# Strategic Focus Areas Update

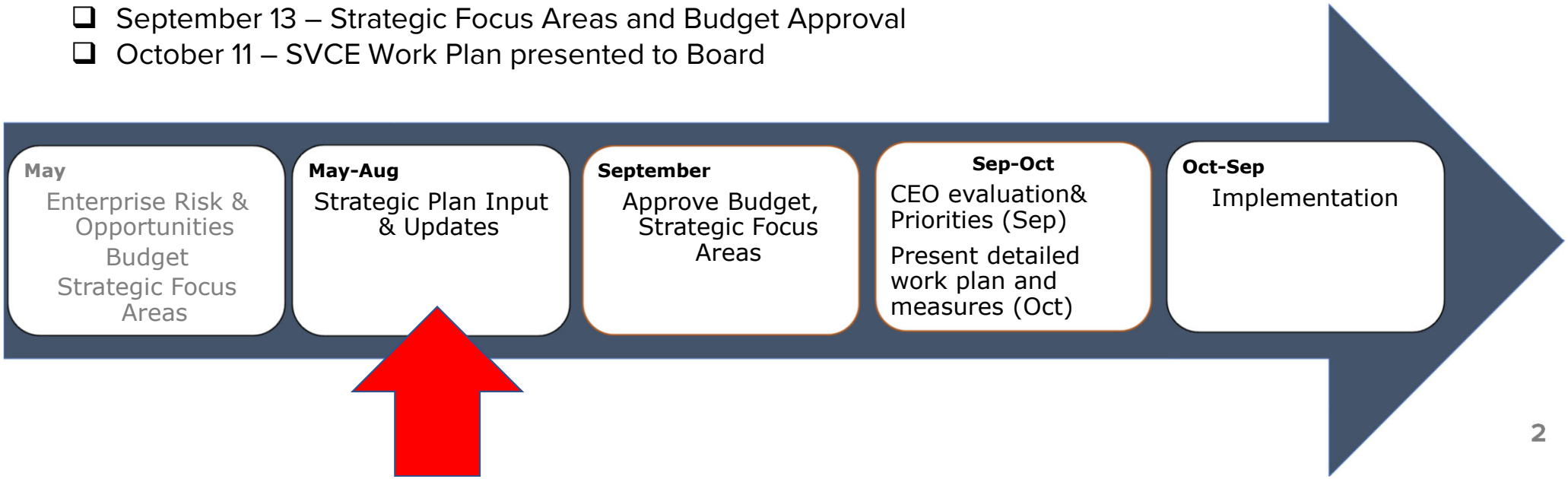
August 25, 2023

SVCE Executive Committee

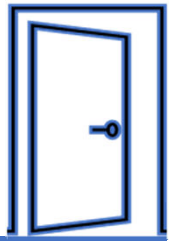
SILICON VALLEY CLEAN ENERGY

# Strategic Plan & Budget Timeline

- ☑ April & May & Q3 - Staff input
- ☑ May 26 - Executive Committee (strategic plan & budget)
- ☑ June 14 - Board (strategic plan)
- ☑ June 23 - Executive Committee (strategic plan & budget)
- ☑ August 1 - Finance Committee (budget)
- ☑ August 9 - Board (budget)
- ☐ September 13 – Strategic Focus Areas and Budget Approval
- ☐ October 11 – SVCE Work Plan presented to Board



# SVCE Planning & Budgeting Process



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

**Budget**

Funding in alignment with achieving the strategic focus areas

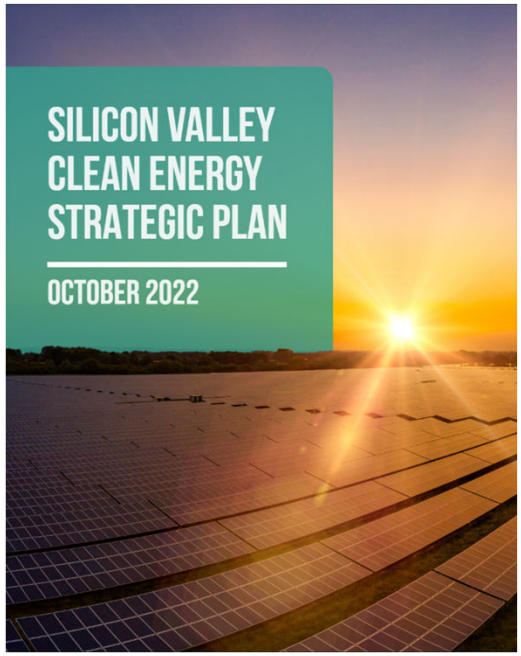
**Strategic Focus Areas**

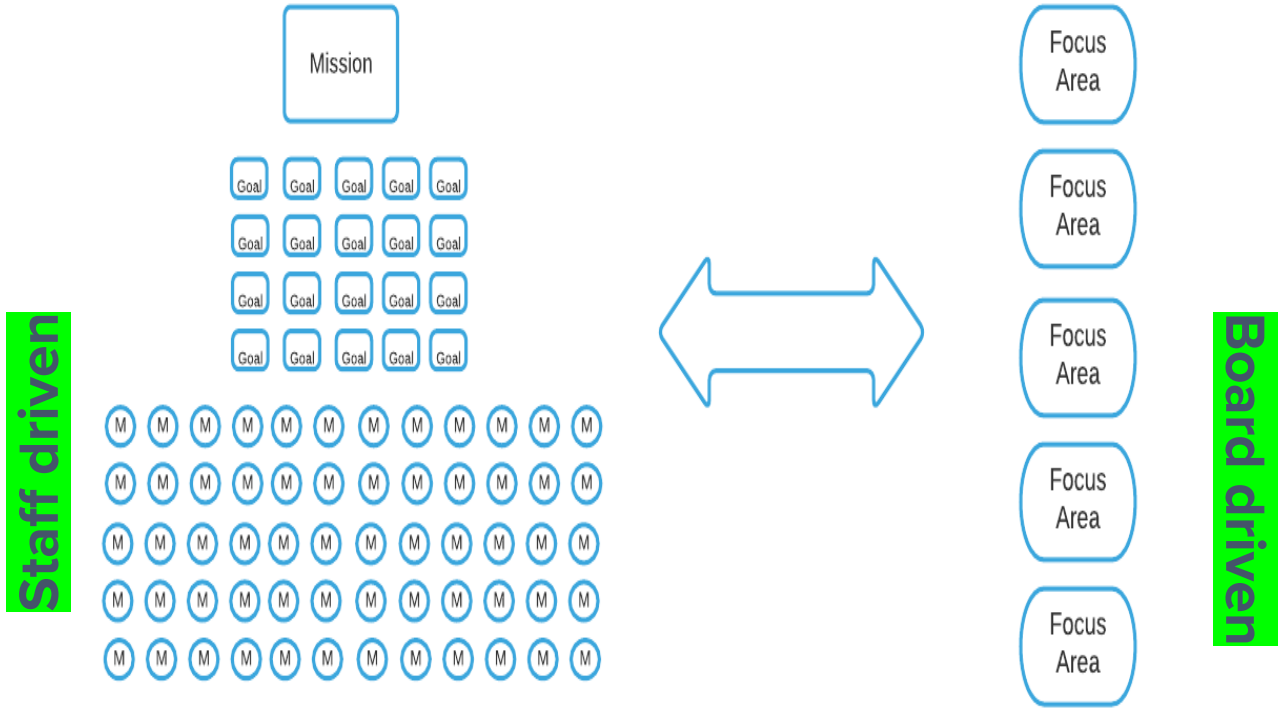
Organization-wide priorities and alignment toward achieving the mission

