Welcome to SVP 101

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Customer Engagement and Resources

Presentation Speaker

Agenda

- Welcome / Introduction
- General Overview of Silicon Valley Power
- SVP Resources & Infrastructure
- Rates
- Load Growth
- Rebates & Electrification
- Questions

General Overview

Silicon Valley Power
City of Santa Clara

About Silicon Valley Power

Fast Facts

128 years young
Established in 1896

235
SVP Employees
(21.7% vacancy rate)

714 MW
Peak Demand

4TH Largest Municipal Utility
Retail Sales in CA

60,795
Electric Meters

78.3%
System Load Factor

Vertically Integrated Utility
We do it all! Poles, Power lines, Power plants, Rebates, etc!

18.41 sq. Miles
Service Area

Department of the
City of Santa Clara

61.8 Miles
Transmission Lines

Data Center Capital
of the West Coast

Organizational Structure

Lisa M. Gillmor
Mayor

Kathy Watanabe
Councilmember
District 1

Raj Chahal
Councilmember
District 2

Karen Hardy
Councilmember
District 3

Kevin Park
Councilmember
District 4

Sudhanshu "Suds" Jain
Councilmember
District 5

Vacant
Vice Mayor
District 6

Silicon Valley Power
City of Santa Clara

Powering The Center of What's Possible

Jōvan Grogan
City Manager

Manuel Pineda
Chief Electric Utility Officer

Nico Procos
Electric Chief Operating Officer

Chris Karwick
Assistant Director
Customer Development/
Project Management

Kathleen Hughes
Assistant Director
Resource Planning/
Customer Engagement

DeAnna Hilbrants
Assistant Director
Business Services

Nick Van Haeften
Assistant Director
Utility Operations

Core Services

Resource Planning	Customer Engagement	Customer Development and Project Management
• Purchase of Power • State and federal reliability and environmental compliance requirements • Manage all Joint Powers Authorities (JPA)	• Energy efficiency and electrification programs • Customer relations, sustainability • Communications & outreach	• Capital projects, private development, GIS, asset management, remote properties • System expansion plan • Customer development

Electric Utility Operations	Business Services
• Power generation • Operate and Maintain Santa Clara's Electrical System (within city limits and remote assets) and Power Plants • Manage Cyber Security and IT/OT functions	• Strategic Planning, budget, contracts, procurement (RFP, RFP), training plans • Regulatory and legislative compliance

Silicon Valley Power –
Proudly serving Santa Clara since 1896

SILICON VALLEY POWER
CITY OF SANTA CLARA

1896
City of Santa Clara Electric Department is founded when a diesel generator starts powering 45 streetlights.

1903
Santa Clara invests $5,000 in alternating current and begins providing electricity to customers within Santa Clara.

1967
Hydro power is allocated from the Federal Central Valley Project, beginning the diversification of resources.

1980
Cogen 1 is launched, the City's first in-city power plant, a natural gas-powered facility.

1985
Energy generated by wind turbines on Altamont Pass, the City's first carbon-free resource aside from hydroelectric power.

1988
Geothermal power from the North Bay Area is added to the City's power mix in order to ensure reliability and competitive pricing.

1998
The City's Electric Department becomes Silicon Valley Power (SVP) to reflect its growing role.

2005
The Donald Von Raesfeld Power Plant, located in Santa Clara comes on line providing natural gas and 147 megawatts of electricity to SVP customers.

2013
SVP provides free citywide outdoor Wi-Fi access

2017
SVP divests its ownership in the San Juan Coal Plant.

2018
SVP delivers 100% clean energy to residents.

2020
SVP launches Electric Vehicle public and fleet infrastructure investment.

2021
SVP celebrates its 125th year of service for Santa Clara residents.

Types of Electric Service Provider

Publicly Owned Utilities (POU)	Investor-Owned Utilities (IOU)	Community Choice Aggregation (CCA)
Santa Clara (SVP), Palo Alto, Alameda	**Pacific Gas & Electric**	**Peninsula Clean Energy, Silicon Valley Clean Energy**
• Publicly held department of City (District – Joint Power Association)	• Privately held companies	• Procure energy
• Not for profit	• For profit	• Not for profit
• Regulated by City Council (District Board)	• Regulated by the California Public Utilities Commission	• Regulated by Board (Typically cities)

