

#### **Purpose**

#### Action:

- 1. Authorize the CEO to Execute
  Agreements with Firms Providing
  Services to Enable SVCE to
  Execute its Third Prepay
- 2. Approve the Parameters of the Transaction

### **Main Areas of Discussion**

- 1. Review of Prepay Goal and Structure
- 2. Leverage the First and Second Prepay Structure
- 3. Fees for Consultants and Counsel
- 4. Board-authorized parameters for execution of the deal
- 5. Fiscal Impact
- 6. Next Steps
- 7. Appendix
  - Review of First 2 Prepays
  - Overview of Prepay Structure and Background Information



### Review of Prepay Goal and Structure Resentation

Substantial savings with minimal risks

#### Goal

- Reduce the cost of power purchases by leveraging SVCE's ability to fund low-cost taxexempt debt
- Gain competitive advantage relative to Investor Owned Utilities (IOUs)

#### How

- Benefit from the spread between taxable and tax-exempt interest rates
- Use of financially engineered prepay structure\*
  - Bonds not guaranteed by SVCE or California Community Financing Authority (CCCFA).
  - Bonds secured by the contractual rights and transaction cashflows
- Seasoned team of professionals helps guide, negotiate, and structure the transactions.

\*Refer to the appendix for a more detailed overview of the prepay structure

#### **Minimal Risks**

- Fees (except rating agency) are contingent on the execution of the deal and paid from the bond proceeds
- Bonds issued are non-recourse to SVCE





## Leverage the Existing Prepay Structure

### Recommend the Board Authorize Agreements to Initiate Third Prepay Transaction

#### Slides in the appendix provide:

- Timeline of the first Prepay transaction
- Details of the SVCE's Two Prepays transaction and cost breakdown
- Overview of the Prepay Structure

- Replicate the existing Prepay transaction structure
  - Benefit from over two years of effort to establish the structure
  - Successfully executed two prepays using this structure
  - Combined savings of two completed transactions are about \$6.5 million annually
- Other CCAs have taken or plan to take advantage of market opportunities to execute Prepays
- Since the execution of our first Prepay in partnership with EBCE:
  - MCE, CPA, and Pioneer have executed Prepays
  - EBCE has executed 3 Prepays, and CPA has executed 2
  - 3CE is pursuing its first Prepay transaction
    - Par Value of CCCFA transactions is just over \$7 Billion

# (1) Transaction Execution Parameters

#### Prepay Transactional Agreements Contingent on Board-Authorized Parameters

- Expect principal bond amounts to be in the range of \$900 Million to \$1.5 Billion
- Actual realized discount will depend on the spread between taxable and taxexempt rates (net of transaction costs)
  - Savings could be \$5 million or more a year during the initial term of the bonds
- 30-year bonds will reset after the initial period, expected to be 5-10 years, and discount on future reset periods will depend on the prevailing market conditions.
  - The repricing agreement will set a minimum discount threshold for future bond reset periods, expected to be at energy savings of about 4%.

- Execution Contingent on:
  - Aggregate principal amount of bonds will not exceed \$1.5 billion
  - Bonds issued by the California Community
     Financing Authority (CCCFA) are not guaranteed obligations of SVCE
  - Overall energy savings to SVCE shall be at least 8 percent during the initial term of the bonds
  - The commodity swap counterparty fee is not to exceed \$0.50 MWh.

## Approval of Morgan Stanley as the Prepay Supplier

#### Morgan Stanley was the Prepay Supplier for SVCE's First 2 Prepay Transactions

Morgan Stanley Fee Structure (same as that of First Two Prepays):

- Bond underwriting fee of \$5/bond plus underwriter expenses not to exceed \$0.50/bond.
  - E.g., For issuance of \$1 billion in bonds, with a face value of \$1000 a bond, the underwriting fee would be \$5 million.
- Energy Service Revenue of \$1.10 per MWh
- If floating rate debt is issued, a 2 to 6 basis point charge on an interest rate swap
- Minimal risk to SVCE.
- All costs (underwriting, consultants, and attorneys) are paid from the bond proceeds.
- The Board-designated savings target will be net of all costs.



### 3<sup>rd</sup> Party Agreements to Initiate Prepay

### At ~35% Discounted Fee for Third Prepay

- Expected Cost of 3<sup>rd</sup> Party Agreements is \$852,200
- Authorize the CEO to execute up to 1% of the bond proceeds

Account for other ancillary services, including green bond verification, bond trustee and counsel fees, an investment advisor fee, other miscellaneous costs such as printing, and Morgan Stanley underwriting-related fees described in the earlier slide.

Firms	Role	First Prepay	Second Prepay	Proposed for Third Prepay
PFM Financial Advisors LLC /	Municipal Advisor: Advises prepay buyer in negotiations, required by	\$250,000	\$175,000	\$155,000
PFM Swap Advisors	the Municipal Securities Rulemaking Board (MSRB), and on commodity and interest rate swaps.			
Chapman & Cutler	Disclosure and Issuer's Counsel: Provides legal counsel and prepares official statement and prospectus	\$310,000	\$200,000	\$175,000
Ballard Spahr*	Bond and Tax Counsel: Represent bondholders and provide tax opinion on the transaction	N/A*	\$300,000	\$250,000
Moody's Investor Service Inc	Rating Agency: Provides the credit rating for the bonds	\$315,000	\$232,500	\$272,500
Total		\$1,300,000	\$907,500	\$852,500

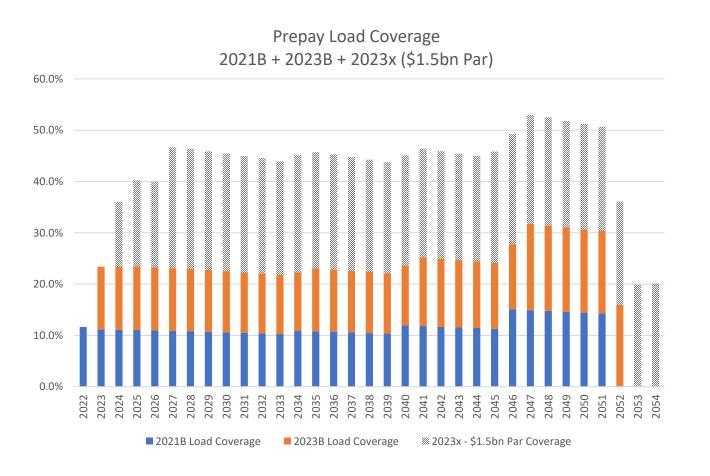
Except for Moody's all payments are <u>contingent</u> on the execution of the transaction.

The agreement with Moody's will be executed later when there's more certainty on the likelihood of a transaction.

<sup>\*</sup> For the first Prepay, SVCE worked with Orrick, Herrington & Sutcliffe as the bond and tax counsel at a higher cost of \$425,000.

## ( Prepay Load Coverage

Can easily cover 50-60% of load; after that we will need to further optimize the portfolio.