**Enterprise Risk Management**

Comprehensive assessment of risks and opportunities to optimally achieve mission

# Strategic Work Plan & Focus Areas



# No Changes to Mission & Measure

## MISSION:

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

*MEASURE:*

*SVCE, working with SVCE member agencies, aspires to achieve energy and transportation GHG reductions of 30% from the 2015 baseline by 2021, 40% by 2025, and 50% by 2030*

# FY 24 Focus Areas

| FY 23 | FY 24 |
|---|---|
| 1. 24x7 Clean Energy | 1. Expand Clean and Reliable Grid Actions |
| 2. Customer Base and Electrification | 2. Expand Customer Base & Interaction |
| 3. Inflation Reduction Act | 3. Accelerate Building & Transportation Electrification |
| 4. Finance | 4. Implement Innovative Financing Solutions |
| 5. Employee | 5. Attract & Retain Employees |

**Supporting Work:**
Risk and Opportunities being updated
Strategies (21), Measures (80) being updated
Utilize Monday.com to track during the year
Update details under each Strategic Focus Area

SILICON VALLEY CLEAN ENERGY

# 5 Strategic Focus Areas – FY 24

Synergy & Overlap

| Expand Clean & Reliable Grid Actions | Expand Customer Base & Interaction | Accelerate Building & Transportation Electrification | Innovative Financing Solutions | Attract & Retain Employees |
|---|---|---|---|---|
| Explore 24x7 clean energy delivery at scale; evaluate SVCE role in enhancing distribution and transmission reliability | Grow non-residential customer base; Expand Offerings & emphasize electrification to all customers | Accelerate deployment of currently adopted decarbonization strategies and goals; evaluate and capitalize on federal and state funding opportunities | Implement innovative financing solutions to increase impact of decarbonization program offerings, especially to lower-income customers | Be the Employer of Choice, and Increase Staffing;<br><br>Hire CEO* |

*Only addition since June 14, 2023 board meeting

# Strategic Plan & Budget Timeline

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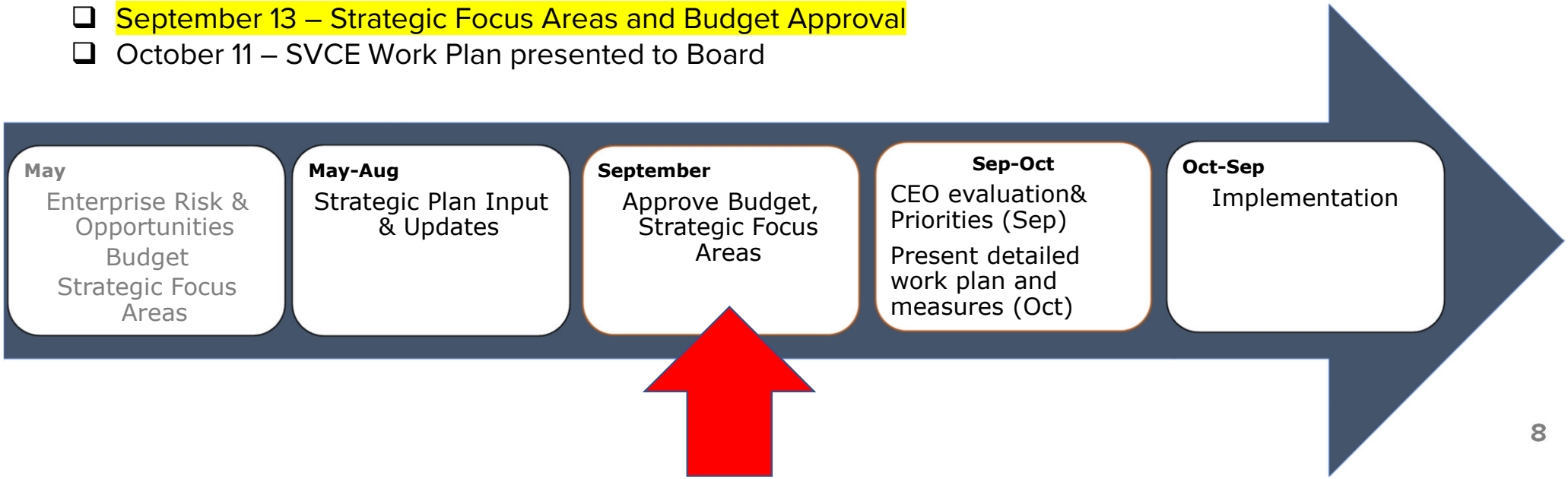


# APPENDIX

# 1. EXPAND CLEAN & RELIABLE GRID ACTIONS

**Explore 24x7 clean energy delivery at scale, evaluate SVCE role in enhancing distribution and transmission reliability**

- Explore pathways to measure & achieve carbon free 24x7 for the entire portfolio and aligned with SVCE's mission
- Implement Google's Carbon Free Energy (CFE) framework and explore opportunities to offer expanded clean offerings to other customers
- Explore VPP opportunities and how we can demonstrate the "grid of the future"
- Explore targeted SVCE role to enhance distribution and transmission reliability

# 2. EXPAND CUSTOMER BASE & INTERACTION

**Grow non-residential customer base; Expand Offerings & emphasize electrification to all customers**

- Be the Supplier of Choice; attract and retain DA customers
- Maintain competitive rates; increase customer offerings and demand side programs
- Expand value proposition emphasizing electrification

# 3. ACCELERATE BUILDING AND TRANSPORTATION DECARBONIZATION

**Accelerate deployment of currently adopted decarbonization strategies and goals; evaluate and capitalize on federal and state funding opportunities to further improve programs**

- Grow our capacity and deploy programs at a much larger scale
- Operationalize equity into programs
- Assist member agencies evaluating federal and state decarbonization policies and program impacts
- Explore opportunities to influence and partner with other organizations on supporting a clean energy workforce."

