2024 Policy Platform and Legislative Ad Hoc Committee

Bena Chang, Director of Government and Legislative Affairs
November 8, 2023

SILICON VALLEY CLEAN ENERGY

Objectives

Requesting SVCE Board approval of:

1. SVCE's 2024 Legislative Policy Platform; and
2. Creation of the Ad Hoc Committee of the Board to Address Legislative Response to Industry Transition ("Legislative Ad Hoc Committee").

2024 Policy Platform

Recap of 2023 Legislative Year + Forecast

Active state work, federal work focused on implementation of funding.

2023 Review

- Reliability focus – Central Procurement Entity and capacity payments for Resource Adequacy shortfalls
- Interconnection legislation – both transmission and distribution
- State Budget Deficit – delay or trimming of previous multi-year climate program commitments

2024 Forecast

- State Budget shortfall likely. Potential for November Climate Bond.
- Reliability and affordability.

2024 Legislative Policy Platform

No proposed changes to main guiding principles

- Affordability and Rates
- Climate Change Mitigation/Fuel Switching
- Clean, Reliable Grid
- Competitive Equity/Do No Harm
- Health Impact/Safety
- Equity

2024 Legislative Policy Platform - Updates

Includes feedback from Ad Hoc Committee

- Refinements on program needs and opportunities. Continued focus on interconnection challenges.
- Support energy conservation and efficiency.
- Support and fair treatment of carbon-free resources, including nuclear, wind, and geothermal.
- Climate Bond – support for investments in decarbonizing electricity, transportation, and housing.

Legislative Ad Hoc Committee

Request Board approval to establish Legislative Ad Hoc Committee.

Purpose:

- Increase engagement between SVCE Board and staff on legislative issues

Recommendations

1. Approve SVCE's 2024 Legislative Policy Platform; and
2. Create the 2024 Legislative Ad Hoc Committee

GreenStart and GreenPrime

Evaluating and Confirming Changes for 2024

Board of Directors Meeting
November 8, 2023

SILICON VALLEY CLEAN ENERGY

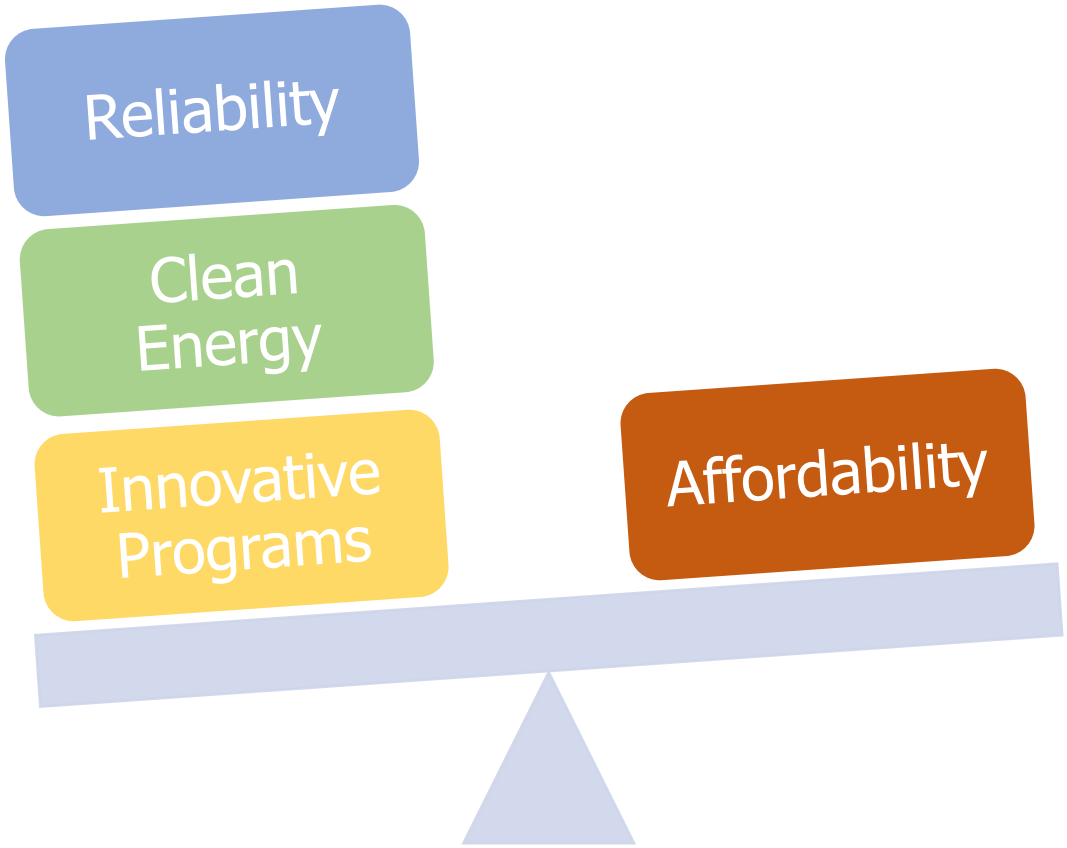
What we will discuss today

- Long-term pathways to achieving our mission and offer customer valued clean energy products
- 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