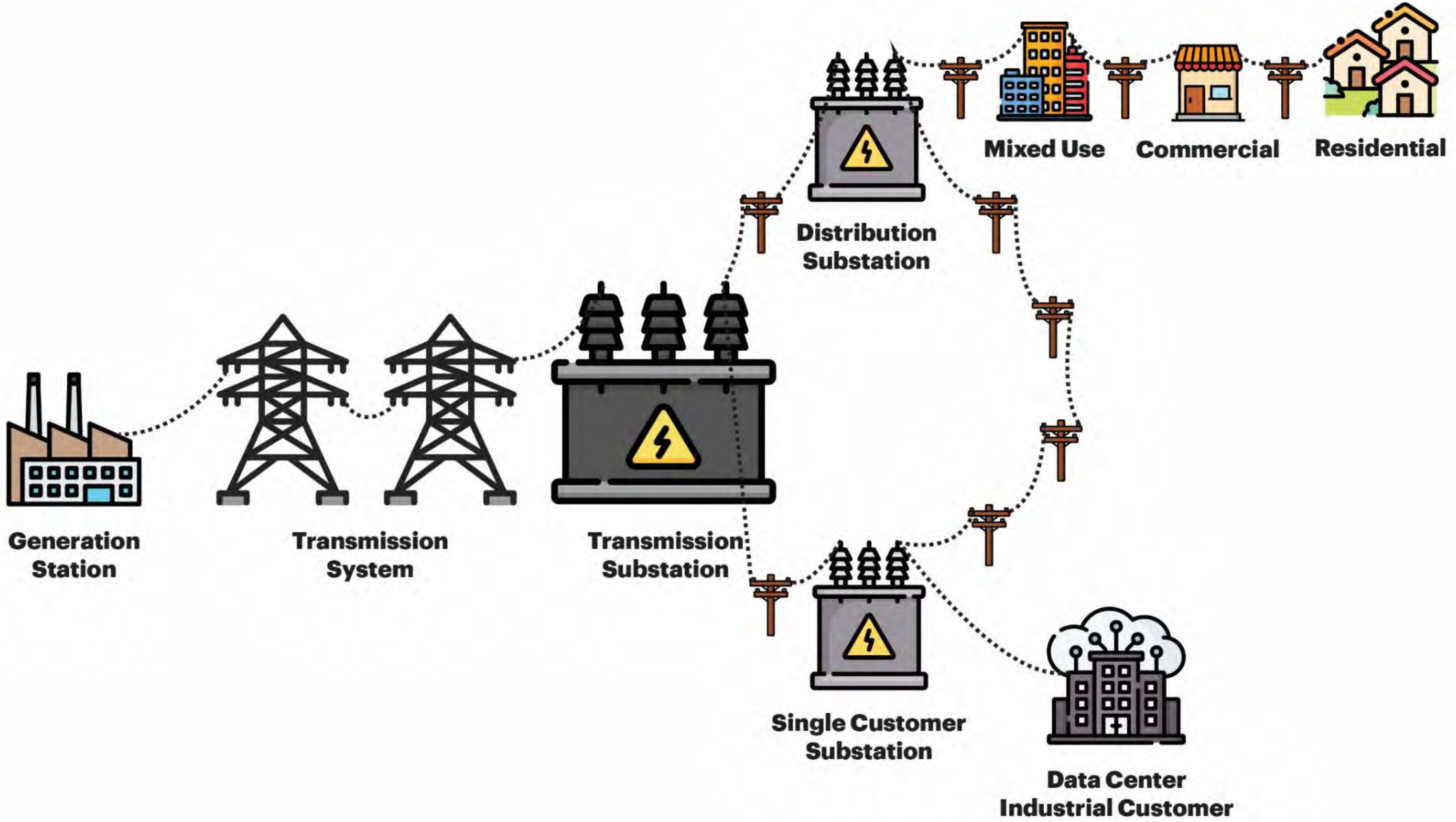
Silicon Valley Power

	City of San Jose	City of Santa Clara	City of Palo Alto
Sq. Miles	181	18	26
Population	970,000	127,000	66,010
Peak Load	1,236 MW	718 MW	170 MW

- Much more sales and load per square mile than a typical electric utility – very high load density
- Load driven by industrial usage, such as data centers (R&D)

