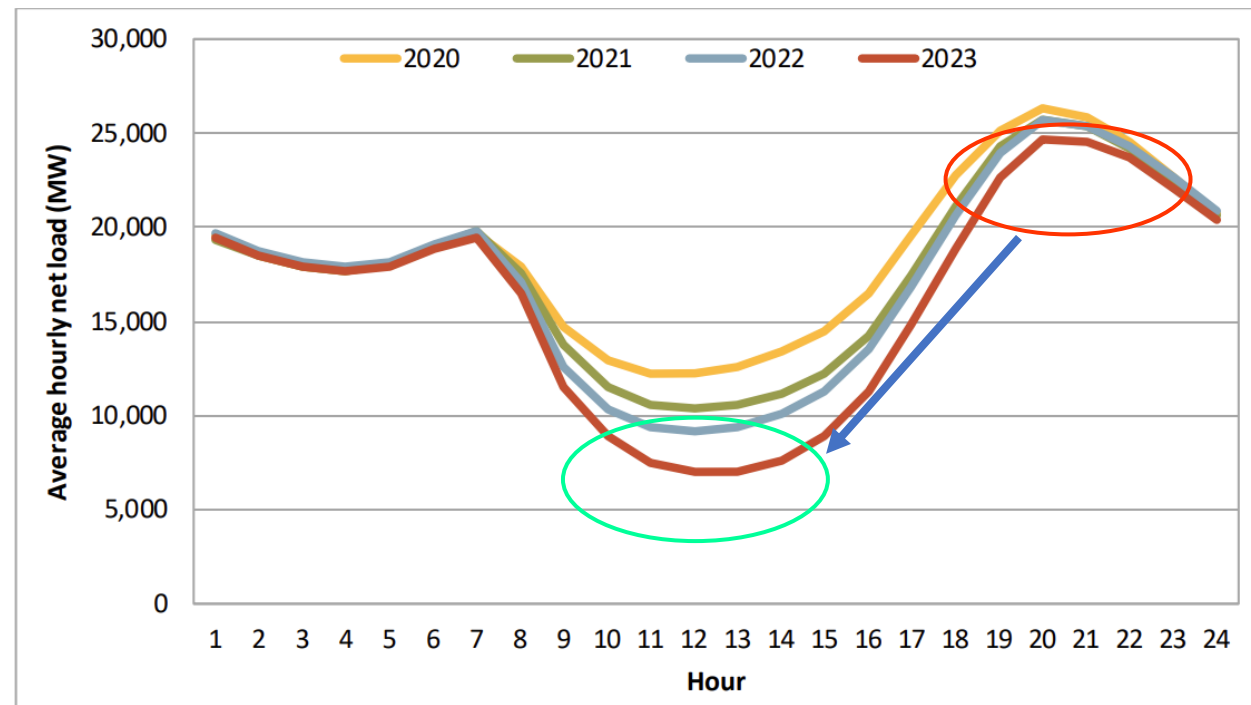
- HFP pilot is CPUC-designed and PG&E-administered 3-year pilot
- Participation will benefit customers, help SVCE and regulators learn more about hourly rate implementation, and supports Load Management Standard (LMS) compliance
- Approval lets staff roll out HFP pilot, take any contracting/implementation actions needed
- If SVCE does not participate, then SVCE customers interested in enrolling in the CPUC pilot would need to opt-out of SVCE to participate



SVCE & California regulators (CPUC and CEC) increasingly focused on shifting usage out of costly & dirty hours of the day

- CEC introduced Load Management Standards to push widespread demand flexibility
- Interest in stronger and more granular signals than Time of Use
- Push usage *into* cleanest hours
- This push supports SVCE and customer interests in lowering costs, cleaner grid

CAISO hourly average net load





HFP Pilot Relationship to SVCE LMS Plan

Reminder: in March 2024, SVCE Board adopted SVCE's first Load Management Standards Compliance Plan

- Load Management Standards (LMS) regulations require load serving entities to file a plan to the California Energy Commission (CEC)
- SVCE's plan explored rates and programs to meet LMS goals and described SVCE's intent to participate in HFP pilot
- **Approval of HFP participation helps SVCE execute on contents of plan and therefore meet LMS obligations**



Customers Eligible for HFP Pilots

HFP pilots each focus on shifting usage for certain customer segments. They all share the same CPUC-directed hourly pricing incentive structure.

	Applicable Classes	Eligible Rates
	Agricultural	AG-A1, AG-A2, AG-B, and AG-C
	Commercial and Residential	E-ELEC, EV2-A B-6, B-10, B-19, and B-20
	Residential and Commercial Bi-Directional	EV2-A, E-ELEC, B-6, B-10, B-19, and B-20
	Business EV	BEV-1 and BEV-2



Pilot Adds to SVCE's Growing Portfolio of Demand Flexibility Efforts

Demand flexibility helps SVCE **better match its demand to supply.**

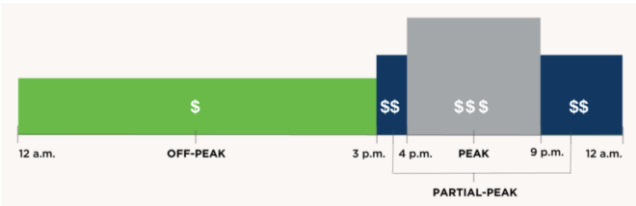
Key to unlocking cleaner and cheaper future grid.

SVCE's Lights On Silicon Valley Program



Solar and battery to shift out of peak daily

SVCE's Electric Homes Rate (E-ELEC)



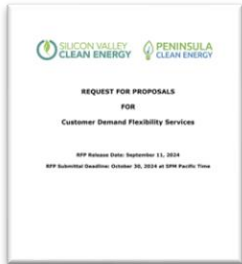
Additional differentiation on TOU periods

SVCE's GridShift Program



Managed app; now piloting hourly price signal

Request for Proposals for Comprehensive Demand Flex



Out now – looking for customer demand flexibility services



How is the Pilot Structured?

Customers still get their normal monthly bill, savings earned are trued up annually



The pilot is **not a new rate** that will be charged to customers. It is an hourly incentive mechanism separate from regular bill a customer pays.



Hourly price is applied to change in load from customer's previous year baseline. Customer receives an informational-only performance report every month.



How can customers save? *Reduce* load from baseline during high hourly price hours (peak) **and** *increase* load from baseline during low hourly price hours (off-peak)



After 12 months, performance reports are trued up & net savings are credited. Bill protection: net total recorded charges & credits will never result in more than regular bill.



