

A photograph of several wind turbines on rolling green hills under a blue sky with light clouds. The turbines are white with three blades each. The hills are covered in green grass, and a dirt road winds through the landscape. In the background, a city is visible in a valley.

# — Electrification Stories from the South Bay

Anthony Eulo, Silicon Valley Clean Energy  
March 15, 2023



# The Community Choice Energy Agency for 13 Santa Clara County communities

Providing clean electricity and innovative programs to fight climate change



Campbell | Cupertino | Gilroy | Los Altos | Los Altos Hills



Los Gatos | Milpitas | Monte Sereno | Morgan Hill



Mountain View | Santa Clara County | Saratoga | Sunnyvale



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



# What We Do



## **Fight climate change by cutting carbon emissions**

Help our communities lead the fight against climate change by supplying clean electricity and building new renewable energy projects



## **Accelerate the adoption of innovative electric technologies**

Encourage the advancement of new technologies and initiatives to transform and reduce the use of fossil fuels for energy, transportation and buildings



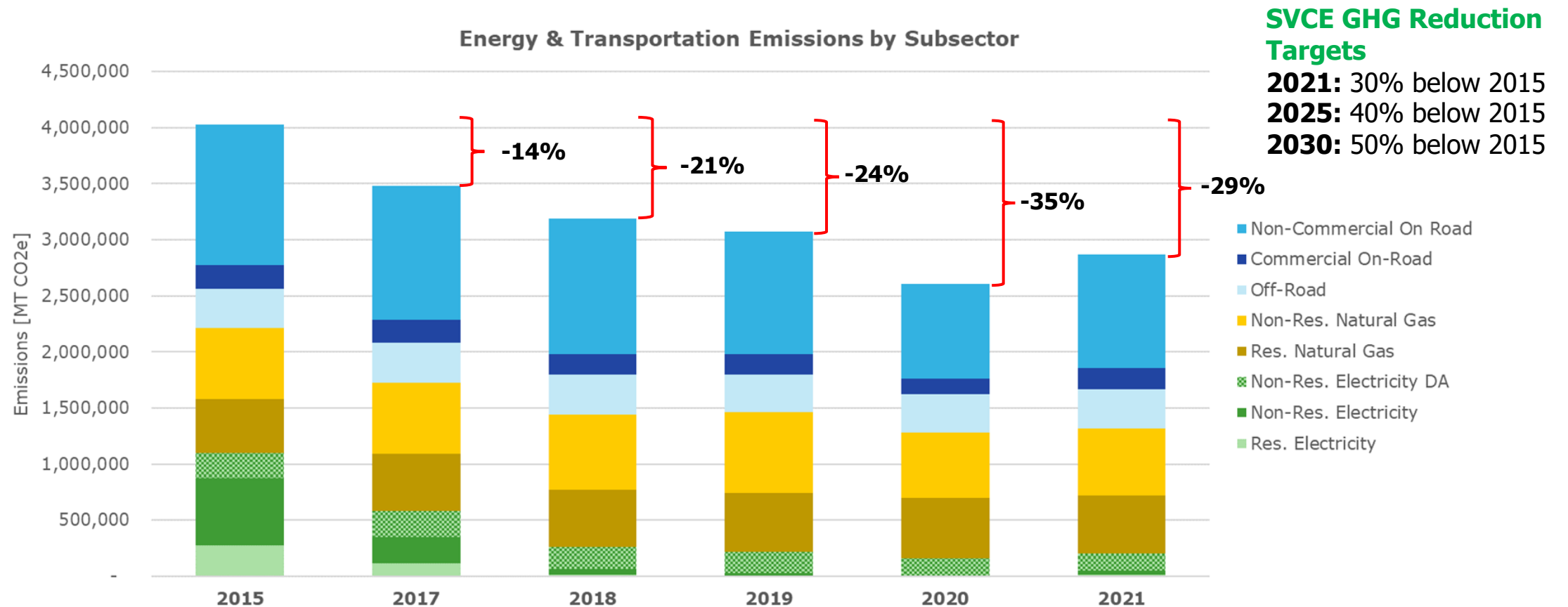
## **Benefit our community by reinvesting locally**

SVCE returns value to our customers through competitive rates, clean energy programs, projects, scholarships, grants, and improved access and education.