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

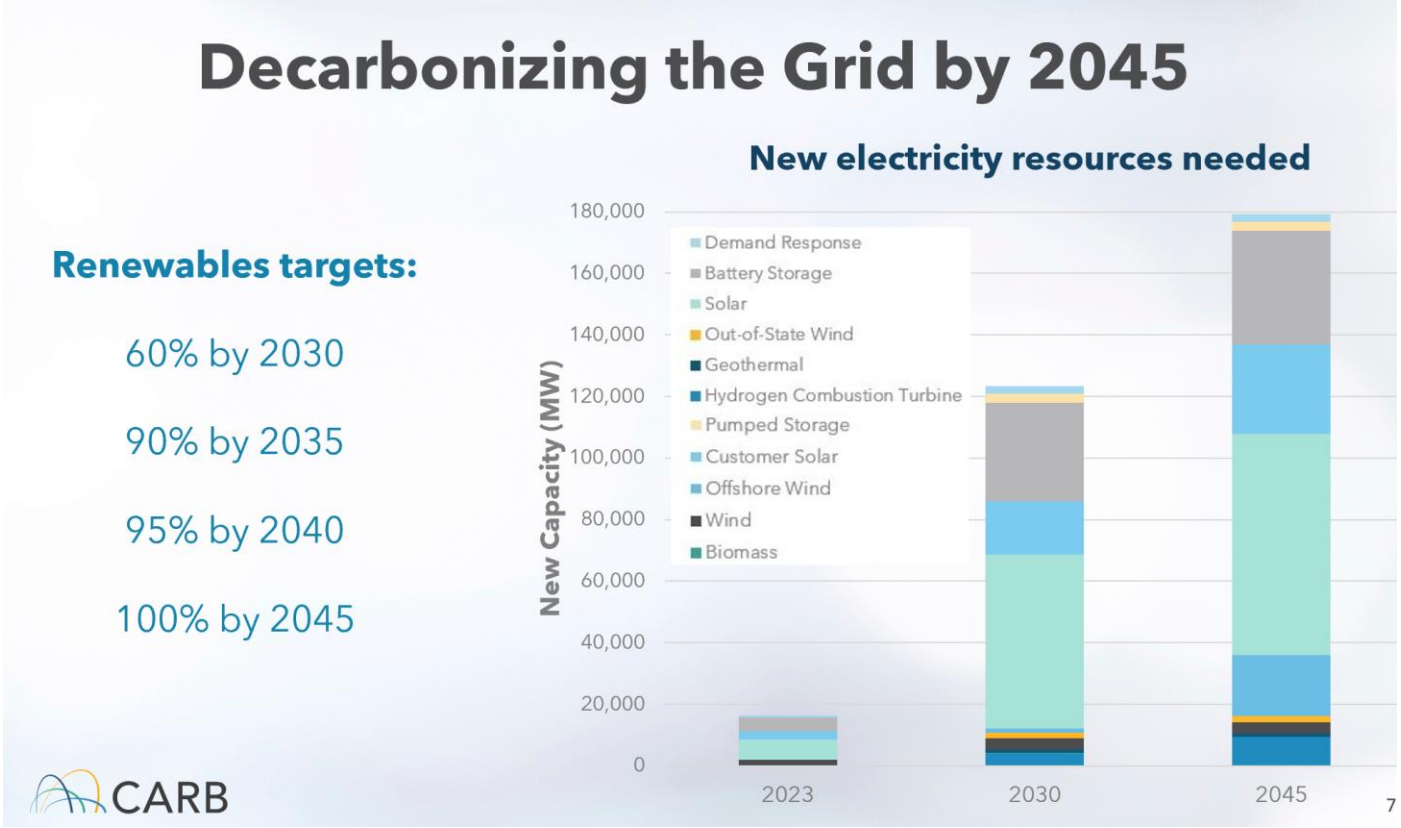
Ambitious decarbonization and climate goals are increasing costs in the short-term until barriers to scaling supply are addressed.



Long-term picture

SB100 means SVCE's current clean goal will become all LSEs compliance obligation.

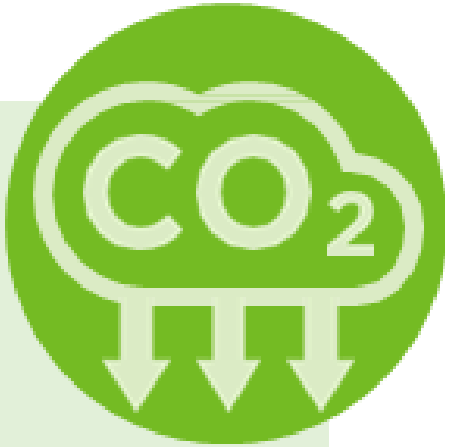
What is SVCE's long-term value proposition?



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

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 clean product offerings***

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

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

Market Conditions

Short-term, 2024,cost of clean energy products is unaffordable.

- RPS Renewable Energy Credits (REC) and carbon-free attribute prices have increased 5x since 2021
- Meeting 100% Clean in 2024 may not be feasible, given the lack of clean products in the market
- If achievable, the incremental cost, relative to budget, to meet SVCE's 100% Clean goal in 2024 could be as much as $30M

GreenStart: budget impact & opportunity cost

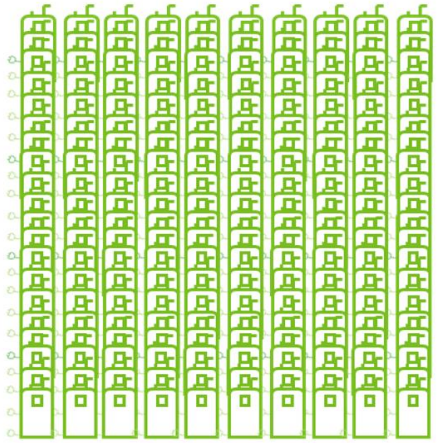
Is achieving 100% Clean for 2024 the best way to advance SVCE's mission?

$30M could possibly 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 EV's

These measures would have lasting results and further SVCE's mission!

Annual HPWHs Needed to Replace all Gas Water Heaters Over Next 11 Years



GreenStart: Options for 2024

	Option #1 Current Policy	Option #2 Buy Nuclear	Option #3 No Additional Purchases
Description	Maintain 100% Carbon Free for 2024 – assumes SVCE can purchase additional CF resources	Maintain 100% Carbon Free for 2024 with nuclear purchases	Stick with current Carbon Free position (~78%-85% in 2024) which assume PG&E Large Hydro allocations.
Expected Reportable Emissions on Power Content Label	74 lbs of Co2*	74 lbs of Co2*	~170 lbs of Co2, includes grid emissions
Benefits	Maintains SVCE's historic product offering	Same as Option #1, but at a lower incremental cost	• Lower power supply cost, which helps maintain SVCE reserves, discount and/or program funding
Drawbacks	• ***May not be feasible*** • Expensive, ~$30M above budget • Limited emissions reductions for grid	• ***May not be feasible*** • Expensive • Limited emissions reductions for grid • Requires board approval	• May create concern from customers, especially GreenStart customers with Climate Action Plans

*emissions associated with Coso Geothermal renewable resources

GreenPrime Challenges

- Cost of short-term Renewable Energy products
  - RPS REC prices are high and GreenPrime premium does not cover incremental cost
  - Current premium is .8 cents per kWh; however incremental cost for 2024 is 2.5 cents per kWh
- Participation uncertainty, resource and cost allocation
- Green-e Certification