Depends on scale of uptake and response to prices

Impacts to SVCE -

- SVCE covers the cost of customer savings (i.e., annual true-up credits)
- No substantial budget impact – cost-neutral from a power supply perspective because customer savings are offset by power supply savings
- SVCE also eligible to receive CPUC-funded incentive based on amount of SVCE load enrolled

Impacts to SVCE Customers -

- Opportunity for performance incentive in the form of an annual credit, if customer shifts load
- Customer savings expected to be \$2MM but could range between \$200k and \$8MM depending on the level of customer opt-in rates, market prices, and changes in usage
- Bill protection, so no risk
- Can access CPUC-funded incentives: e.g., equipment costs



Significant Learnings and Value Expected from Participation

- Test effectiveness of hourly price signals
 - How big is the impact?
 - What is the role/value of automation?
- Test effectiveness of hourly incentive baseline approach with no punitive element
- See if customer and SVCE energy savings materialize
- Ensure customers interested in pilot stay with SVCE
 - If SVCE does not participate, then customers interested in enrolling in the pilot would need to opt-out of SVCE to participate



Actions Needed to Move Forward

Approval by Board will delegate to staff the ability to take next steps, continue to work with PG&E on launch and annual performance reconciliation

SVCE will need to:

- Enter into agreement with PG&E
- Submit an Advice Letter to the CPUC

Implementation details are being finalized, but SVCE may also need to:

- Adjust method for annual performance reconciliation
- Enter into implementation agreements with other vendors

SVCE has option to:

- Stop new customer enrollment at any time and can adjust, if needed

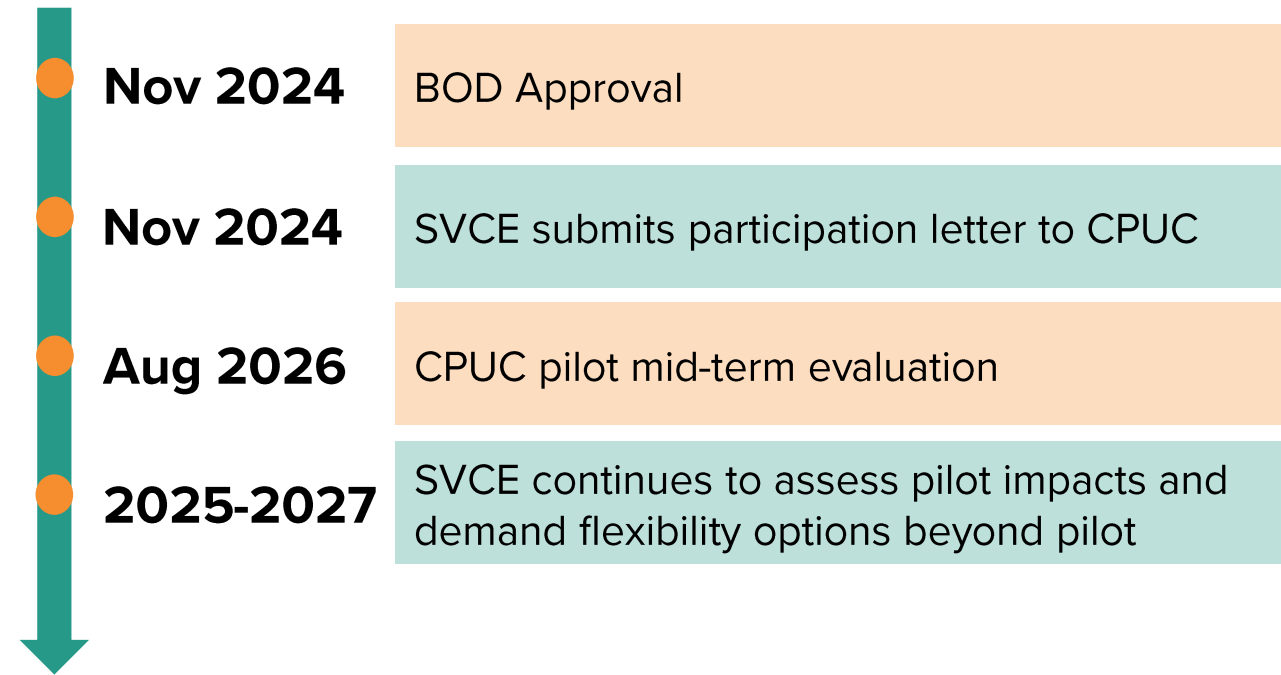
**PG&E soft launch
between October and
November; full
outreach in January
2025**



Concluding Thoughts + Request

HFP Pilot participation key for LMS compliance and SVCE's exploration of real-time pricing

Request: the EC recommend the Board of Directors approve SVCE's participation in the CPUC HFP pilot for eligible agricultural, residential, and commercial customers as aligned with PG&E's offers and with delegation to staff to effect implementation.



