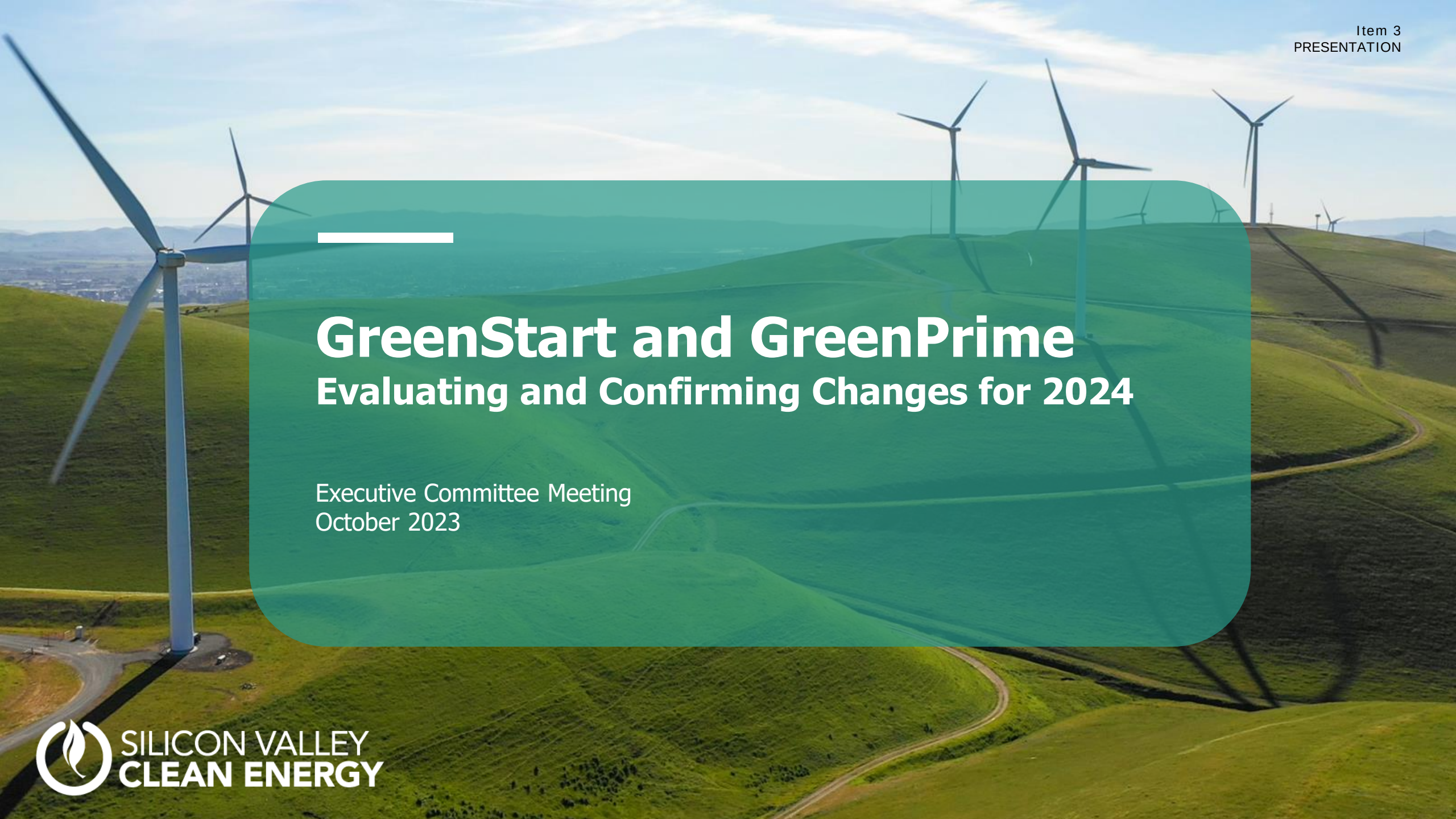


GreenStart and GreenPrime

Evaluating and Confirming Changes for 2024

Executive Committee Meeting
October 2023

SILICON VALLEY CLEAN ENERGY

What we will discuss today

- Overview of SVCE standard product offerings
- Challenges with carbon-free energy procurement in 2024
- Short-term options to achieve 100% clean or alternatives
    - GreenStart
    - GreenPrime
- Longer-term pathways to achieving our mission and offer customer valued clean energy products

SVCE Product Offerings

GreenStart – 100% Clean

Standard offer

~50% from Renewables
~50% Carbon-free (large hydro and nuclear*)

GreenPrime – 100% Renewable

Opt-up premium product

100% Renewable and Green-e Certified
$0.008 premium

Other:

GreenPrime Direct – Available to only certain commercial industrial customers

*currently only PG&E allocations of Diablo Canyon

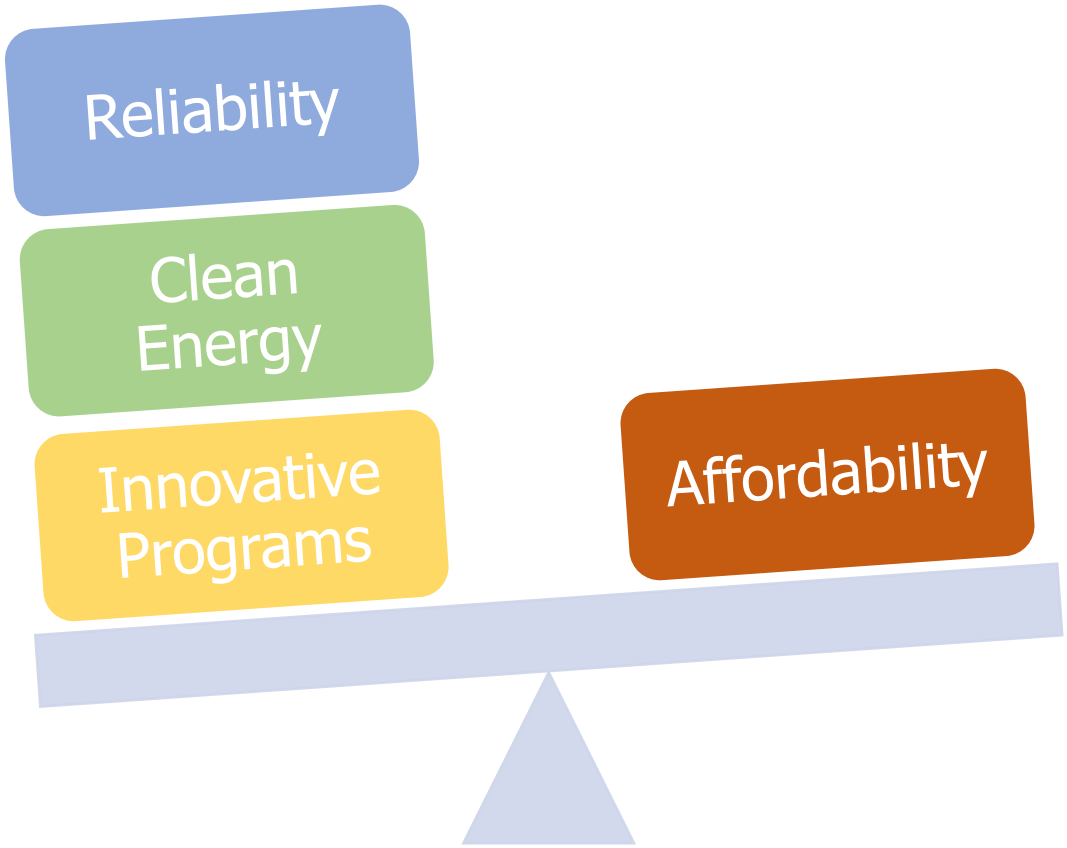
Product Mix

	GreenStart	GreenPrime
Clean Energy Standard	100% Clean Energy measured annually	100% Renewable Energy or RPS measured annually
Product Content	RPS above California's RPS or ~50% via Power Purchase Agreements (PPA) and Short-term PCC1 RECs + Balance from Carbon/GHG-free non-RPS resources	100% RPS and Green-e Certified via PPA and Short-term PCC1 RECs. PCC3 RECs only used if necessary to meet increased participation requirements.
Eligible Resources	RPS: CEC defined, solar, geothermal, biomass, small hydro, and wind Carbon-free: Large Hydro and nuclear allocations	Wind and Solar which meet Green-e certification requirements.
Rate	Set at discount to PG&E	GreenStart rate + $0.008 premium
Customers	90-95% of retail load	5% of retail load
Emissions	Low to zero	zero

SVCE must balance all mission goals

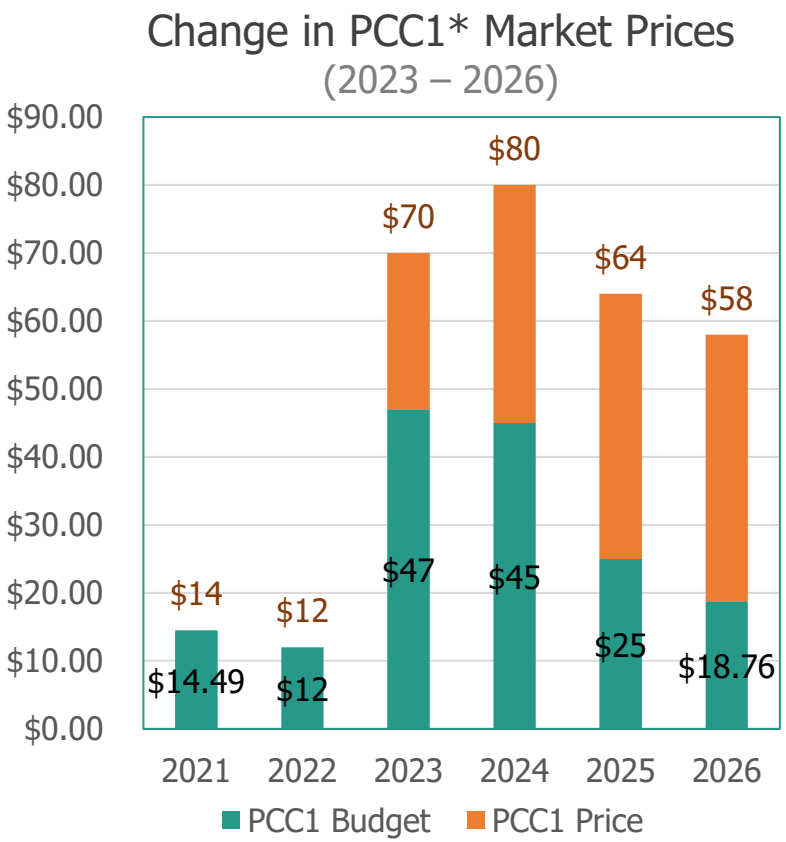
Mission: Reduce dependence on fossil fuels by providing **carbon-free**, **affordable**, and **reliable** electricity and **innovative programs** for the SVCE community

Ambitious decarbonization and climate goals are increasing costs in the short-term until barriers to scaling supply are addressed.



