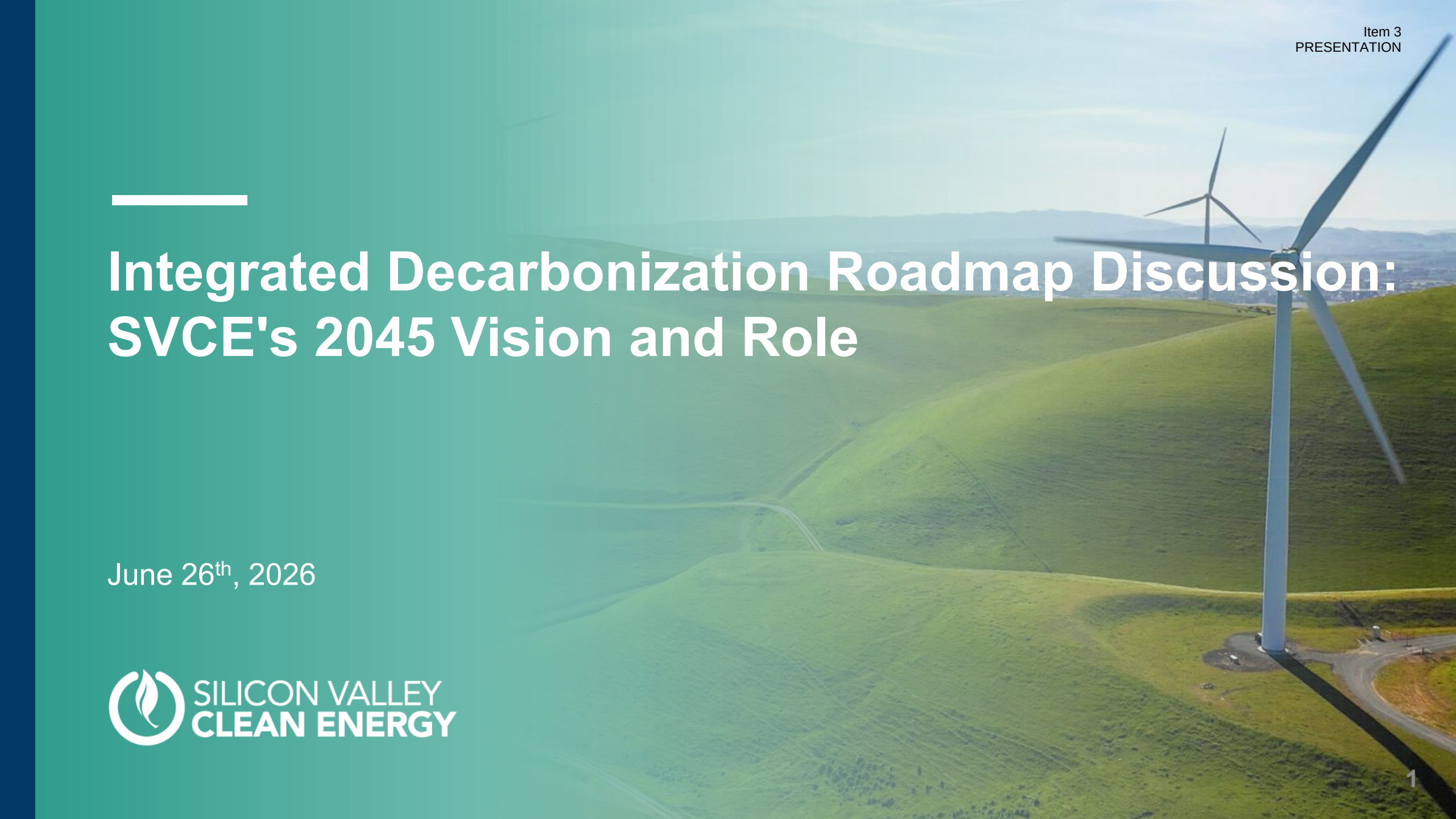


Integrated Decarbonization Roadmap Discussion: SVCE's 2045 Vision and Role

June 26th, 2026

SILICON VALLEY CLEAN ENERGY

The Roadmap will answer three key questions.

1. What is SVCE's vision for a decarbonized 2045? < Today
2. What is SVCE's role is advancing this future? < Today
3. How do we track progress?

Build upon the strengths of SVCE's 2018 strategy and offer key refinements that reflect our growth and current times.

Strategic Focus	2018 Roadmap	2026 Roadmap
Goals and Targets	Regionwide GHG target	+ targets by machine type
Focus on Buildings and Transportation Electrification	Identified early-stage programs to grow portfolio	Evaluated success and balance portfolio based on results and budget
Integrate supply and demand planning	Supply and demand planning separate	Integrating where beneficial
Evaluation and decision-making	Clear decision-making framework	+ comprehensive and consistent evaluation criteria

Discussion Objective

Gather additional input to develop SVCE's 2045 vision statement and our role in achieving that vision. Input will be used to inform August study session materials.

Presentation Outline:

1. Developing a Vision Statement
    - Values, technologies, process
2. Clarifying SVCE's role
    - Review and discuss key input details

The Roadmap will include a 2045 Vision Statement. Today's discussion will inform the draft statement brought in August.

Discussion broken into:

- Values
- Technologies
- Process

SVCE is working toward a clean energy future that is...

Comprehensive and Inclusive – All buildings and transportation run on carbon-free energy; everyone benefits.

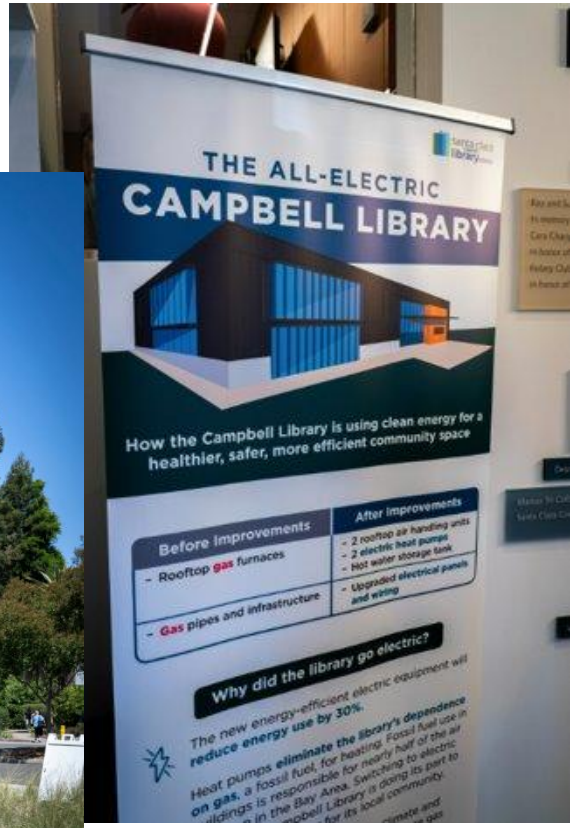
Safer and Healthier – Less pollution means cleaner air, less disease, and safer communities.

Affordable and Accessible – Electric is the easiest and most cost-effective choice

Community-Centered – Clean energy empowers every community to thrive in it's own unique way.

People-Focused – Clean energy is about helping people to live and thrive.

Inclusive & Comprehensive: Clean energy is everyone and for everyone.



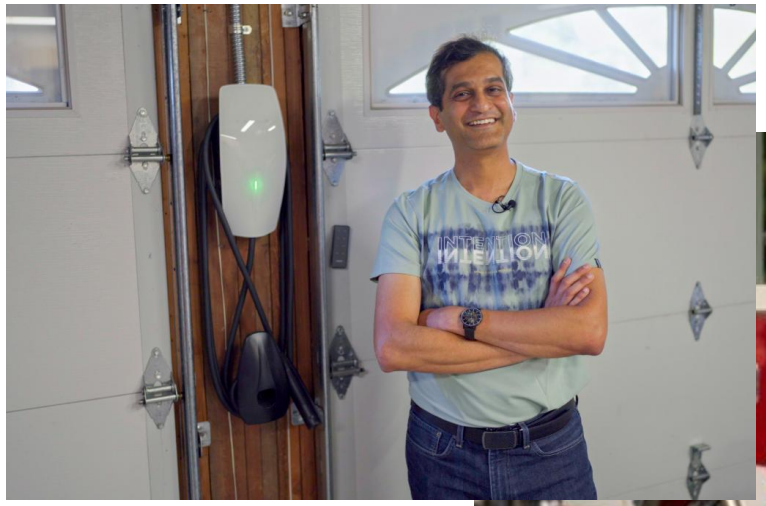
Health and Safety: Pollution free energy reduces pollution and increases health.