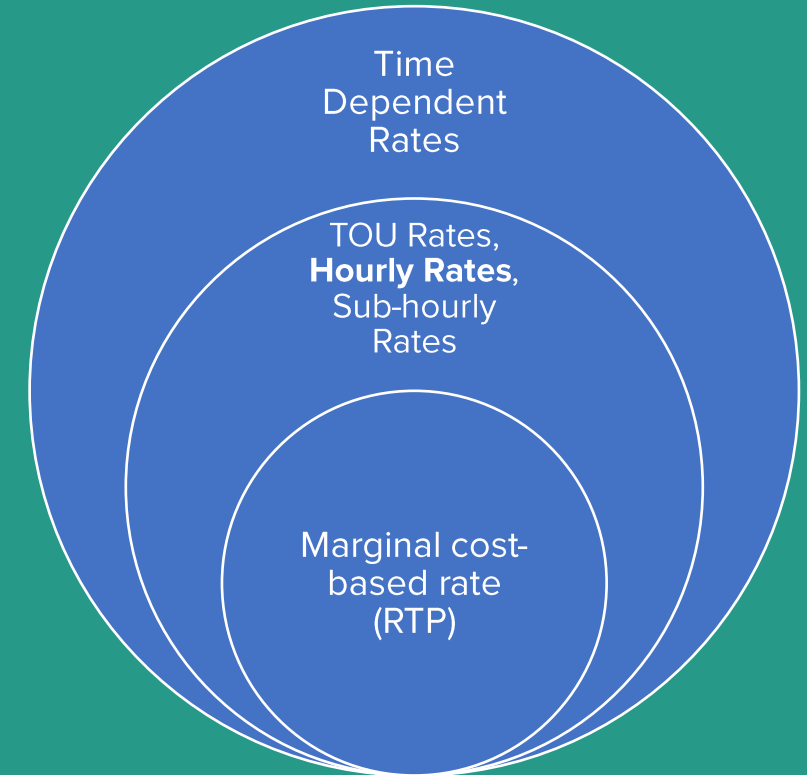
Appendix





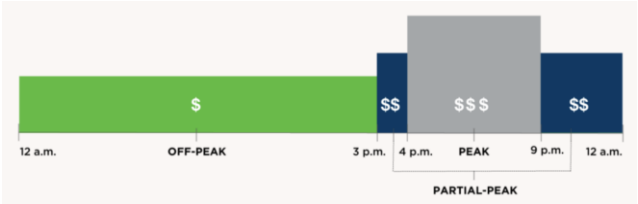
Promoting Demand Flexibility Through Hourly Pricing aka Real Time Pricing

- **Time-dependent rate** = a rate that can vary depending on the time of day to encourage off-peak electricity use and reductions in peak electricity use
- **Time-of-use (TOU) rate** = a rate with predefined prices that vary according to the time of day, the season and/or the day type (weekday, weekend)
- **Marginal cost-based rates (RTP)** = a rate that accounts for the marginal energy cost, the marginal capacity cost (generation, transmission, and distribution), and any other appropriate time and location dependent marginal costs, including the locational marginal cost of associated greenhouse emissions, on a time interval of no more than one hour Also called **dynamic rate/price** or **hourly rate/price**





Existing Demand Flexibility Programs/Rates

	SVCE's Lights On Silicon Valley Program	Helps customers install solar and battery systems that in addition to providing resiliency benefits are used to form an aggregation of batteries that can be controlled to benefit the grid reducing demand during system peak periods.
	SVCE's Electric Homes Rate (E-ELEC)	Increases the cost of energy that's used during peak periods by 10% relative to PG&E's generation charges, while providing a 30% discount to all energy that's used during off-peak periods.
	SVCE's GridShift Program	Provides an app that helps customers optimize their EV charging so that they're using electricity at the ideal time given pricing and grid conditions. The program is being expanded to pilot hourly signals.



Baseline Load & Customer Savings Formula

The Baseline calculation methodology is designed to reduce customer's monthly bill variability

Baseline Calculation

Step 1: Calculate the Scaling Factor

Avg delivered kWh in current month billing period ÷ Avg delivered kWh in same month of prior year = Scaling Factor

Step 2: Calculate 24-hour average delivered load of same month of prior year; weekdays & weekends are averaged separately.

Step 3: Calculate the hourly Baseline

Scaling Factor X hourly delivered kWh from prior year = hourly baseline load

Customer Savings Calculation

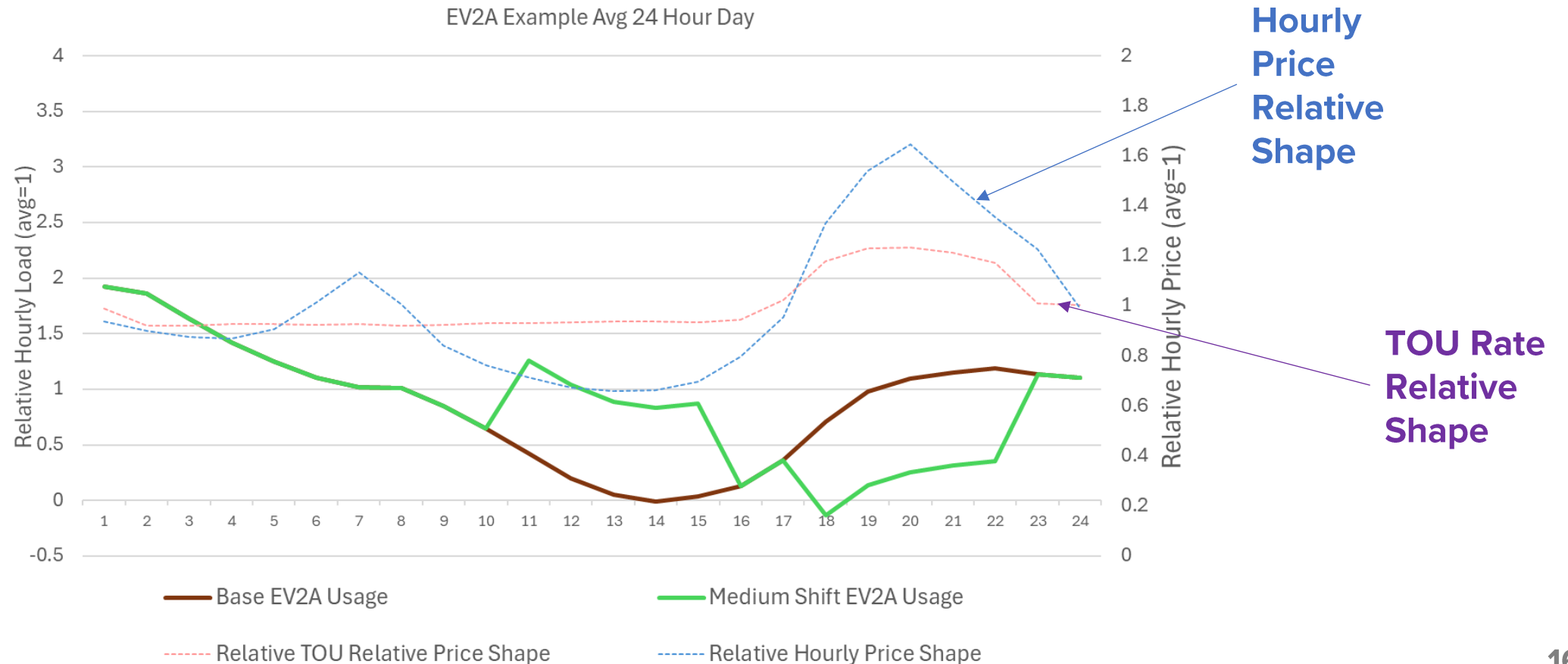
$(\text{Actual Usage} \times \text{TOU}) - ((\text{Baseline Load} \times \text{TOU}) + (\text{Actual Usage} - \text{Baseline load} \times \text{RTP}))$