Renewable Energy Credits (RECs) are trading at all-time highs

REC Budget ≠Prices



Contributors to REC Price Increase

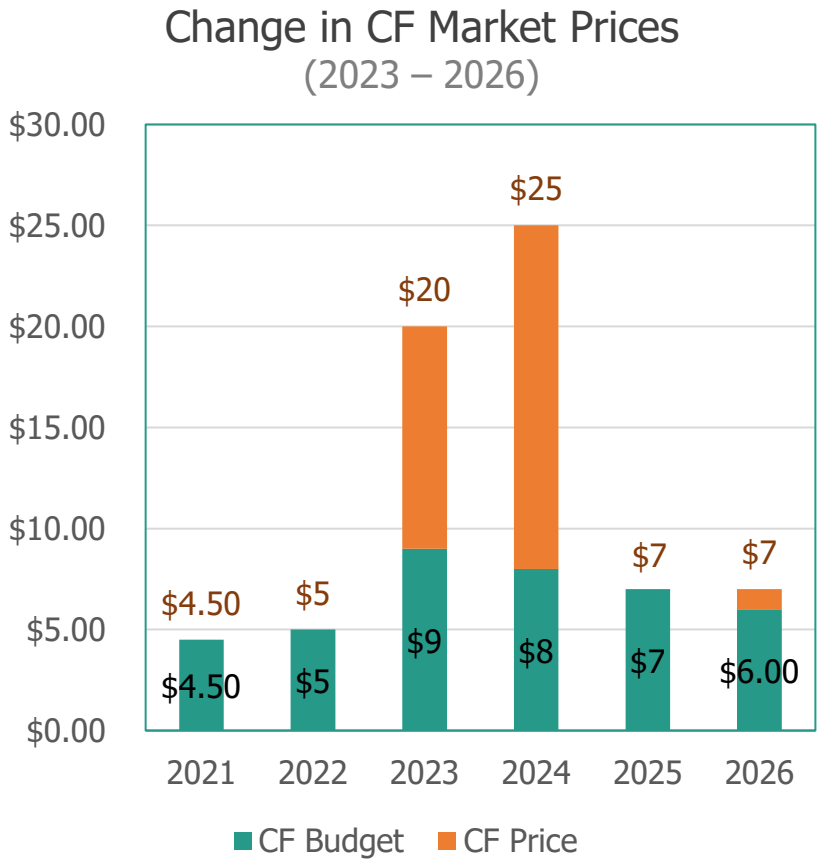
1. The CARB Cap and Trade auction shows settled prices doubling between 2021 - 2023
   Offsets are settling at $35/ton ($15/MWh), double from 2021
2. Large corporations have become influential REC buyers
3. Supply chain issues (raw materials, labor, etc.) and interest rates
4. Interconnection delays
5. End of Renewable Portfolio Standard (RPS) compliance period driving up demand and prices

Green-e certified RECs particularly difficult to find

*PCC1: Portfolio Content Category 1, renewable resources verified to be scheduled into the California Balancing area.

Carbon free prices are increasing

Carbon Free Prices High in 2024



Contributors to Carbon Free Price Increase

1. Pacific Northwest States have introduced clean targets, reducing available hydro supply for CA.
   WA launched its own Cap-and-invest program in Jan 2023
2. The Pacific Northwest had a very poor water year (2022-2023)
   Could take 2 years to dig out
3. Electricity demand in the PNW is growing at the fastest rate in decades
   The PNUCC expects electricity demand in the PNW to increase by 2.5% annually throughout the next decade, driven by industry
4. Large corporations have become influential CF buyers
   Amazon has procured more than 12.4GW since 2015, 34% of domestic PPAS by tech companies

GreenStart: budget impact & opportunity cost

Under current market conditions it is expected to cost $30M above budget to fill clean position for GreenStart just in 2024.

$30M could fund:

- 11,000 incentive rebates for heat pump water heaters, or
- 7.5% discount to customers, relative to PG&E, or
- 4,500 L2 ports for EVs

GreenStart: Options for 2024

Option	Description	Benefits	Drawbacks
#1	Maintain 100% Carbon Free for 2024 Expected reportable emissions on Power Content Label: 74 lbs of Co2*	• Maintains SVCE's historic product offering	• May not be feasible • Expensive • Limited emissions reductions for grid
#2	Maintain 100% Carbon Free for 2024 with nuclear purchases Expected reportable emissions on Power Content Label: 74 lbs of Co2*	• Same as above, plus at lower cost	• Same as above, but requires board approval
#3	Stick with current Carbon Free position (~78%-85% in 2024) which assume PG&E Large Hydro allocations. Expected reportable emissions on Power Content Label: ~170 lbs of Co2	• Lower power supply cost, which helps maintain SVCE reserves, discount and/or program funding	• May create concern from customers, especially GreenStart customers with Climate Action Plans

*emissions associated with Coso Geothermal renewable resources

GreenPrime Challenges

- Green-e Certification
- Cost of short-term Renewable Energy products
- Participation uncertainty, resource and cost allocation

Sales of GreenPrime currently total 190 GWh/year, ~5% of total SVCE volume.

Background

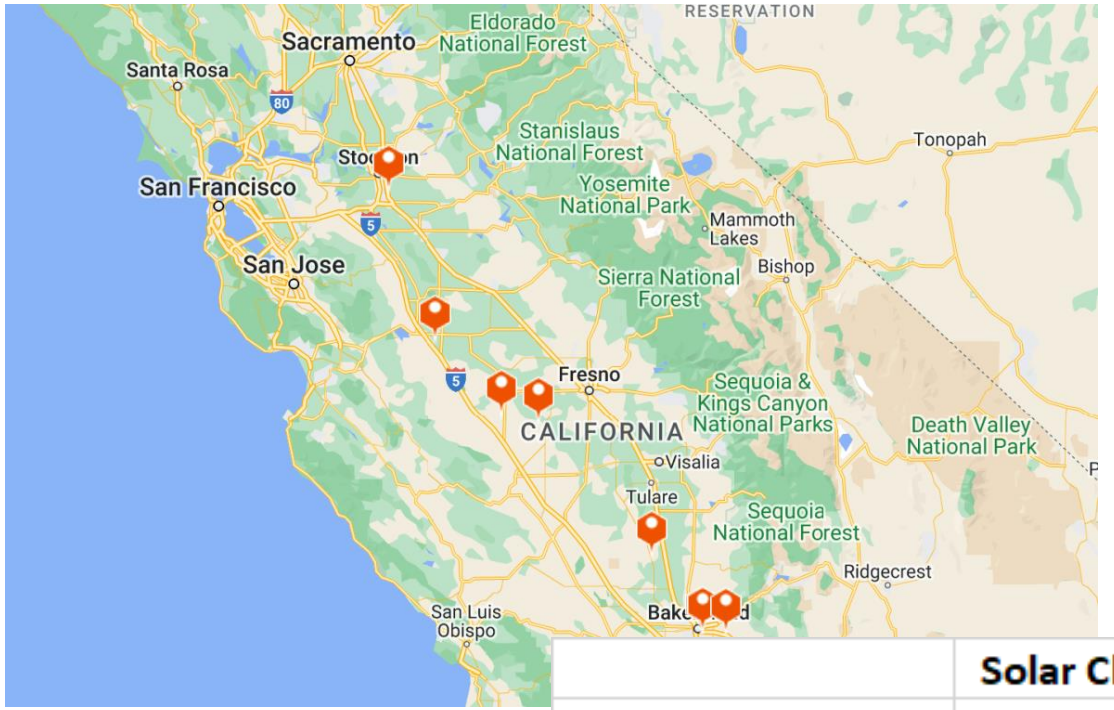
- GreenPrime customers and primary motivations . . .
  - large C&I customers – 90 GWh
    - voluntary programs, e.g., US EPA Green Power Partnership, USGBC LEED-Certified Buildings
  - member agencies – 95 GWh
    - community leadership and municipal GHG targets, US EPA GPP
  - ~2,000 residential customers – 5 GWh

- SVCE supplies GreenPrime by purchasing RECs annually from projects that are 'Green-e Certified'
  - independent audit verifies RECs meet strict standards, plus CARB emissions allowances
  - considered a 'gold standard', recommended by EPA GPP, LEED

GreenPrime: Competitive Considerations

PG&E offers 100% RE via competing 'Solar Choice' program, at a $0.011 – $0.023/kWh premium.

- Regionally sourced solar from dedicated projects
- Premium varies significantly by rate class, averaging ~1.65 cents/kWh
- Green-e Energy certified
- Enrollment limited to 272 MW
- New subscriptions waitlisted pending PfM ruling



Note: current SVCE GreenPrime premium is $0.008 / kWh

	Solar Choice Premium
Residential	$ 0.0233
B1 Small Comm	$ 0.0204
B10 Med Comm	$ 0.0108
B19 Large Comm	$ 0.0163
B20S Industrial	$ 0.0202
weighted avg:	$ 0.0165

GreenPrime: CCA comparisons

CCAs generally offer 100% Renewable Energy or RPS programs but are starting to move away from Green-e certification.