GreenPrime Participation

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

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

Green-e Certification

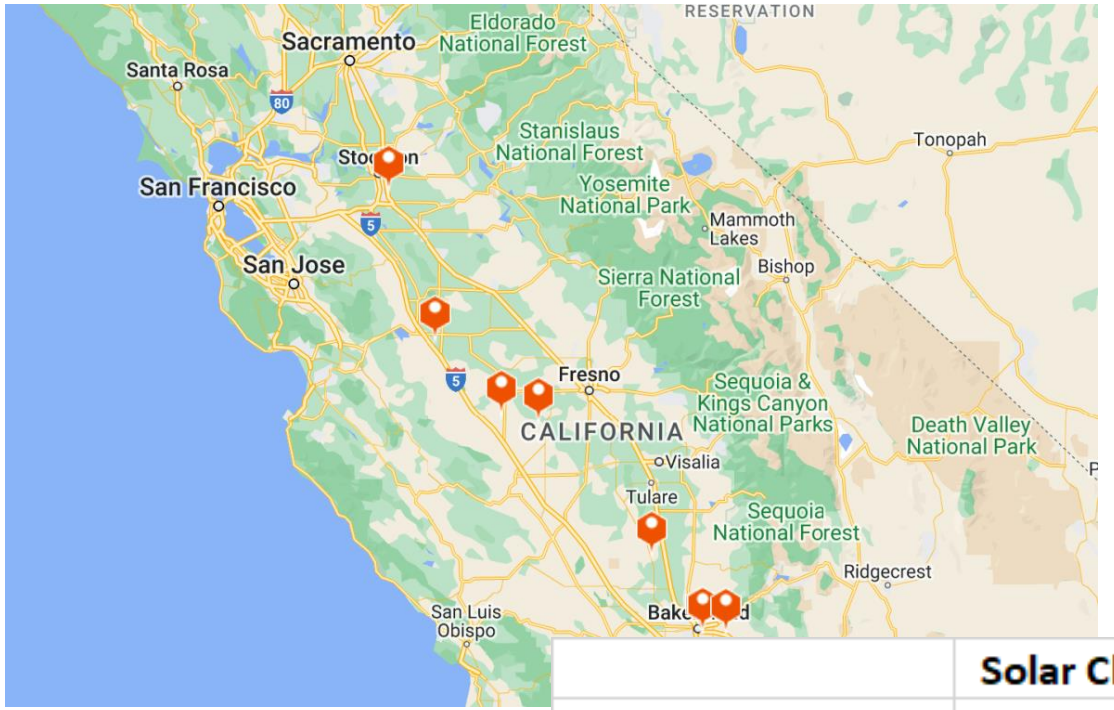
Cost of achieving Green-e certification is rising and not necessary

- 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 customers can continue to achieve EPA GPP and LEED status, if SVCE self-certifies

GreenPrime: Competitive Considerations

PG&E offers 100% RE via competing 'Solar Choice' program, at a 1.1 to 2.3 cents per 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 cents per kWh	.8	1.0	1.0	1.0	.75	1.0

GreenPrime: Options for 2024

	Option #1 Status Quo	Option #2 Directional Price Increase	Option #3 Price at Standard Discount to PG&E	Option #4 Price at SVCE 2024 Cost Recovery Rate
Price Change/ GP Cost Premium	**No change** .8 cents per kWh	**50% increase for 2024** 1.2 cents per kWh	**100% increase for 2024** ~1.6 cents per kWh (avg)	**200% increase for 2024** ~2.5 cents per kWh
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 >	None (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	- $3.2M impact to 2024 reserve contribution, and 'cross-subsidy'	- Some customer disruption, opt-downs likely - $2.5M impact to 2024 reserve contribution, and cross-subsidy	- Major customer disruption, opt-downs very likely - High-priced alternative to GS - $1.7M impact to 2024 reserve contribution, and cross-subsidy	- Major customer disruption; many opt-downs likely - Opt-outs possible - Unlikely alternative to GS

Executive Committee Feedback

Staff presented GreenStart and GreenPrime options for 2024 to the EC on 10/27/2024

GreenStart

- Pursue Option#2 – allow the purchase of nuclear carbon-free resources
- If Option #2 is not feasible, maintain current clean position – Option#3

GreenPrime

- Eliminate Green-e certification
- Need to provide a competitive opt-up product that is 100% clean
- Increase the premium to be somewhere between Option #2 and Option #3

Staff's recommended path for GreenStart 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:
    1. Allocations from PG&E are not available
    2. Sufficient volume is available to achieve 100% Clean below budget

3. If carbon-free resources are not available within budget, adjust 100% Clean goal for 2024 to current position of ~78% Clean

Staff's recommended path for GreenPrime 2024:

1. Discontinue Green-e Certification for 2024 for GreenPrime

2. Re-price GreenPrime premium for 2024 from .8 cents per kWh to 1.2 cents per $0.012/kWh, reflecting underlying cost increases but maintaining 100% RE/CF GreenPrime as a viable alternative to GreenStart for our GreenPrime customers.

3. Communicate GreenPrime rate and process changes to customers in December 2023

Staff's recommended path for beyond 2024:

- Return with recommended overall Clean target for CY 2025-2030 as part of 2024 Integrated Resource Plan and 2045 Pathway to Carbon Neutral discussion

- 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

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

Questions & Discussion

SILICON VALLEY CLEAN ENERGY

Item 5: Authorize the Chief Executive Officer to Execute a 15-Year Power Purchase Agreement with SunZia Wind PowerCo LLC for Renewable Wind Supply (PCC1) and Potential Replacement PPAs in Substantial Form and Any Necessary Ancillary Agreements and Documents

SVCE Board Meeting

November 8, 2023

Request

Authorize the Chief Executive Officer to Execute SunZia Wind agreement and potential Replacement PPAs for the procurement of renewable wind energy in substantial form and any necessary ancillary agreements and documents as follows:

1. **SunZia Wind PowerCo LLC, Power Purchase Agreement (PPA) ("SunZia Wind")**
   a. 100 MW or approximately 316,000 MWh per year of Renewable Portfolio Standard (RPS) Portfolio Category Content One ("PCC1") eligible resources
   b. 15-Year term PPA with expected commercial operation date (COD) and term from September 30th, 2026, through September 29th, 2041.
   c. Total amount not-to-exceed $361,000,000.

