SILICON VALLEY CLEAN ENERGY

Commercial & Industrial Customer Overview

October 2016

Commercial Customer Profile

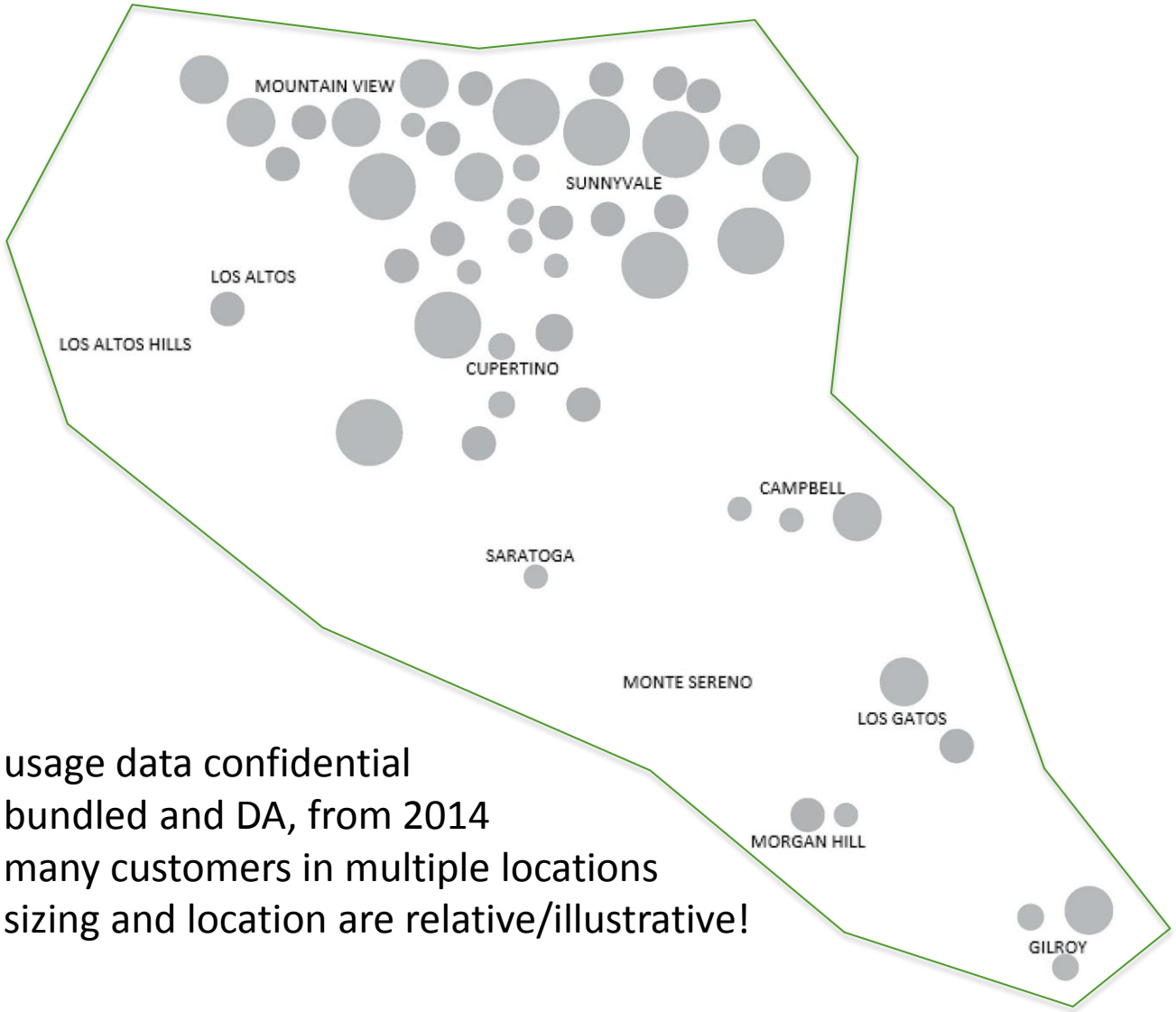
SVCE's service territory encompasses a large and dynamic commercial community . . .

Customer Classification	Customer Accounts	Accounts % of Total	Energy Use (million kWh)	Energy Use % of total
Residential	218,049	90%	1,336	34%
Ag, Pumping and Street Lighting	2,532	1%	83	3%
Small and Medium Business (SMB)	21,647	9%	992	25%
Large Commercial and Industrial (C&I)	1,209	<1%	1,552	39%
Totals* (Bundled)	243,437	100%	3,963	100%
Direct Access (DA)	765	<1%	799	20% (of bundled total)

64%

* Totals may not add to 100% due to rounding

Largest C&I Electricity Customers



Relative Size

APPLE	[DA]
APPLIED MATERIALS	
EQUINIX	
GOOGLE	[partial DA]
HANSON PERMANENTE	[DA]
JUNIPER NETWORKS	
LOCKHEED MARTIN	
NETWORK APPLIANCE	[DA]

CENTURY LINK COMMUNICATIONS	
CISCO	[DA]
EL CAMINO HOSPITAL	
LEVEL 3 COMMUNICATIONS	
MICROSOFT	
NOKIA	
NORTHRUP GRUMMAN	[DA]
OLAM	
SAFEWAY	[DA]
SYMANTEC	