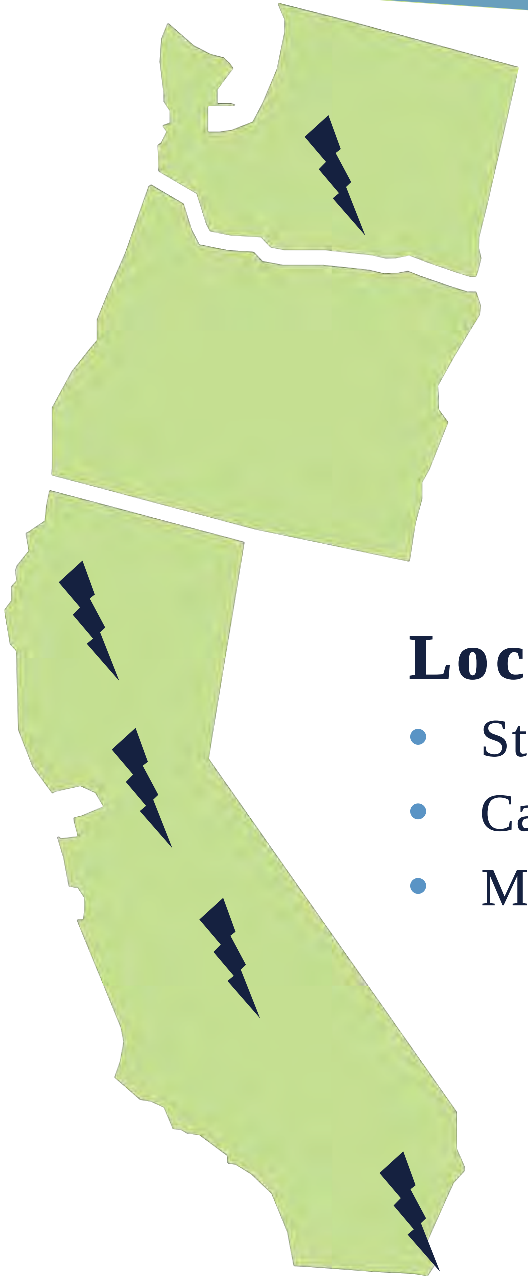
SVP Resources and Infrastructure

How Power Gets to Your Home



Silicon Valley Power
City of Santa Clara

Diverse Portfolio of Resources

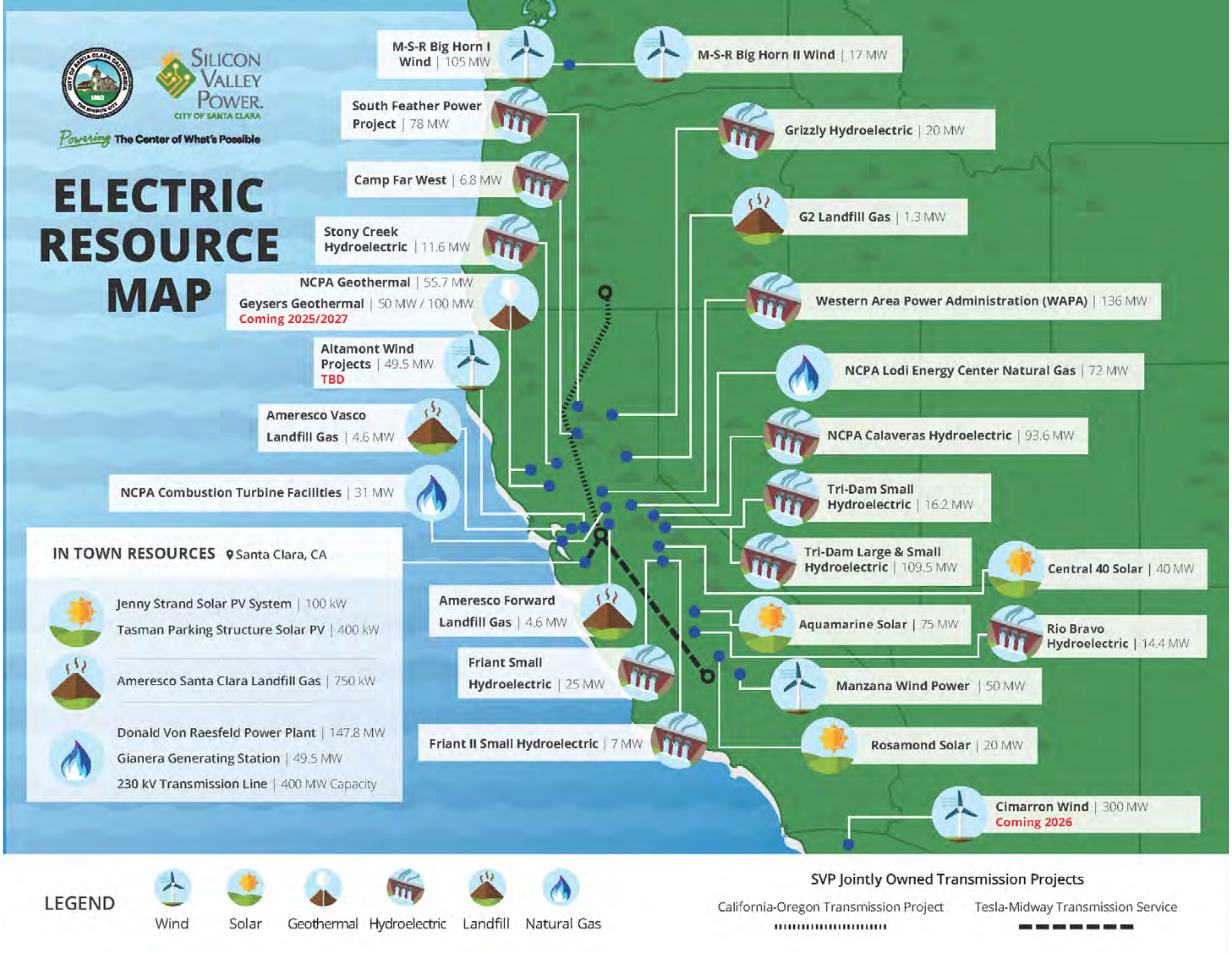


Locations

- State of Washington
- California
- Mexico coming soon!