100% Renewable Energy Programs at Local CCAs

	SVCE	PCE	MCE	CPSF	EBCE	SJCE
Product and Sourcing (2022 PCL)	**GreenPrime**: - 100% wind	**ECO100**: - 50% solar - 50% wind	**Deep Green**: - 50% solar - 50% wind	**SuperGreen**: - 50% solar - 50% wind	**Renewable 100** - 50% solar - 50% wind	**TotalGreen**: - 100% wind
Certification	Green-e	Green-e	WREGIS (No certification)	Green-e	WREGIS (No certification)	Green-e
Premium/kWh	$0.008	$0.01	$0.01	$0.01	$0.0075	$0.01

GreenPrime: Discontinuing Green-e in favor of 'self-certification' will reduce key supply/pricing

GreenPrime Certification and Proposed Changes

Green-e:

- Complete Green-e noticing processes and certification for CY 2023
- Discontinue Green-e for CY 2024

Self-Certification:

- Establish REC 'self-certification' processes that meet LEED and US EPA GPP req'ts
- Leverage WREGIS reporting, and possible high-level 3rd party verification, BOD attestation
- Communicate changes, and establish annual SVCE report-out to GreenPrime customers

Benefits:

- Significantly increases available supply in the marketplace
- Eliminates potential need to buy CARB allowances
- Allows for possible future sourcing of GreenPrime RECs from general SVCE PPA/REC portfolio, without increasing risk of SB350 non-compliance

GreenPrime: Utilizing current market prices, an updated cost premium for 2024 would be ~2.5 cents/kWh

Calculating the incremental cost of GreenPrime vs. GreenStart

(utilizing marginal REC and CF costs for 2024)

- illustrative -

Formula:

≅ 0.5 x (REC price less carbon-free price)

2024 adder calculation:

≅ 0.5 x ($75 - $25*) assumes GS stays as is

≅ $25, or 2.5 cents/kWh

:

GreenPrime: Options for 2024

GreenPrime Rate Change Alternatives

	Status Quo	Directional Price Increase	Price at Standard Discount to PG&E	Price at SVCE 2024 Cost Recovery Rate
Price / Change to Customer	$0.008/kWh No change	$0.012/kWh 50% increase for 2024	~$0.016/kWh (avg) 100% increase for 2024	~$0.025 200% increase for 2024
Competitive Positioning	~50% discount to PG&E	~25% discount to PG&E	1-4% discount to PG&E (std discount policy)	50% premium to PG&E
Annual Bill Impact Res (6000 kWh) / C&I (10GWh)	N/A – no change	+$24 / +$40,000	+$48 / +$80,000	+$102 / +$170,000
Impact to 2024 SVCE Reserve Contribution	< ~$3.2M >	< ~$2.5M >	< ~$1.7M >	No impact (unless opt-outs)
Pro's	- No customer disruption - Affordable alternative if GS no longer carbon-free	- Price signal to customers - Possible alternative if GS no longer carbon-free	- Unlikely to result in opt-outs - Price still discounted to PG&E	- No impact to reserve contribution - No 2024 cross-subsidy
Con's	- Significant impact to 2024 reserve contribution - Significant cross-subsidy in 2024	- Some customer disruption, opt-downs likely - Impact to reserve contribution - Some cross-subsidy in 2024	- Significant customer disruption, opt-downs very likely - High-priced alternative to GS - Some cross-subsidy in 2024	- Significant customer disruption; many opt-downs likely - Opt-outs possible - Unlikely alternative to GS

Request of Executive Committee: GreenStart

Staff's recommended path for 2024:

1. Continue to seek carbon-free resources within budget parameters for calendar year 2024
2. Approve the procurement of nuclear carbon-free resources, provided allocations from PG&E are not available
3. If carbon-free resources are not available within budget, adjust 100% Clean goal for 2024 to current position of ~78% Clean – **Option #3 – Slide 9**

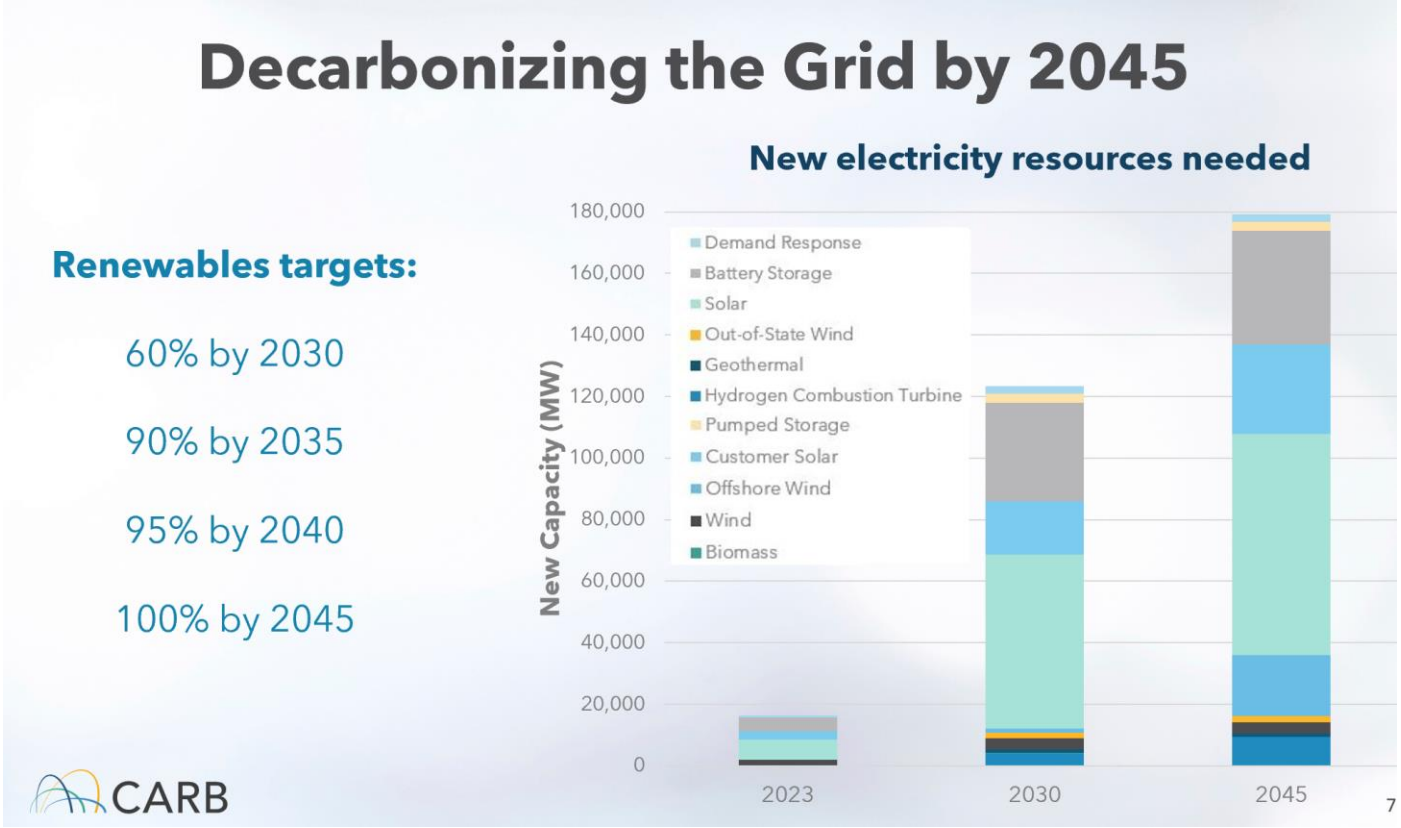
Request of Executive Committee: GreenPrime

Staff's recommended path for 2024:

1. Discontinue Green-e Certification for 2024
2. Re-price GreenPrime premium for 2024 from $0.008/kWh to $0.012/kWh, reflecting underlying cost increases but maintaining 100% RE/CF GreenPrime as a viable alternative to GreenStart
3. Communicate GreenPrime rate and process changes to customers in December 2023

Long-term picture

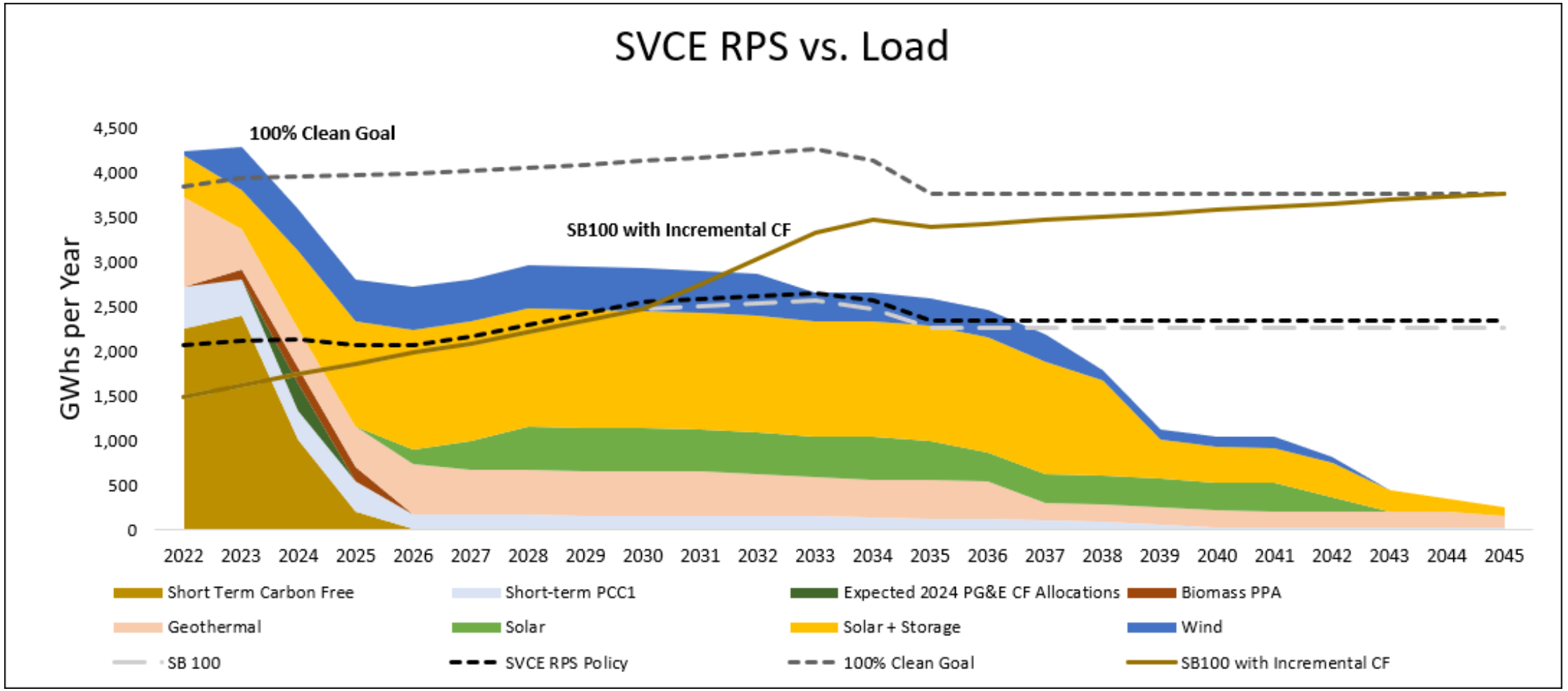
SB100 means SVCE's current clean goal will become all LSEs compliance obligation. What is SVCE's long-term value proposition?