Affordable & Accessible: Clean energy powers people's lives affordably and easily.

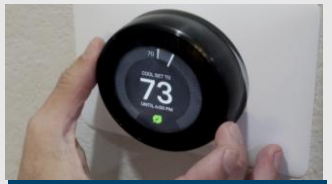
Community Centered: The clean energy future empowers communities to thrive in their unique way.

People Focused: The clean energy future makes people's lives better.

A place called home. A future business dream.



What is SVCE's vision for the future of clean energy technologies?

Sector	Enables Success	Key Questions
 **Buildings**	• All-electric • Mostly heat pumps • Cooking is induction	• Battery-integrated appliances? • Highly flexible, minimally, barely? • What are new retrofit friendly technologies like?
 **Transportation**	• Passenger vehicles are electric • Most fleet vehicles are electric • Charging is commonplace	• How are heavy duty vehicles powered? • What car brands win and who makes them? • Is most travel autonomous? Flying? • Are vehicles used as back up batteries? Grid level?
 **Demand Flex**	• Customers have access to clean energy when they need it • Demand is more flexible	• Marginal solution or massive? • Is flexibility mostly controlled at distribution level, building level, or appliance level? • The exact regulatory structure/business models
 **Power Supply**	• Significantly more clean firm power • Improved matching of clean supply to demand	• What the clean firm resource mix is – nuclear, geo, CCS • The role and size of flexible loads as resources • Amount of carbon that is offset/removed

The transition will happen in a phased progression that can inform SVCE's priorities.

PROVE (2020-2026)

- Test new technologies to demonstrated feasibility.
- Launch early programs.
- Build support for decarbonization transition.
- New construction reach codes.
- Incentivize market through rebates and grants.

DEVELOP (2027-2032)

- Deploy machines where most feasible to increase demand and lower overall costs.
- Increased demand will lower costs over time.
- Focus on electric readiness to reduce future retrofit costs.
- Continued experimentation and policy efforts to reduce barriers (BE, TE, DF).

BUILD (2033-2038)

- More rapid technological innovation.
- Expand beyond early adopters to wider audience.
- SVCE programs shift to more targeted and direct investments.
- Wider market-driven adoption of nonresidential electrification.

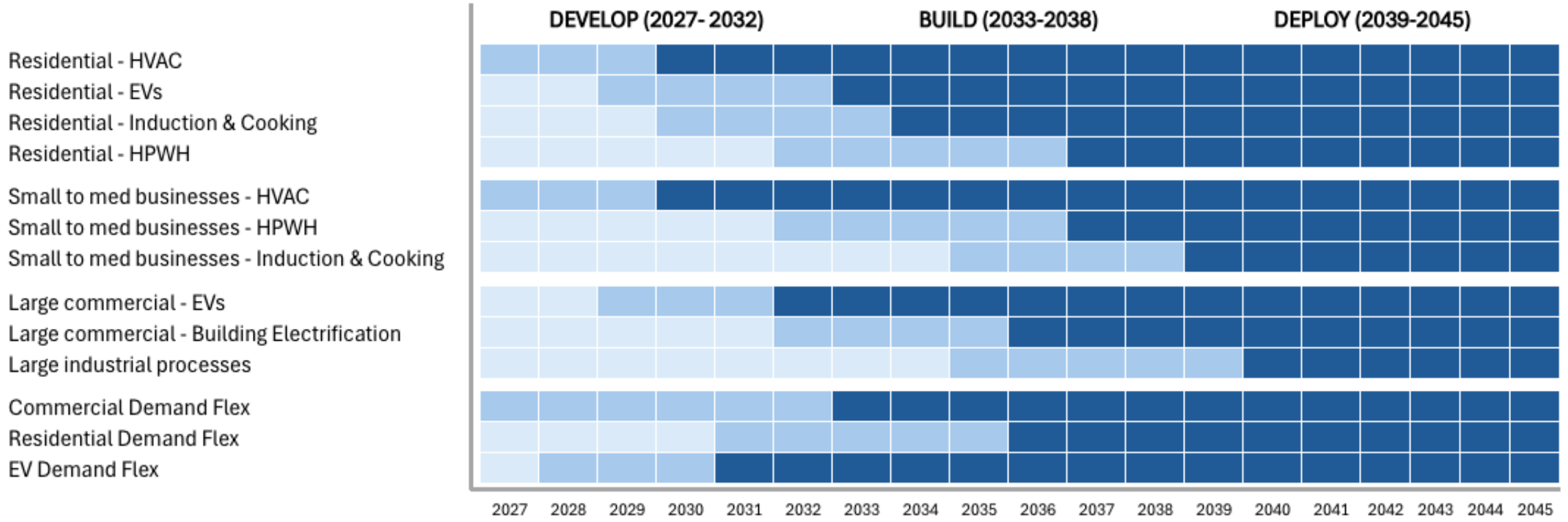
DEPLOY (2039-2045)

- Managed gas transition planning for system-wide decommissioning.
- Build out of EV charging infrastructure to replace current gas station network.
- Focus on hardest-to-electrify segments such as restaurants, high temperature process heating, etc.

MILESTONES

2025: 104K machines → **2030: 270K machines** → **2035: 532K machines** → **2045: 1M + machines**

While the broad phases hold true, each technology develops at its own pace.



Stages of Maturity

Early - Demonstrate Feasibility

Mid - Scaling Up

Late - Fully Deployed

Success requires policy, incentives, and private sector alignment.

Policies needed to mandate pollution reduction where sensible and reduce friction everywhere else.
Ex: appliance standards, building codes

Incentives make electrification more attractive and increase demand.
Ex: rebates, grants

Private sector invests in innovation and ultimately mass deployment.
Ex: 120V water heater

Summary of SVCE's vision for transition process

- Each phase builds on the previous to expand electrification and ensure no one is left behind or pushed too fast.
- Success requires policies, incentives, and market action.
- To maximize impact, SVCE's priorities should be informed by the phase of the transition we are in.
- ***Lack of demand due to high upfront cost is the key barrier for all technologies 2027-2032.***
- ***Business models, rate structures, and technology pathways will be clarified 2027-2038.***

Discussion Questions

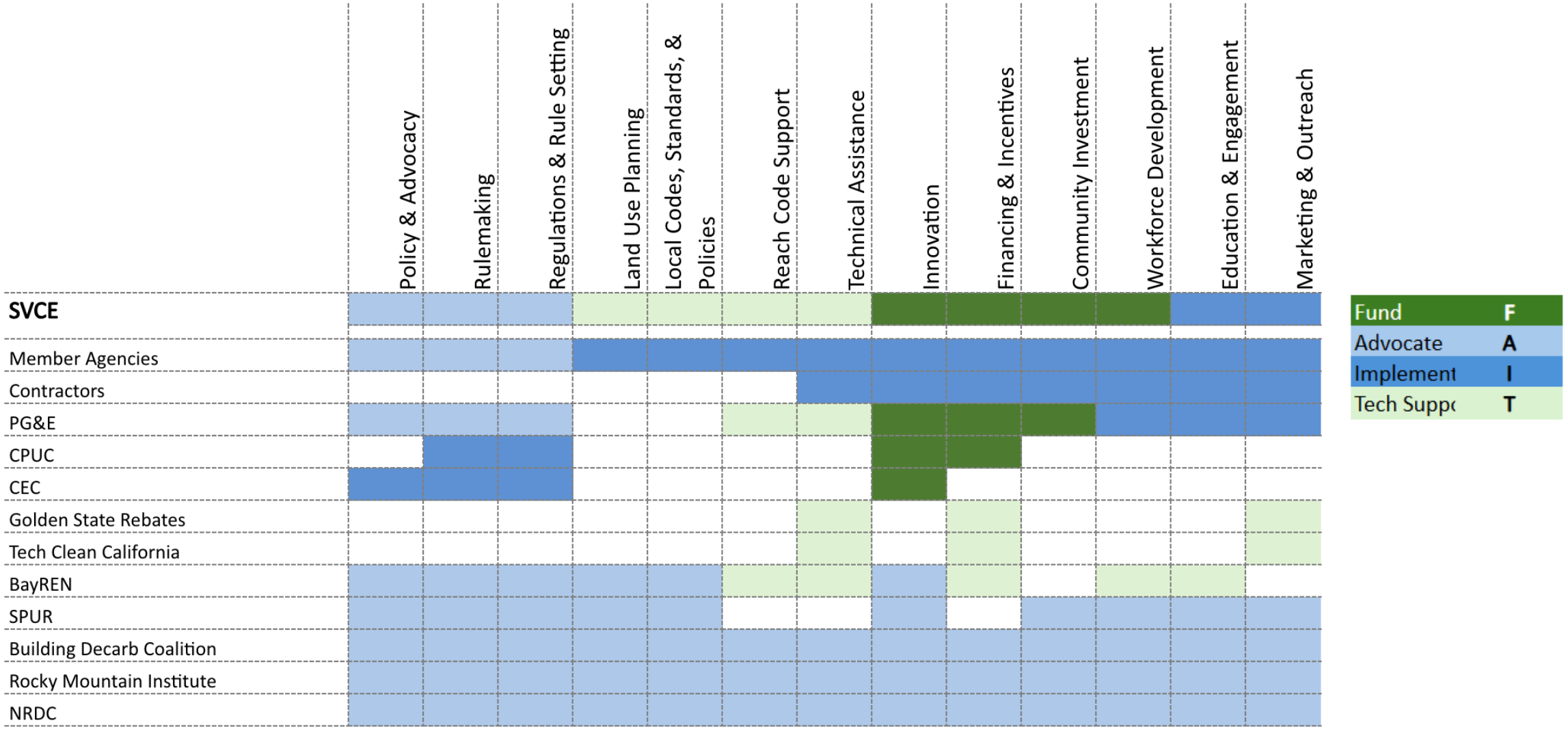
What are your thoughts on the listed values for SVCE's 2045 vision?