Executed Long-Term PPAs

Significant progress made towards meeting long-term clean energy goals

- $3.0 Billion in executed PPAs
- 19 PPAs
- 1,323 MW of nameplate capacity
- 67.10 RPS in 2028
- 7 projects on-line and operating ~32.7% RPS in 2023

	Seller	Project Name	Technology	Generation MW	Storage MW	Storage MWh	Approximate % of Annual load in 2025	Approximate % of Annual load in 2028	Term (years)	Lifetime Not to Exceed Authority (MM$)	SVCE Board Approval	Status
1	MN8	Slate	Solar + Storage	93	46.5	186	6.70%	6.60%	17	$198	Oct-18	Online
2	Ormat	Casa Diablo	Geothermal	7			1.40%	1.40%	10	$43	Feb-20	Online
3	Atlantica	Coso	Geothermal	43.8			9.60%	6.50%	15	$331	Mar-20	Online
4	Leeward	Rabbitbrush	Solar + Storage	40	8	20	3.00%	3.00%	15	$64	Apr-20	Online
5	NextEra	Yellow Pine	Solar + Storage	50	26	104	4.10%	4.00%	20	$128	May-20	Online
6	Avantus	Aratina	Solar + Storage	80	20	60	6.60%	6.60%	20	$174	Jun-20	Pre-construction
7	174 Power Global	Atlas	Solar	50			3.80%	3.80%	10	$32	Jan-21	Pre-construction
8	SB Energy	Angela	Solar + Storage	20	10	40	1.40%	1.40%	15	$35	Mar-21	Pre-construction
9	AES	Mountain View	Wind	33.3			3%	3%	20	$128	Apr-21	Online
10	Origis	San Luis West	Solar + Storage	62.5	15.625	62.5	4%	4%	15	$74	Apr-21	Pre-construction
11	Clearway	Victory Pass	Solar + Storage	100	25	100	8%	8%	15	$173	May-21	Construction
12	Terra-Gen	Cameron Crest	Wind	77.7			5%	5%	15	$150	May-21	Online
13	Rev Renewables	Tumbleweed	Long Duration Storage		15.9375	127.5	n/a		15	$100	Feb-22	Pre-construction
14	Onward	Goal Line	Long Duration Storage		14.2	113.6	n/a		15	$100	Mar-22	Pre-construction
15	Ormat	Geothermal Portfolio	Geothermal	16.75			3.30%	4.40%	20	$256	Jun-22	Pre-construction
16	OME	Fish Lake	Geothermal	1.82			0.40%	0.40%	20	$30	Jun-22	In-development
17	MRP	Hanford	Thermal + BESS	99.4	131.4	131.4			12	$280	Apr-23	In-development
18	NextEra	Grace	Solar	120	0			9%	15	$286	Aug-23	Pre-construction
19	NextEra	Yellow Pine III	Storage	0	115	460			15	$420	Aug-23	Pre-construction
		Total:		**895**	**428**	**1405**	**60.30%**	**67.10%**		**$3,002**		

Fall 2022 Procurement Efforts

SVCE Procurement Goals:

- Renewable Portfolio Standard (RPS)
- Integrated Resource Plan (IRP) GHG Reductions
- Mid-term Reliability (MTR) Procurement Order
- Portfolio Diversity
  - Technology
  - Geography
- Resource Adequacy
- Carbon Free Energy & Standalone Storage Projects
- Term: minimum 10 years

November 2022

- Issued RFP – seeking diverse RPS & MTR Resources

August 2023

- Executed two agreements per RFO

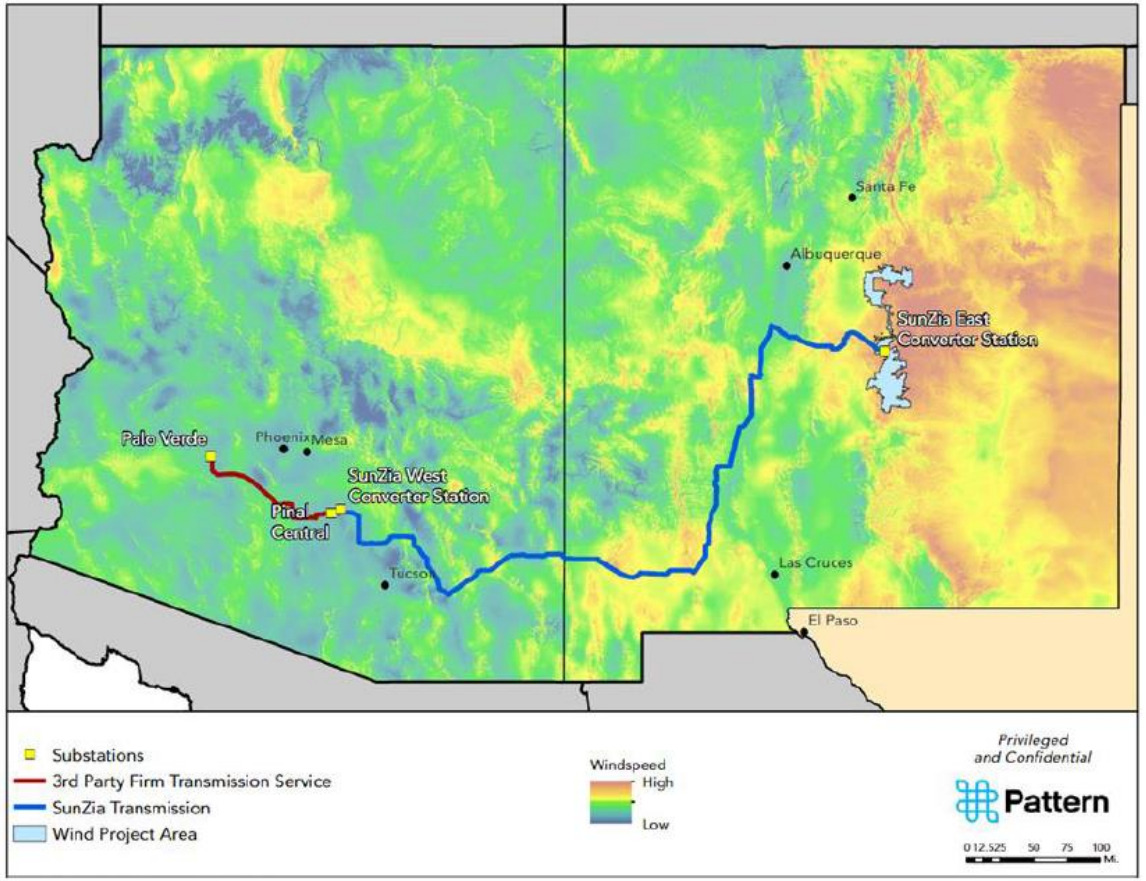
April-May

- Bilateral offer from Pattern Energy for new SunZia Wind project

SunZia Wind

3,515 MW Wind park in New Mexico

- Connects to the Pinal Central Substation using the SunZia Transmission line
- From Pinal the resource will connect with CAISO at Palo Verde
- Several off-takers
  - PCE recently announced 200 MW
- SVCE's share is 100 MW



SunZia Wind PowerCo, LLC

- **Meets 7 to 8% of SVCE's retail sales**
- IRP GHG reduction target
- 75% RPS by 2030
- SB100 Clean Energy target of 100% by 2045
- Meets long-term RPS requirements
- Supports GreenStart and GreenPrime
- Provides ~34 MW of MTR capacity
- Provides Resource Adequacy