#### On average:

- Prepay 1 covers about 11% of the Load
- Prepay 2 covers about 12% of the Load
- Prepay 3, if executed at \$900 Million
   Par, would cover 12% of Load
- Prepay 3, if executed at \$1.5 Billion
   Par, would cover 20% of the Load
- Total average load coverage is expected to be around 35% to 45% of Load

# (V) Fiscal Impact

Cumulative Savings from 3
Prepays Could be \$12
million a Year or More
(based on initial bond reset
periods)

Can Fund ~3% Customer
Discount relative to PG&E
Rates ♠

3rd - ~\$5 MM or More

2nd - \$4.7 MM

1<sup>st</sup> - \$1.9 MM

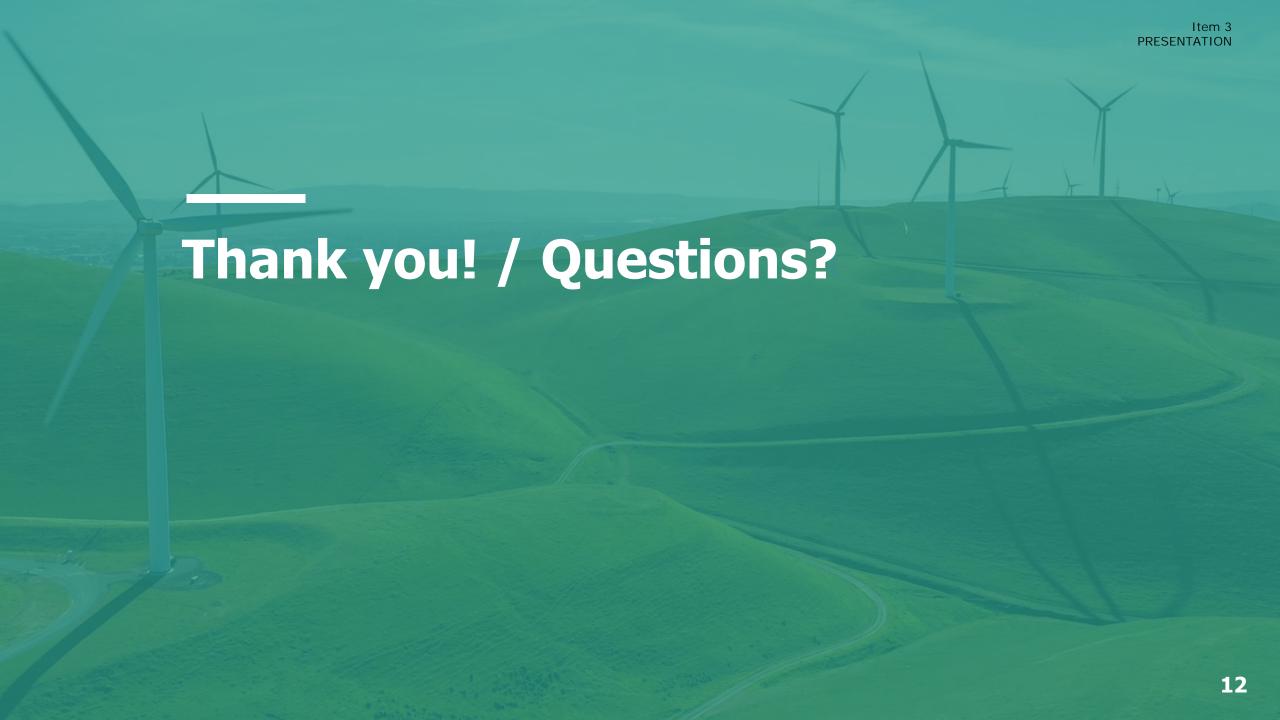
- Actual savings depend on market conditions the spread between taxable and tax-exempt debt rate
- Illustrative:
  - If we get savings of 8 to 10% for a 50 MW around-the-clock transaction at current commodity prices, this could amount to \$5 million savings per year
- Minimal Risk to SVCE
  - Fees (except rating agency) are contingent on the execution of the deal and paid from the bond proceeds
  - Bonds issued are non-recourse to SVCE

 Seek California Community Choice Financing Authority (CCCFA) Board Approval at its October 26<sup>th</sup>, 2023, Meeting

 Target bond issuance for November 2023. Timing will depend on market conditions.

# **Board Approval**

- Adopt resolution 2023-17 authorizing the CEO to approve or execute the following contracts for services these firms will provide to enable SVCE to execute its third Prepay transaction. The combined fees for services provided by the firms identified below shall not exceed 1% of the bond proceeds amount, including other ancillary services such as green bond verification, bond trustee and counsel fees, an investment advisor fee, and other miscellaneous costs such as printing.
  - 1. PFM Financial Advisors LLC & PFM Swap Advisors \$155,000
  - 2. Chapman & Cutler (Disclosure/Issuer's Counsel) \$175,000
  - 3. Ballard Spahr (Bond and Tax Counsel) \$250,000
  - 4. Moody's Investor Service Inc (Credit Rating) \$272,500
- Approve engagement with Morgan Stanley as the Prepay Supplier with the following fee structure:
  - Bond underwriting fee of \$5/bond
  - Underwriter expenses not to exceed \$0.50/bond.
- Adopt resolution 2023-18 authorizing the CEO to execute Power Supply Contract with California Community Choice Financing Authority (CCCFA) and execute or approve the related supporting agreements to enable SVCE to enter an approximately 30-year energy prepayment transaction subject to the following parameters:
  - 1. The Bonds, issued by CCCFA, will not be guaranteed obligations of SVCE but will be limited obligations of CCCFA payable solely from the revenues and other amounts pledged under the Indenture as the Trust Estate, including amounts owed by SVCE under the Power Supply Contract.
  - 2. The aggregate principal amount of the Bonds shall not exceed \$1,500,000,000.
  - 3. The energy savings to SVCE under the Power Supply Contract for the initial Reset Period, including the Annual Refund (as defined in the Power Supply Contract), shall be at least 8 percent.
  - 4. The energy service revenue fee in the transaction shall not exceed \$1.10 per MWh.
  - 5. The commodity swap counterparty fee in the transaction shall not exceed \$0.50 MWh.
  - 6. If floating rate debt is issued, Morgan Stanley shall charge no more than six basis points on the interest rate swap spread to mid-market.





## Timeline of SVCE's First Prepay Transaction

SVCE presents Prepay Structure Overview Presentation (developed by Goldman Sachs) to Finance and Admin Committee
SVCE presents a brief verbal update on prepay process to Finance and Admin Committee
SVCE and PFM Financial Advisors provide update on the upcoming RFP process to Finance and Admin Committee
SVCE provides Prepay RFP Overview to Executive Committee  - PFM issues RFP to select Prepay Bank Supplier on behalf of EBCE and SVCE on Nov 12 <sup>th</sup> - RFP Proposals were due December 5th
SVCE presents Prepay Structure Overview to Finance and Admin Committee
SVCE and EBCE conduct RFP evaluations to select Prepay Bank Supplier
SVCE and EBCE select Morgan Stanley as Prepay Bank Supplier
SVCE provides Prepay Status Report to Finance and Admin Committee
SVCE provides Board with Prepay Overview on preparing for a Prepay Transaction SVCE provides Prepay Status Report to Finance and Admin Committee

Oct-2020	SVCE Board Authorizes CEO to enter legal service agreements to finalize Prepayment Transaction (Orrick, Herrington & Sutcliffe and Chapman & Cutler LLP)
Nov- 2020	SVCE provides Prepay Status Report to Finance and Admin Committee
Mar- 2021	SVCE provides Prepay Status Report to Finance and Admin Committee SVCE provides Prepay Status Report to Executive Committee
April- 2021	SVCE Board Approves Participation in the California Community Choice Financing Authority Joint Powers Authority
Aug- 2021	The Finance and Admin Committee reviews the Prepay Transaction and votes to recommend Board approval. Board authorizes execution of the first Prepay Transaction subject to parameters including that bonds are not obligations of SVCE, size of the bonds, and minimum savings target.
Sept- 2021	Sept 9, 2021 bonds priced
Jan-2022	Power delivery under Prepay began