New build required by 2045 estimated to exceed 180,000 MWs

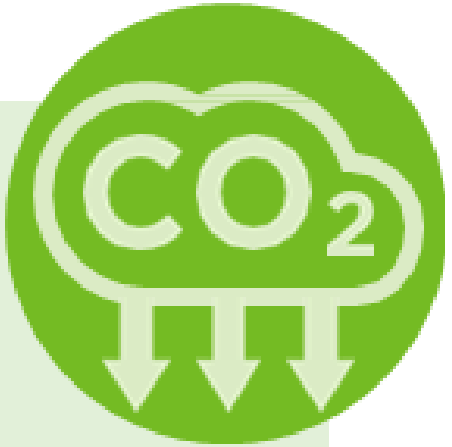
SVCE's clean energy trajectory

SVCE expects to meet a 75% RPS target by 2030. Availability from non-RPS, Carbon-free resources such as large hydro and nuclear is highly uncertain.



Opportunity to set a new course

SVCE's mission is durable. Shifting market and policy conditions will necessitate a deeper look at how SVCE balances "clean", "affordable" and "innovative programs".



- Clean Energy Pathways
  - 100% RPS
  - 24/7 carbon-free
  - Google CFE for full portfolio
  - Shift focus to incremental clean projects
- Carbon abatement policy to achieve sustainable reductions
- Programs to expedite the energy transition
- Load modification to help ensure affordability and feasibility of carbon neutral economy
- Alignment and/or enhancements to opt-up and custom product offerings

Request of Executive Committee: Long-term

Staff's recommended path for beyond 2024:

1. Return with recommended overall Clean target for CY 2025-2030 as part of 2024 Integrated Resource Plan and 2045 Pathway to Carbon Neutral discussion
2. Re-assess GreenStart and GreenPrime offerings holistically with consideration for findings from above analysis including product value proposition, cost allocation, hedging and price premium

Next steps and timeline

Decision for 2024 Clean target and needs to happen soon

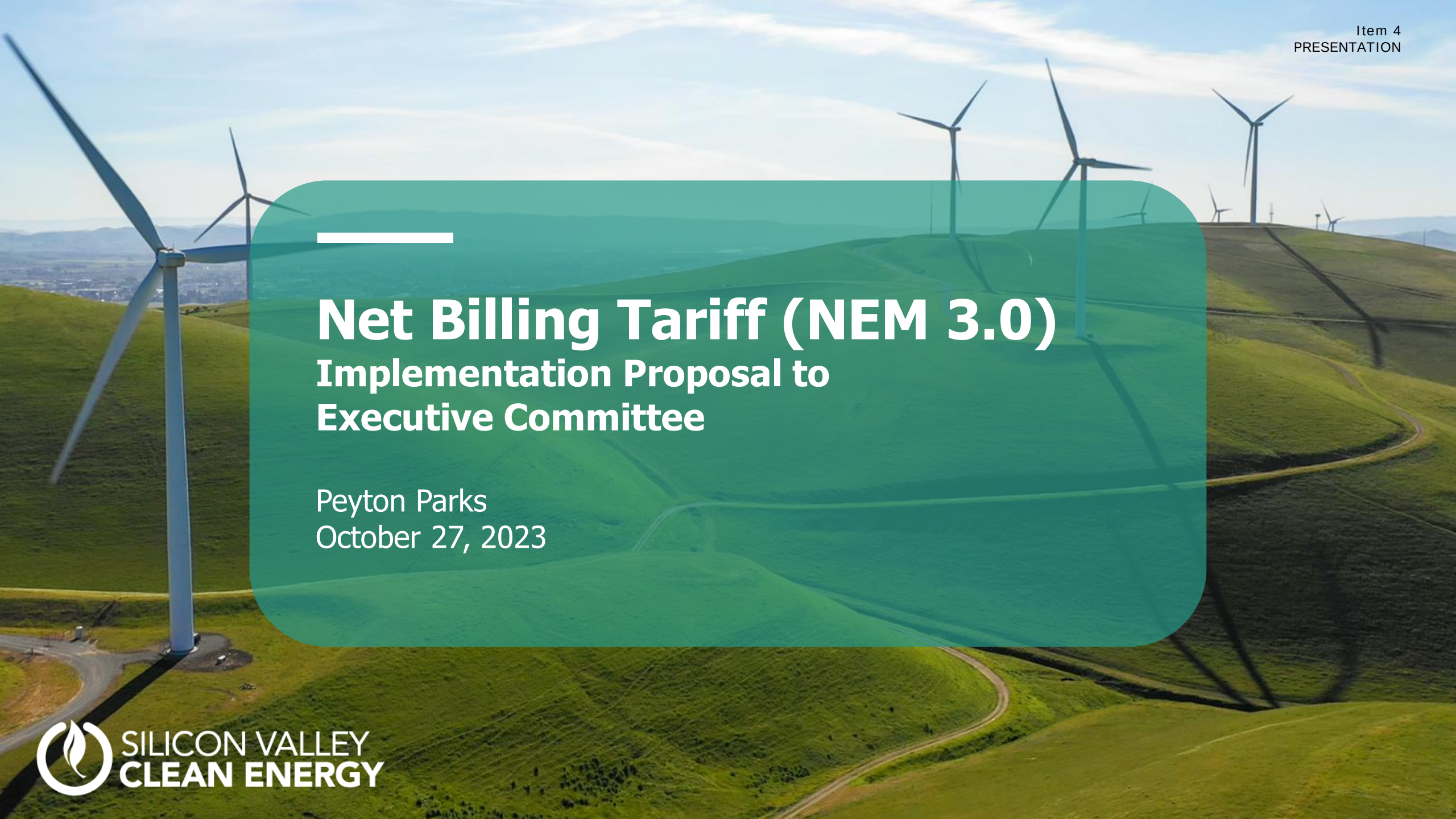
1. November Board:
    1. Possibly seek Board approval to change clean target for GreenStart for 2024
    2. Possibly seek Board approval for changes to GreenPrime for 2024
2. December Board:
    1. Expected rate proposal for GreenStart and GreenPrime including discount to PG&E's rate
3. Q1 2024: Clean energy futures paper
    1. Pathway to 100% Carbon Neutral/Clean by 2045
    2. Pathway to 24/7 - Strategic Focus Area
4. Q2 SVCE's 2024 Integrated Resource Plan Scenarios developed
    1. Plan to achieve GHG reduction and reliability requirements

Questions & Discussion

SILICON VALLEY CLEAN ENERGY

Glossary

- CARB: California Air Resources Board is the California agency charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change.
- Cap and Trade Auction: The Cap-and-Trade Regulation establishes a declining limit on major sources of GHG emissions throughout California, and it creates a powerful economic incentive for significant investment in cleaner, more efficient technologies.
- PCC1 RECs: Renewable resource with a first point of interconnection within the California grid. Allows for some firm imports to also be counted. PCC 1 RECs are generally considered more valuable than PCC 2 or PCC 3 RECs.



Net Billing Tariff (NEM 3.0)

Implementation Proposal to Executive Committee

Peyton Parks
October 27, 2023

SILICON VALLEY CLEAN ENERGY

Agenda

- **Background on Net Billing Tariff**
- **Differences between NEM 2.0 and NBT**
- **Drivers behind the change**
- **SVCE Position and Future Potential**
- **Potential levers for program improvement**
- **NBT Program 'Unknowns' and options**
- **Staff Recommendation for 2024**

Key Terms

- **NEM 3.0** – Colloquial term for Net Billing Tariff
- **Net Billing Tariff** – PG&E and SVCE internal terminology
- **Solar Billing Plan** – Customer-facing term used for bill presentment
- **Avoided Cost Calculator** (ACC) – The hourly determinate of solar export pricing

Background

Timeline and Highlights

- After earlier proposal revisions, in December 2022 CPUC approved major changes to Net Energy Metering in CA
- SVCE provided comments to the proceeding in favor of the changes, which incentivize solar with paired storage over stand-alone solar installations
- Solar interconnection applications filed with PG&E on or after April 15, 2023 are subject to new rules. Existing NEM customers are unaffected until end of 20-year NEM agreement
- Beginning December 15, 2023 Net Billing Tariff calculations will go live on customer bills.
- Staff proposes following PG&E export pricing and billing structure for first year

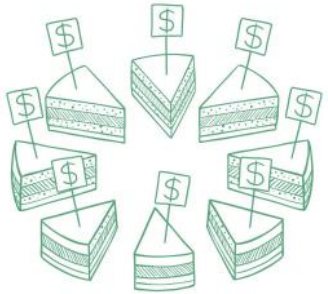
Background - Key Differences NEM 2.0 vs NBT

New solar installations since SVCE inception in 2017 have fallen under NEM 2.0 rules

Feature	NEM 2.0	Net Billing Tariff	Comments
Rate Requirement	Any TOU Rate	E-ELEC	TOU rate designed for electric appliance households (heat pump, EV)
Export Compensation	Retail minus Non-bypassable charge	Avoided Cost Calculator (ACC) + Adders	Intended to match export value more closely with wholesale energy value; early adopters auto-enrolled with 'adder'
Billing Settlement	Annual	Monthly	Export values offset charges, accrued charges will not carry forward to True-up
System Size Limits	<= 110% Annual Usage	<= 150% Annual Usage	Additional sizing intended for future electrification efforts
Average System ROI	6 Years	9 Years*	*Assumes system paired with battery storage
Greatest Customer Value	Export, Self-Consumption	Self-Consumption	kWh consumed, or stored for later consumption, provides greatest value

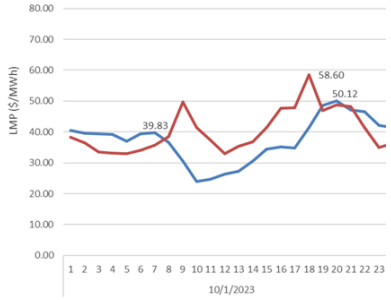
Background – Three Drivers of Change

Equity



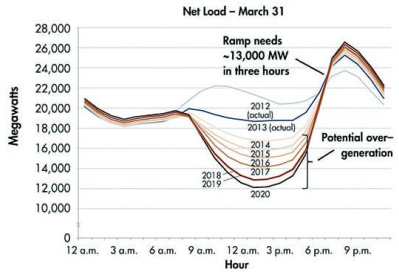
- Solar exports that offset T&D charges absolve solar customers of paying for fixed grid costs
- These costs get shifted to non-solar customers that don't have solar on their roofs.