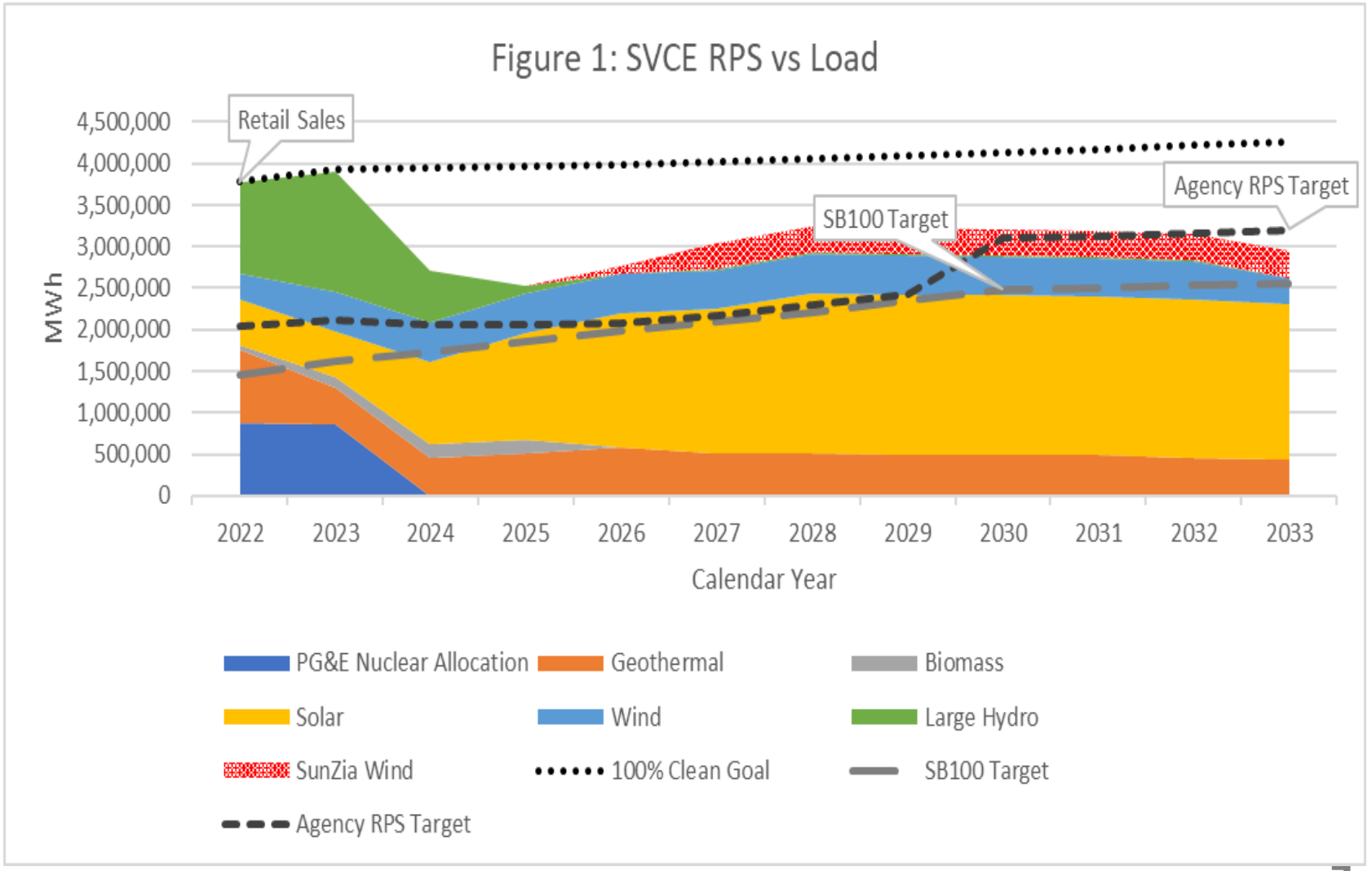
Developer / Parent Company	• Pattern Energy, Inc.
Product & Attributes	• 100 MW New Solar • 316 GWh, PCC1 Renewable Energy • MTR and RA countable
Project Name & Location	• SunZia Wind PowerCo LLC • Torrance, Lincoln and San Miguel Counties in New Mexico
Expected Delivery Term Start	• 15-year, Mid-to-Late 2026
Contract Price Structure	• Fixed price ($/MWh) for Metered Energy. No Escalator.

Annual RPS Progress

SunZia Wind will help SVCE meet ongoing SB100 RPS requirements as well as SVCE's Agency RPS target that climbs to 75% in 2030

SB100 Carbon Neutral targets per SB 1020

- 60% by 2030
- 90% by 2035
- 95% by 2040
- 100% by 2045



Compliance with Long-Term RPS Procurement Mandate

- SB350 requires 65% of RPS to come from long-term (>=10 years) contracts
- SunZia Wind adds to Compliance Periods 5 and 6 obligations

	CP#4 2021-2024	CP#5 2025-2027	CP#6 2028-2030
1. State Mandated RPS per Compliance Period - % of Retail Sales	40%	50%	57%
2. State Mandated % of Mandated RPS (Row #1) to be Contracted Under RPS Long-term Contracts	65%	65%	65%
3. State Mandated % of Retail Sales with RPS Long-term Contracts (Row 2* Row 1)	**26%**	**33%**	**37%**
4. SVCE: Current Compliance with Row #3: Existing RPS Achieved with Long-term Contracts	30.70%	66.00%	71.70%
5. SVCE: RPS Achieved with SunZia Wind	**30.70%**	**69.30%**	**79.50%**
Open Position relative to State Mandate (Row #3) +Above/ (-) Short	**4.70%**	**36.30%**	**42.50%**

Energy and Reliability Portfolio

SunZia Wind will increase clean energy and capacity

SunZia Wind increases Clean Energy from Wind by 7-8%

SunZia Wind increases Clean RA Capacity by ~3%

Sunzia Wind provides 34 MW of MTR eligible capacity in 2027

Estimated for 2028	Annual Energy (GWh)	Energy Source as a Percent of Total Retail Sales	Capacity Source as a Percent of Total RA Requirement
Biomass	0	0%	0%
Geothermal	503	12%	12%
Solar	1,820	45%	12%
Wind with SunZia	788	19%	6%
Large Hydroelectric	871	21%	0%
Battery Storage	0	0%	7%
Natural Gas RA-only	0	0%	47%
Hanford – Natural Gas	70	2%	17%
Total	4,052	100%	100%

Summary

SunZia Wind diversifies SVCEs portfolio while meeting clean objectives

- Contributes 7-8% of RPS-eligible energy on an annual basis
- Helps meet clean energy goals, SB 100, SB 350 and SB 1020
- Reduces GHG emissions
- Can provide Resource Adequacy capacity
- Can provide MTR attributes for 2027 and beyond
- Provides geographic and technology-based diversity to SVCE's Portfolio
- Provides net positive portfolio value

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   c. Total amount not-to-exceed $361,000,000.