## (1) Details of the First Prepay Transaction

Aggregate Principal Bond Amount	\$1,234,720,000 (SVCE and EBCE combined)		
<b>Total Bond Proceeds</b>	\$1,475,895,642.5 (SVCE and EBCE combined)		
Municipal Bond Rating	A1		
<b>Green Certification</b>	Designated Green Bonds by Kestrel Verifiers		
Initial Bond Pricing Period	<ul> <li>10 years.</li> <li>After the initial period, bonds will be repriced per the negotiated repricing agreement, and a new discount will be established based on the then prevailing market conditions.</li> </ul>		
Final Bond Maturity Date	• February 1, 2052.		
Discount Achieved	<ul> <li>\$4.38 per MWh, about 10% of the energy cost of SVCE's 3-year transaction initially assigned into the Prepay.</li> <li>~\$1.9 million per year for SVCE during the initial bond pricing period of ten years.</li> </ul>		
Energy Volume Supported by Bond Proceeds	109 MW, of which SVCE's share is 50 MW (about 11% of load) and EBCE's share is 59 MW for approximately the first ten years of the transaction; after that, the same proportional volume split will be maintained between SVCE and EBCE.		



## First Prepay Transaction Cost Breakdown (\$000)

Bond and Tax Counsel: Orrick, Herrington & Sutcliffe	425
Credit Rating: Moody's	315
Issuer's Counsel and Disclosure Counsel: Chapman & Cutler LLP	310
Municipal Advisor: Public Financial Management	250
Investment Advisor: Public Financial Management Asset Mgmt	42
Trustee: Bank of New York (BNY)	32
Trustee Counsel: BNY Counsel	35
Printing Cost	3
Contingency/Other	10
Total COI	1,422
Morgan Stanley Underwriting	6,341
Total	7,763

## (1) Details of the Second Prepay Transaction

Aggregate Principal Bond Amount	\$841,500,000			
<b>Total Bond Proceeds</b>	\$891,418,648.1			
Municipal Bond Rating	A1			
<b>Green Certification</b>	Designated Green Bonds by Kestrel Verifiers			
Initial Bond Pricing Period	<ul> <li>6.5 years.</li> <li>After the initial period, bonds will be repriced per the negotiated repricing agreement, and a new discount will be established based on the then prevailing market conditions.</li> </ul>			
Final Bond Maturity Date	• July 1, 2053.			
Discount Achieved	<ul> <li>\$9.77 per MWh, about 10% of the price established for energy deliveries under the power supply contract.</li> <li>~\$4.7 million per year during the initial bond pricing period of 6.5 years.</li> </ul>			
Energy Volume Supported by Bond Proceeds	~55 MW (about 12% of load; a slight escalation in the latter half of the transaction)			



## (1) Second Prepay Transaction Cost Breakdown (\$000)

Cost of Issuance (COI)	\$ in 000's
Bond and Tax Counsel: Ballard Spahr	300
Credit Rating: Moody's	232.5
Issuer's Counsel and Disclosure Counsel: Chapman & Cutler LLP	200
Municipal Advisor: PFM Financial Advisors LLC	175
Investment Advisor: PFMAM (US Bank)	35
Trustee: BNY Mellon Corporate Trust	30.9
Trustee Counsel: Ballard Spahr	30
Printing Cost: ImageMaster	3.3
Green Bond Second Party Opinion: Kestrel	22
Contingency/Other	16.8
Total COI	1,045.5
Morgan Stanley Underwriting	4,359.2
Total	5,404.7

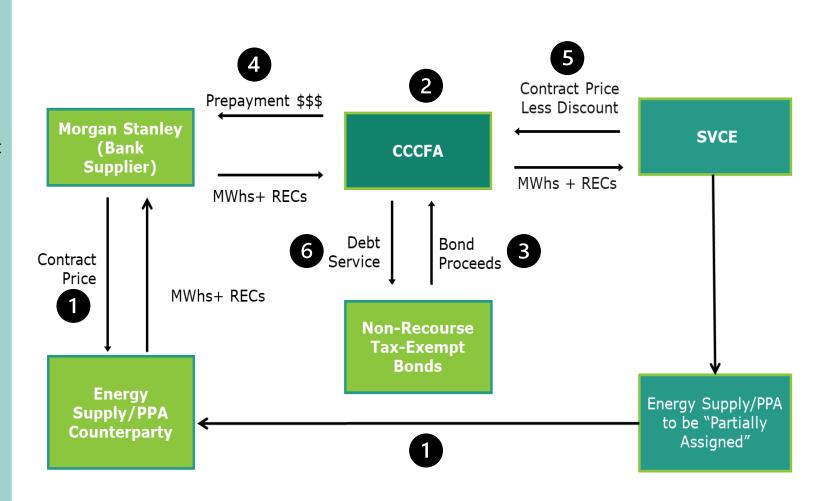


## **Overview of Prepay Structure**

<u>Term</u>: 30-year with bonds repricing every 5-10 years depending on the optimal spread between taxable and tax-exempt interest rates.

#### **Process:**

- SVCE partially assigns, using Limited Assignment Agreement, energy contract to Morgan Stanley (MS), Prepay Supplier. MS agrees to pay contract price to energy supplier.
- CCAs created CCCFA, a separate legal entity that can issue tax-exempt debt.
- CCCFA issues non-recourse tax-exempt bonds.
  - Bonds not guaranteed by SVCE or CCCFA.
  - Bonds secured by the contractual rights and transaction cashflows; Bonds carry MS credit ratings.
- 4. CCCFA pays bond proceeds, net of transaction fees, to MS as prepayment for energy and related products that MS will provide over the 30-year term. Executes Prepaid Agreement.
- 5. SVCE and CCCFA execute Power Supply Agreement, where SVCE pays CCCFA contract price less discount for energy delivered by CCCFA.
- 6. CCCFA uses payments from SVCE to pay interest and principal payments to bondholders.



## Review of Prepay Background Info.

### Goal: Reduce the cost of power purchases

- Savings achieved by leveraging SVCE/CCFA's ability to fund low-cost tax-exempt interest rates
- Used since the 1990s for natural gas transactions
- Codified in the US Tax law
  - Part of the National Energy Policy Act of 2005
- Seasoned professionals will help guide, negotiate, and structure the transactions. Fees for professionals are contingent on the completion of the deal and paid from the deal proceeds.



### History and Tax Law Behind Municipal Prepaid Energy Transactions

- Municipal electric and gas utilities (and tax-exempt entities such as CCAs) in the US can prepay for a supply of electricity or natural gas from a taxable (corporate) entity and fund that prepayment with tax-exempt municipal bonds:
  - Must sell that commodity to their retail end-users that reside within their traditional service area.
- Prepayment transactions are legal and Codified in US Tax Law: Since first prepayments
  of natural gas were done in the early 1990's, the IRS issued rules allowing tax-exempt
  prepayments and Congress enacted legislation specifically allowing the transactions
  (National Energy Policy Act of 2005; Section 1327).