Fuel Type

- Large and small hydroelectric
- Geothermal
- Natural Gas
- Wind
- Solar



SILICON VALLEY POWER.
CITY OF SANTA CLARA
Powering The Center of What's Possible
ELECTRIC RESOURCE MAP
M-S-R Big Horn I Wind | 105 MW
M-S-R Big Horn II Wind | 17 MW
South Feather Power Project | 78 MW
Grizzly Hydroelectric | 20 MW
Camp Far West | 6.8 MW
G2 Landfill Gas | 1.3 MW
Stony Creek Hydroelectric | 11.6 MW
NCPA Geothermal | 55.7 MW
Geysers Geothermal | 50 MW / 100 MW
Coming 2025/2027
Western Area Power Administration (WAPA) | 136 MW
Altamont Wind Projects | 49.5 MW
TBD
NCPA Lodi Energy Center Natural Gas | 72 MW
Ameresco Vasco Landfill Gas | 4.6 MW
NCPA Calaveras Hydroelectric | 93.6 MW
NCPA Combustion Turbine Facilities | 31 MW
Tri-Dam Small Hydroelectric | 16.2 MW
IN TOWN RESOURCES
Santa Clara, CA
Jenny Strand Solar PV System | 100 kW
Tasman Parking Structure Solar PV | 400 kW
Ameresco Santa Clara Landfill Gas | 750 kW
Donald Von Raesfeld Power Plant | 147.8 MW
Gianera Generating Station | 49.5 MW
230 kV Transmission Line | 400 MW Capacity
Tri-Dam Large & Small Hydroelectric | 109.5 MW
Central 40 Solar | 40 MW
Ameresco Forward Landfill Gas | 4.6 MW
Aquamarine Solar | 75 MW
Rio Bravo Hydroelectric | 14.4 MW
Friant Small Hydroelectric | 25 MW
Manzana Wind Power | 50 MW
Friant II Small Hydroelectric | 7 MW
Rosamond Solar | 20 MW
Cimarron Wind | 300 MW
Coming 2026
LEGEND
Wind
Solar
Geothermal
Hydroelectric
Landfill
Natural Gas
SVP Jointly Owned Transmission Projects
California-Oregon Transmission Project
Tesla-Midway Transmission Service

Joint Power Agencies

- **Northern California Power Agency (Roseville, CA)**
  - 16 member agencies (Mostly municipal electric utilities)
  - Joint generation projects, power management services, legislative and regulatory, shared services provider
- **Transmission Agency of Northern California (Folsom, CA)**
  - 10% ownership of 340 miles of 500 kV transmission line between Southern Oregon and Central California
- **Modesto, Santa Clara, Redding (MSR) (Folsom, CA)**
  - Two agencies – Public Power Agency (PPA) and Energy Authority (EA)
  - PPA manages power purchase agreements for 2 wind projects from Washington State.
  - EA manages gas prepay agreement through 2039

MSR Energy Authority

SVP's Diverse Assets

Local DVR Plant

Geothermal

Grizzly Hydro
Plumas County

Big Horn
MSR PPA
Washington State

10% Ownership 340-mile California Oregon Transmission Project

Local, State and Federal Oversight

- 230+ Regulatory Reports ranging from monthly to every 5-years:
  - NERC - North American Electric Reliability Corporation
  - FERC - Federal Energy Regulatory Commission
  - CEC – California Energy Commission
  - CARB - California Air Resources Board
  - To name a few!

SVP Infrastructure

24 Substations and 4 System Connection Stations

11,000+ Power Poles

8,100+ Street Light Poles

569 miles of 12kV Distribution Lines (67% underground)