Permit Modernization and Policy Experimentation Program Launch

Zoe Elizabeth
November 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.

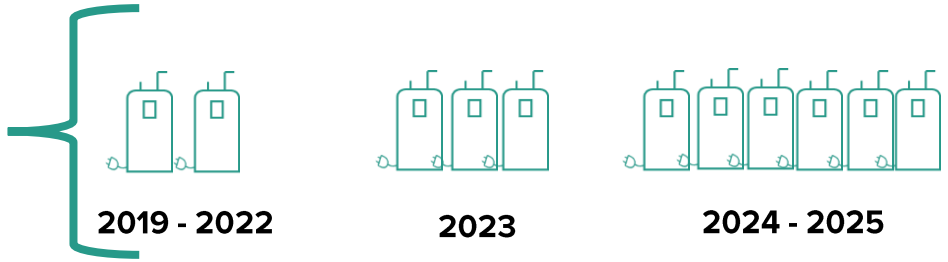
2022 State code	vs	With adopted reach codes
~50k homes with **gas** water heating		~50k homes with **heat pump** water heating
~$25M locked-in replacement cost from gas to electric		$0 replacement cost
$0 savings at the time of construction		~$85M savings at the time of construction
~50,000 annual MT 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)

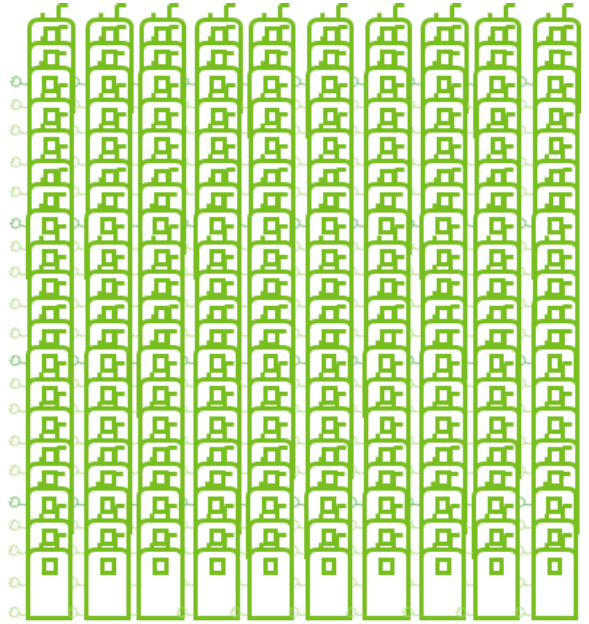


2019 - 2022

2023

2024 - 2025

Annual HPWHs Needed to be Installed Under BAAQMD Rule

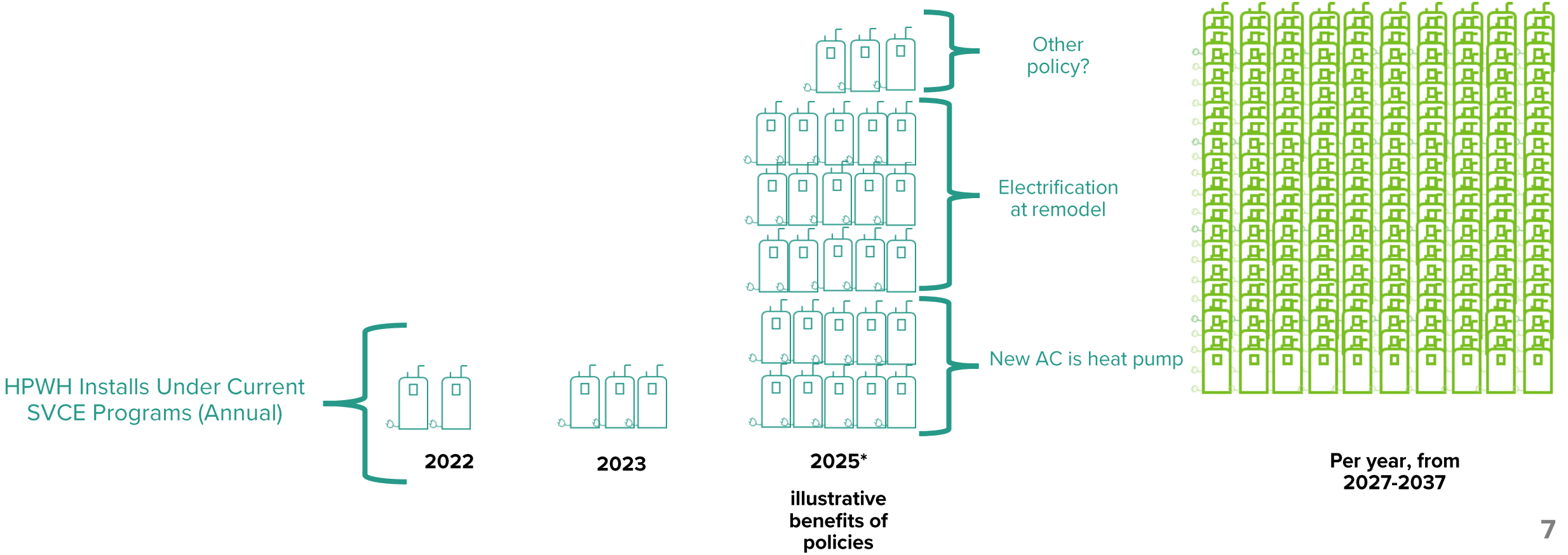


Per year, from 2027-2037

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.