Export Valuation Alignment



- The Avoided Cost Calculator (ACC) values NBT solar exports near the hourly wholesale grid price
- This is intended to be a better reflection of the exports' value to the grid compared to retail pricing.

Grid Stewardship



- NBT strongly incentivizes customers to pair storage with their solar to achieve the best ROI
- This functions as a price signal to increase the number of dispatchable batteries on the grid

Important Reminder!

Net Billing Tariff is **ONLY** applicable to **NEW** Net Energy Metering applications received by PG&E **AFTER April 15, 2023**

Existing NEM 1.0 and NEM 2.0

35,510

- NOT affected by NBT decision
- Will continue to export kWh at the retail rate
- No value proposition or ROI change
- After end of 20-year Net Metering Agreement term, customers transition to NEM 3 or then-applicable tariff

New NBT Customers

< 500*

- New solar installations in 2023 and onward
- Rate of uptake slowed due to industry-wide push to install under NEM 2.0

*Exact number of customers to be confirmed via PG&E update to customer attribute file in 2024

SVCE Position and Potential

SVCE's Position on NBT is in Alignment with PG&E

- SVCE believes the move to NBT is 'directionally correct' in reducing the export rate paid to solar customers and promoting battery storage installation
- Solar is already heavily incentivized by tax credits and most likely does not need the rich incentive of retail exchange credits to continue its high adoption rates
- Self-generation is repeatedly shown to be a vital part of electrification, helping homeowners who electrify to avoid the rising cost of electricity prices
- Electrified homes with solar + storage tend to look more like efficiency measures, reducing total load from the grid with no/minimal exports.

NBT appears to be a step in the right direction for a number of measures:

- Right-sizing of solar systems, limiting export
- Battery installation
- Enabling future electrification
- Carbon-free self-generation

However, it may be possible to customize the Net Billing Tariff to further advance SVCE's interests in a number of distinct ways

Levers for Program Customization

Export Rate

Potential to create SVCE's own variable or fixed/flat export pricing calculation for entire year

Adders and 'Bonus'

$/kWh additional compensation to incentivize exports at strategic hours, or less to optimize charging

CARE/FERA Incentives

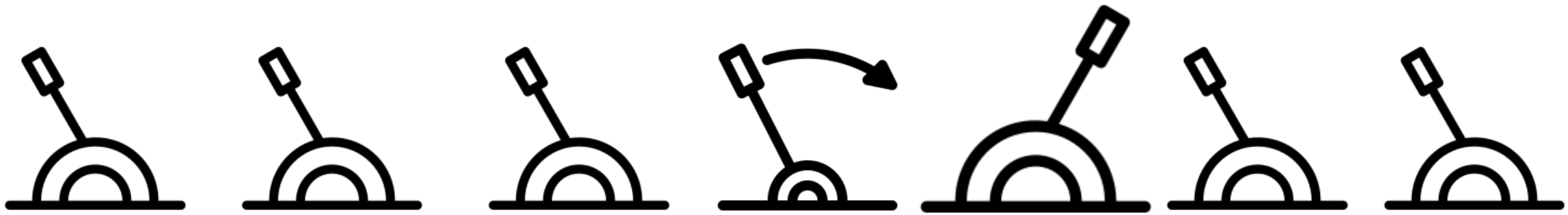
Flat adders or bonuses to make solar more attractive to low-income customers, above and beyond PG&E's existing compensation

VPP or DR Enrollment

Provide custom DR incentives to piggy-back on existing programs or create our own

Battery Rebates/ Programs

Design and implement rebates for battery storage pairings to provide best customer value under NBT



Options for NBT Rollout December '23

Program 'Unknowns'

At this time there are critical pieces of information that have not been made available to SVCE that might influence its decision-making

- **Customer enrollment volume**
- **Finalized 2024 ACC pricing sheet**

Program Options

	Option 1:	Option 2:	Option 3:	Option 4:
Course of Action	Follow PG&E ACC	Follow PG&E ACC with 'Sweetener'	Set an SVCE 'Custom' Rate (flat for all hours)	Set an SVCE 'Custom' Rate (swings dramatically, deeply incentivize storage)
Implementation Effort	Easy	Hard	Medium	Hard
Implementation Cost	Free	Custom Rate, charged by Calpine	Free, staff time only to develop 8760 rate sheet	Free, staff time only to develop 8760 rate sheet
Incremental cost to bottom line?	**TBD**	**TBD**	**TBD**	**TBD**
Alignment with 'Spirit' NBT: Storage	High	Medium/Low	Medium	High
Benefit to customer?	Medium, ACC makes ROI difficult to determine	High, Provides additional value for exported kWh	Medium, Provides little/no extra value, but makes export rate predictable	VARIES! Provides little/no extra value, makes export rate unpredictable. Without battery no benefit

Staff Recommendation - NBT Rollout December '23

	Option 1:
Course of Action	Follow PG&E ACC
Implementation Effort	Easy
Implementation Cost	Free
Incremental cost to bottom line?	**TBD**
Alignment with 'Spirit' NBT: Storage	High
Benefit to customer?	Medium, ACC makes ROI difficult to determine

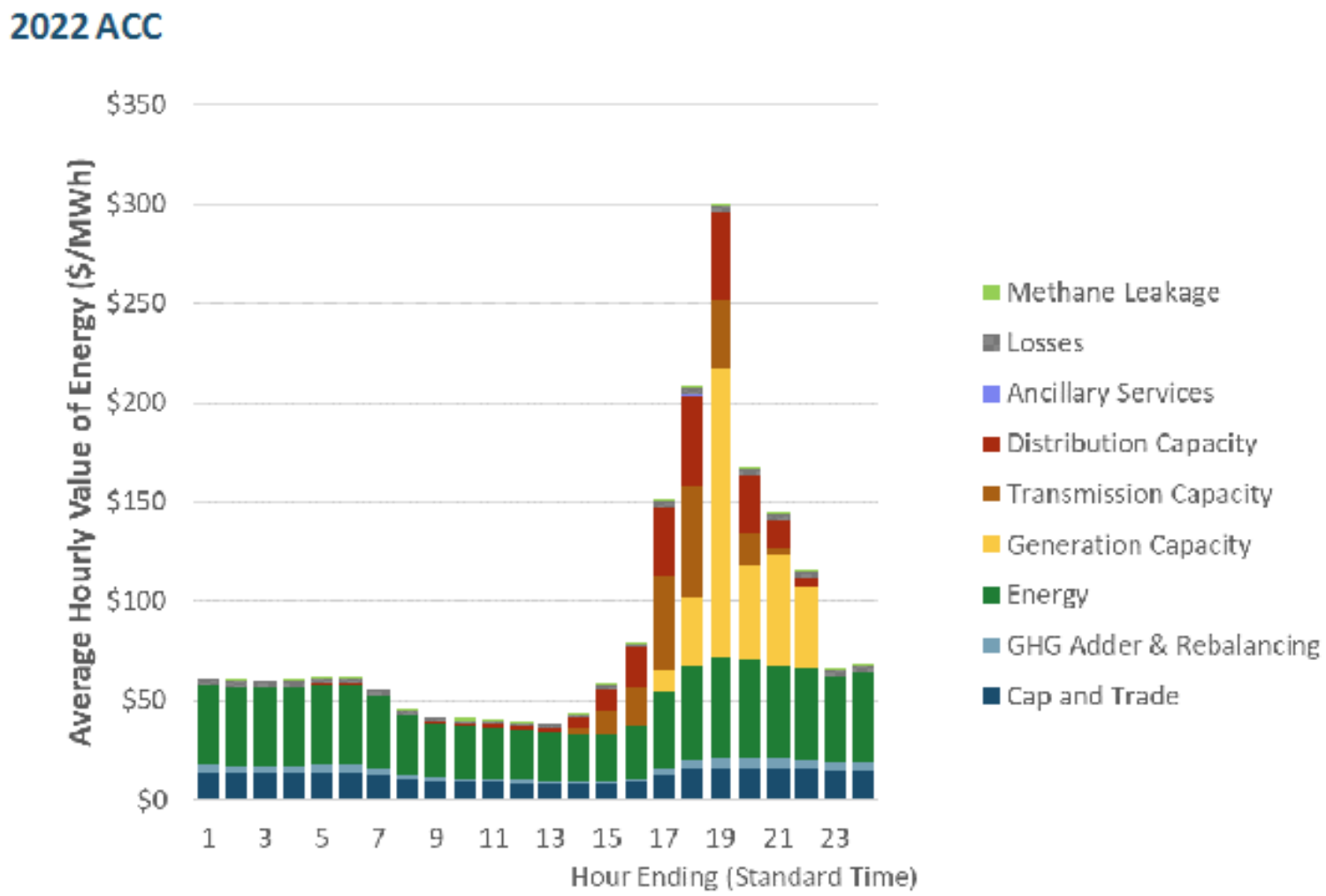
Option 1: Follow PG&E ACC for 2024

- Staff recommends that SVCE follow PG&E's NBT implementation model **without modification** for CY 2024.
- Staff proposes that the first 12 months of customer performance should be monitored and analyzed with the intention of making future recommendations to customize the program.
- Staff will return to the board in Q1 2025 with additional recommendations
- Reminder: This decision will not affect currently-enrolled NEM 1.0 and NEM 2.0 customers.