Illustrative Example of Customer with Electric Vehicle Home Charging

EV2A Example Profile
to Illustrate Analysis:

Hourly kWh Change x Market Price at time





Savings Analysis Assumptions

Key assumptions used in tabulating possible range of savings

Rate Classes Modeled:

- Electric Vehicle Home Charging Rate
- Commercial and Industrial Customer Rates

Adoption Scenarios			
Rate	Low	Medium	High
EV2A	0.5%	4%	8%
B20S	5%	10%	15%
B20P	1%	8%	17%
B20T	1%	8%	17%

Shifting Scenarios			
Rate	Low	Medium	High
EV2A	27.3%	54.5%	81.8%
B20S	0.1%	0.8%	4.2%
B20T	0.2%	1.6%	8.2%
B20P	0.1%	0.9%	4.3%



EV and Industrial Customer Scenarios

Pilot Savings for Customers Over 32 Months* by Scenario Combination

*November 2024- June 2027

		Rate Class Adoption		
		Low	Medium	High
Per	EV2A	\$4,119	\$32,955	\$65,909
Customer	Medium	\$11,421	\$91,366	\$182,732
Change	High	\$22,373	\$178,983	\$357,966

		Rate Class Adoption		
		Low	Medium	High
Per	B20T	\$2,129	\$17,030	\$36,188
Customer	Medium	\$3,006	\$24,048	\$51,103
Change	High	\$6,905	\$55,243	\$117,391

		Rate Class Adoption		
		Low	Medium	High
Per	B20S	\$5,371	\$10,743	\$16,114
Customer	Medium	\$6,503	\$13,006	\$19,508
Change	High	\$11,532	\$23,063	\$34,595

		Rate Class Adoption		
		Low	Medium	High
Per	B20P	\$2,857	\$22,857	\$48,572
Customer	Medium	\$3,466	\$27,726	\$58,917
Change	High	\$6,170	\$49,363	\$104,897

Analyzed Group

Total EV2A & B20		Rate Class Adoption		
		Low	Medium	High
Per	Low	\$14,476	\$83,584	\$166,783
Customer	Medium	\$24,395	\$156,146	\$312,260
Change	High	\$46,980	\$306,653	\$614,850
Total 32 Month MWh		792,865		
Approx. All of SVCE 32 Month MWh		10,666,667		

Approximate SVCE 32 Month Total MWh		Approximate All of SVCE Adoption		
		Low	Medium	High
Per	Low	\$194,757	\$1,124,483	\$2,243,781
Customer	Medium	\$328,198	\$2,100,678	\$4,200,939
Change	High	\$632,041	\$4,125,498	\$8,271,769

NOTES:

- 1) This is the potential revenue impact with corresponding cost reduction. Effectively \$0 margin impact.
- 2) SVCE would also receive an incentive for enrolling customers of \$20 per kW-year of customer enrollment subject to a \$3,600,000 cap for all CCAs

GreenPrime Product and Rate Methodology Approval

SVCE Executive Committee Meeting
October 25, 2024



Request of Executive Committee

Recommend that the Board of Directors approve changes to the GreenPrime (GP) program including:

1. Starting in 2025 reprice GP premium over GreenStart to be based on updated methodology, balancing portfolio renewable energy credit (REC) value with marginal REC cost; and
2. Capping participation at 200 gigawatt hours per year and 20 GWh per customer per year

GreenPrime Rate to be finalized and recommended to the Board in November 2024



Goals of Refreshing Product Offering

1. Establish longer-term roadmap with YOY RPS targets for GreenStart, and integrated GreenStart/GreenPrime RPS sourcing needs
2. Update positioning of GreenPrime offering, and establish more certainty around future GreenPrime RPS needs
3. Plan for uncertainty in RPS deliveries, and future PPA COD dates
4. Establish updated methodology for valuing GreenPrime premium to avoid cross-subsidization and year-to-year price shocks

Acronyms:

YOY: Year-over-year, **RPS:** Renewable Portfolio Standard, **COD:** Commercial Operation Date



GreenStart & GreenPrime Product Offering: Background and Progress on Future

GreenPrime History

- 100% RPS
- Solar and Wind
- Green-e Certified through 2023
- Voluntary
- Mix of Large Commercial and Industrial (C&I), Member Agencies, Residential customers
- Rate Premium:
 - 2017-2023: \$0.008/kWh
 - 2024: \$0.015/kWh