- Comprehensive and Inclusive
- Safer and Healthier
- Affordable and Accessible
- Community-Centered
- People-Focused

Do you have questions on the technologies or transition phases?

What is SVCE's role in achieving this vision?

SVCE is positioned to provide consistent funding offer technical support, and build partnerships



Recap of December 2025 Board workshop

Board members were asked to choose between "electrification trade-offs":

1. Moving quickly vs. deep investments to unlock barriers?
2. Equal incentives for everyone vs. needs-based incentives?
3. Programs serving all customers vs. focus on property-owners?
4. SVCE's role in innovation?

Summary of values statements from workshop:

- Prioritize rapid results rather than investing in slower areas.
- Focus on property owners in a position to act rather than renters and business owners.
- As an LSE, we need to have some level of programs and offerings for all customers.
- The benefits of electrification need to be community-wide and accessible to everyone.
- Innovation is important but investment needs to be pragmatic and tied to clear policy goals.

Local Stakeholders: Emphasize rebates and emissions reductions.

Key Takeaways from program prioritization discussions:

- All groups put majority of funds into incentives and rebates.
- Strong support for maintaining local policy support and ecosystem improvements.
- Less clarity on innovation and % of incentives focused on low-income vs. market-rate customers.

Staff: Invest in those with highest need, ensure benefits for all.

- Public money should go to those most in need
- Innovation important, but role unclear
- Tension in the timing of targeted incentives and deep incentives

Much of direction clear; a few areas benefit from more discussion.

Clear direction:

- ✓ Direct Incentives and rebates core of investment
- ✓ Local policy and capacity building biggest driver of adoption
- ✓ Marketing and engagement should continue

More discussion:

- ❑ Balance of investment in expensive/really difficult to electrify
- ❑ SVCE's role in innovation

Balance of investment in expensive/hard to electrify

Stakeholder Input

- Board: focus on fast and ready to electrify
- Stakeholders: focus on fast and ready to electrify
- Staff: mixed

Really expensive/hard electrification typologies include:

- Multifamily EV charging
- Large commercial (includes public sector)
- Small- and medium-sized businesses
- Older affordable housing

Example Balance 2027-2032 – for discussion

- Continue to serve challenge typologies to ensure programs available to everyone.
- Implement ways to lower cost where feasible.
- Decrease funding where sensible to enable accelerating electrification where demand is growing.

Focus of Innovation

Stakeholder Input

All groups emphasized maintaining innovation, while also being pragmatic and focused

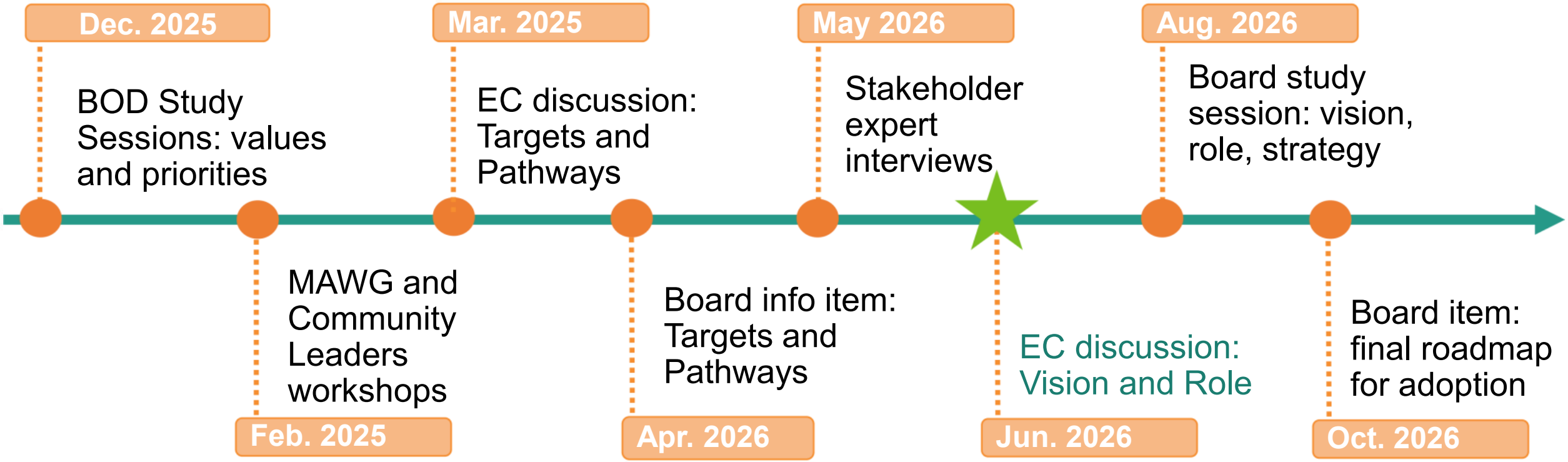
Research and Analysis

Research supports the need for continued innovation during 2027-2032, particularly in identifying and assessing technical solutions and policy improvements for electrification retrofits (both TE and BE). SVCE is well-positioned for this type of work.

Example Focus 2027-2032 – for discussion

- Maintain a stable, but small innovation budget focused on identifying and testing solutions that can quickly scale to lower cost and/or improve policy.
- Studies/pilots will be timebound and have a clear path to share results. Ideally, the work will have partners, such as universities, to lend credibility and reach to the work.
- Examples: 100-amp panel pilots, cost studies using real data, etc.

Draft strategic recommendations build on six months of stakeholder discussions and feedback.



***Timeline subject to change**

Discussion

Discussion Questions

Do the listed values for SVCE's 2045 vision align with how your views of SVCE's values for the future?

- Comprehensive and Inclusive
- Safer and Healthier
- Affordable and Accessible
- Community-Centered
- People-Focused

Do you need additional information about the transition phases?

Discission Questions

Do you agree with the example balance for expensive/hard?

Example Balance 2027-2032 – for discussion

- Continue to serve challenge typologies to ensure programs available to everyone.
- Implement ways to lower cost where feasible.
- Decrease funding where sensible to enable accelerating electrification where demand is growing.

Do you agree with the example focus for innovation? Changes?

Example Focus 2027-2032 – for discussion

- Maintain a stable, but small innovation budget focused on identifying and testing solutions that can quickly scale to lower cost and/or improve policy.
- Studies/pilots will be timebound and have a clear path to share results. Ideally, the work will have partners, such as universities, to lend credibility and reach to the work.
- Examples: 100-amp panel pilots, cost studies using real data, etc.

Thank you!