Questions/Comments?

SILICON VALLEY CLEAN ENERGY

Avoided Cost Calculator (ACC)



Permit Modernization and Policy Experimentation Program Launch

Zoe Elizabeth and Tony Eulo
October 2023

SILICON VALLEY CLEAN ENERGY

Presentation Objectives

1. Establish Background
2. Present Program Overview and Schedule
3. Obtain Executive Committee Input

Significant Emission Sources

Most emissions in our region come from buildings and transportation

~40%

~50%

Approximated emission proportions based on internal SVCE analysis

You took first critical step toward pollution-free and future-ready buildings with new construction reach codes.

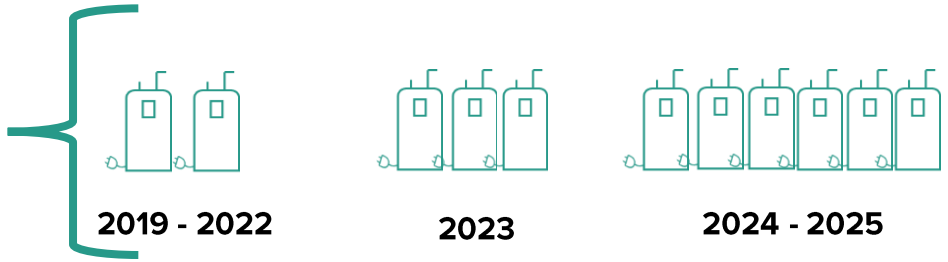
2022 State code	vs	With adopted reach codes
~50k homes with **gas** water heating		~50k homes with **heat pump** water heating
~$25M locked-in replacement cost from gas to electric		$0 replacement cost
$0 savings at the time of construction		~$85M savings at the time of construction
~50,000 annual MT carbon pollution from new water heaters		0 MT carbon pollution from new water heaters
~10,000 families without access to home EV charging		~10,000 more families with reliable home EV charging

*Illustrative example showing the impact of building RHNA required housing.

Now it is time to ramp up the transition in existing buildings.

= 100 HPWHs/yr

HPWH Installs Under Current SVCE Programs (Annual)

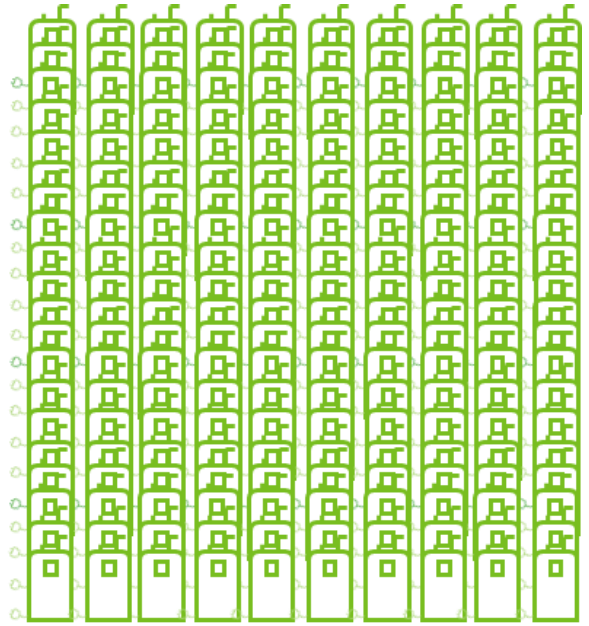


2019 - 2022

2023

2024 - 2025

Annual HPWHs Needed to be Installed Under BAAQMD Rule

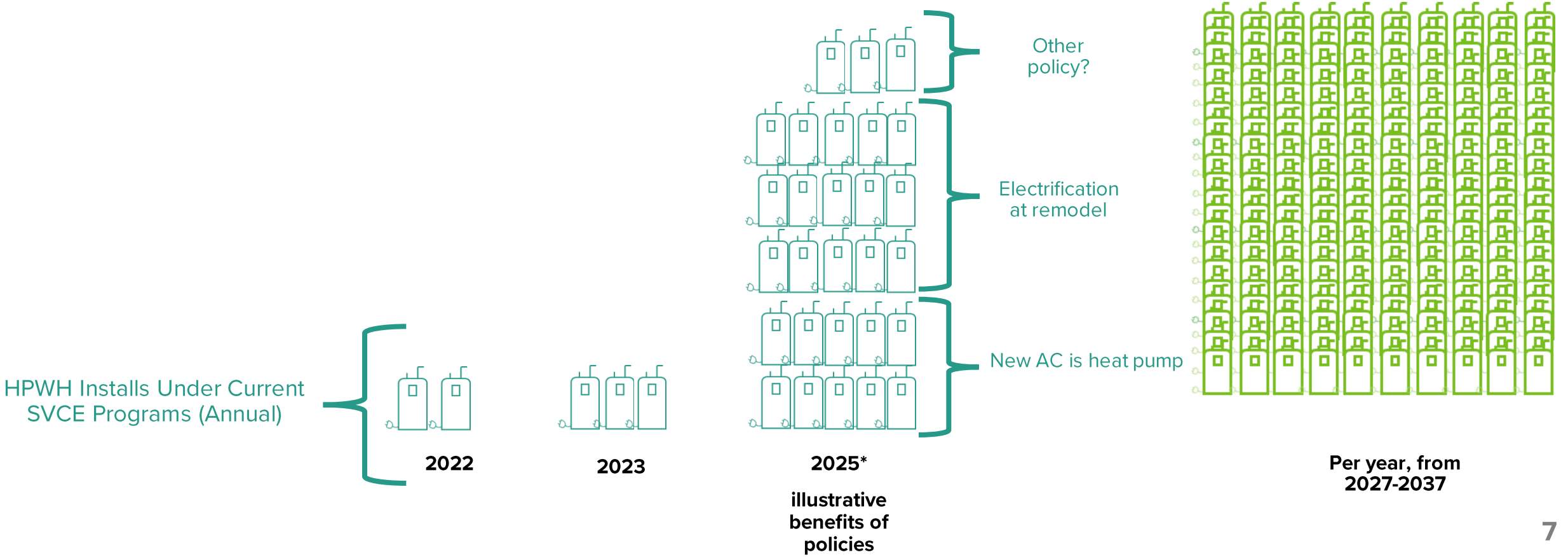


Per year, from 2027-2037

Member agencies have the power to make it easier for communities to upgrade to clean, healthy homes by modernizing permitting processes and implementing sensible policies.

Good local policies can help us from 100s to 1,000s of upgrades a year.

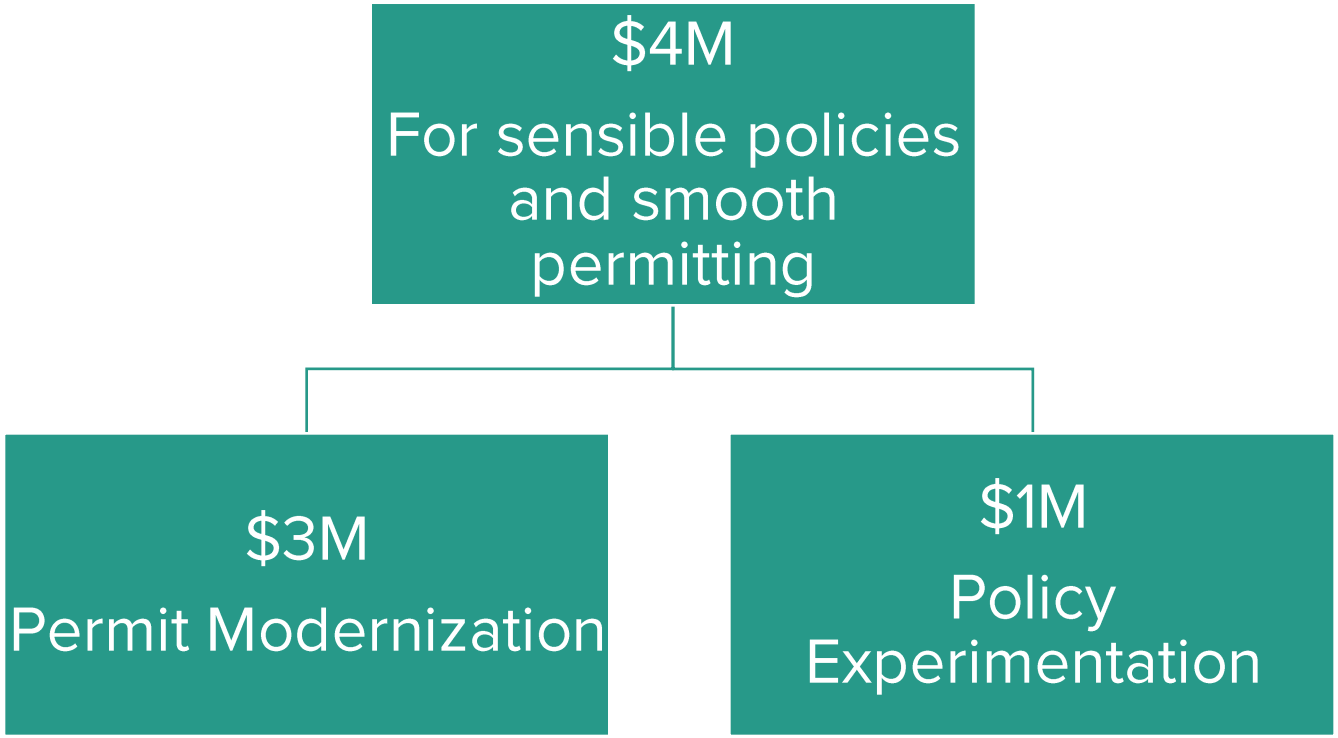
= 100 HPWHs/yr



SVCE and Member Agency Partnership

SVCE rebates and federal tax credits can reduce the financial cost of electrification. Local codes and permitting can increase adoption at the best time and with less friction.