- Shared understanding of key SVCE data
- Visibility into some program specifics residential buildings today
- Rich discussion

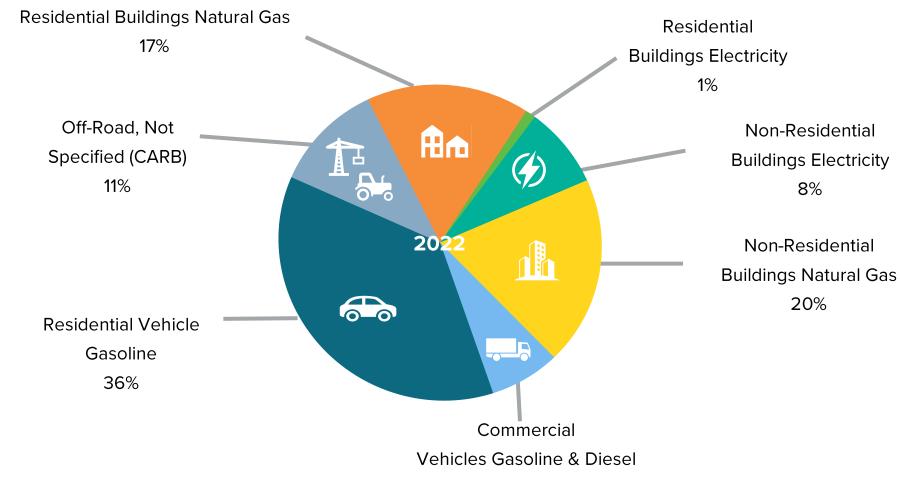


- 1. SVCE Emission Statistics
- 2. Deep Dive into Residential Buildings Graphs
- 3. Program Highlights
- 4. Bringing it Back to Policy and Scale





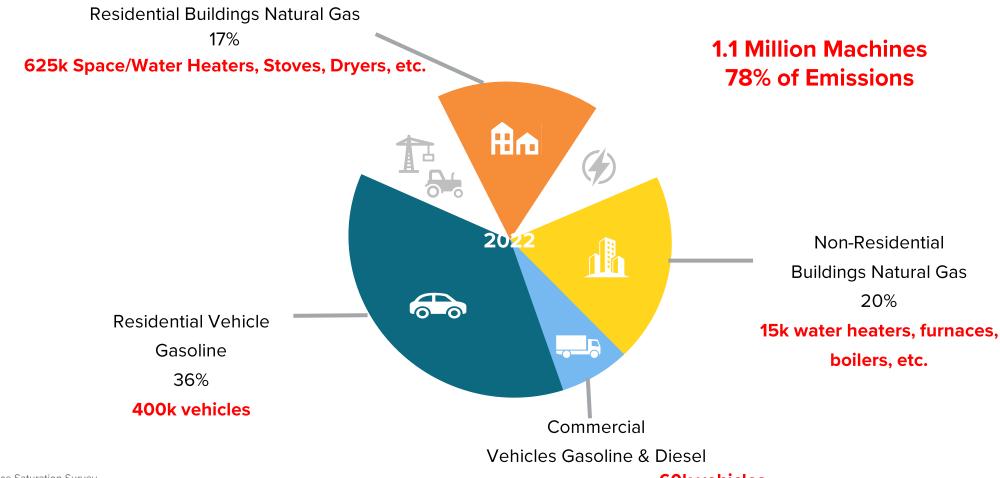
# SVCE territory emissions decreased from 4 million MT CO2e in 2015 to 3.1 million MT CO2e in 2022



4



# Emissions come from over 1 million fossil fuel machines we need to replace





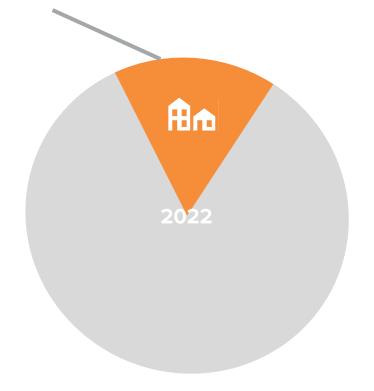


# Today's discussion is on residential building natural gas consumption

Residential Buildings Natural Gas

17%

SVCE Programs and Initiatives Influencing Residential Buildings
\$50M Budget
9 Active
10 Planning
7 Closed