2026 Customer Survey Findings

Executive Committee
June 26, 2026

SILICON VALLEY CLEAN ENERGY

Purpose

- Information item on annual residential customer survey to better understand our customers, which informs marketing and messaging.
- Key takeaways show steady and expected levels of SVCE awareness and high favorability.
- Survey findings will be shared via consent at the board meeting.

Background & Methodology

SVCE runs an annual residential customer survey to measure SVCE and electrification awareness

Goal: Measure SVCE customer awareness and interest in electrification

- Survey conducted February 12 – March 2, 2026
- 854 residential customers responded, overall margin of error ±3.4 percentage points
- Administered online, outreach conducted via email and mail
  - Offered a chance to win a $100 gift card to complete

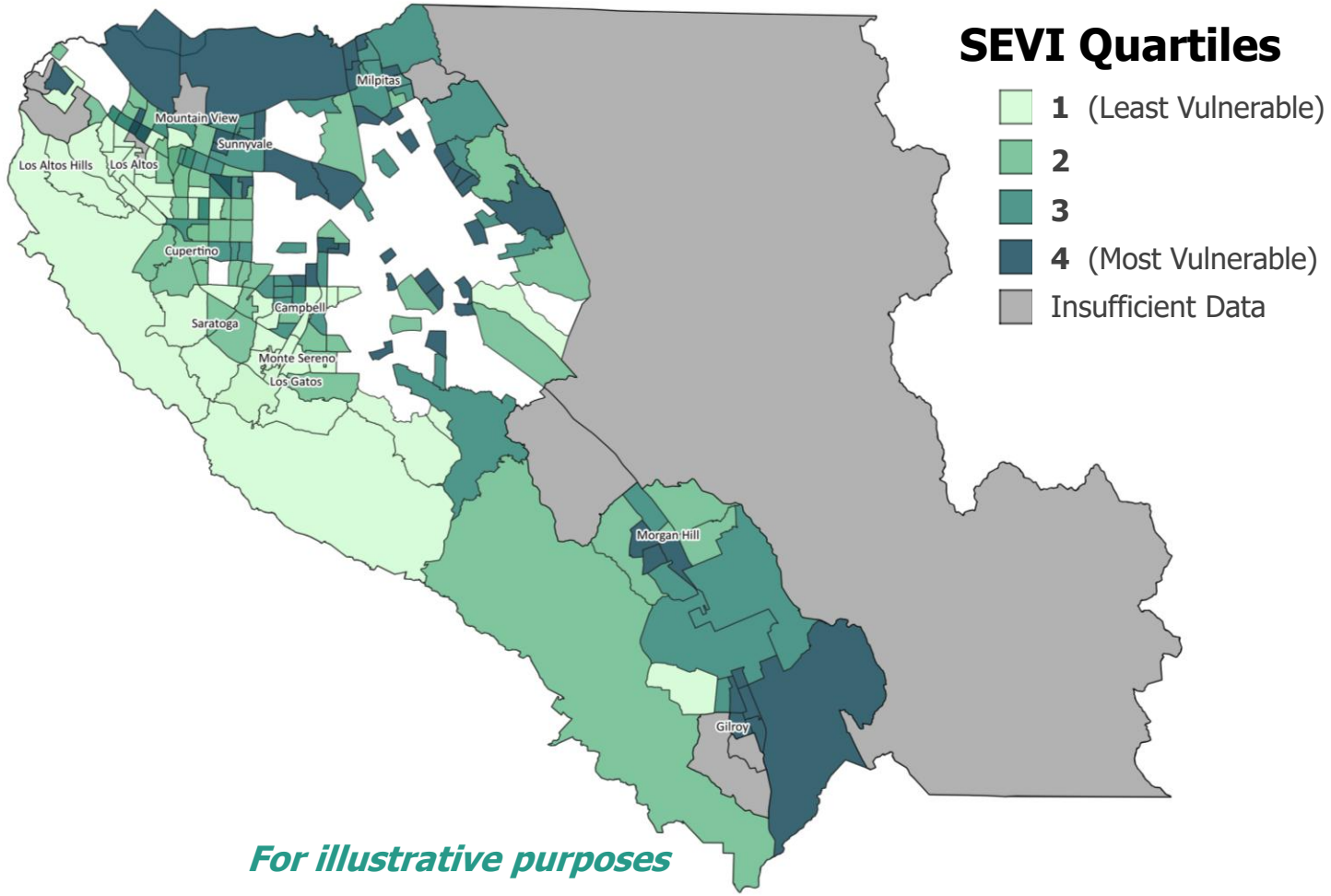
Breakdown of Selected Survey Languages

Survey Language Distribution	Number of Completes
English	822
Vietnamese	2
Spanish	8
Mandarin	22
Total	**854**

Socio-Economic Vulnerability Index (SEVI) base heat map (CES 3.0)

Sample Design

- Stratified sample by SEVI quartile
- Weighted responses to capture overall customer statistics based on the population, adjusting for socioeconomic vulnerability differences.
- Respondents closely resemble the actual service area SEVI breakdown



For illustrative purposes

Source: CalEnviroScreen 3.0

SVCE Awareness

Customers still care most about **keeping the cost of electricity low**

- **The importance of generating electricity from clean resources jumped to 77%** from 58% in 2024*.
- **Offering services, such as rebates and installation, also increased to 68%** from 56% in 2024*.

How important is it for your energy provider to focus on that service?

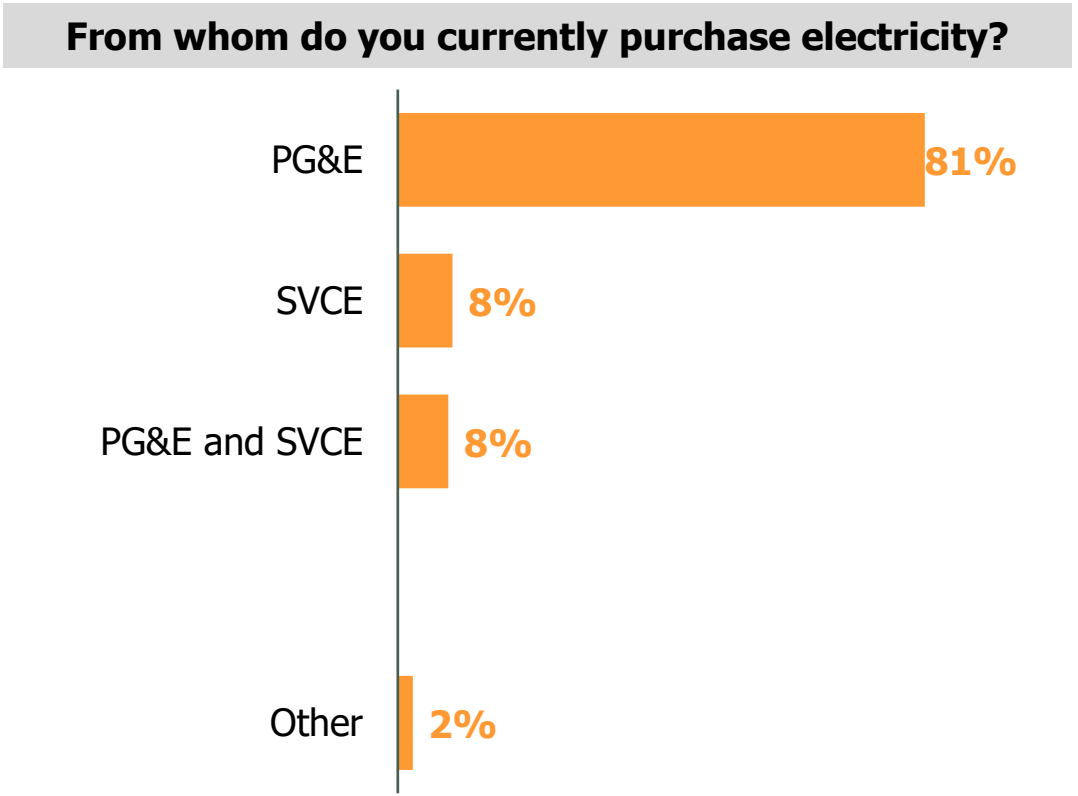
% Total Important	2026	2024*
Keeping the cost of electricity low	93%	92%
Generating electricity from clean energy sources	77%	58%
Offering services, such as rebates and installation support for efficient electric appliances *Previously, "Offering services, such as rebates"*	68%	56%

*Previous scale used: Extremely important, very important, moderately important, slightly important and not at all important. Previous n=476