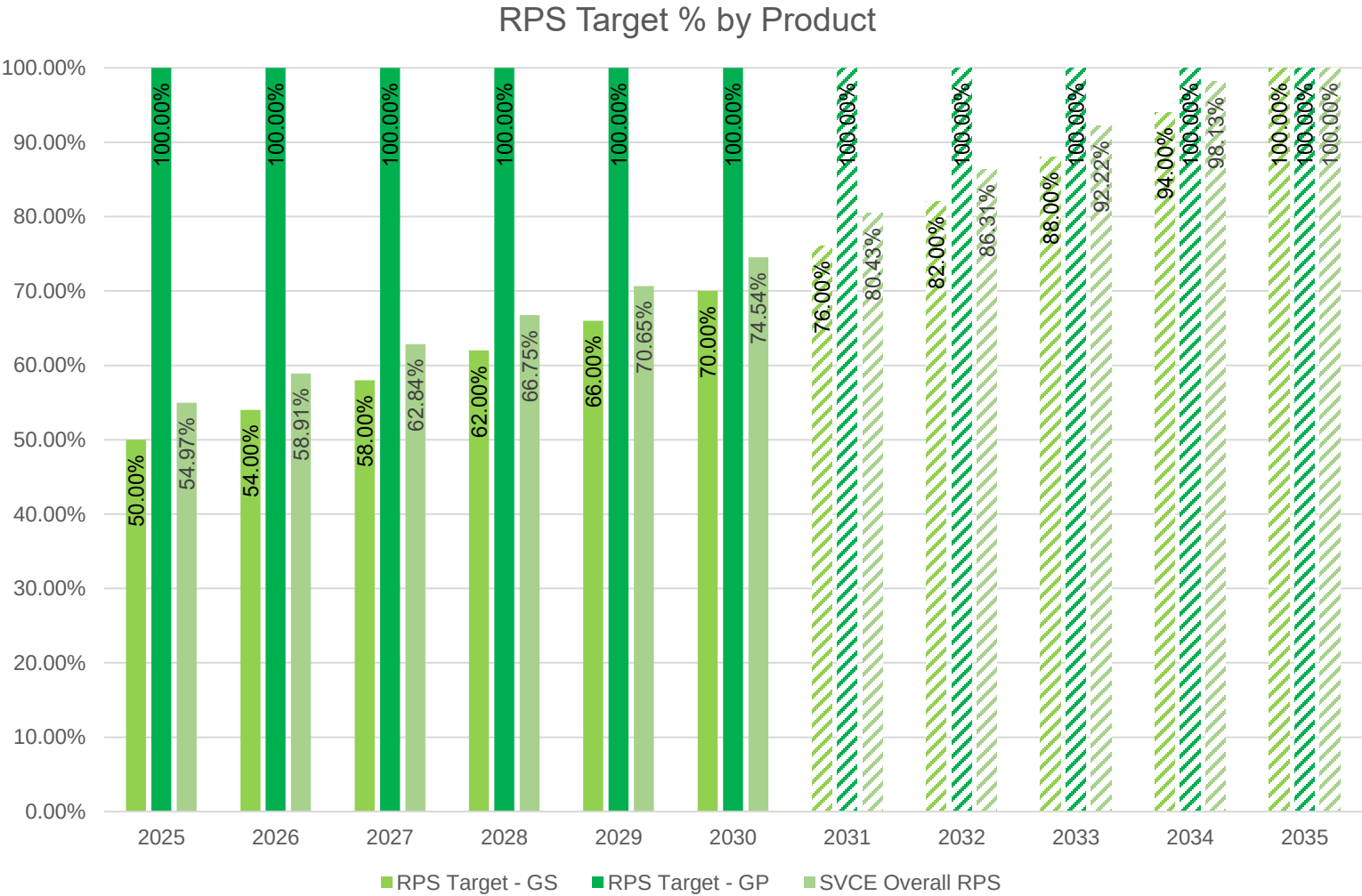
1. Staff developed a long-term roadmap for GreenStart (GS) and GreenPrime (GP) through 2035
2. Offering driven by portfolio and diminishing difference between GreenStart and GreenPrime RPS level
3. GreenStart customers will not subsidize GreenPrime
4. GreenPrime will benefit from portfolio, but must rely on marginal RECs if needed to fully source difference between GS and GP; GreenStart gets greatest portfolio REC benefit



GreenStart & GreenPrime Product Offering: Long Term Roadmap Through 2035

Product Roadmap

- Evaluate GreenStart (GS) and GreenPrime (GP) needs for the next decade
- Projects GS achieves 100% annual RPS starting 2035
- As we get closer to 2035, GS becomes increasingly renewable
- The value proposition of GP changes over time





GreenPrime Product Offering:

Program Capped at 200 GWh per Year;
Equivalent to approx. 5% of Total Load in 2025

Enrollment Requirements

- 200 GWh total load
- 20 GWh load per customer
- Larger customers interested in staying 100% RPS encouraged to explore a C&I deal

SVCE Load Forecast through 2035





GreenPrime Product Offering:

GreenPrime may require marginal RPS

GreenPrime Supply Requirements

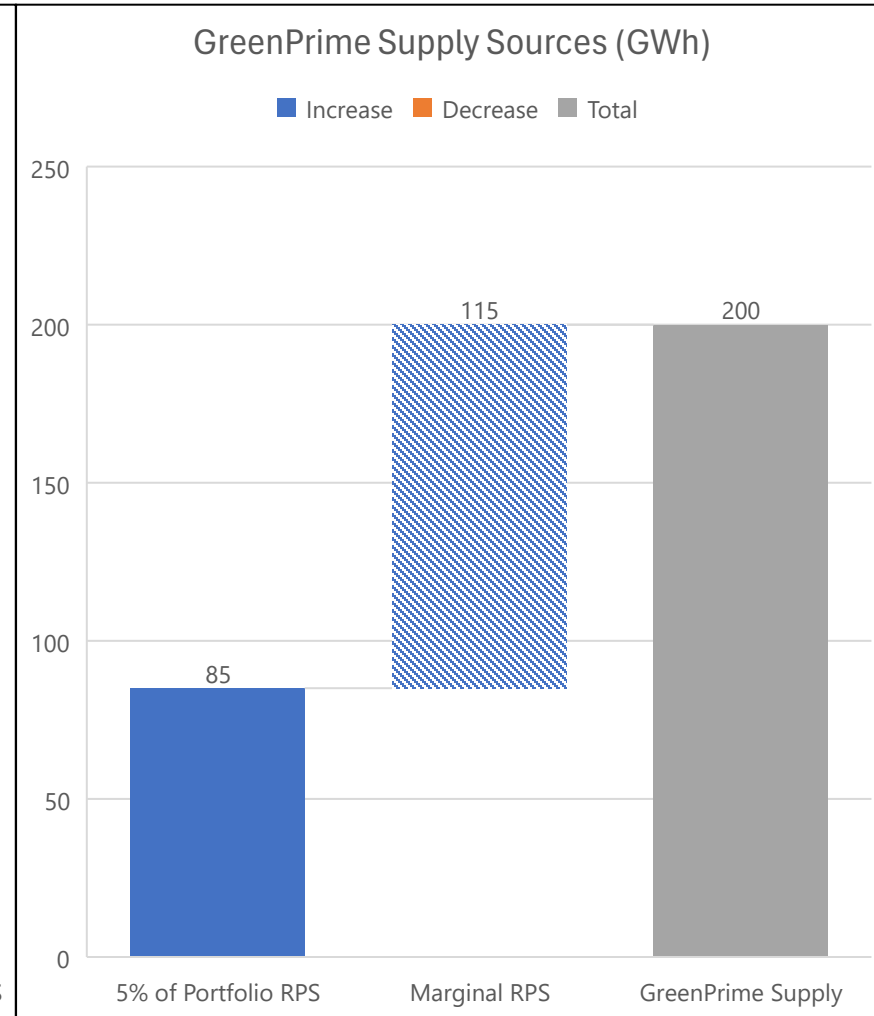
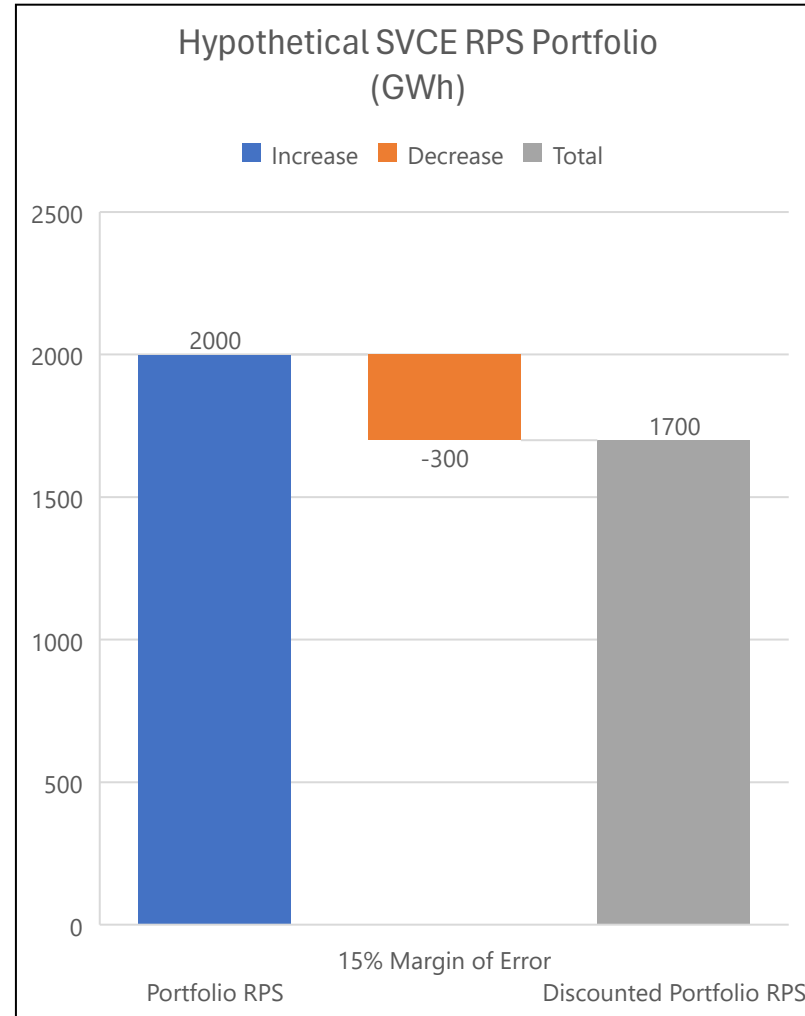
- Portfolio RPS allocated to GP not expected to exceed GS RPS level
- Supply discounted by 15% to account for uncertainty
- GP receives their load share of Portfolio RPS