**Sector Emissions** 500,000 MT CO2e

# of Fossil Fuel Machines
165k Space Heaters
230k Water Heaters
125k Stoves
105k Dryers, Fireplaces,
and Spa/pool pumps



## Transforming the market, at scale

#### Need to build the support ecosystem to help policy succeed



Incentives and lower up-front costs



Awareness and acceptance



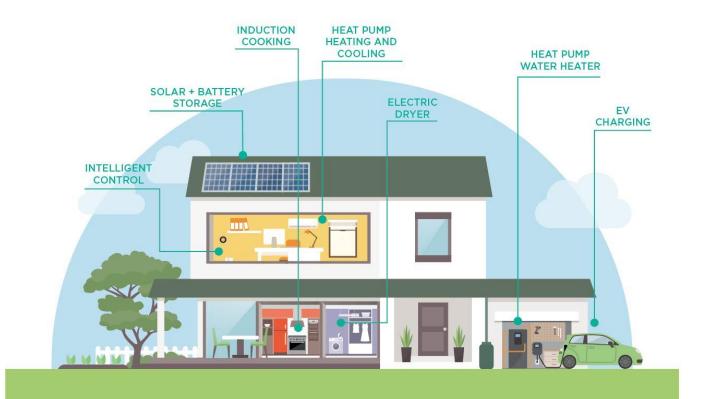
Quality and available equipment



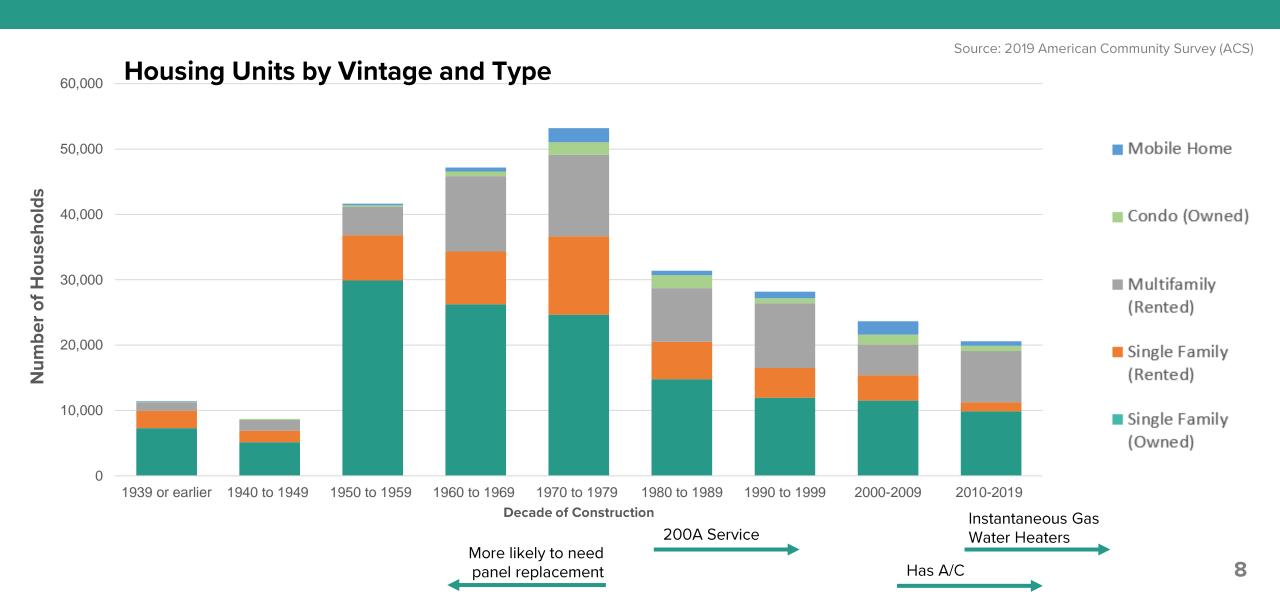
Efficient permitting processes



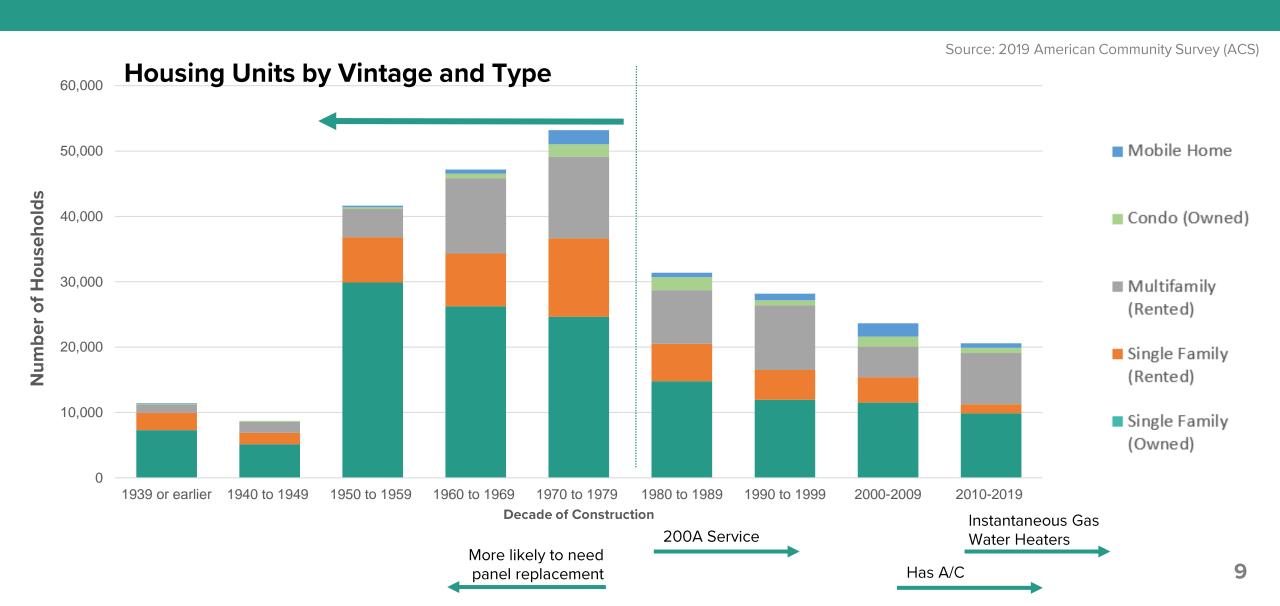
Available workforce



## (1) Housing stock is not uniform

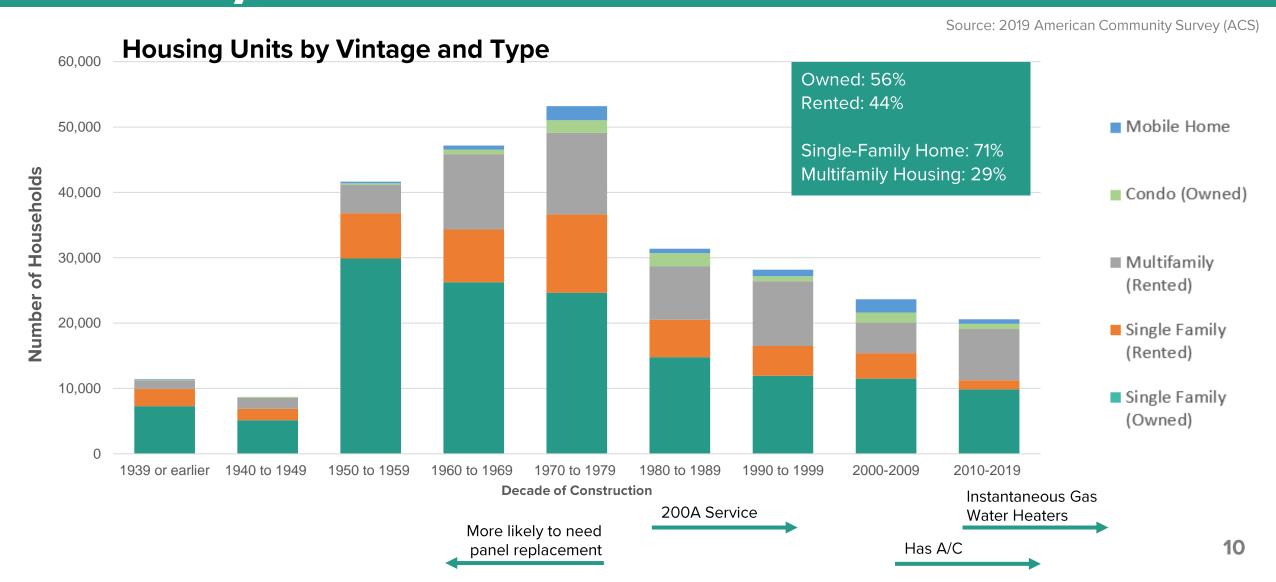


## (1) 61% of housing units are pre-1980





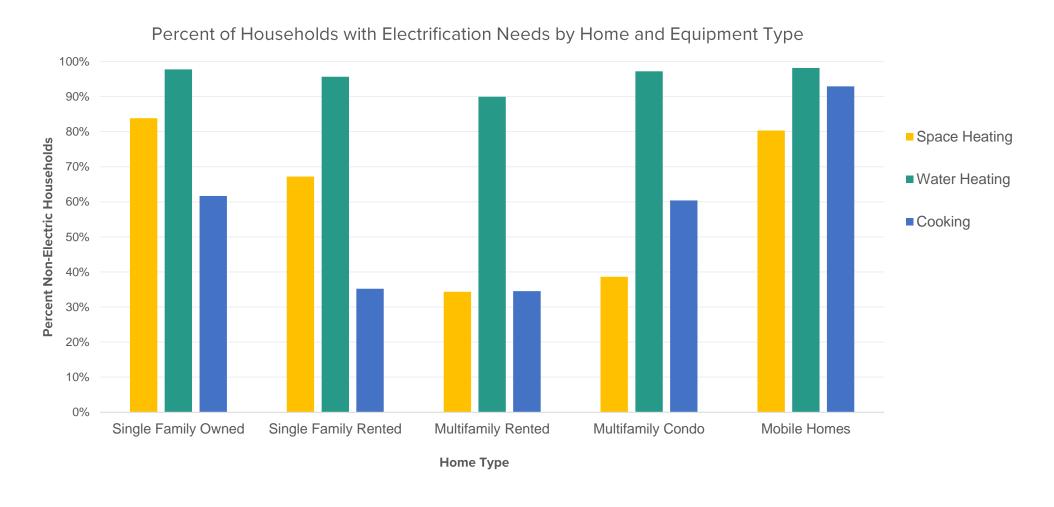
# Need a variety of program strategies to reach everyone