Awareness of SVCE consistent with prior years, with high prompted awareness

- **16% of respondents believe they purchase electricity from SVCE** (and/or mention combo with PG&E) without prompting, vs. 12% in 2024.
- After clarifying that PG&E provides delivery services to those who selected "PG&E only:"

- **33%** of respondents either know SVCE as their electricity provider or name SVCE as their electricity generation service
- In 2024, **21%** of respondents indicated they sourced their electricity from SVCE, and 71% said PG&E

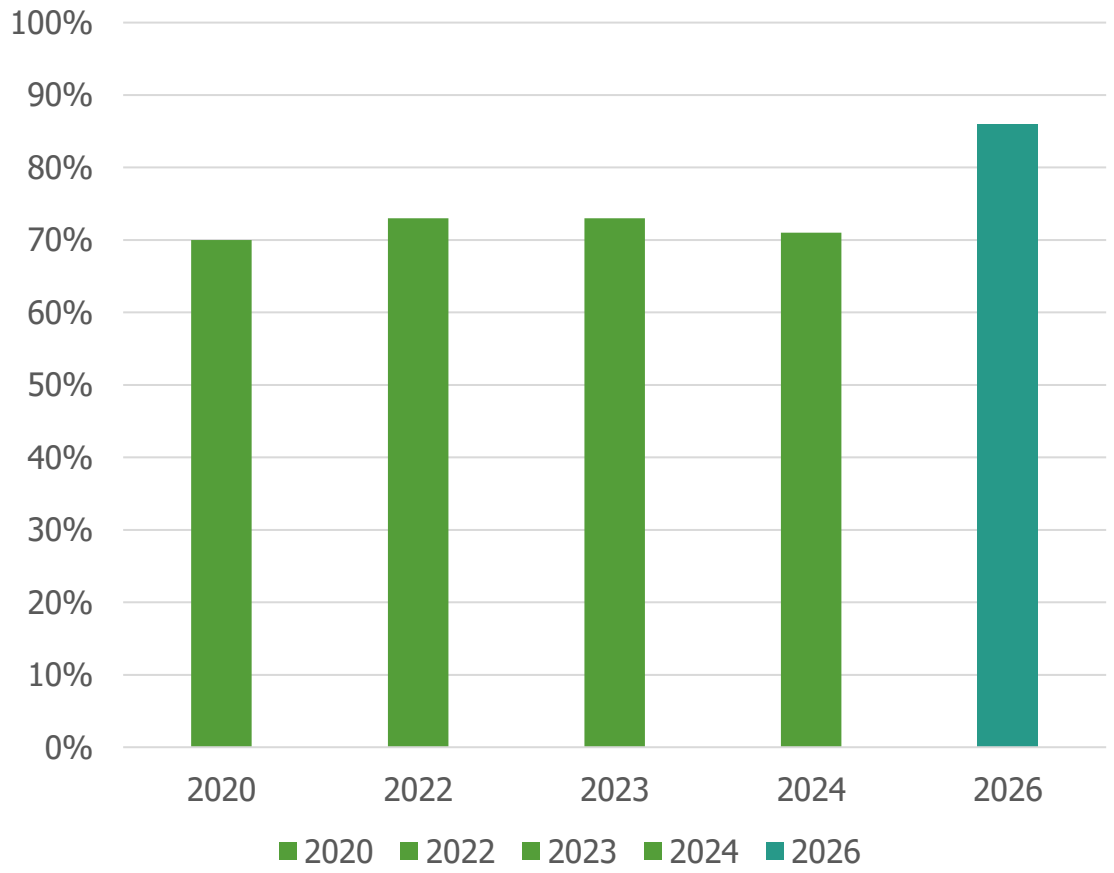


Awareness of SVCE shows higher prompted awareness

- After letting survey respondents know SVCE is an electricity provider in the region:

  <u>85% say they had heard of SVCE</u>

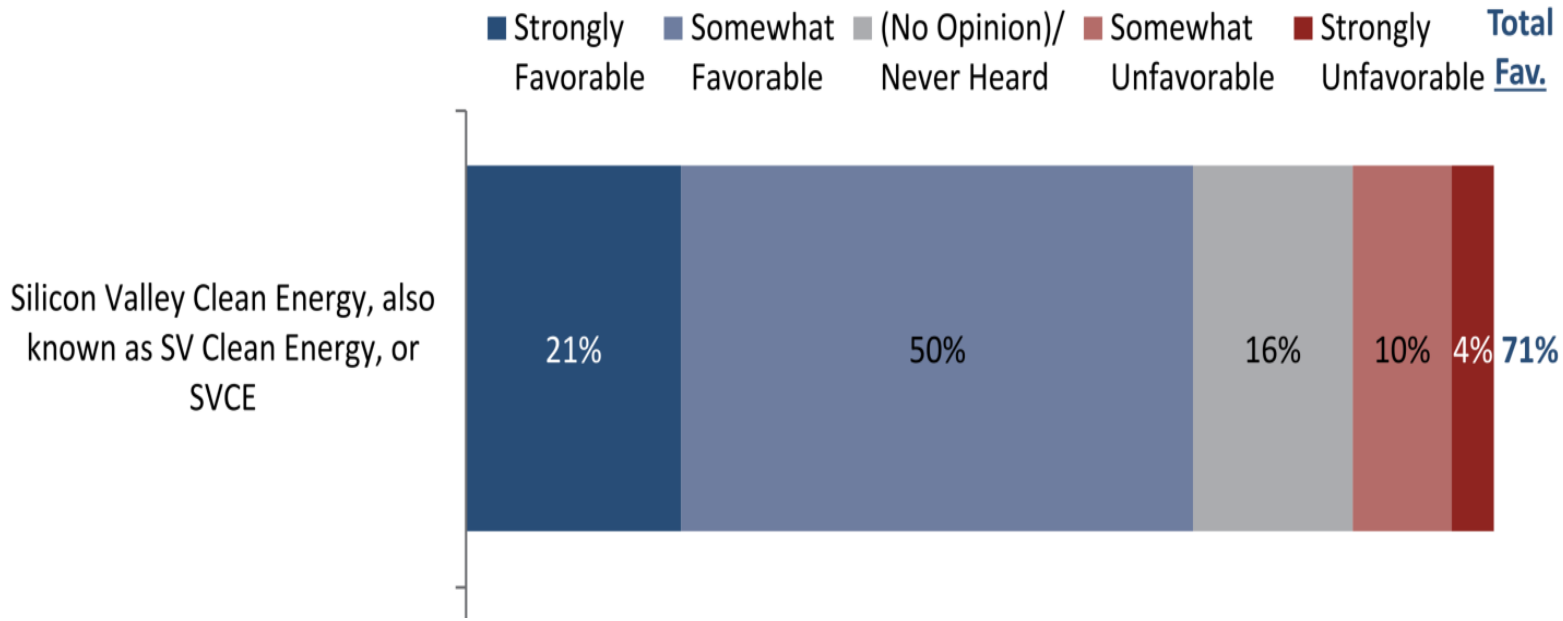
SVCE Awareness Recall – Who Do Respondents *Purchase* Generation Services From?