Example portfolio RPS to GP:

$2000 \text{ GWh} \times 85\% = 1700$

$1700 \times 5\% = 85 \text{ GWh}$ that go toward GreenPrime

$200 - 85 = 115 \text{ GWh}$ sourced from marginal/market supply





GreenPrime Product Offering: Rate Premium Based on Portfolio + Marginal RPS

Premium Methodology

- Weighted Average RPS Price accounts for cost of RPS from portfolio and from marginal (market) supply
- Applied to the difference between 100% RPS and the GreenStart RPS level
- Gives GreenPrime portfolio benefit, but does not cross-subsidize
- Formula applied on rolling 4-year average to account for prior year actual cost and forward year estimates

GreenPrime Premium

$$= (100\% - \text{GreenStart RPS } \%) \times (\text{Weighted Average RPS Price})$$

-Illustrative Example-

GreenPrime Premium

$$= (100\% - \text{GreenStart RPS } \%) \times (\text{Weighted Average RPS Price})$$

$$= (100\% - 50\%) \times (\$60 - 30)$$

$$= 50\% \times (\$60 - 30)$$

$$= 50\% \times (\$30)$$

$$= \$15 \text{ per MWh or } \$0.015 \text{ per kWh}$$



Request of Executive Committee

Recommend that the Board of Directors approve changes to the GreenPrime (GP) program including:

1. Starting in 2025 reprice GP premium over GreenStart to be based on updated methodology, balancing portfolio renewable energy credit (REC) value with marginal REC cost; and
2. Capping participation at 200 gigawatt hours per year and 20 GWh per customer per year

GreenPrime Rate to be finalized and recommended to the Board in November 2024

Thank you

Delegation of Authority to Purchase Carbon-free Nuclear Energy for 2025- 2027

Executive Committee
10/25/2024



Request of Executive Committee

Recommend to the SVCE Board of Directors a Delegation of Authority allowing the Chief Executive Officer CEO to execute agreement(s) to purchase Carbon-Free Nuclear Energy with the following conditions:

- 1. Delivery in calendar years 2025-2027;**
- 2. Paid volume not to exceed 750,000 MWhs per year;**
- 3. Executed with any counterparty via a WSPP agreement;**
- 4. Expected dollar amount per year 10.8M**



This request will allow SVCE more flexibility in purchasing nuclear carbon free attributes

- In 2020 SVCE started to accept the Nuclear allocations from PG&E for the Diablo Canyon Power Plant. This authority to accept allocations did not extend to procurement.
- Due to shrinking availability of Large Hydro Carbon Free attributes. Staff has requested transaction authority to procure these attributes, if available on a year-to-year basis (2024).
- At June the board meeting SVCE staff requested the ability to procure these attributes for 2025 with certain budget constraints for fiscal year 2024-25.
- Through the Clean Pathways analysis and recommendation, SVCE will further define Carbon Free to align with SB100 defined resources which includes large hydro and nuclear.



Change in Clean Position

	2025	2026	2027
Clean Target	85%	100%	100%
Current Clean Position	83.1%	85.3%	92.4%
Expected Clean Position with Nuclear Purchase (750K)	101.7%	103.7%	110.6%

If transaction(s) is executed:

1. CEO will report to the Board volume, term and counterparty
2. Operating Budget increase associated with the transaction(s) will be included as part of Fiscal Year's 2024-25 budget update in December 2024



Request of Executive Committee

Recommend to the SVCE Board of Directors a Delegation of Authority allowing the Chief Executive Officer CEO to execute agreement(s) to purchase Carbon-Free Nuclear Energy with the following conditions:

- 1. Delivery in calendar years 2025-2027;**
- 2. Paid volume not to exceed 750,000 MWhs per year;**
- 3. Executed with any counterparty via a WSPP agreement;**
- 4. Expected dollar amount per year 10.8M**