# 4. IMPLEMENT INNOVATIVE FINANCE SOLUTIONS

**Leverage Balance Sheet for Structured Financing and use financing solutions to increase impact of decarbonization program offerings, especially to lower-income customers**

- Continue building strong financial reserves
- Attract and retain DA customers
- Implement innovative financing solutions to customers, particularly to reach those with barriers to conventional programs (e.g., low income, renters)

# 5. EMPLOYEES

**Be The Employer of Choice, & Increase Staffing**

- Hire CEO
- Attract and Hire New Employees, passionate about our mission and with excellent job knowledge
- Build and maintain a high-performance agency; preserve start-up culture of employee innovation, engagement, and collaboration
- Continue enhancing remote, hybrid and in-person work

# WORKPLAN - 21 Goals and 75 Measures

## (to be updated & presented to Board in October 2022)

### STRATEGIC PLAN GOALS

1. Build and maintain a high-performing team
2. Maintain an enjoyable and rewarding workplace
3. Get great at prioritizing, and rebalancing to align work plan with higher level goals
4. Plan for resources to meet SVCE's mission while balancing multiple stakeholder objectives
5. Acquire clean and reliable electricity in a cost effective, equitable and sustainable manner
6. Manage and optimize power supply resources to meet affordability, GHG reduction and reliability objectives
7. Work with the community to plan and track achieving energy and transportation GHG reductions of 30% from the 2015 baseline by 2021, 40% by 2025, and 50% by 2030
8. Coordinate development of decarbonization and resilience strategy, lead design of local policy and programs, and support program deployment
9. Use DAISY to enable data-driven decision-making across the organization
10. Empower customers with the awareness, knowledge and resources needed to make effective clean energy choices
11. Engage a full range of public, private, and non-profit stakeholders to leverage our decarbonization efforts
12. Enact competitive service offerings and programs that deliver measurable environmental and economic benefits
13. Commit to maintaining a strong financial position
14. Avoid failures in management of market, credit, liquidity, operational and enterprise risks
15. Advocate for policies that protect CCA customer investments and furthers decarbonization, grid reliability, affordability, and social equity with federal and state elected officials and regulators
16. Engage regulators, legislators, and local elected officials in representing SVCE priorities
17. Develop and enhance internal processes related to Supplier Diversity, Staffing and Compliance
18. Encourage the development of regulations that proactively support the changing, evolving energy market and facilitate grid innovation
19. Drive SVCE's local policy objectives by leveraging key stakeholders
20. Ensure SVCE's Information Technology infrastructure is secure, reliable, and disaster resilient to provide 24/7/365 online access
21. Enable data-driven decision-making across the organization; automate, integrate, and streamline business processes to minimize operational risk and move organization toward industry best practices from its startup phase

Each Goal associated with Measures

### B. POWER SUPPLY

SVCE's Power Resource Team is responsible for planning, acquiring, and managing power supply resources to meet the community's clean energy goals and state-mandated power and reliability requirements. This is done through a balanced approach which considers cost, risk, long-term value, and best fit in meeting community goals. This requires sustainable planning, innovative thinking, prudent risk management and the constant search for the best solutions. Going forward, to be successful SVCE must adapt to new climate and social challenges; customer specific needs; support region-wide decarbonization and electrification goals; integrate distributed energy resources; collaborate and leverage opportunities for joint procurement; and become technology and data driven.

| GOAL | MEASURES |
|---|---|
| 4. Plan for resources to meet SVCE's mission while balancing multiple stakeholder objectives | **1.** Integrated Resource … affordable, reliable, and … 2030 and beyond (204…<br>**2.** Develop a platform t… distributed energy reso… operations<br>**3.** Implement process a… and policy integration t… Policy Teams |
| 5. Acquire clean and reliable electricity in a cost effective, equitable and sustainable manner | **1.** Achieve SVCE 100% … RPS mandate of 65%; n… procurement mandates<br>**2.** Meet SVCE's standar… (i.e., GreenPrime and G… development of sustain… GreenPrime Direct and… custom product offerin…<br>**3.** Pursue joint procure… resource adequacy and… through CC Power and… power partners |

*"The successful planning and acquisition of clean and reliable energy serves as the foundation of SVCE's mission. Moving forward, we aspire to strengthen and diversify our portfolio with new cost-effective and innovative resources such as long-duration storage."*

**Monica Padilla**
Director of Power Resources

| GOAL | MEASURES |
|---|---|
| 6. Manage and optimize power supply resources to meet affordability, GHG reduction and reliability objectives | **1.** Manage Power Supply Portfolio and Energy Risk<br>**2.** Implement and Operate Power Purchase Agreements to enhance value to SVCE<br>**3.** Ensure SVCE adopts the appropriate tools, systems, and resources to support portfolio optimization, risk management, load forecasting, compliance, and settlements |

# Last Year's 5 Strategic Focus Areas – FY 23

Synergy & Overlap

| 24x7 Clean Energy | Customer Base & Electrification | Inflation Reduction Act | Finance | Employee |
|---|---|---|---|---|
| Explore 24x7 clean energy delivery at scale, to improve on the current 100% clean energy goal | Grow Customer Base & Offerings, Emphasize Electrification | Accelerate deployment of currently adopted decarbonization strategies and goals; evaluate and capitalize on the Inflation Reduction Act to further improve programs | Leverage Balance Sheet for Structured Financing and use financing solutions to increase impact of decarbonization program offerings, especially to lower-income customers | Be the Employer of Choice, and Increase Staffing |

Synergy & Overlap

# 1. 24x7 CLEAN (FY23)

**Explore 24x7 clean energy delivery at scale, to improve on the current 100% clean energy goal**

- Explore pathways to measure & achieve carbon free 24x7 for the entire portfolio
- Implement 24/7 service with Google and explore with other customers
- Explore VPP opportunities and how we can demonstrate the “grid of the future”

# 2. CUSTOMER BASE & ELECTRIFICATION (FY23)

## Grow Customer Base, Offerings, & Emphasize Electrification

- Be the Supplier of Choice; attract and retain DA customers
- Maintain competitive rates; increase customer offerings and demand side programs
- Expand value proposition emphasizing electrification

# 3. INFLATION REDUCTION ACT (FY23)

**Accelerate deployment of currently adopted decarbonization strategies and goals; evaluate and capitalize on the Inflation Reduction Act to further improve programs**