High Favorability of SVCE

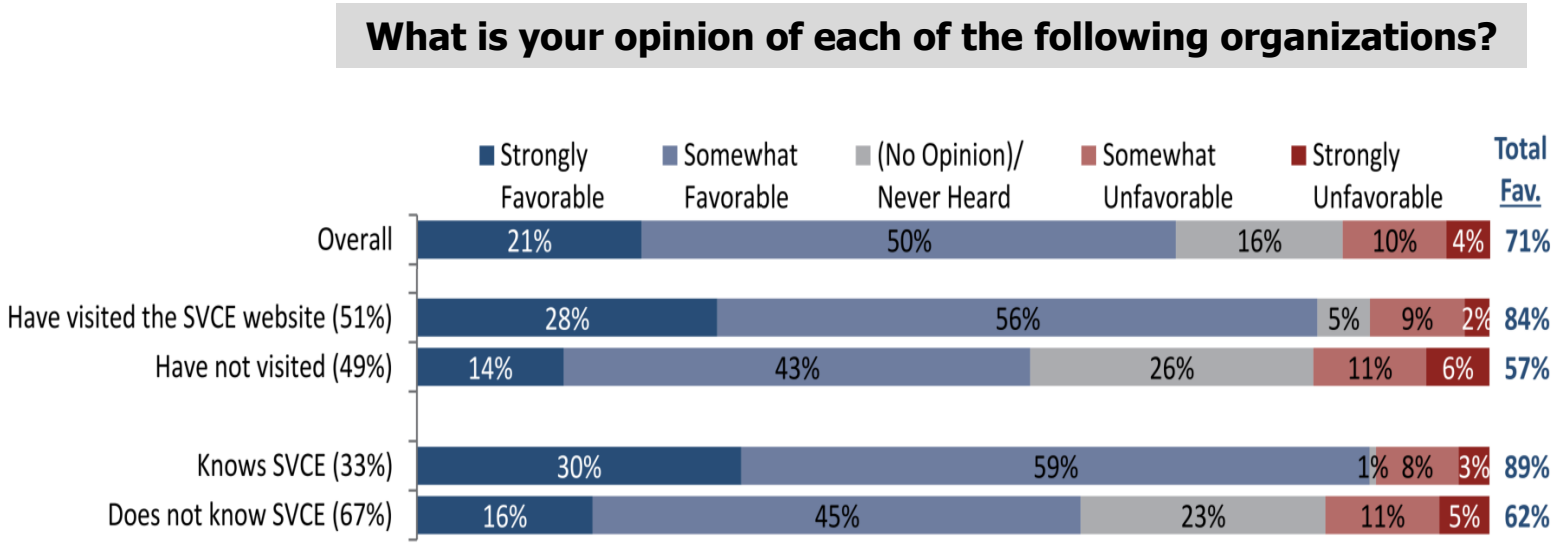
- **New question in 2026.**
- **SVCE has an overall 71% favorable rating.**

What is your opinion of each of the following organizations?



Customer favorability increases with greater SVCE engagement

- Respondents who have **visited the SVCE website or state that they know SVCE** have much **higher favorability ratings**.



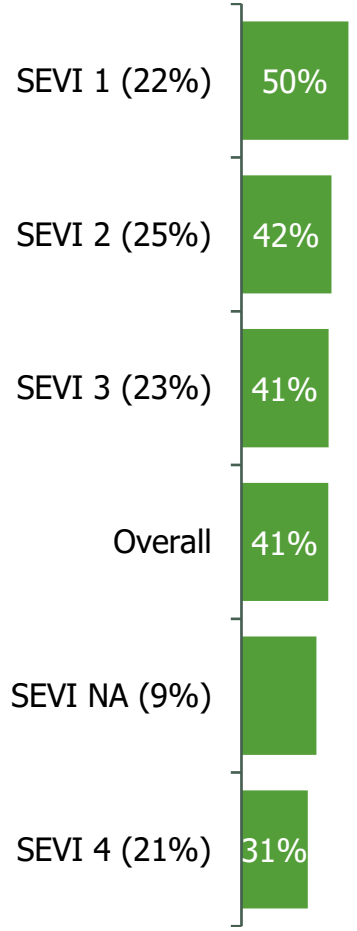
There is an ongoing need to further engage SEVI 4 and to continue offering IQ programs

- **Accurate knowledge of SVCE is notably lower among SEVI 4 (most vulnerable) customers.**

- SEVI 1 has the most accurate SVCE knowledge (homeowners, higher-income customers, and those unconcerned about paying bills closely track SEVI 1).

Customers were asked to indicate whether they agreed or disagreed with a series of statements about SVCE.

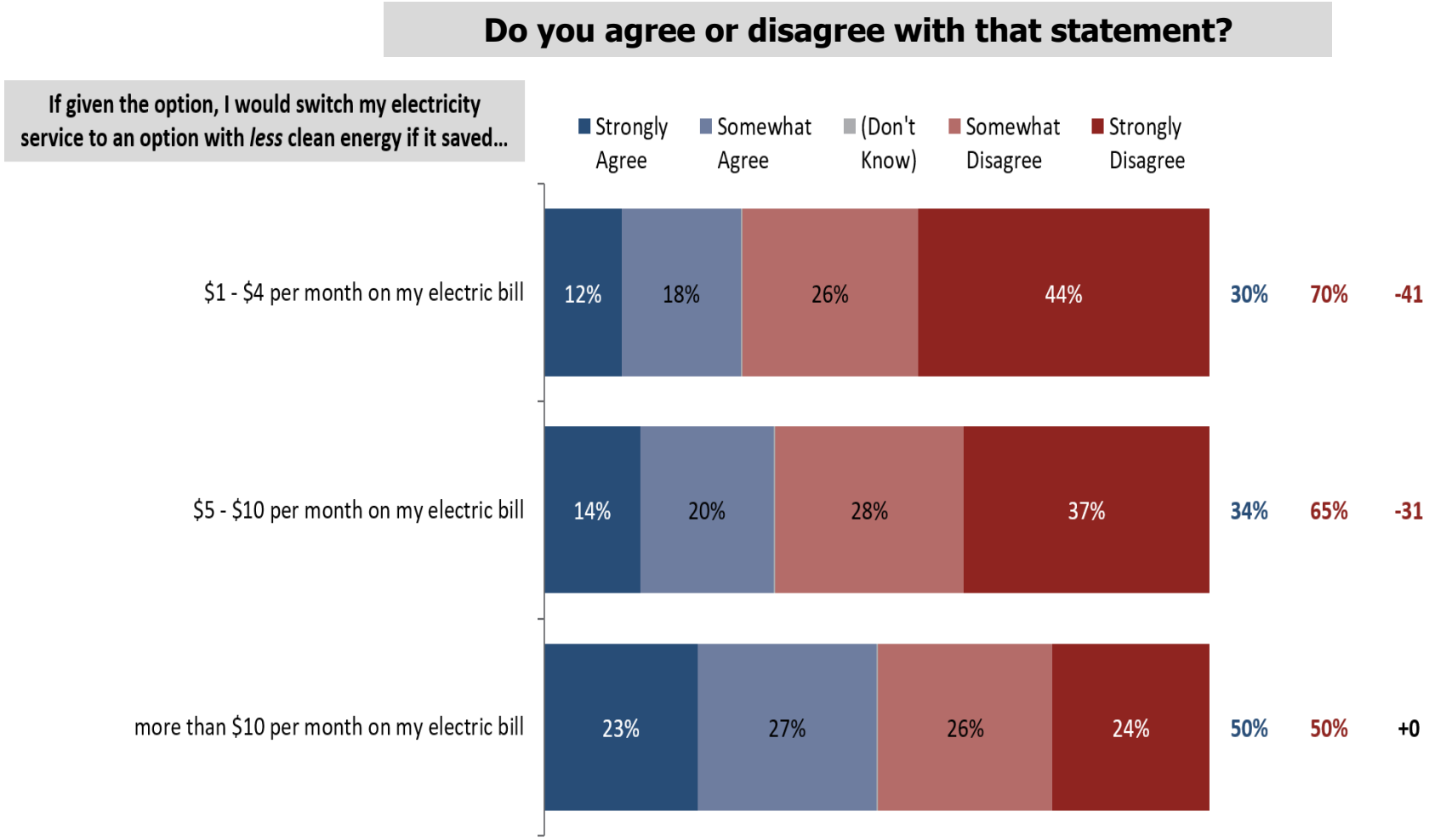
Percentage of Customers Able to Accurately Identify Statements



Willingness to Pay

More than two thirds of customers indicate they would pay slightly more for clean energy

- **Only 30-34% customers would switch to dirtier electric generation to save $1-10 per month.**
- This number increases to 50% of customers if the savings are >$10 per month.
- For reference, +/- 1% is estimated to be +/- $0.58 per month based on the average residential customer bill.



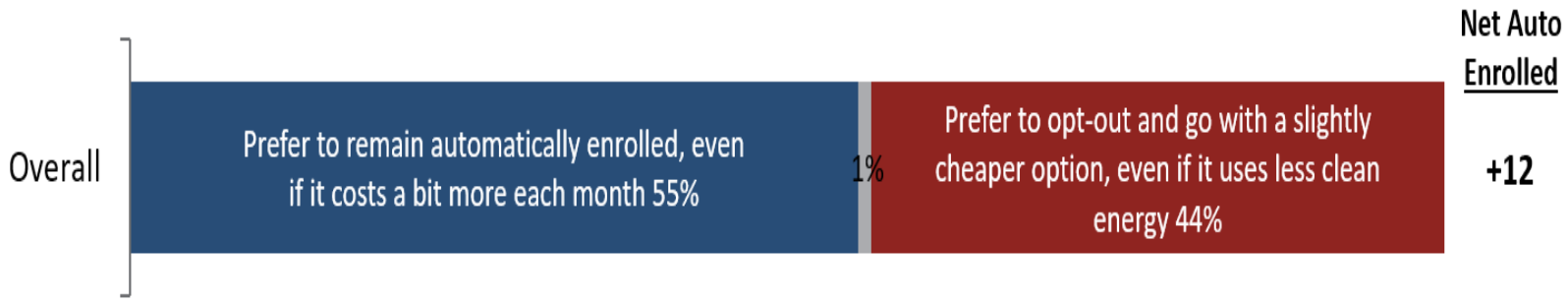
Dollar amounts shown were for survey question simplicity and do not reflect any future recommended SVCE rates.