SVCE is launching two complementary programs to provide our member agencies $4M in technical resources and grants to enable sensible local policies and smoother local permitting.



Resources to Help Member Agencies Advance

	Resources Available	Permit Modernization	Policy Experimentation
Available to All	1:1 consultation w/SVCE staff (Board member & agency staff)	X	X
	Tailored action plan for each jurisdiction	X	X
	Technical, legal, and staff support resources	X	X
Available to Leadership Cohort	Access to national-level climate change trainings	X	X
	Stipend for part-time, one-year fellow	X	X
	Expanded consultant support to implement leading-edge initiatives	X	X

Example Approaches

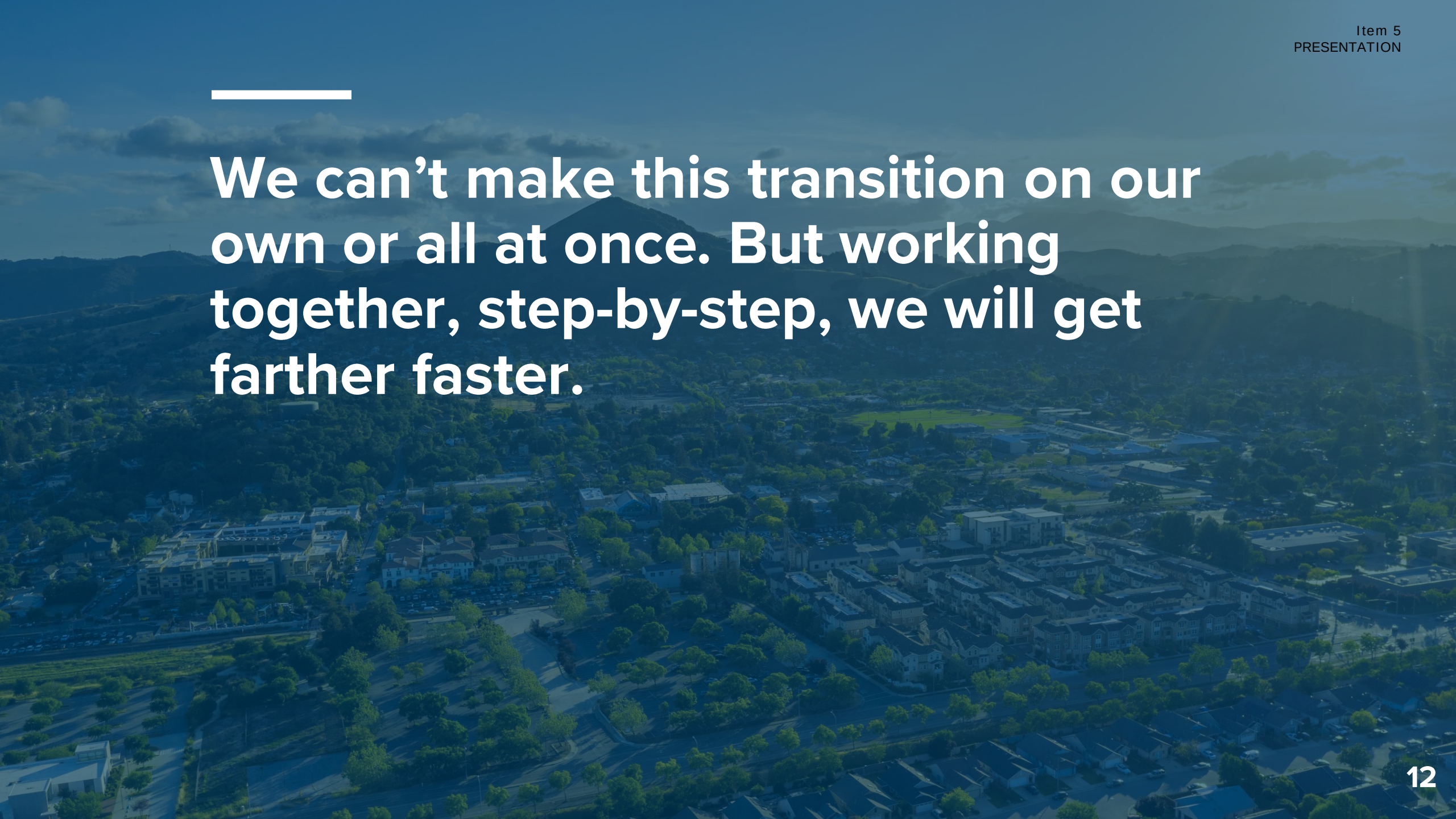
	Foundational	Improved	Leading
Permit Modernization	Streamlined applications	Virtual inspections	Contractor self-certification program
Policy Experimentation	Time of sale disclosure requirements	Electric readiness at remodel	Incentives for electrification at remodel

The leadership cohort must bring at least one **leading** practice to the council for a vote within 18 months to receive access to expanded resources

A comprehensive list of approaches is available in the appendix; may be added to over time

Implementation Path

For meetings with Board Members and some staff we will combine messaging on permit modernization and policy into one comprehensive package.



We can’t make this transition on our own or all at once. But working together, step-by-step, we will get farther faster.

Appendix

Program Backgrounds

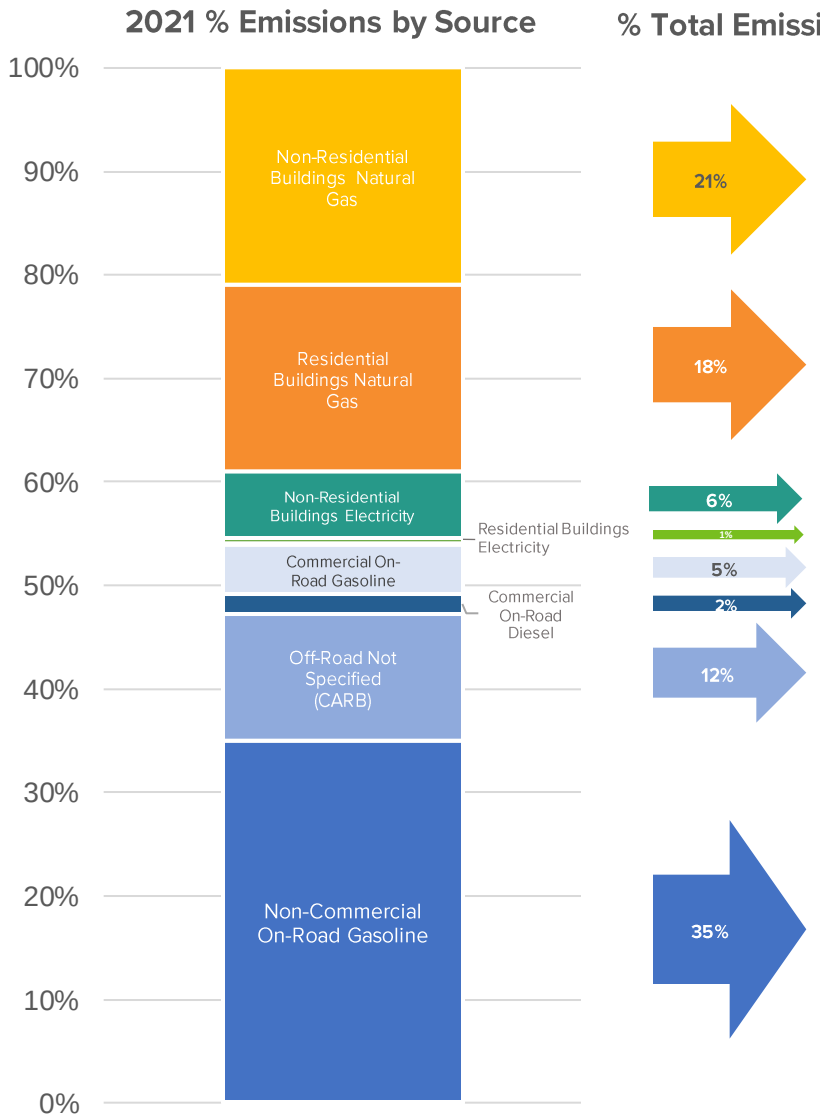
1. Both programs address member agency innovation and “readiness” to accommodate BAAQMD Regulations
2. Both relate to SVCE Strategic Plan Goal 10 to “Accelerate deployment of currently adopted decarbonization strategies and goals…”
3. Permit Modernization: ($3.2M budget, updated March 2022) *“…simplify general electrification by providing free technical support, offering grants to cities to commit staff resources towards this effort and potentially offering an award for cities able to get their processes to meet certain outcomes (e.g., low fees, quick turnaround time). These efforts will enable future policy by reducing friction in customer electrification process and improving cost-effectiveness.”*
4. Policy Experimentation: ($1.9M budget, updated March 2022) *“support interested agencies in exploring policies targeting existing buildings through free technical analysis, an award for agencies who adopt innovative policy and potentially a tailored incentive program to pair with the policy if necessary…”*

Immediate Next Steps

- ✓September MAWG
- October Executive Committee
- Start Procurement Processes for Consultants
- November Board Info Item
- Active Implementation

We need to electrify ~400K heaters in SVCE territory alone.

DRAFT ANALYSIS



% Total Emissions

21%

18%

6%

1%

5%

2%

12%

35%

How many machines need to be electrified?

- **6.5k water heaters**
- **7k furnaces**
- **1k boilers**

Covered under BAAQMD Rules

- (?) cooking & other equipment

Covered under BAAQMD Rules

- 165k space heaters
- 230k water heaters
- 125k stoves
- 80k dryers
- 15k fireplaces
- 10k spa/pool pumps

- Switch 4% of accounts from DA/PG&E
- 100% carbon-free electricity sources
- Electrify 100% Commercial VMT from MDHD Vehicles
- Electrify 100% Commercial VMT from Diesel-Fueled MDHD Vehicles
- Electrify construction & mining equipment, agricultural equipment, lawn care tools, and other industrial equipment

- 400,000 light-duty vehicles

Source: SVCE 2021 GHG Inventory

What happens when the power goes out?