5,700 transformers

145 Fiber Miles

160 Distribution Feeders

60,287 Customer Accounts in FY2024

Resources throughout the West

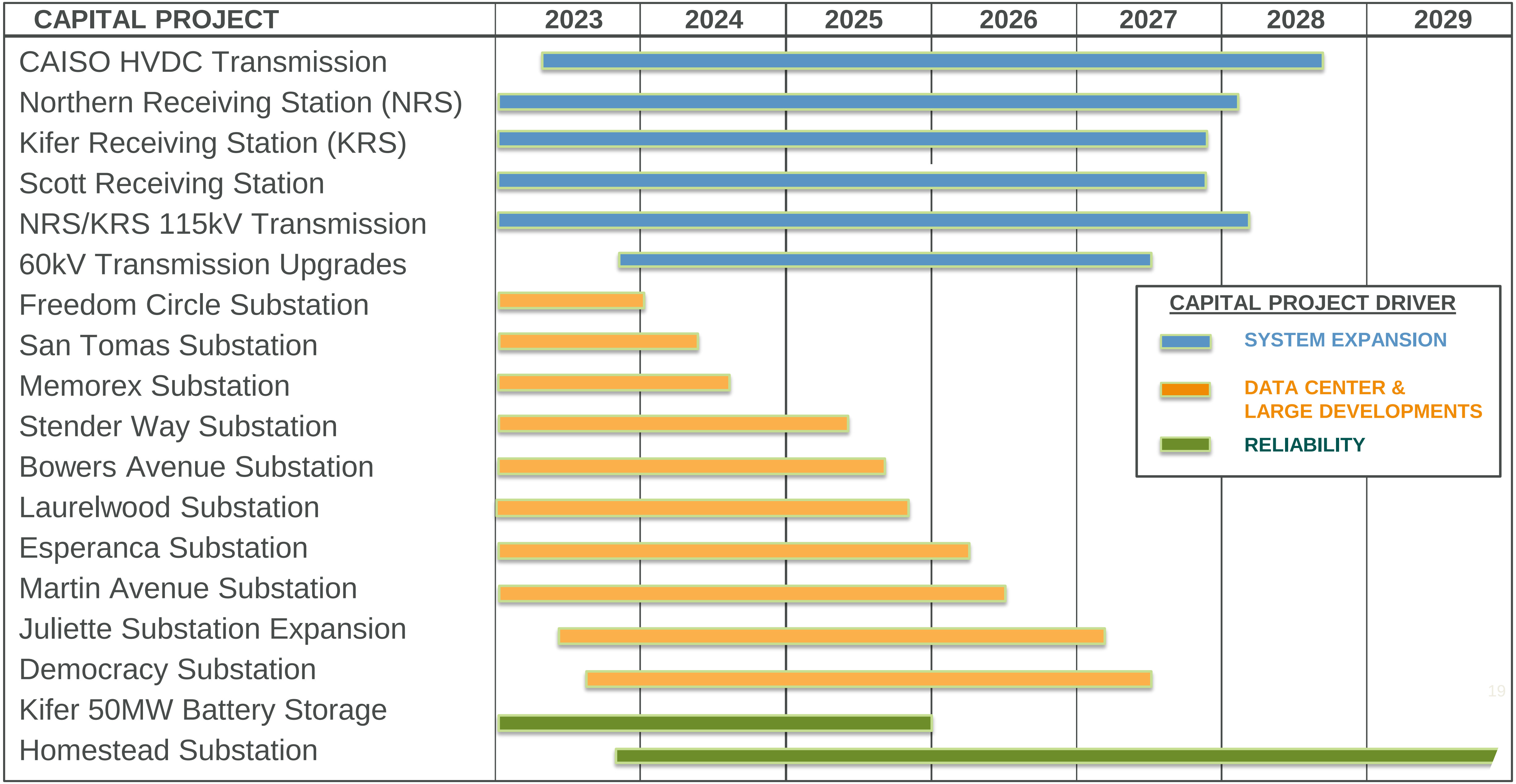

147 MW DVR Power Plant


Distribution and Customer Substations


Street Light Poles


SVP MeterConnect©

Electric Utility Capital Projects



Rates

Residential & Small Commercial

Based on the calendar year 2024

RESIDENTIAL	
Current rate	16.5 ¢ per kw
Average usage per account	410kwh per month
Average monthly bill	**$67.64**

SMALL COMMERCIAL	
Current rate	24.7¢ per kw
Average usage per account*	1,083kwh per month
Average monthly bill	**$265.50**

**Average monthly bills vary on the type of business*

Upward Pressure on Rates

Rates are expected to go up over the next few years

- SVP rates are set to recover budgeted costs in a financially responsible and stable manner
- SVP rates in all rate schedules have been increased on a uniform % basis for at least the last 25 years