Automatic enrollment is preferred by the majority, even if the cost is a bit more

- **New question in 2026.**
- **Most customers prefer to remain automatically enrolled in a cleaner, more renewable energy** option, even if it costs a bit more.
  - Support is highest among SEVI 1 and NA, older, and homeowner customers

If your city or county elected officials voted to transition your electricity supply to receive a higher percentage of renewable energy, all customers within that jurisdiction would be automatically enrolled to receive this cleaner, renewable energy.

Thinking of this, would you…



Electrification Trends

The likelihood of purchasing all appliances/equipment is down from prior years

- Survey indicates the **likelihood of purchasing all appliances/equipment is down from prior years.**

- This may be due to greater market share of some technologies (EVs and solar), the loss of tax credits, and broader economic conditions.

Please indicate which of the following appliances or equipment that you are likely to purchase for your home in the next 3 years.

	Likelihood to Purchase		
	2026	2024*	2023*
Smart thermostat	13%	27%	20%
Electric vehicle	15%	34%	-
Solar panels**	12%	23%	-
Electric yard and garden equipment	7%	13%	15%
Heat pump HVAC	14%	24%	19%
Level 2 electric vehicle charger**	11%	30%	17%
Induction cooktop/stove	16%	17%	15%
Heat pump water heater	16%	20%	-
Battery storage for solar panels**	20%	23%	-

*Previously asked on a different scale. Asked as a multiple-response question in 2026.
**Slight language change between 2026 and 2024.
***Survey conducted pre-Iran war. The 2024 survey's small sample size increases the margin of error.

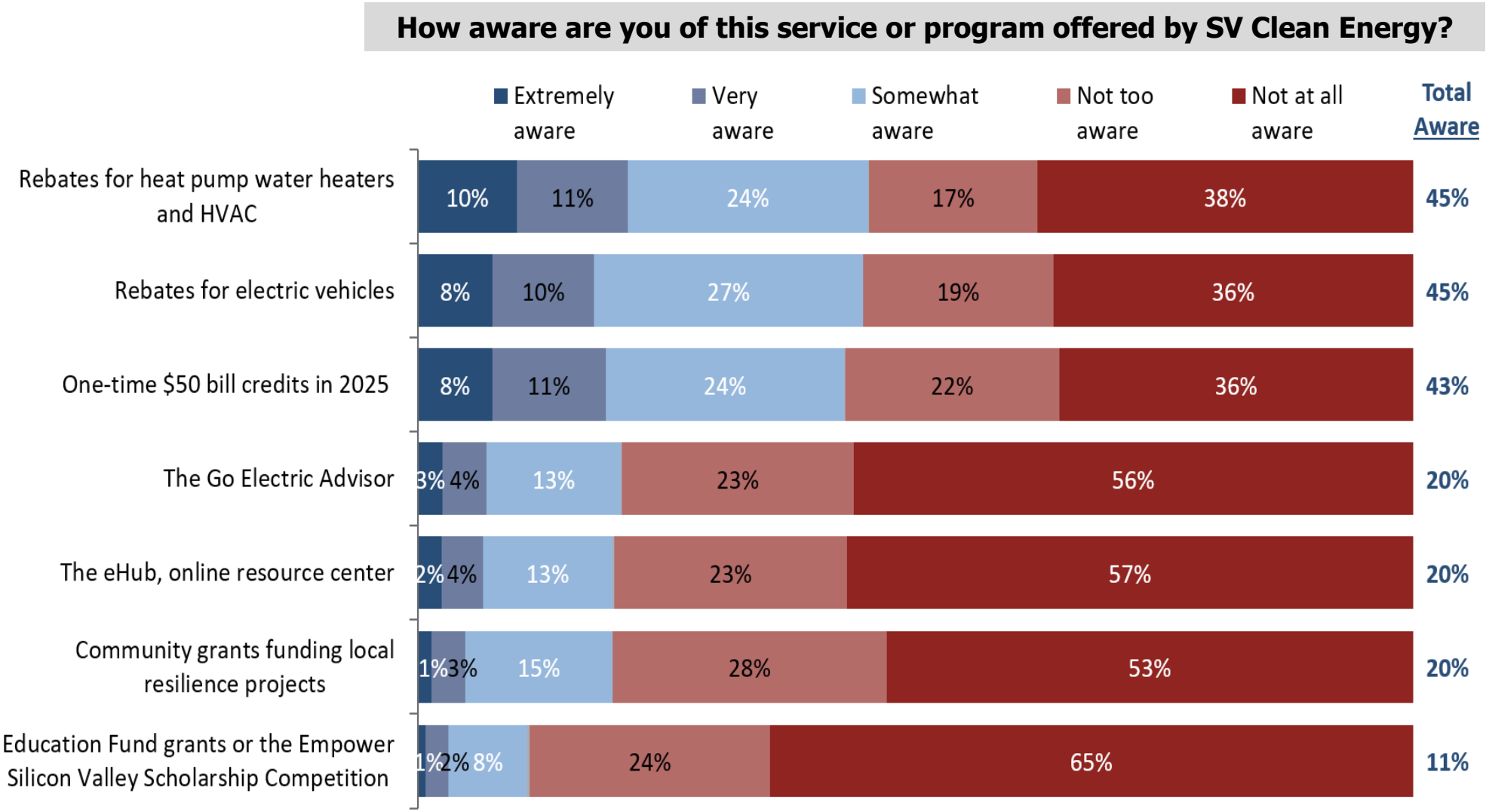
Cost was cited in the top 5 barriers for each technology (consistent with all past surveys)

Technology-specific barriers that were among the top 5 barriers for each technology:

- **EVs**: Driving range, cost, having no place to charge at home
- **Heat pump water heaters**: Cost, not knowing enough about the tech.
- **Solar/battery**: Cost for battery, cost for solar, can't install at home
- **Induction:** Most (84%) are not interested; want user guides, info about comparison to gas, and some interest in health benefits.

Marketing and Program Insights

Greatest awareness of SVCE rebates for HPWH/HVAC, EV rebates, and the 2025 one-time bill credit



51% of customers surveyed have been to the SVCE website

- Represents a **significant increase from 2024** (35%) and 2023 (22%).
- Most report finding the website through an email, physical mail, or online search (the most popular ways to receive information from SVCE).
- **Postal mail has a good reach with SEVI 3 and 4.**

How did you discover the SV Clean Energy website? Please select all that apply.