Programs Snapshot: Fleet Electrification Planning Assistance

October 25, 2024

Executive Committee Meeting

Tony Eulo, Senior Manager of Public Sector Services



Fleet Planning: The What & Why

- What:
 - Providing customized technical assistance to fleet owners to guide planning for vehicle electrification and charging infrastructure
 - Outcome: Fleet electrification plan for 2025-2040
- Why:
 - Fleet emissions are significant
 - EV Fleets demonstrate EV viability
 - Advanced Clean Fleets Regulations





Fleet Planning: The Who

10 Fleets Engaged (all public)

- 7 Member Agencies

- Campbell
- Cupertino
- Gilroy
- Los Altos
- Los Gatos
- Morgan Hill
- Saratoga

- 2 School Districts

- Morgan Hill Unified
- Mountain View Whisman

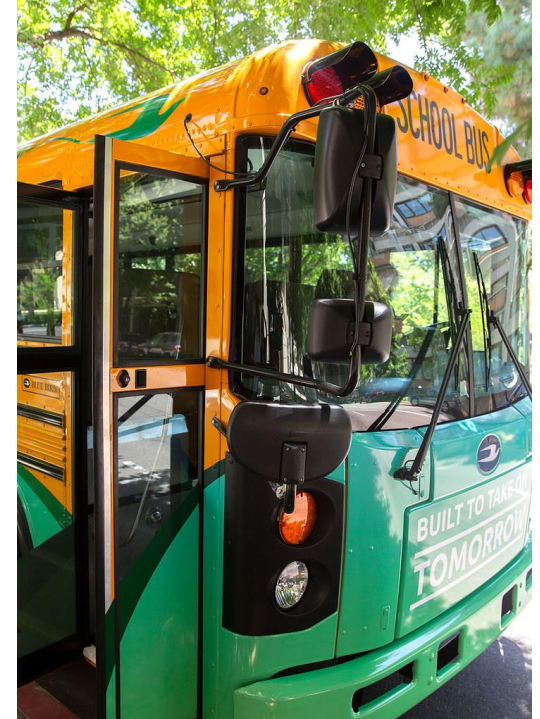
- 1 Water District

- Purissima Hills



Fleet Planning: The How

- Program funded at \$300K (allocated via EVI Plan in 2019)
- Consulting services provided by Optony
- Key objectives:
 - Meet fleet owners where they are
 - Few employees have fleet electrification assigned as a major task....it is often an “extra” task that they must fit in
 - Data....Reports....Opportunity for Agency Actions





Fleet Planning: The How



Kick-Off, Data Collection, and Fleet Baseline



EV Suitability, Total Cost of Ownership Analysis, & Emissions Reductions



Charging Infrastructure Needs Assessment



Project Planning & Site Design for Priority Domicile



Fleet Planning: The How

Minimum Compliance Package

Electrification of

- medium- and heavy-duty vehicles only

Prioritizes ACF compliance

Economic Optimization Package

Electrification of

- medium- and heavy-duty
- cost-effective* light-duty

Comprehensive Electrification Package

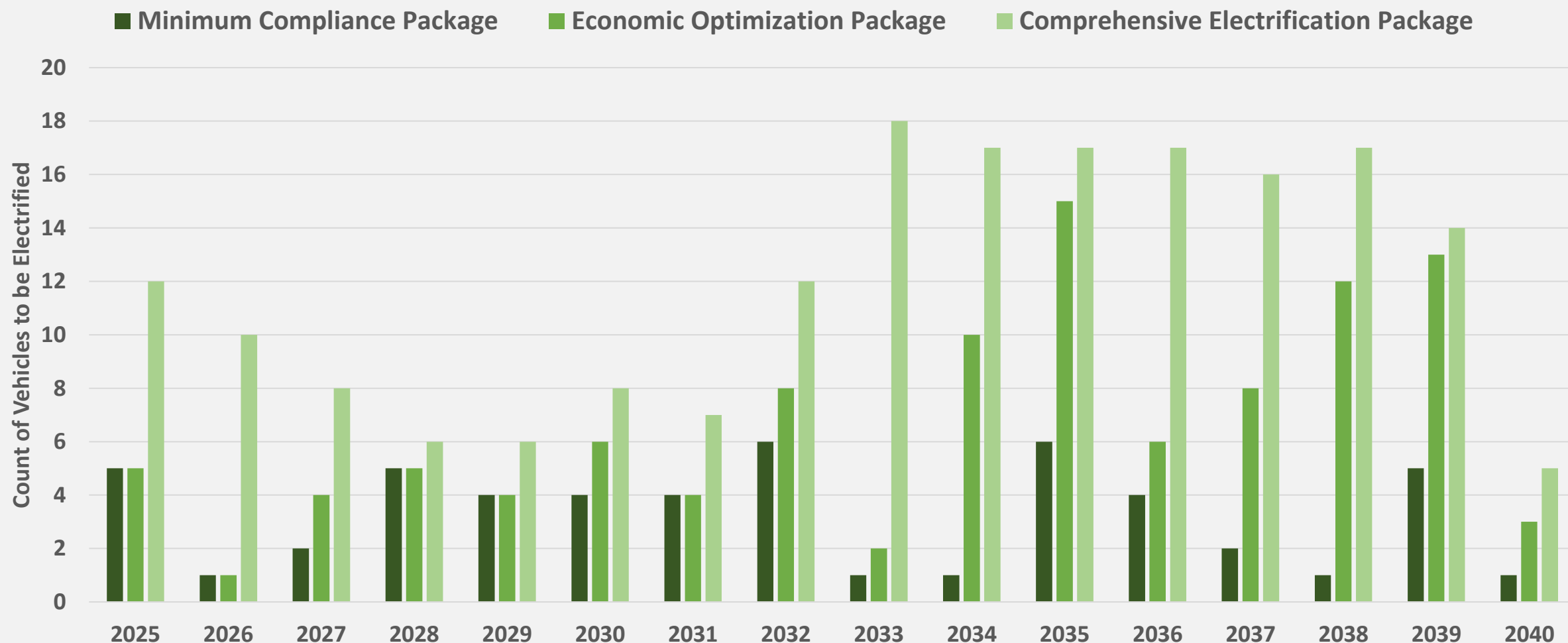
Electrification of

- all vehicles

*Cost effective light duty vehicles are defined by a lower total cost of ownership for an EV compared to the equivalent ICEV