- Evaluate clean energy asset ownership to structurally lower costs and lower risk
- Grow our capacity and deploy programs at a much larger scale
- Operationalize equity into programs; utilize SEVI framework in double-down programs
- Assist member agencies evaluating IRA decarbonization policies and program impacts
- Evaluate policies related to the utilization of organized labor in utility-scale projects and decarbonization programs and present options to the Board

# 4. FINANCE (FY23)

**Leverage Balance Sheet for Structured Financing and use financing solutions to increase impact of decarbonization program offerings, especially to lower-income customers**

- Continue building strong financial reserves
- Attract and retain DA customers
- Strategically use balance sheet to advance our mission; providing innovative financing solutions to customers, particularly to reach those with barriers to conventional programs (e.g., low income, renters)

# 5. EMPLOYEES (FY23)

**Be The Employer of Choice, & Increase Staffing**

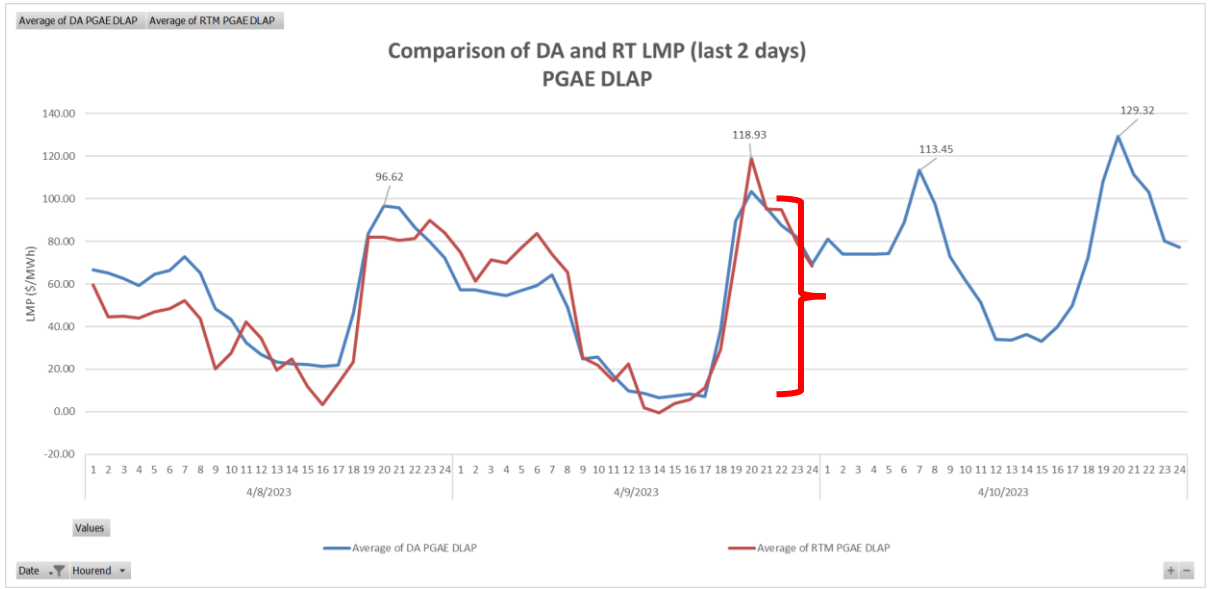
- Attract and Hire New Employees, passionate about our mission and with excellent job knowledge
- Build and maintain a high-performance agency; preserve start-up culture of employee innovation, engagement, and collaboration
- Develop plans for remote, hybrid and in-person work

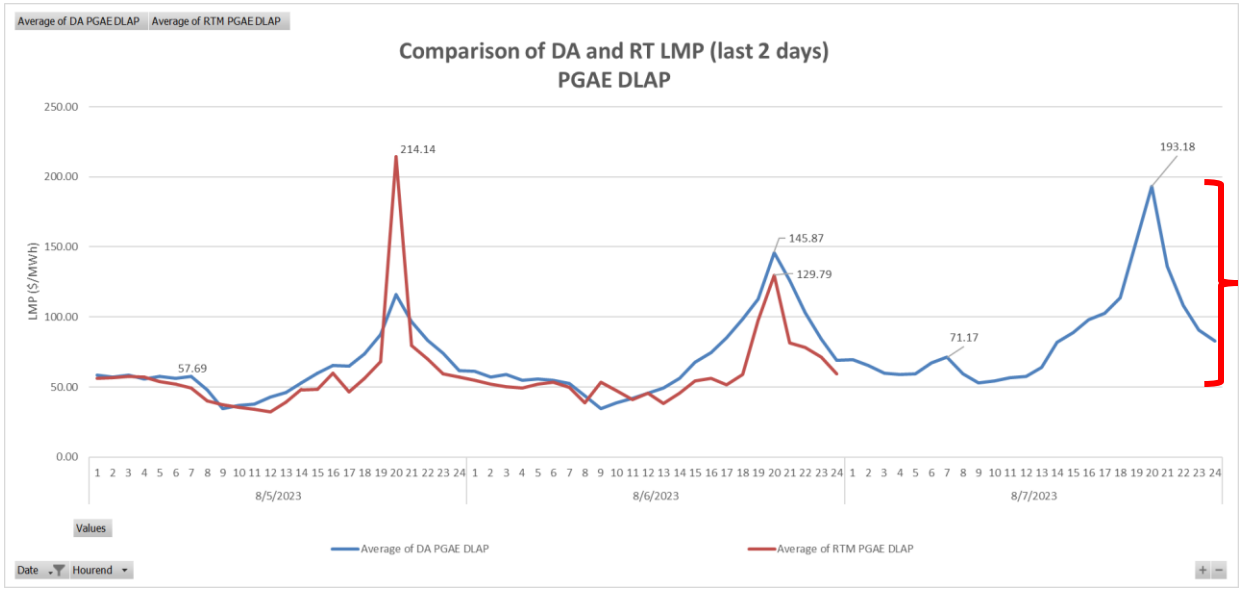
# VPP Update and Plans for 2024

SVCE Executive Committee Meeting
August 2023

SILICON VALLEY CLEAN ENERGY

# Grid energy prices vary significantly during the day, month to month, and year to year.




April 10th day-ahead hourly prices
- $5/MWh at 4pm
- $102/MWh at 8pm

August 7th day-ahead hourly prices
- $52/MWh at 9am
- $193/MWh at 8pm

In response, SVCE:

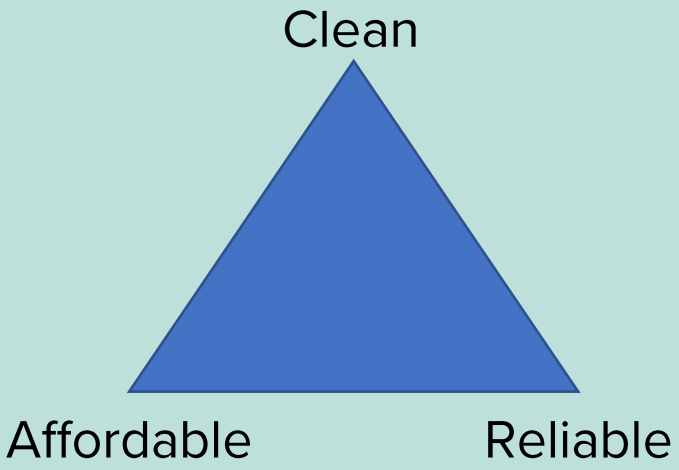
- procures energy, hedges and RA to cover peaks
- maintains strong reserves

**But what if SVCE could help shape customer demand to better match low-cost supply?**

# Effectively managing demand will be critical in meeting future clean energy and electrification goals.

| | Past . . . | | Future . . . | |
|---|---|---|---|---|
| Supply | • Fossil-based<br>• Predictable capacity<br>• Seasonal price volatility |  |  | • Renewable<br>• Variable capacity<br>• Daily price volatility |
| Demand | • Mixed fuel<br>• Flat/declining load<br>• Dumb on/off appliances |  |  | • All-electric<br>• 70%+ load growth<br>• Connected/flexible loads |
| Demand/Supply Matching | • TOU rates w/~15% ‘deltas’<br>• Manual control during 9-15 peak events/year |  |  | • Dynamic rates<br>• Automated/continuous optimization & control |

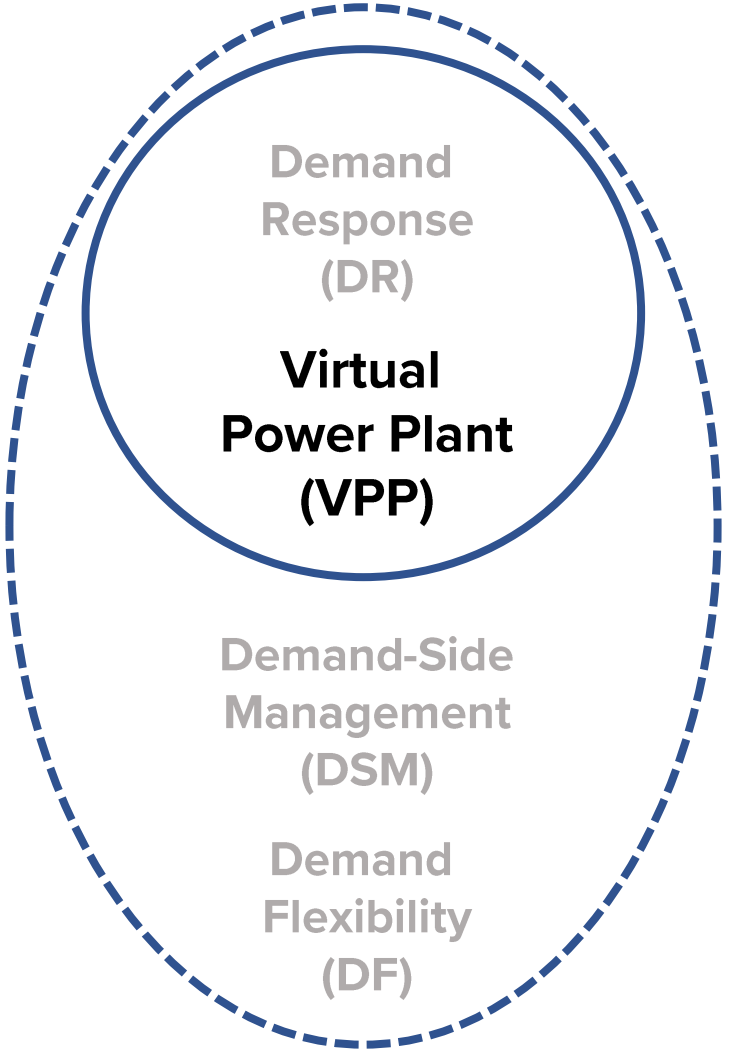
# Enabling dynamic matching of demand and supply directly supports SVCE's mission.




- As the grid becomes more reliant on intermittent renewables, the ability to shape demand to match supply boosts grid reliability and affordability
- Effectively matching usage with power that is greenest and lowest-cost improves customer economics, and helps further advance electrification

# ‘VPP’ is now shorthand for a variety of ways customers can be incentivized to shift demand.

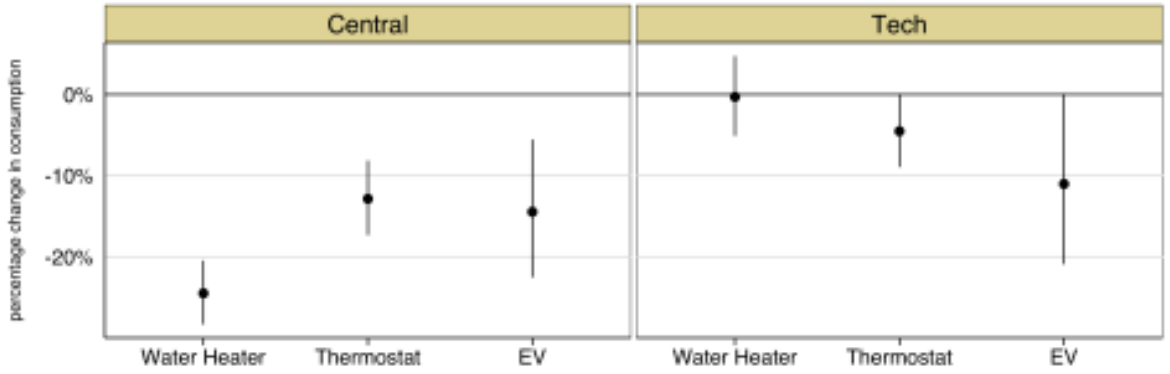
- reduce peak demand when supply is constrained
- shift/shape demand to cleaner or lower-cost hours



# Studies are showing connected devices using dynamic pricing and control can shift demand by 5-20% (vs 1-5%).

**Centralized vs. Decentralized Demand Response: Evidence from a Field Experiment**

Figure 8. Average Treatment Effect of Participants by Group and Technology




Megan Bailey, David P. Brown, Blake Shaffer, Frank A. Wolak; January 2023
Preliminary and Incomplete. Please do not cite or circulate.