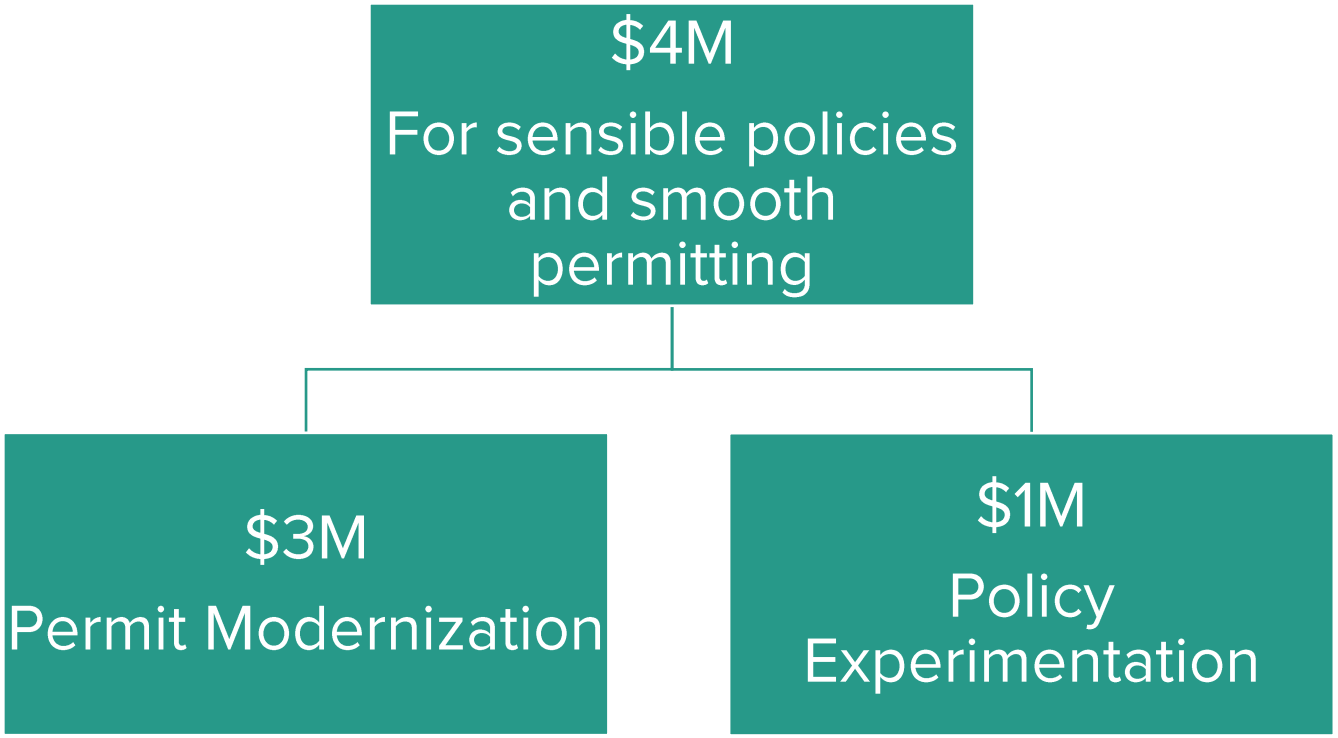
= 100 HPWHs/yr



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.

Our team is here to support you all along the way.

Zoe Elizabeth
Deputy Director Decarb. Policy & Program

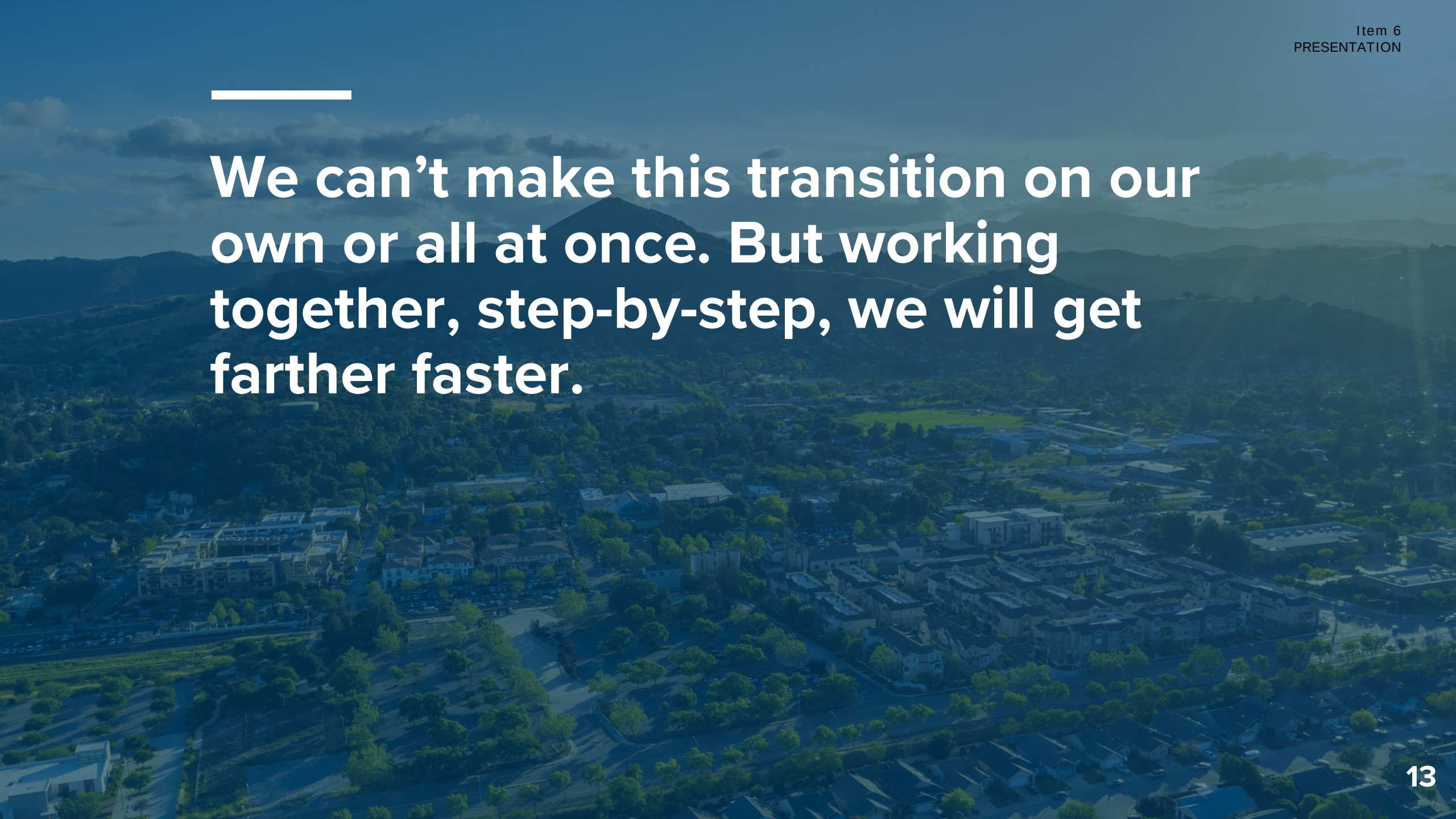
Tony Eulo
Snr. Manager Public Sector Services