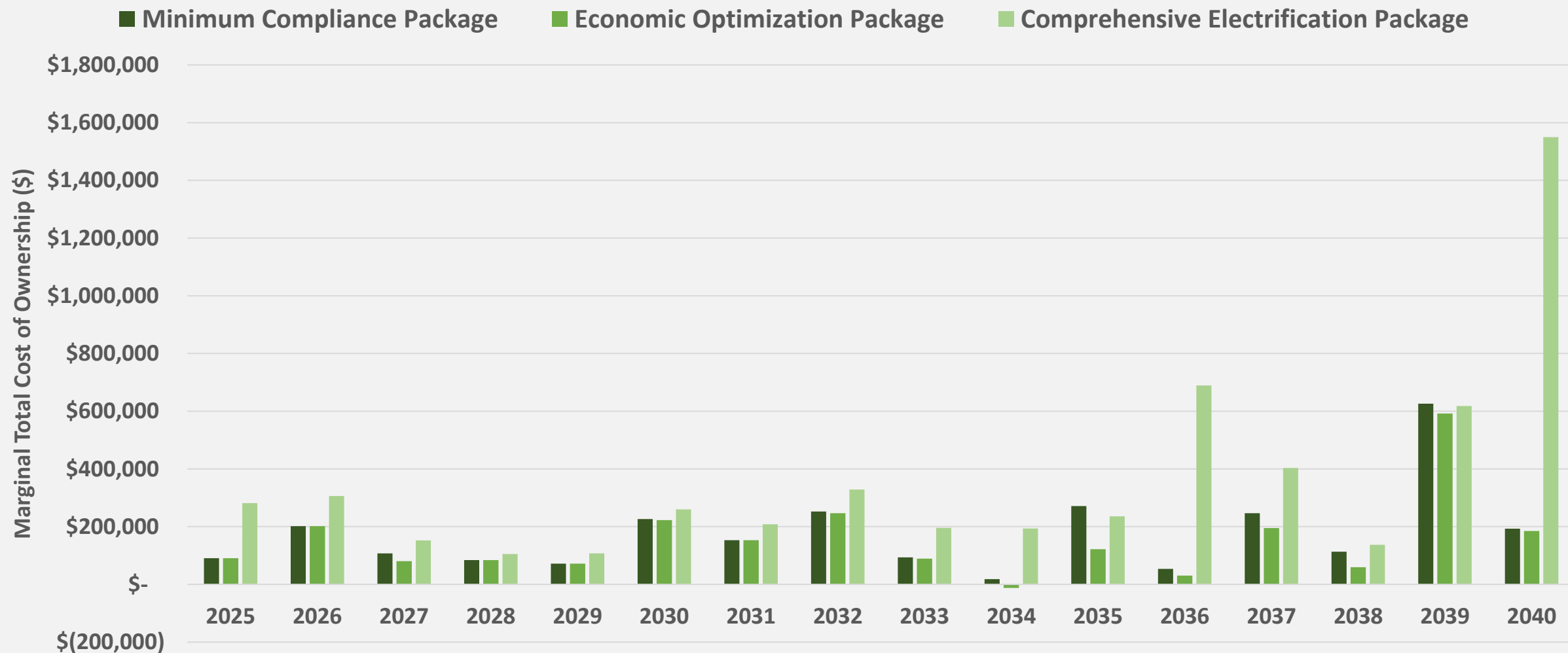
EXAMPLE

FLEET ELECTRIFICATION TIMELINE



EXAMPLE

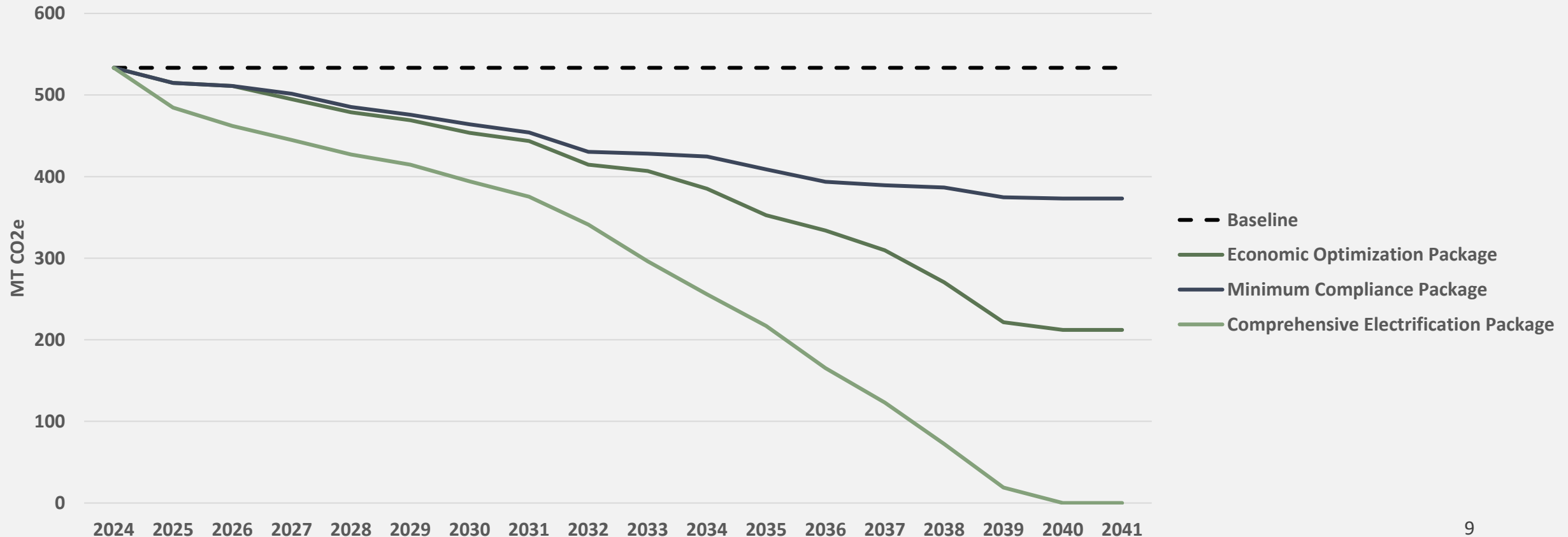
ANNUAL TOTAL COST OF OWNERSHIP



EXAMPLE

GHG EMISSIONS REDUCTION

- The **Comprehensive Electrification Package** will reduce the fleet's annual emissions by around **530 MTCO₂e**, or **100%** of the fleet's emissions.
- This is the equivalent of the MTCO₂e sequestered by **8,764 tree seedlings** grown for 10 years.





Next Steps