Heat Pump Space Heating

Gas furnaces require electric fans, but fireplaces still work.

Heat Pump Water Heating

Gas water heaters require electronic ignition or pumps

Induction Cooking

Some gas stoves will work without electricity, but it's unsafe

Electric Clothes Dryer

Gas dryers use electric motors to run the tumbler

Appendix – Part 2

Permit Modernization Recommendations

Supporting Recommendations

Description	Problem to Solve	Solution
Staff training	Lack of familiarity with electrification technologies (especially HPWH and EVI) delays plan reviews and inspections. This lack of understanding can result in unneeded panel upgrades.	Provide both in-person (roadshow) and on-demand (pre-recorded) training sessions for City staff to become more familiar with electric appliances and installs. Convene specific trainings on EVI rules, technologies, and best practices – particularly on calculating load requirements.
Pre-application support materials	Many jurisdictions lack some or most pre-application support materials to help prepare applicants and reduce kickbacks for missing information	Develop a master template for different permit types and work with one jurisdiction to customize and integrate it into their processes
Identify electrification permitting disincentives	Building electrification solutions can be harder to permit than gas solutions – commonly for water heaters	Work with all jurisdictions to ensure that HPWH permits are as easy to obtain as gas water heater permits

Supporting Recommendations (pg. 2)

Description	Problem to Solve	Solution
Virtual inspections	Inspections require contractors to wait onsite for inspectors to arrive. In-person inspections can lead to other issues getting flagged outside of the permit scope.	Virtual inspections can be streamlined and faster to schedule due to reduced City staff efforts. They may also help reduce potential of other issues getting flagged. (Note: best suited for straightforward, residential permit applications) Work with one jurisdiction to pilot this project by providing training and equipment
Free permit pilot	Some customers view permit costs as a major disincentive to not get a permit	Fund free electrification permit pilot projects in 1-3 jurisdictions
Permit concierge	Some customers don't know how to prepare a permit application and view getting a permit as too difficult	Fund 3rd party permit concierge to assist customers in getting permits + offer 3rd party support to permitting agencies to expedite review

Inflecting Recommendations

Description	Problem to Solve	Solution
Remove permit requirements for some appliances	Permits for some simple appliances (cooktops, water heaters, etc.) do not significantly enhance public safety and consume valuable staff bandwidth that could be redirected to higher-value activities	Initiate a pilot project with one agency to eliminate the need for permits under certain circumstances. SVCE to work with a law firm on liability-release language to safeguard a City in removing permits (e.g., "we release the City from all liability…")
Distribute pre-approved permits	“ “	Instead of removing permit requirements as above, initiate a pilot project to send pre-approved permits to customers fitting certain circumstances.
Facilitate permits for certified contractors	“ “	Pilot a contractor certification program in which confirmed and vetted contractors could complete work with a pre-approved permit

Inflecting Recommendations (pg. 2)

Description	Problem to Solve	Solution
Best practices in planning for building electrification technologies (Note: this element merges with policy experimentation)	Well-intentioned local regulations (noise, aesthetics, etc.) may prevent the efficient siting of electric appliances.	Develop best practices guidance for tangential issues (not health and safety) like undergrounding requirements, noise restrictions, etc. in order to support agencies in considering the electrification impacts of otherwise well-intended regulations
Inspections with blinders on	Inspectors coming for an electric appliance may notice existing unpermitted work and require remedies, increasing customer reluctance to obtain permits	Evaluate related legal issues and potentially establish legal shield for focused inspections without adding liability to agencies. Initiate a pilot project with one agency.
Provide added home value	Getting permits adds complexity, cost, and time for residents, with very little added value	Provide a certificate of quality inspection that can be listed on the Multiple Listing Service during resale

Monitoring Recommendation

Description	Problem to Solve	Solution
Agency benchmarks	Information about the status of agency efforts is not published and made available to local leaders.	Create a Red-Yellow-Green scoring system for agencies on the implementation of permit modernization for building electrification performance. (very similar to Go Biz's system for EVI) Example measures to evaluate include single permits for HPWH, reduced or virtual inspections for HPs, over-the-counter permitting, etc.

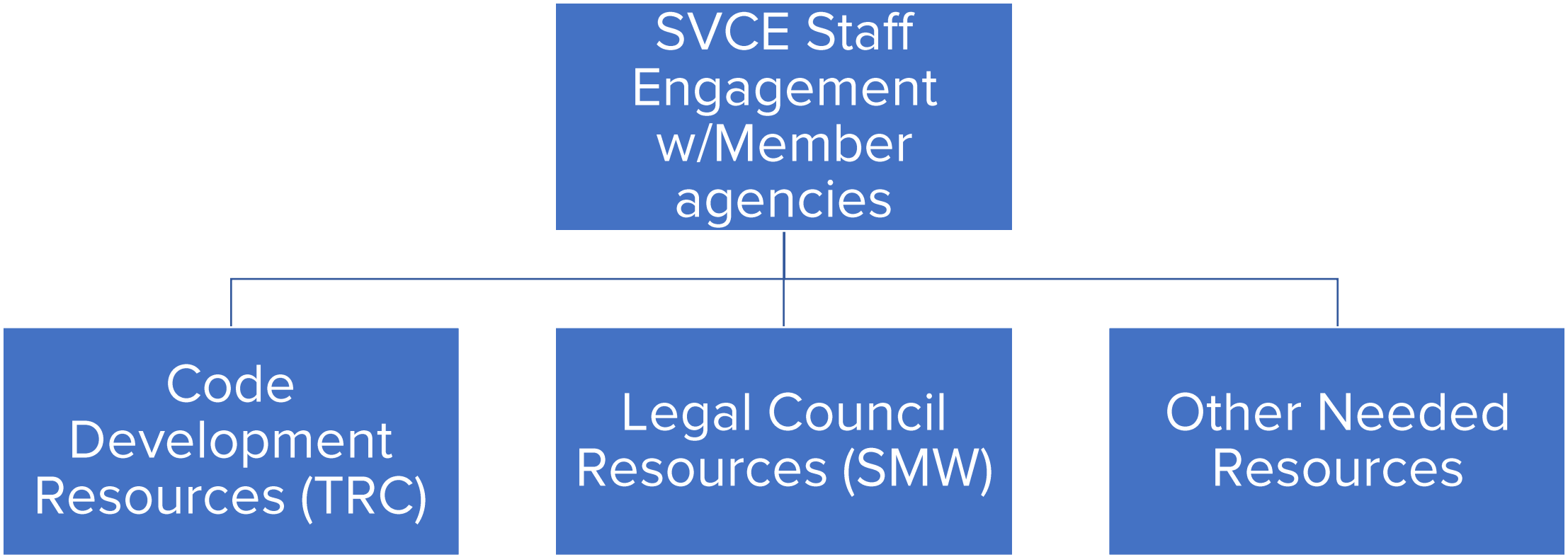
Appendix – Part 3

Policy Experimentation Details

Policy Experimentation

1. 13 separate projects – meet each member agency where they are to develop customized action plans
2. Start with idea “packages” for agencies to consider and adapt
3. Provide comprehensive resources for all member agencies – draft codes, regular meetings, educational events, etc.
4. Coordinate a leadership cohort of three jurisdictions willing to step forward and provide expanded resources to support faster and deeper actions

Resources for Innovative Policy Experimentation (RIPE)



TRC Code Development

TRC will remain our technical consultant preparing ordinances customized with the particular regulations each agency desires. A community, for example, may want to mandate that rooftop package units be all-electric after a certain date and that home air conditioning units be exclusively heat pumps after a different effective date. In this instance, TRC would start with the agency's existing municipal code and develop an ordinance that would specifically introduce these regulations as desired.

Special Counsel Services

As the 9th Circuit's decision indicates, the road to decarb nirvana is lined with legal potholes. We have nearly completed hiring a law firm to provide specialized legal services addressing the many aspects and ramifications of policy issues that local agencies may want to explore.

The firm will be experts on local government law with experience on a range of relevant issues.

RIPE Planning

SVCE staff and consultants will provide comprehensive resources for ALL member agencies.

- Meet with Boardmember, Alternate, and (when desired by agency) Key Staff to gauge what each agency's interests are in evaluating, developing and introducing innovative decarbonization policies. These meetings will pivot off of the agency's climate action plan, BAAQMD rule implementation, and other policy guideposts
- Develop a customized plan with each agency reflecting its wants, needs, political realities, and resources (what, when, how, who). While there will undeniably be commonalities, these will essentially be considered 13 separate initiatives
- Work closely with each agency in implementing their plan by providing staff support, resources, data, and direct implementation assistance
- Create Leadership Cohort for agencies in the lead

RIPE Resources

While the actual resources desired by each agency are still be determined, ideas for discussion include:

- High-level building stock information
- Standard messaging framework
- Active community engagement by contracted community engagement firm
- Funding for temporary agency staff, intern, or fellow specifically dedicated to implementing work identified in the plan developed with the agency.
- Consultant hours to assist with conducting specific research, drafting staff reports, and implementing innovative policies

Since program resources are not unlimited, all of these potential resource offers will be balanced with the agency's aspirations and the overall value they represent to decarbonization.

What else should we offer?

Leadership Cohort Concept

SVCE will provide deeper levels of resources to an Agency Leadership Cohort of three agencies. The Leadership Cohort will demonstrate policy viability and pave the way for other agencies to follow in their footsteps.

To join, an agency must commit to pursuing three or more decarbonization or permit modernization initiatives. The City Manager (County Executive) must send a letter directing staff to participate and commit to bringing at least one policy to vote within 12 months.

In addition to being eligible for more of the RIPE resources listed on slide 14, Cohort agencies would be eligible for leadership training, conference scholarships, and recognition.

What else should we offer?

Menu of Cohort Activities (Initial List)

New Deeper Reach Code

- Required energy storage
- Capturing additional remodels

Existing Building Ordinance

- Replace on Burnout Early (pre-BAAQMD)
- Commercial RTU heat pump requirements
- BAAQMD Backstop

Neighborhood Upgrade Initiative

Induction Cooking Push

EVI Siting Facilitation

Permit Modernization Inflecting Actions