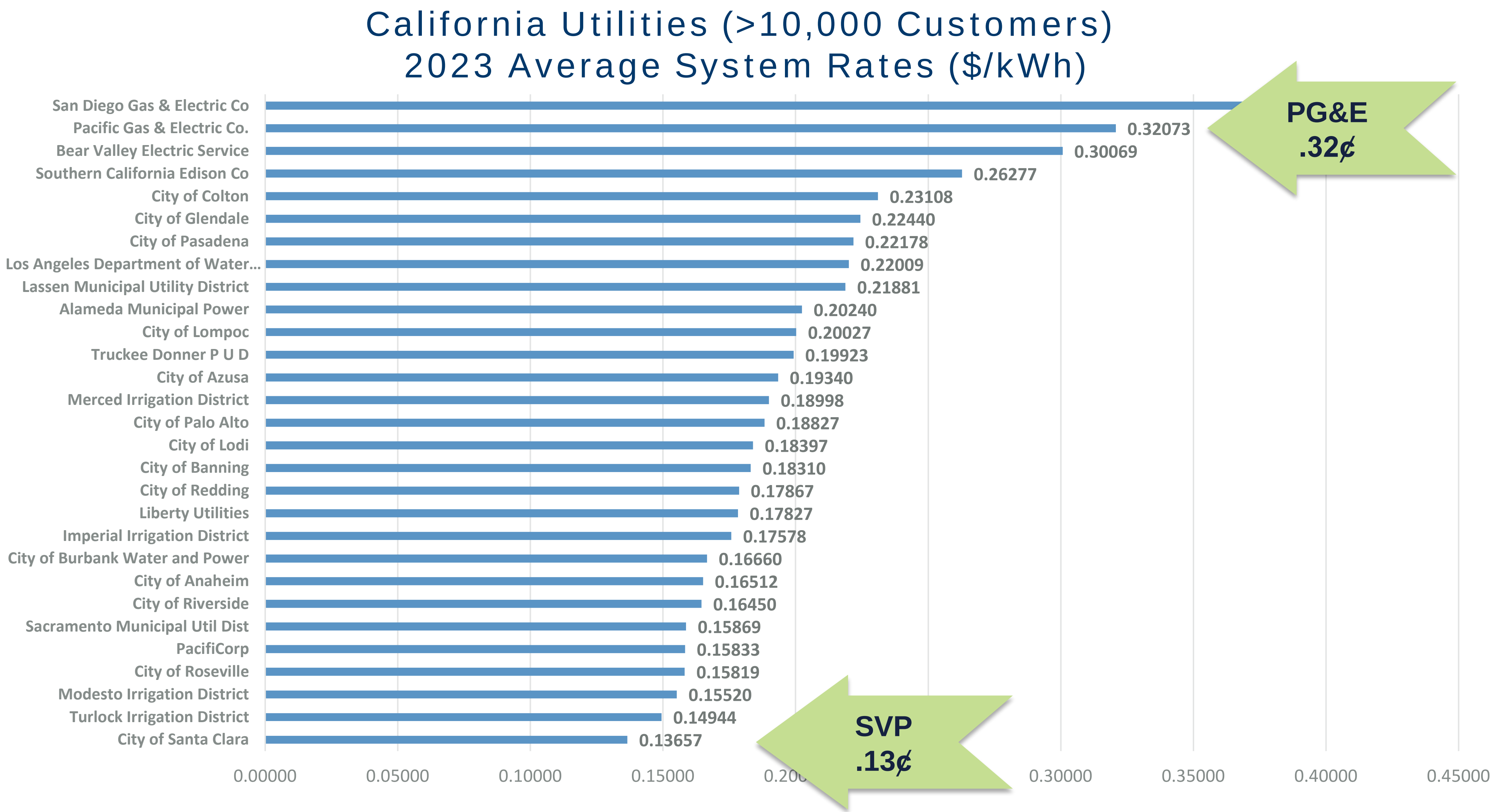
What is causing our rates to go up over time?

- Increasing cost of renewable energy
- Increasing equipment, material, labor, and construction costs for new projects and required maintenance of current electric utility infrastructure
- Increasing reserves to maintain financial stability and bond ratings, keeping reserves in line with growth projections, and dealing with market fluctuations, volatility, and other contingencies

SVP is able to keep rates lower than surrounding utilities

- Lowest average system rates of any utility in the State with over 10,000 customers
- Residential rate in 2024 is ~ 60% lower than PG&E