Jessica Cornejo
Snr. Specialist

Peter Mustacich
Programs Lead

Bena Chang
Director of Gov. & Leg Affairs

Plus a bench of technical, legal, and engagement consultants



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

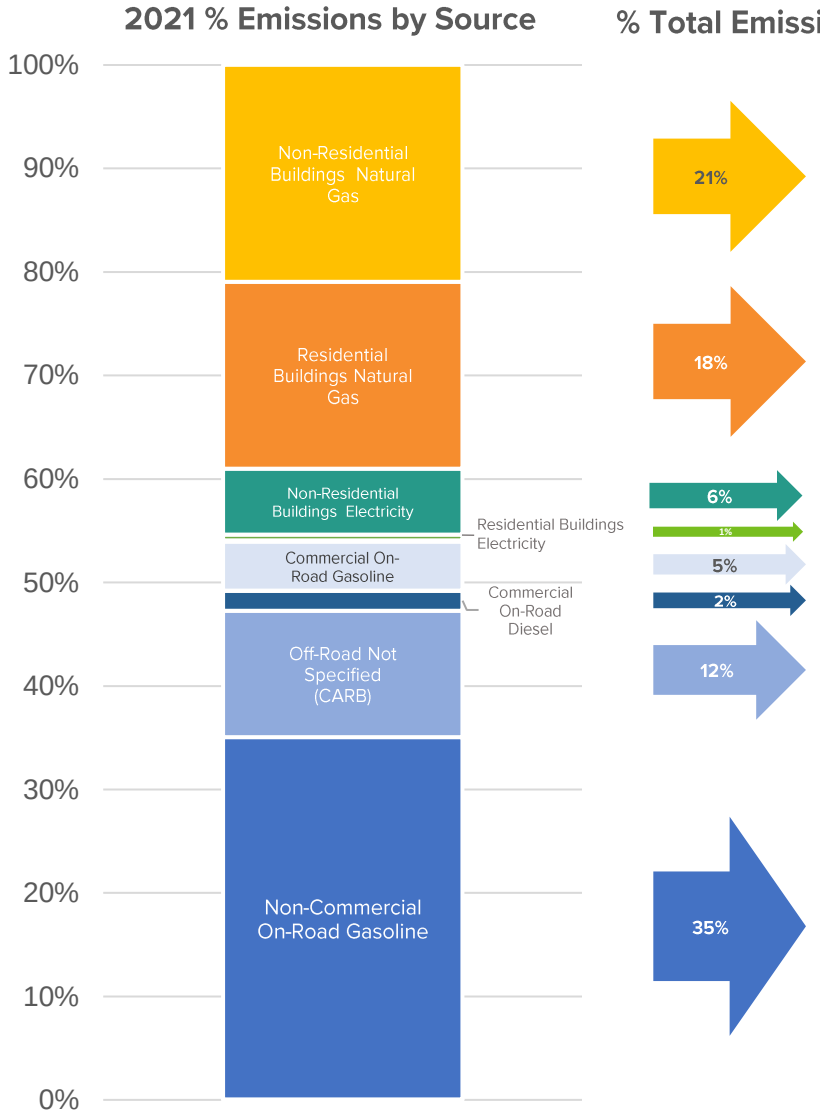
1. Both programs address member agency innovation and “readiness” to accommodate BAAQMD Regulations
2. Both relate to SVCE Strategic Plan Goal 10 to “Accelerate deployment of currently adopted decarbonization strategies and goals…”
3. Permit Modernization: ($3.2M budget, updated March 2022) *“…simplify 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.

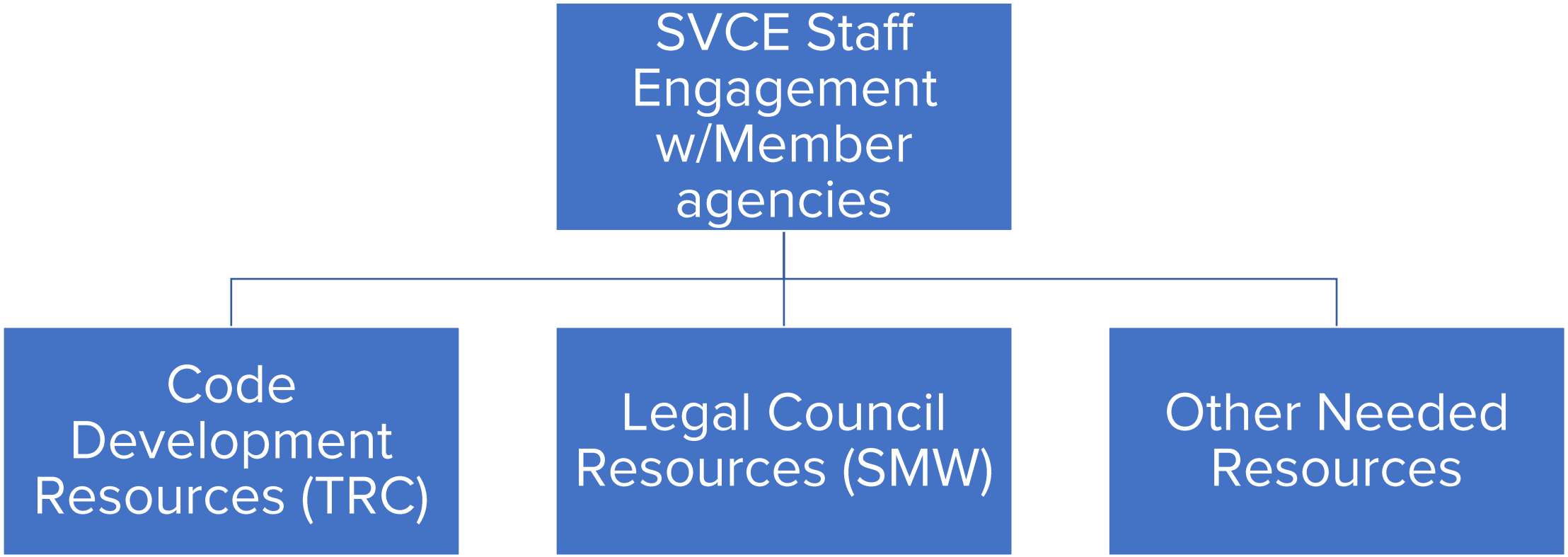
Appendix – Part 3

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