# Water heating is most consistent electrification need – other end uses vary





### Some residents will need more support

#### Socioeconomic Vulnerability Index (SEVI)

% Owner Occupied Housing

- Census tract metric, regionalized into quartiles
- Calculated from scores for poverty, linguistic isolation, education attainment, housing burden, unemployment

**Vulnerability** 

55%

Most

50%

	20001			, most
Metric	SEVI 1	SEVI 2	SEVI 3	SEVI 4
% of Total Residential Accounts	23%	27%	28%	19%
% of Single-Family Accounts	28%	30%	23%	16%
% of MUD Units	12%	21%	38%	26%
% of CARE/FERA Accounts	10%	17%	30%	39%
% of Affordable Housing Units	1%	10%	35%	50%

76%

66%

Least

**SEVI 3** and 4 are more likely to be...

multifamily tenants

% of accounts in SVCE territory with SEVI 1-4 scores



## Some residents will need more support

#### Socioeconomic Vulnerability Index (SEVI)

- Census tract metric, regionalized into quartiles
- Calculated from scores for poverty, linguistic isolation, education attainment, housing burden, unemployment

**Vulnerability** 

Most

			Wiost	
Metric	SEVI 1	SEVI 2	SEVI 3	SEVI 4
% of Total Residential Accounts	23%	27%	28%	19%
% of Single-Family Accounts	28%	30%	23%	16%
% of MUD Units	12%	21%	38%	26%
% of CARE/FERA Accounts	10%	17%	30%	39%
% of Affordable Housing Units	1%	10%	35%	50%
% Owner Occupied Housing	76%	66%	55%	50%

SEVI 3 and 4 are more likely to be...
multifamily tenants

lower-income

% of accounts in SVCE territory with SEVI 1-4 scores



## Some residents will need more support

#### Socioeconomic Vulnerability Index (SEVI)

- Census tract metric, regionalized into quartiles
- Calculated from scores for poverty, linguistic isolation, education attainment, housing burden, unemployment

**Vulnerability** 

Most

				Wiost
Metric	SEVI 1	SEVI 2	SEVI 3	SEVI 4
% of Total Residential Accounts	23%	27%	28%	19%
% of Single-Family Accounts	28%	30%	23%	16%
% of MUD Units	12%	21%	38%	26%
% of CARE/FERA Accounts	10%	17%	30%	39%
% of Affordable Housing Units	1%	10%	35%	50%
% Owner Occupied Housing	76%	66%	55%	50%

SEVI 3 and 4 are more likely to be...

multifamily tenants

lower-income

renters

% of accounts in SVCE territory with SEVI 1-4 scores



## Program Impact: FutureFit Homes (FFH)



**Active** 

Homepage Link







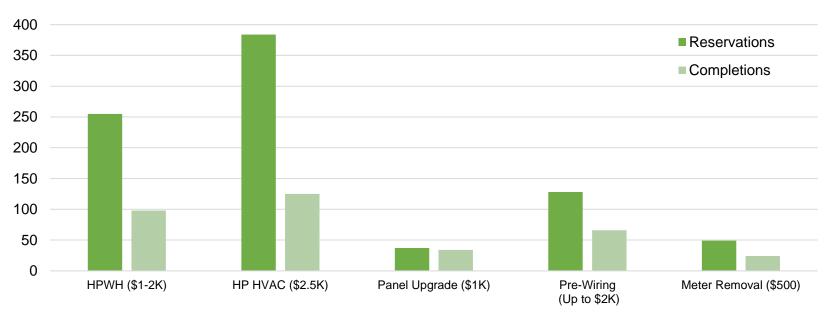
Program
Target:

750 electrification projects

Projects previously completed from 2019-22

218 projects complete
389 active reservations
On track to complete ~900 projects

#### Reservations and Claims, by Type





# FFH is trying new things to expand access to effective electrification

#### **Innovative Design Elements**

- Pre-wiring incentive to support whole-home electrification/readiness
- Bonus for removing gas meter to make electrification **stickier** and begin pruning gas system
- Help avoid unnecessary panel upgrades by paying for circuit pausers and splitters
- Support 120V HPWHs to make installs simpler
- Continuing to identify new approaches to try to implement (e.g., emergency water heater loaner)

#### **Improving Access**

- Let customers also use other available incentives
- Retroactive rebates for emergency replacements
- **Spanish-language version** of ads and application for increased accessibility





### Samples of FFH marketing



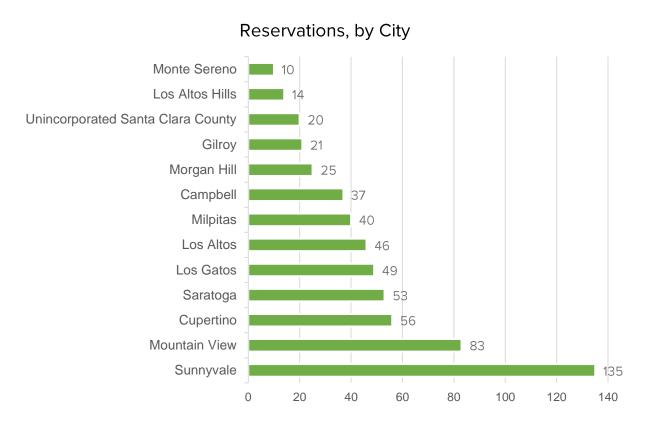
Ad · www.svcleanenergy.org : Silicon Valley Clean Energy | FutureFit Homes Program | Claim up t... Up to \$8K in rebates for heat pump systems. Additional \$5K for income-qualified customers. FutureFit Homes Rebates Available Now. Save Big. Up to \$8k in rebates. SVCE Rebate Program. FutureFit Homes Rebates

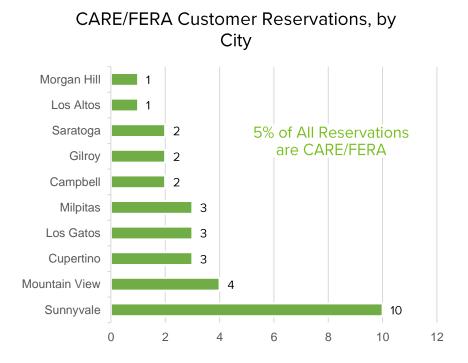






## We look at who FFH is reaching today, and consider what else we should adjust







## Adding new programs will include even more residents in electrification

### **Expanding our** reach to...

Non-energy savvy

Concierge	coming November 2023
Target:	3,600 customers engage with hotline
Why It's Important	<ul> <li>Phone line for people who want to talk about electrification</li> <li>Support technology questions, electrification decisions, and finding rebates</li> <li>Help all customers participate and decarbonize</li> </ul>











## Adding new programs will include even more residents in electrification

### **Expanding our** reach to...

Non-energy savvy

Multifamily

Concierge	coming November 2023
Target:	3,600 customers engage with hotline
Why It's Important	<ul> <li>Phone line for people who want to talk about electrification</li> <li>Support technology questions, electrification decisions, and finding rebates</li> <li>Help all customers participate and decarbonize</li> </ul>