Average System Rate Comparison



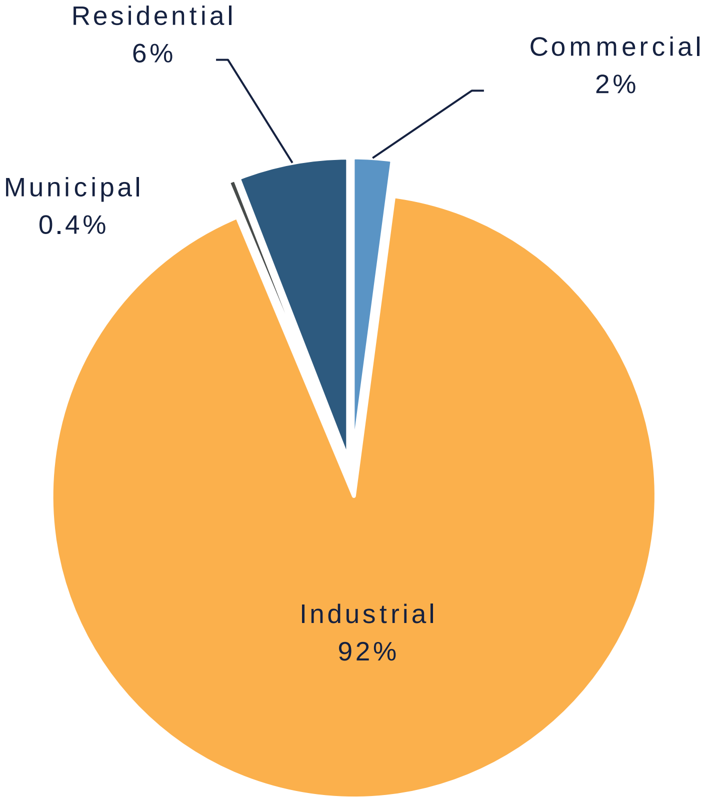
Based on Form EIA-861, Annual Electric Power Industry Report, collects data from distribution utilities and power marketers of electricity. This survey is a census of all United States electric utilities. Final Release - Oct 2024

Residential/Industrial Utility Rate Comparison

		Average Rate in 2023		
Data Year	Utility Name	Residential	Industrial	Residential higher than Industrial
2023	LADWP	$0.2299	$0.2016	14%
2023	PG&E	$0.3404	$0.2764	23%
2023	City of Palo Alto	$0.2021	$0.1543	31%
2023	City of Roseville	$0.1781	$0.1190	50%
2023	SMUD	$0.1689	$0.1260	34%
2023	Santa Clara - SVP	$0.1475	$0.1343	10%

Summary of Sales for FY2024

Category	MWh	% of MWh	Revenue (millions)	% of Revenue
Residential	254,000	5.6%	$40	5.9%
Commercial	108,000	2.4%	$24	3.5%
Industrial	4,181,000	91.6%	$608	90.2%
Other	17,000	0.4%	$2	0.4%
Total	4,560,000	100.0%	$674	100.0%



Customer Mix - Retail Sales

Load Growth


What Drives SVP Load Growth?


Silicon Valley Power
City of Santa Clara

Data Center Load Growth

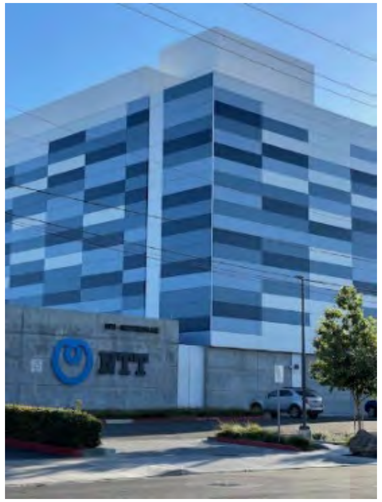
One of the largest data Center Clusters on the West Coast

Several Data Centers entitled or under construction

SVP can't currently serve all large Data Centers that would like to be in Santa Clara

- Many projects are waiting for additional power to become available through System Expansion Projects

Still determining how much additional power we are able to provide to customers in the future



Data Center Revenue in FY2024

60% **Power Use and Sales are from Data Centers**

$ **Data Center revenue increased 20% from FY2023**

Data Centers usage increased 4% from FY2023

- Data Centers pay a combination of Rates and Load Development Fees to cover their cost to the utility
- Like most utilities, rate increases will be needed due to rate pressures mentioned in previous slides

Capital Project Funding

- Funded through Load Development Fees (new customers), Rate Payers (existing customers), or combination of both
- Funding split depends on whether the project is adding capacity or replacing infrastructure
- Example For Discussion Only - Scott Receiving Station
  - Replacement of end-of-life equipment and expansion to accommodate growth
  - Project Construction estimated at $110 million
  - 35% Load Development Fee and 65% Rate Payers
    - $38.5 million from LDF
    - $71.5 million from rate payers (existing customers)
      - $65.8 million from Industrial (1,300 accounts)
      - $4.3 million from Residential (52,000 accounts)

Economy of Scale

Benefits of having large customers and a large customer base = Economy of scale

- Major capital costs spread across all customers based on power usage
- Able to build cost-effective local projects to increase reliability
- Partner with other agencies through JPA projects to stabilize rates
- Able to purchase larger amounts of renewable power resulting in better prices

Rebates and Electrification

Residential and Commercial Rebates

30 residential and commercial rebates, programs, and grants available tailored to the community

Proactively target various customer segments and demographics

Rate Assistance Programs

- 25-40% discount on electric portion of bill for residents who qualify for:
  - Financial Rate Assistance Program (FRAP)
    - Under 80% of County Median Income
  - Medical Rate Assistance Program (MRAP)
    - High energy use medical device(s)
    - Requires Doctor Certification
- Other Assistance Programs are also available
  - Low-Income Energy Assistance Program (LIHEAP)

SVP Looking Towards the Future

- Working with local industry demand
- Continuing to support residents and businesses
- Expanding programs and services to increase participation
- Implementing an outage management system
- Meeting climate goals


Thank you!