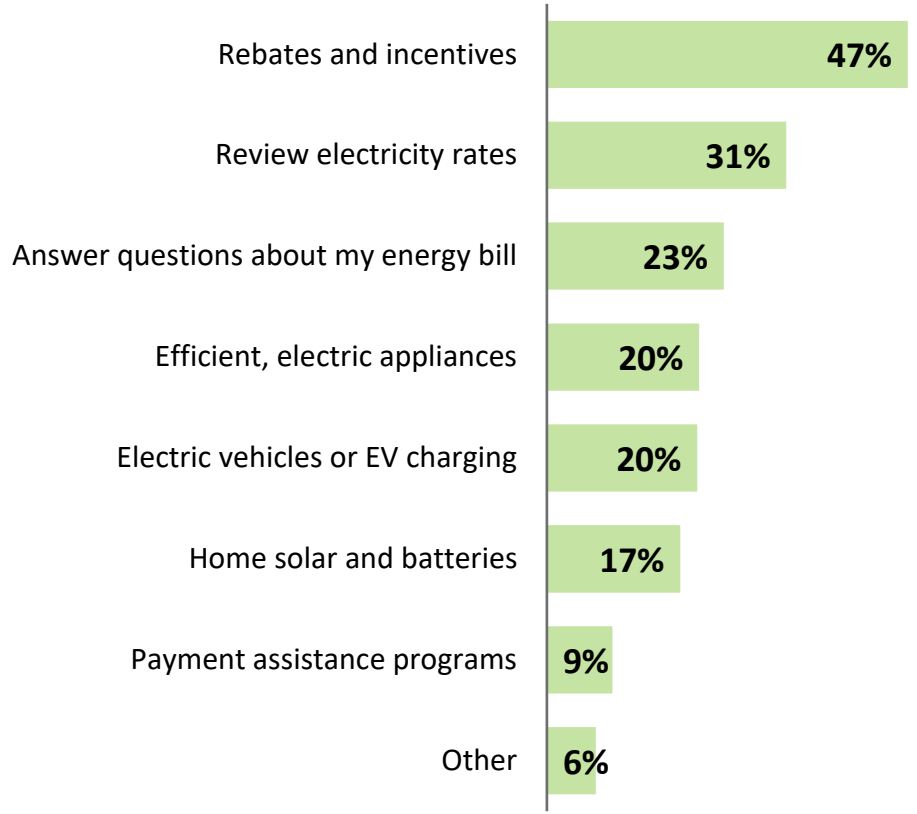
	SEVI 1 (22%)	SEVI 2 (25%)	SEVI 3 (23%)	SEVI 4 (21%)
Email	24%	24%	21%	24%
Postal mail	9%	12%	18%	20%
Online search	13%	11%	9%	7%
Community newsletter	9%	7%	7%	9%
Online Ad	3%	3%	4%	7%
Social media	5%	2%	4%	5%
Video Ad	0%	1%	2%	1%
I have not visited the website	51%	54%	50%	41%

Previous rates of website visitation:
- **2026: 51%**
- 2024: 35%
- 2023: 22%
- 2022: 22%
- 2020: 14%

Customers visited the SVCE website for rebate and incentive information the most

- **Rates came in second most common** this year (rates have always been first in prior surveys).

For which of the following reasons did you visit the SV Clean Energy website? Please select all that apply.



Discounted electricity rates are still the future program with the greatest interest

- **Rebates for home battery storage increased the most from 40% in 2024 to 61% in 2026**.
- Low or zero-interest financing for electric home upgrades (54%) and e-bike rebates (39%) both increased 14%.

How interested would you be in that program?

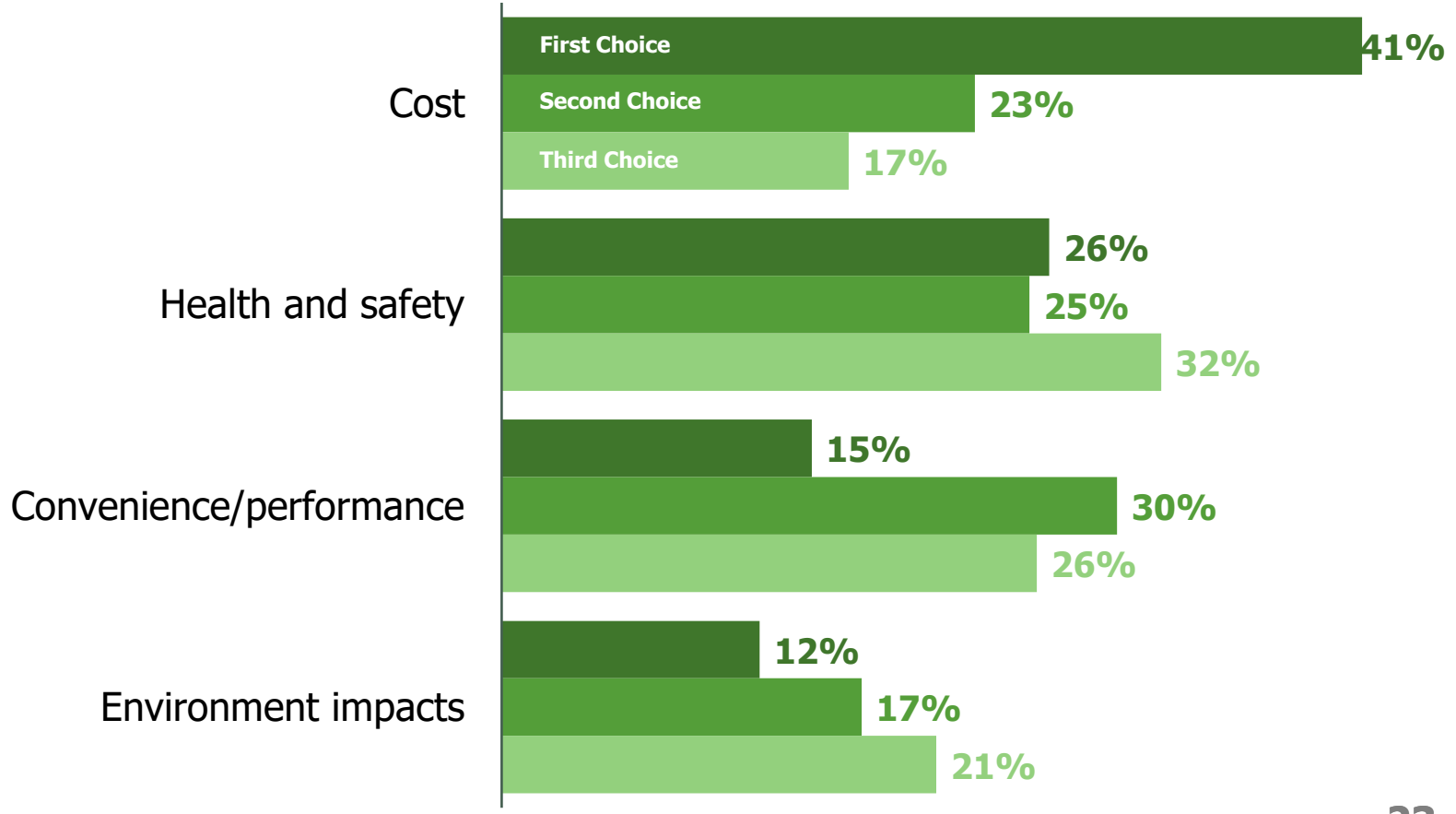
Program	2026 %	2024* %
Discounted electricity rates for customers participating in certain programs	**84%**	**92%**
Rebates for new home battery storage systems	**61%**	**40%**
Low or zero-interest financing for electric home upgrades	**54%**	**40%**
Rebates for purchasing e-bikes	**39%**	**25%**

*Please note small changes in question wording.

Purchase considerations continue to be dominated by cost

Please rank the following considerations when making decisions about your home and the products you purchase in order from most important to least important.

- When making purchasing considerations for home appliances, **cost is #1, followed by health and safety**, then convenience/performance.
- Environmental impact ranks last again. This does not change our mission but affects our messaging and marketing approaches.



All-Electric Home Beliefs

- **Seemingly significant increase in belief that electric appliances and equipment are better for the environment.**

- **Respondents continue to believe that all-electric homes:**
  - Can improve indoor and outdoor air quality (78%)
  - Are more efficient (65%)
  - More reliable (55%)
  - But are more expensive to operate (67%).

Do you agree or disagree with that statement?

% Total Agree	2026	2024	2023	2022	2020
All-electric homes have better air quality[1]	78%	83%	73%	73%	75%
Driving EVs is better for the environment than gas vehicles	77%	73%	69%	77%	81%
Electric appliances are better for the environment than those that use natural gas, which is a fossil fuel[2]	**76%**	-	60%	57%	54%
Using an induction cooktop/stove is safer than using gas	75%	70%	-	-	-
Using electricity to power your water heater is better for the environment than using natural gas, a fossil fuel3	74%	69%	-	-	-
All-electric homes are more expensive to operate than homes with non-electric appliances and equipment[4]	67%	70%	64%	61%	62%
All-electric homes are more energy efficient	65%	67%	54%	53%	52%
All-electric homes are less reliable	45%	33%	-	-	-

Summary

- More people are visiting SVCE website resources.
- Aided and unaided awareness have improved.
- New findings on favorability are positive.
- Likelihood to purchase is down for all technologies.
- Perceived and real concerns for technology adoption can continue to help inform messaging and education strategies.
- Opportunity to increase outreach to SEVI 3-4 to increase electrification education in more vulnerable groups and continue to implement and improve income-qualified offerings.

Questions?