Multifamily	Direct Install	coming Q1 2024
Target:	Electrify 300-1,000 affordable MF units	
Why It's Important	<ul> <li>No-cost retrofits for deed-restricted aff</li> <li>Includes electric baseboard heating repheating bills while electrifying other en</li> </ul>	placement for some projects – <b>reducing</b>











#### Adding new programs will include even more residents in electrification

#### **Expanding our** reach to...

- Non-energy savvy
- **Multifamily**
- Low/moderate income
- Renters

000			
fordability	Awareness and	Product	Wo
	acceptance	<b>Availability</b>	



Concierge	coming November 2023	
Target:	3,600 customers engage with hotline	
Why It's Important	<ul> <li>Phone line for people who want to talk about electrification</li> <li>Support technology questions, electrification decisions, and finding rebates</li> <li>Help all customers participate and decarbonize</li> </ul>	

Multifamily I	Direct Install	coming Q1 2024
Target:	Electrify 300-1,000 affordable MF units	
Why It's Important	<ul> <li>No-cost retrofits for deed-restricted affordable housing</li> <li>Includes electric baseboard heating replacement for some projects – reducing heating bills while electrifying other end uses</li> </ul>	

On-Bill Finar	ncing coming Q2 2024	
Target:	500-1,000 customers finance HPWH and HP HVAC systems	
Why It's Important	<ul> <li>Help those without up-front capital still electrify</li> <li>Reach renters by using bill savings to cover repayment</li> <li>Can build off SVCE's discounted E-ELEC rate</li> </ul>	



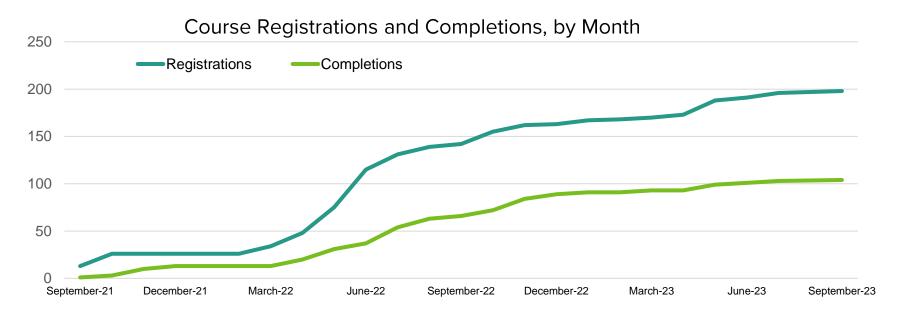
#### Program Impact: FutureFit Fundamentals (FFF)



Active Homepage Link



Program Target:	<ul> <li>300 contractors trained in the course</li> <li>Graduates complete 500 local projects</li> </ul>
Highlights:	<ul> <li>Increase awareness of electric technology and uses</li> <li>Recently added: graduates get \$500 per appliance when installing them for SVCE customers through FutureFit Homes</li> </ul>





## Samples of FFF marketing





SVCleanenergy.org/futurefit-fundamentals





## Transforming the market, at scale

Need to build the support ecosystem to help policy succeed



Incentives and lower up-front costs



Awareness and acceptance



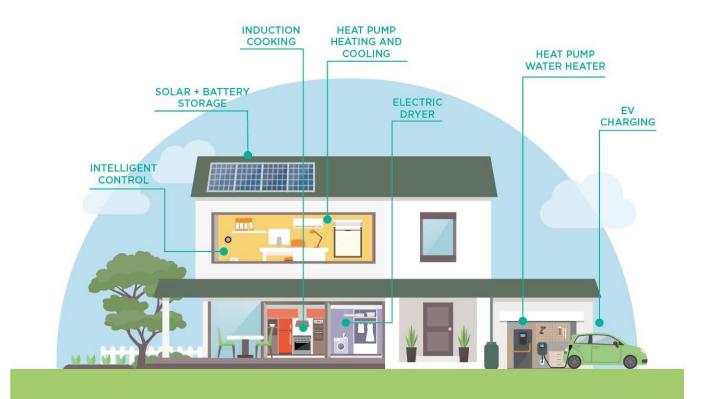
Quality and available equipment



Efficient permitting processes



Available workforce



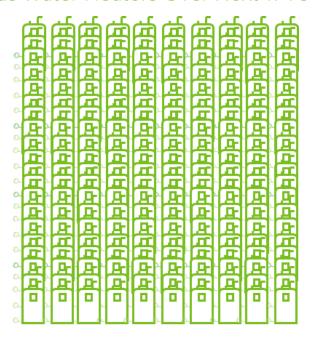


#### What is the scale of the challenge?

#### Water heater example

- 230k gas water heater units
- Average lifespan of 11 years
- 20k/yr "natural replacement" rate

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







# SVCE programs are critical for testing approaches and demonstrating what works

Water heater example

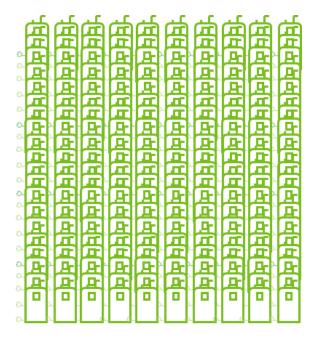
HPWH Installs Under SVCE Programs

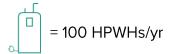
(Annual)

2023

2024 - 2025

<u>Annual</u> HPWHs Needed to Replace all Gas Water Heaters Over Next 11 Years





2019 - 2022



# BAAQMD has set a rule to require HPWHs starting in 2027

Water heater example

HPWH Installs Under SVCE Programs (Annual)



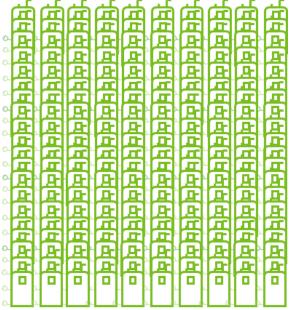




2019 - 2022

2023 2024 - 2025

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





Per year, from 2027-2037



Water heater example

Annual HPWHs Needed to Replace all Gas Water Heaters Over Next 11 Years **Market Transformation HPWH Installs Under SVCE Programs** (Annual) Per year, from 2019 - 2022 2024 - 2025 2023 2027-2037



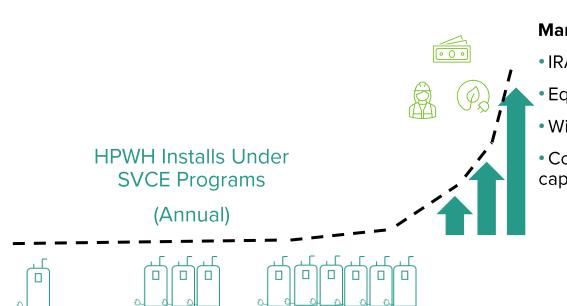
Water heater example

Annual HPWHs Needed to Replace all Gas Water Heaters Over Next 11 Years **Market Transformation**  IRA funds Equipment price drop Widespread financing **HPWH Installs Under SVCE Programs** (Annual) Per year, from 2019 - 2022 2024 - 2025 2023 2027-2037