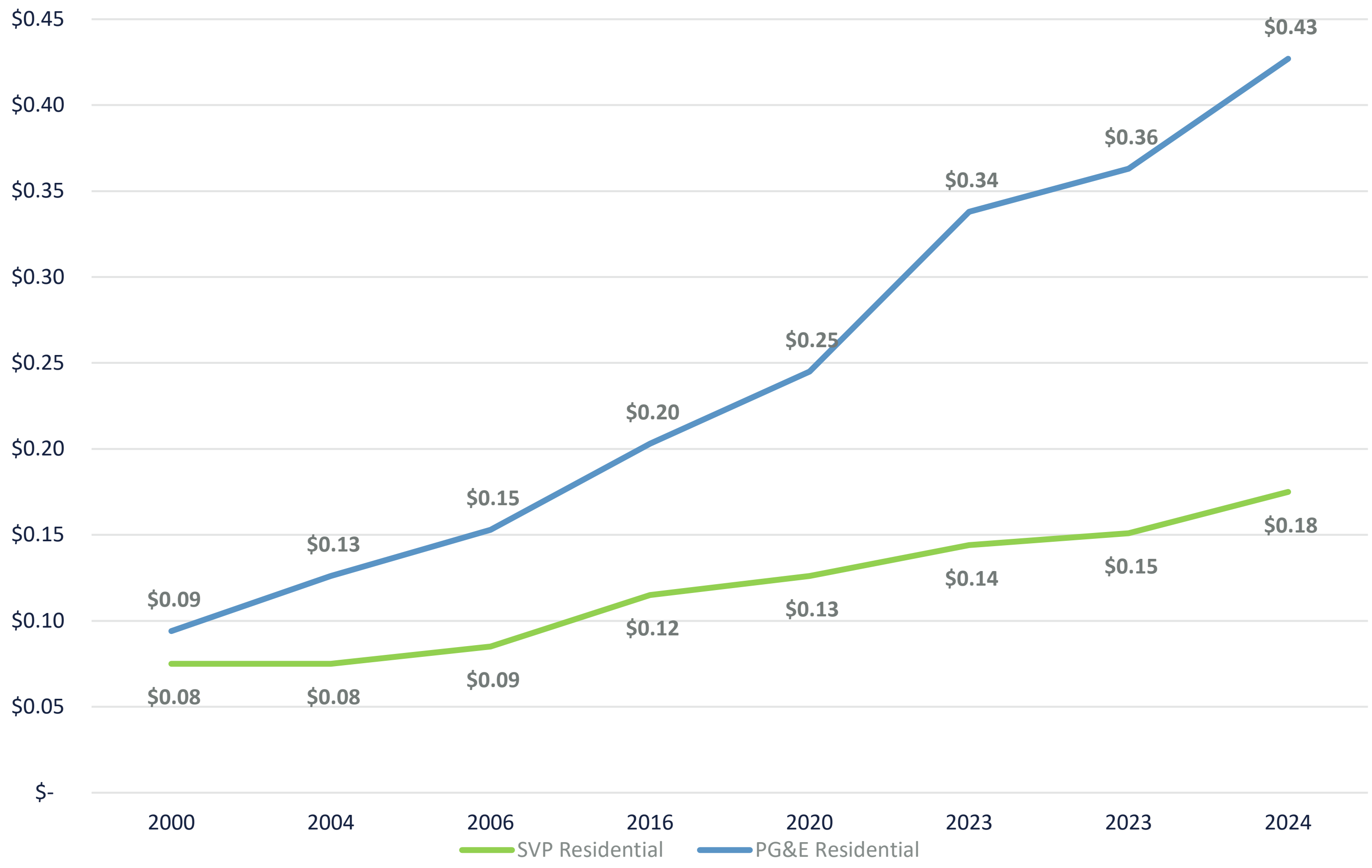
Questions?

SIliconValleyPower.com

info@SantaClaraCA.gov

408-615-SAVE

Recent History



Customer Demographics - % of kwh sales

Accounts	2002	2024
Residential	9%	5.6%
Commercial	3.4%	2.4%
Industrial	86.8%	91.6%

	2002	2024
Sales Revenue	$187 million	$674 million
GWh Sales	2,410	4,560

2005 – 2023 Residential Rate Comparison