## Reforming Retail Rates to Increase DF – LBNL Study*

- Fully 20% of load is potentially shiftable to time periods associated with low wholesale energy prices and energy curtailment
- By 2030, CA can shift 2-5% of daily load (10-20 GWh) and save $200-$500 million in annual costs associated with curtailing renewable generation
- Conclusions currently being debated by stakeholders

*Lawrence Berkeley National Laboratory (LBNL), "The California Demand Response Study, Phase 3" (2020).

CPUC Perspective: Demand Inflexibility Based on Grid Design:

*"Historically we designed the electric power system with the assumption that customer demand for electricity was inflexible, and for the majority of the past 140 years that approach made sense. Customer demand was inflexible, and we didn't have the tools and technology needed to send time-varying rates."*

-CPUC Commissioner Darcie L. Houck, Remarks at Exploratory Workshop on Demand Flexibility, May 25, 2021

# While promising, deploying dynamic demand-side management at scale faces many challenges.

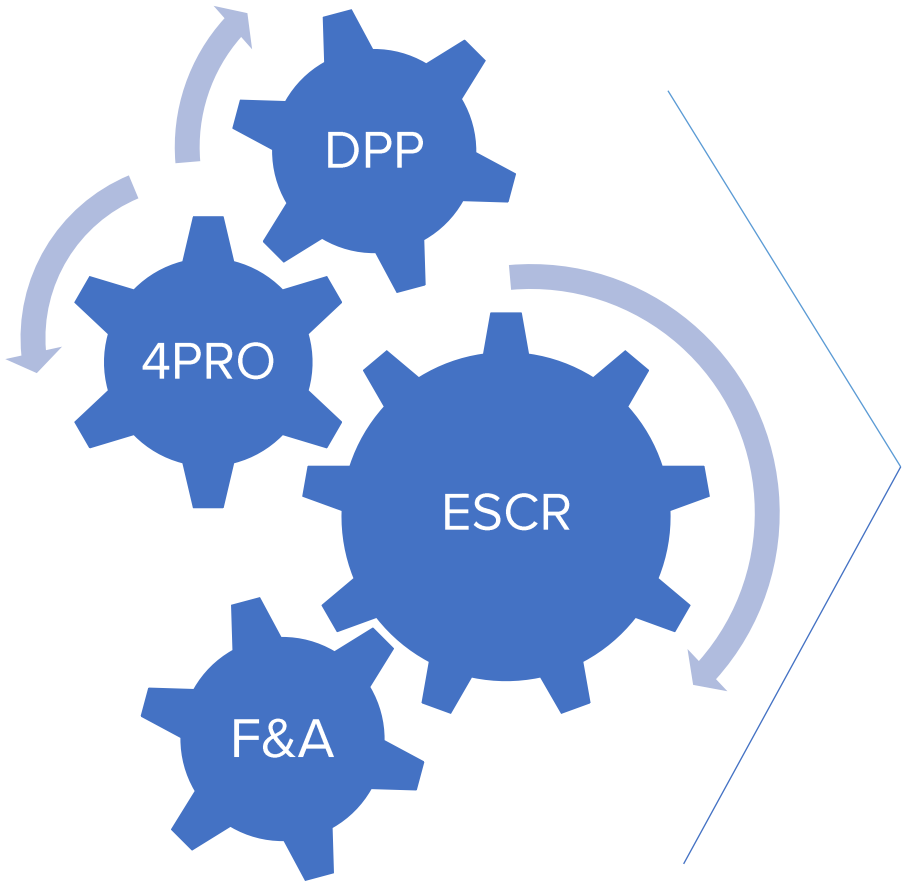
**How will new products and services take advantage of dynamic energy pricing?**

- Development of new customer services, tariffs and products
  - savings, convenience, reliability, mitigation of price risk . . .
- Simple/seamless customer interface(s), integration of customer devices, data, billing etc.
- New business models between utilities, product and service providers, customers
  - measurement and capture of sufficient energy and capacity value to drive activity
- Customer engagement, education and adoption
- Equity and access

# SVCE is engaged in multiple related proceedings, service and rate pilots.

| | |
|---|---|
| **Regulatory Proceedings** | • CPUC Demand Flexibility CalFUSE<br>- California Flexible Unified Signal for Energy<br>- new real-time rate structures, income-graduated fixed charges<br>• CEC Load Management Standard MIDAS<br>- Market Informed Demand Automation Server<br>- statewide time-varying rates database |
| **SVCE Pilot Projects in Operation** | • GridShift EV – SVCE-branded EV.energy charging application<br>• Lights On Silicon Valley – SunRun solar/battery aggregation<br>• Electric Home Rate – Time-of-use rate to support electrification |
| **SVCE Pilot Projects Planned or Under Development** | • Muni battery storage aggregation pilot - 2023<br>• PG&E Real-Time Pricing Pilots - residential & commercial - 2024<br>• PG&E Vehicle to Grid (VGI) Pilots - 2024 |

# In 2024, SVCE will refine our VPP approach and priorities – how can we best enable/accelerate?




## Strategic Plan Elements

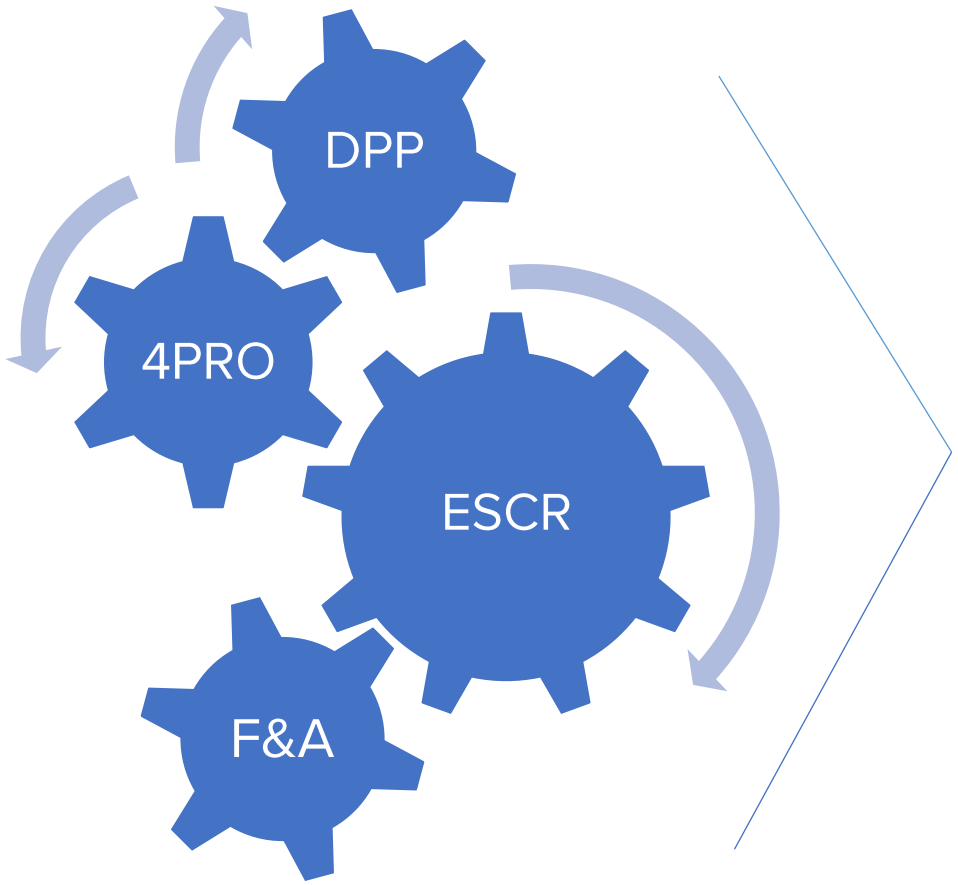
1) Establish cross-departmental VPP workgroup, document shared vision, provide visibility & coordination of related activities