Water heater example

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

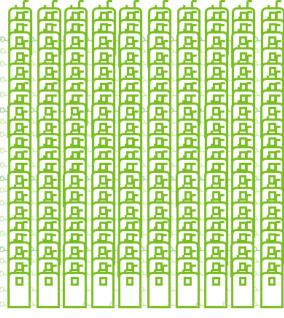


2023

2024 - 2025

#### **Market Transformation**

- IRA funds
- Equipment price drop
- Widespread financing
- Contractor/ supplier capacity





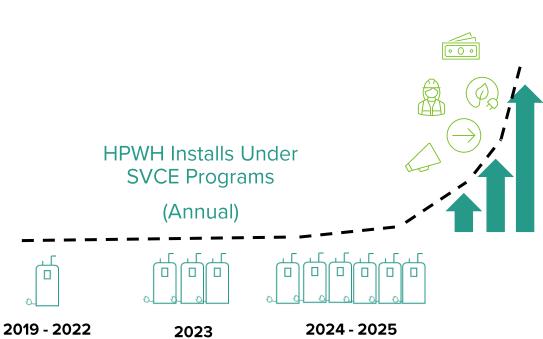
Per year, from 2027-2037

2019 - 2022



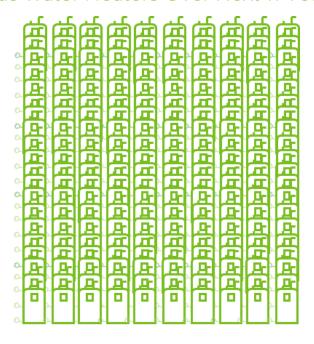
Water heater example

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



#### **Market Transformation**

- IRA funds
- Equipment price drop
- Widespread financing
- Contractor/ supplier capacity
- Local policy and processes
- Other actions!





Per year, from 2027-2037



## (1) Program Impact: 2022 Reach Codes



Active Homepage Link



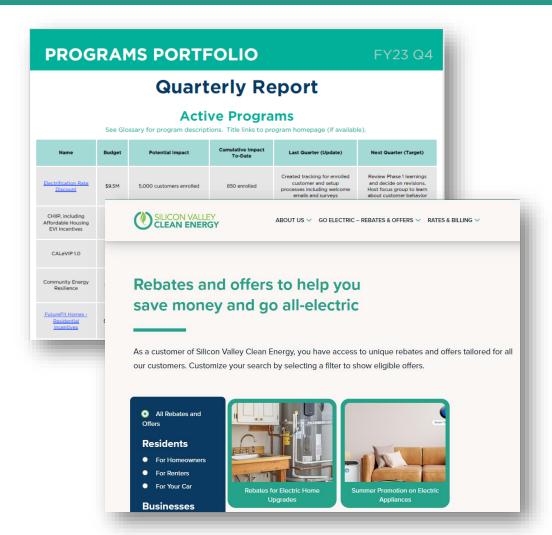
2022 State code	VS	All-electric reach codes
50k homes with <b>gas</b> water heating	Ø ♥♥	50k homes with <b>heat pump</b> water heating
\$25M additional future cost to go from gas to electric	B	\$0 incremental replacement cost
\$0 savings at the time of construction		\$85M savings at the time of construction
50,000 annual MT carbon pollution from new water heaters	(CO <sub>2</sub> )	O MT carbon pollution from new water heaters



## How you can keep helping to expand and enable decarbonization

- Review updates on decarb work
  - Quarterly Report in BOD packet
  - List of active programs on SVCE website
  - Reach out with questions, ideas, interest!
- Help us get programs to your residents

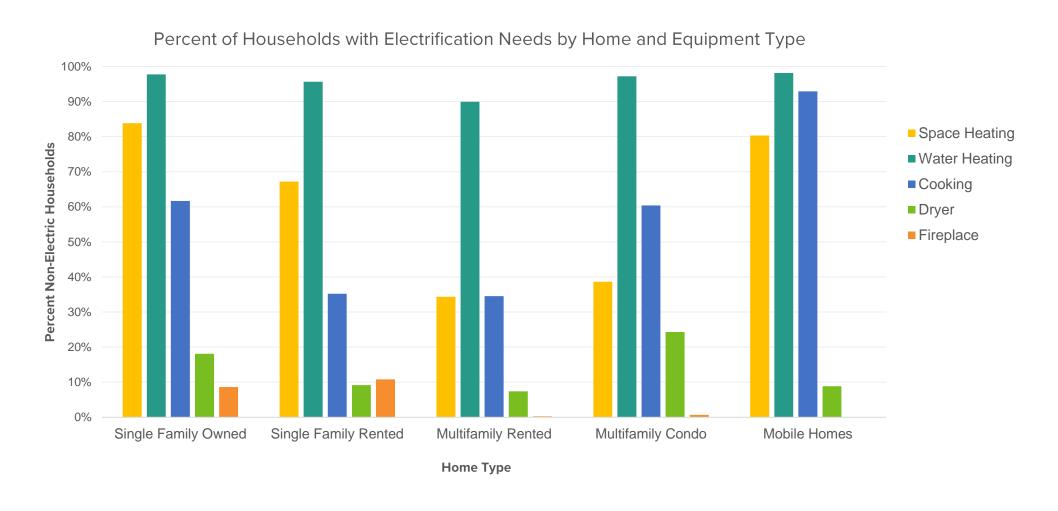
 Work with SVCE and your city to remove friction (processes) and push scale (policy)



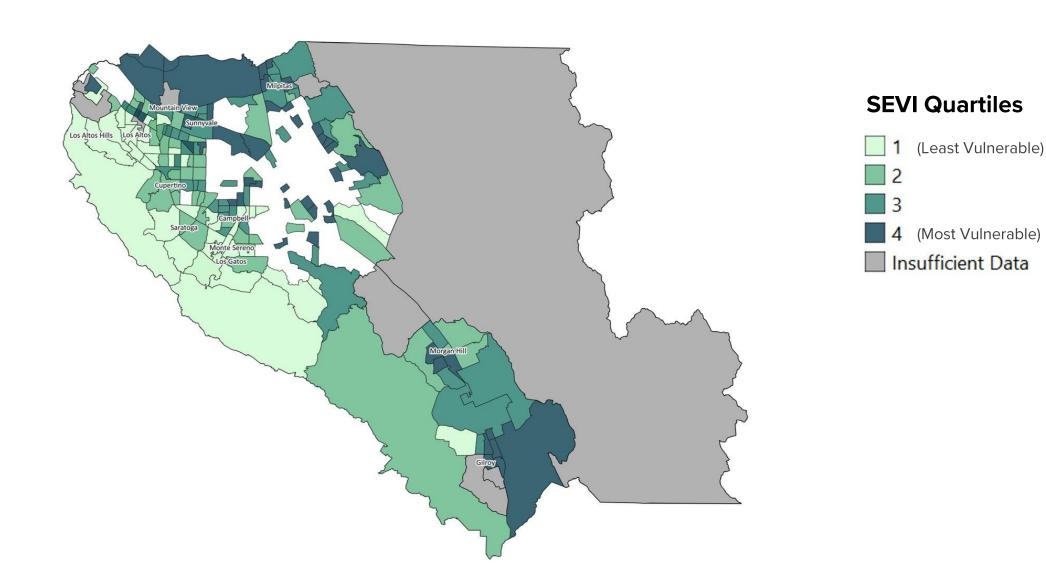




#### **Electrification Needs by Home Type - Detail**



## Under-served Residents (Map)



#### Programs Fund Over Time