AT&T SERVICES	
CEPHEID	
COSTCO	
FLEXTRONICS	
FOOTHILL DE ANZA	[DA]
FUJITSU	[DA]
HP	[DA]
INFINERA CORPORATION	
INTUITIVE SURGICAL	
JSR MICRO	
LAYER 42 NETWORKS INC	
LINKEDIN	
MT SPE LLC	
PALO ALTO MEDICAL FOUNDATION	
SAN JOSE WATER COMPANY	
SYNOPSYS	
TARGET	[DA]
YAHOO	

AMAZON
BLUE COAT SYSTEMS
CUPERTINO CITY CENTER
INTERNATIONAL PAPER
MIASOLE
PULMUONE FOODS

7-ELEVEN	[DA]
AIXTRON	
ANRITSU	[DA]
BLOOM ENERGY	
GTE MOBILNET	
NOB HILL	[DA]
SAVE MART	[DA]
WHOLE FOODS MARKET	

- usage data confidential
- bundled and DA, from 2014
- many customers in multiple locations
- sizing and location are relative/illustrative!

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Paying for both Energy and 'Demand'

Many local C&I customers have electricity budgets in excess of $1M/year. They pay for both the energy they use, and for the grid distribution capacity that they require.

<u>Energy Charges</u>

- based on actual kWh usage
- costs for a kWh of energy varies, based on:
  - time of day – peak, partial peak, off-peak
  - time of year – summer vs. winter rates
- SVCE responsible for energy charges, typically ~35-45% of total bill

<u>Demand Charges (for capacity)</u>

- based on peak kW usage for a 15-minute period during a month
  - separate demand charges by TOU period
  - vary to time of year
  - complex
- PG&E will remain responsible for most demand –related charges
- demand charges have increased significantly in recent years

C&I Engagement Challenges and Approach

Large C&I organizations are complex!
Identifying and engaging with the right contacts takes time and effort.

Common C&I engagement issues:

- no consolidated energy exec listing
- energy managed remotely, or by geographically-dispersed team
- customer has hired a 3rd party for facilities management
- leased facilities
- bill sent to remote or 3rd-party accounting function

How SVCE is addressing:

- contact development via direct email/phone outreach to 'Top 100'
- leverage local City contacts, EDD and Chambers
- business group meetings and 1:1 meetings/calls
- stream of communications re business events and activities . . .
  - webinars - November 2015, Feb 2016
  - workshop series - June 2016
  - early enrollment program – September 2016

C&I 'Early Enrollment' Program

Option for C&I customers to launch in April vs. July 2017

- details mailed to all customers with C&I accounts (600+)
- email/phone outreach to largest customers
- signed and returned LOI form

Early-Enrollment C&I Customers (alphabetical, as of 10/3):

Applied Materials	**Infinera**	**Microsoft**	**Symantec**
BlueLight Cinemas	**JSR Micro**	**Nokia**	**Synopsys**
Cepheid	**Juniper Networks**	**Olam Spices**	**The Ford Store**
Computer History Museum	**Level 3 Communications**	**Pulmuone**	**Tri Star Foods**
Equinix	**LinkedIn**	**Quality Inns**	**VTA**
Global Testing Corp	**Lockheed Martin**	**Steamers Grillhouse**	**Weiss Associates**

Facts and Figures . . .

- overall early enrollment load of ~620 million kWh/year; 40% of C&I bundled load
- 8 of top 10 commercial bundled customers, 15 of top 30
- includes three opt-ups to GreenPrime

Commercial Sector Leadership and Key 'Care Abouts'

Locally, large commercial customers are typically sophisticated energy buyers, and have deployed a broad range of on-site energy technologies and solutions.

Examples of commercially–deployed energy technologies, and local leadership:

- numerous on-site solar installations
- utility-scale renewables procurement/investment
- EV charging – over 2,000 stations at local workplaces [e.g. Google]
- zero net energy (ZNE) buildings [e.g. Packard Foundation, Sharp Development]
- data center energy efficiency
- energy storage – electric and thermal [e.g. Stanford]

Historically - what's less-commonly deployed:

- demand response

Top questions from major customers:

- continued access to energy efficiency incentive programs?
- where exactly is my renewable energy coming from?
- how do I account for SVCE-provided energy in meeting my RE and GHG goals?

Corporate Social Responsibility (CSR) Reporting

Most large companies now publish CSR reports, and report to the Carbon Disclosure Project (CDP) regarding energy use, renewable energy and carbon emissions.

Examples:

Applied Materials

- 100% of power demand for Santa Clara campuses from local wind & solar energy

Equinix

- long-term goal of using 100% clean and renewable energy
- prefer local sources of energy

(Source: Equinix website)

Olam

- 10% GHG reduction by 2020

(Source: Olam Climate Change CRS Report 2015)

In Summary . . .

- C&I customers are a major part of the SVCE landscape

- Local C&I customers are generally well-aligned with SVCE's goals for GHG reduction and energy systems transformation
  - public goals and reporting
  - actions, investment, leadership

- SVCE's value proposition is resonating, and many of the largest C&I customers have engaged

- Significant opportunity for strong working relationships going forward!
  - forums for education and best practice sharing
  - local policy for advancement of electrification, emerging energy technologies
  - public/private partnerships
  - community-scale leadership in clean energy transformation

Thank you!

@SVCleanEnergy

/svcleanenergy

www.svcleanenergy.org

Don Bray
Business Programs Liaison
donb@svcleanenergy.org