2) Support range of technical/business/policy requirements for deployment of PG&E's Real-time Pricing and Vehicle-to-Grid pilots, MIDAS and CalFUSE (ESCR, 4PRO lead) **

3) Conduct cross-departmental RFI/RFP for 'Customer Engagement Platform for Demand Flexibility', evaluation of potential strategic partnership(s), and support subsequent launch (DPP, ESCR lead) **

**** will likely require BOD action/approvals in FY2024**

# In FY24, SVCE will refine our VPP approach and priorities – how can we best enable/accelerate?




## Strategic Plan Elements

4) Support development of detailed 'bottoms up' [2030] load forecast, including impacts of electrification (4PRO lead)

5) Develop cross-departmental financial opportunity analysis for load flexibility v/v capacity and energy value (F&A lead)

6) Coordinate employee participation and learnings from VPP/load flexibility pilots, related vendor offerings (ESCR lead)

# Questions

# C&I Program Update

Adam Selvin
SVCE Executive Committee
August 25, 2023

SILICON VALLEY CLEAN ENERGY

# The News: SMB Rebates are Live!

SILICON VALLEY CLEAN ENERGY

ABOUT US | GO ELECTRIC – REBATES & OFFERS | RATES & BILLING

# Quick Facts

- ❑ Rebates for **space** and **water heating electrification**
- ❑ Program structure **mirrors FutureFit Homes** but modified for the SMB sector
- ❑ Up to **$20,000** per project, and **$25,000 for nonprofits**

Who Qualifies?

- ✓ Buildings up to 50,000 sq. ft.
- ✓ Up to 250,000 kWh consumed annually
- ✓ Up to 25,000 therms consumed annually

~20,000 SMB customers meet these criteria

# Rebates can help accelerate electric retrofits of ~7,000 gas-fired HVAC and water heaters in SMBs

**Packaged Rooftop Units (RTUs) with Gas Furnaces**

- **7,000 units** in SVCE territory
- **$2-3k incremental cost** for a Heat Pump (HP) RTU
- Equivalent heat pump technology has existed for decades
- ~80% of RTUs already have enough electrical capacity to support a heat pump

**Gas-fired Storage Water Heaters**

- **6,500 units** in Small/Medium Businesses in SVCE territory
- Incremental costs:
  - **$5.5k (Res)**
  - **$8k (Comm)**

All data from 2022 TRC Market Segmentation Study performed for PCE & SVCE. Equipment saturation data from RASS and ACS survey data, costs from local contractor interviews. Data reflects small commercial buildings (<30k SF) only.

# Coming Soon: C&I Offerings

## Commercial & Industrial Strategic Energy Management for Decarbonization

**Identify, incentivize, and operationalize decarbonization in Large C&I customer facilities**

# What problem are we solving?

- No existing product for C&I decarbonization
- Lacking incentives to reduce carbon
- Unknown opportunities and best practices around decarbonization

# Why pursue this?

- Engage Large C&I Customers in decarbonization and SVCE Mission/value prop
- High touchpoint with customers
- Potential for significant and cost effective GHG reductions

# C&I Program Design

## Customer Solutions

- Leverage innovative EE program designs
- Uncover emissions reductions opportunities
- Create goals/road mapping
- Incent emissions reductions
  - Electric & gas improvements
  - Behavioral, Retro-Commissioning, and Operational
  - Fuel switching
  - Capital improvements
- Increase positive relationships with engaged customers
- Save the world

# Strategic Energy Management

## Goal Setting

Document customers targets for energy reduction, cost savings, and environmental impact

## Workshops

Educational modules on energy management, peak load shifting, and electrification

## Treasure Hunts

Site visits to assess current building operations, energy usage, operational practices, and identify opportunities

## No/low-cost O&M Projects

Implement low/no cost behavioral, retro-commissioning, and operation measures

## Capital Projects

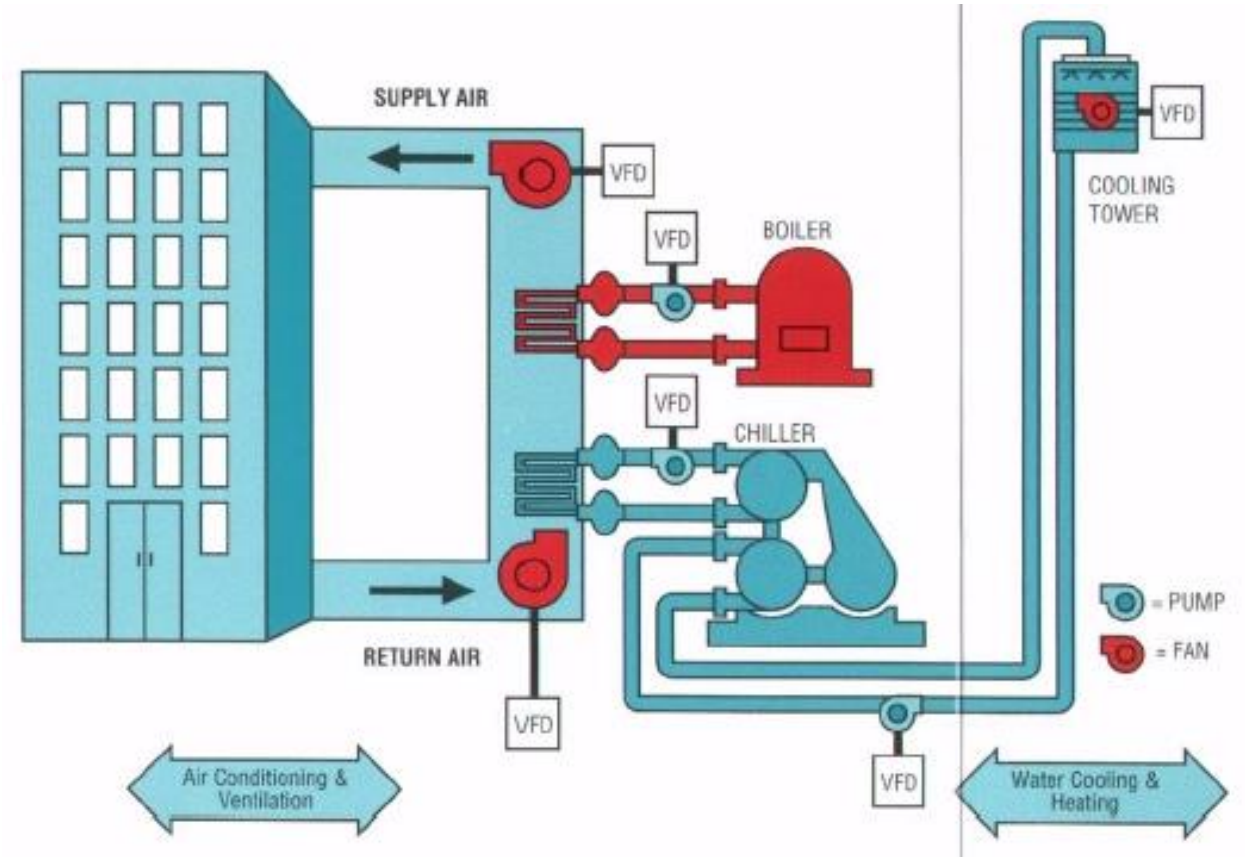
Implement custom capital EE upgrade projects and electrification

## Ongoing Technical Support and Coaching

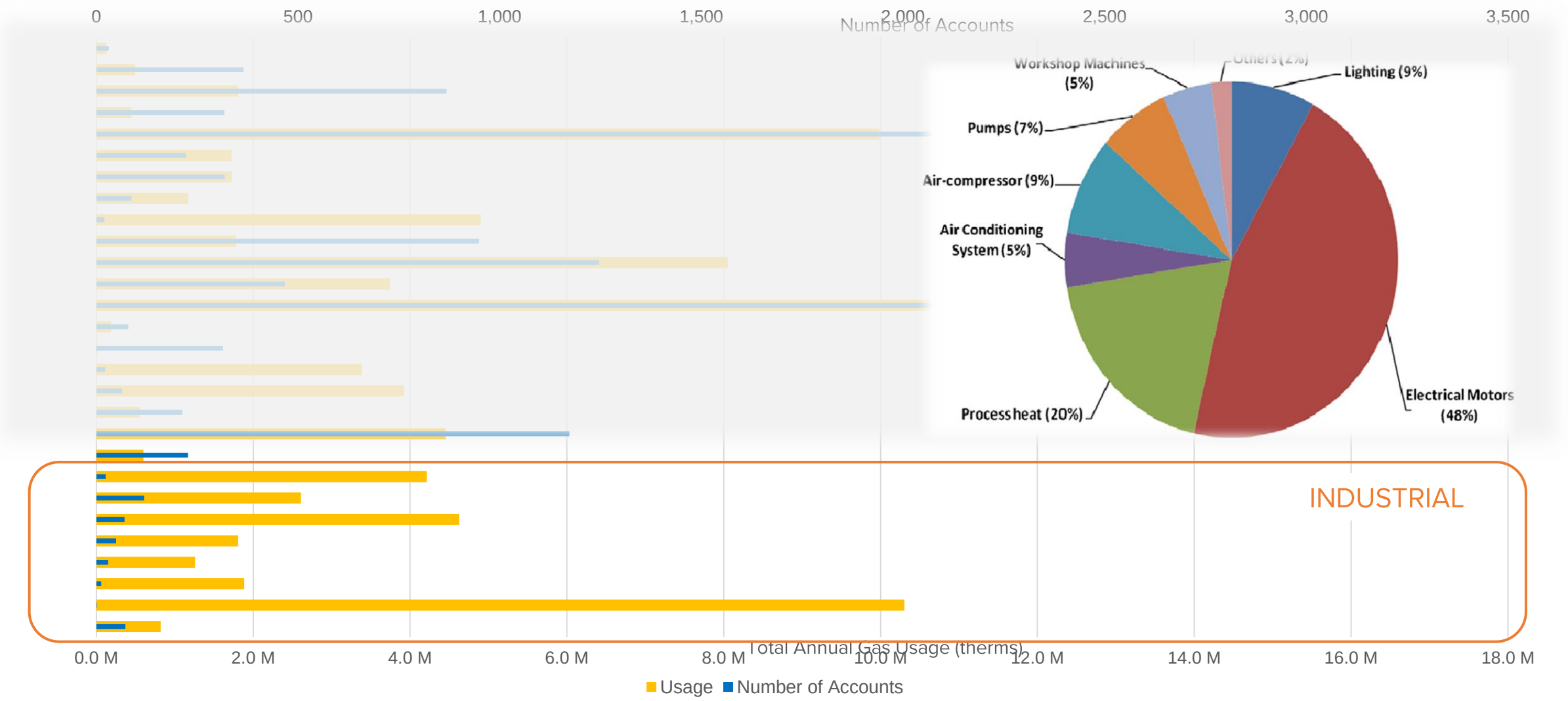
# Commercial End Uses

Decarbonization Opportunities

- New technologies and approaches are needed
- California loading order
- Retrofit, Lifecycle, New Construction



# Industrial End Uses



# Targeted Customer Segments

- Large commercial, industrial, and public customers with annual energy usage of 10 million kWh or greater
  - Industrial sector has a small number of accounts with huge usage and emissions
  - Data centers and hospitals also follow this trend
  - Office buildings and hospitality are the second largest in terms of customer count and usage, followed by retail
  - Food service is the largest sector in terms of customer count and usage

# An Intentional Electricity Rate

## SVCE's Electrification Discount Rate (E-ELEC)

- Enrollment recently surpassed **700 customers**
- Average generation discount **savings of 13%**
- Approximately **1/3** of participants live in **low-to-moderate income** areas
- Nearly **10%** of participants are **CARE/FERA** customers who are saving a combined **33%** discount off monthly electric bills
- Now open to NEM Customers