# 2021 GHG Inventory

On-road transportation accounts for most of the increase in 2021 emissions





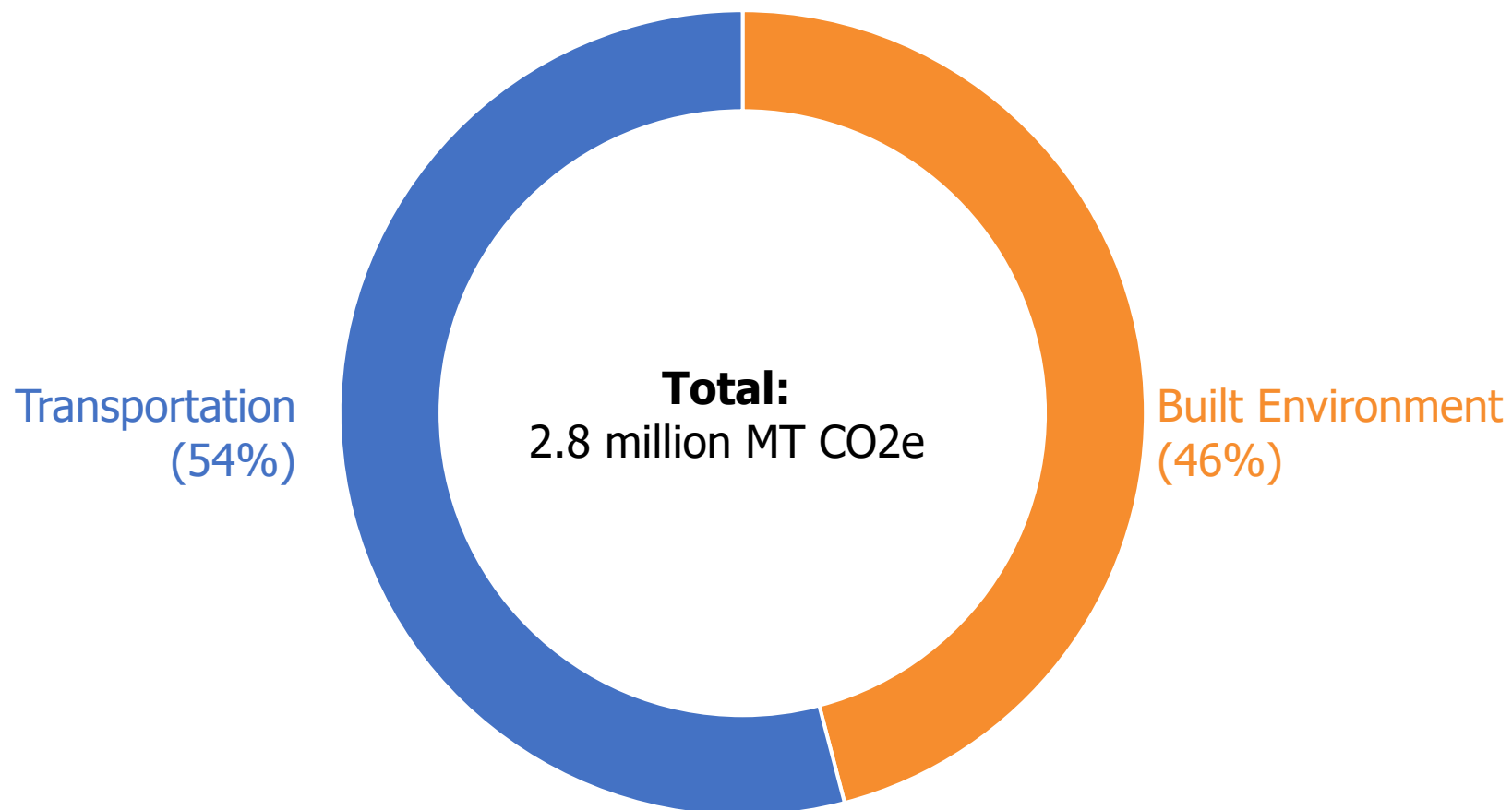
# Four Paths

- A. Reduce Emissions
- B. Carbon Capture
- C. Green Hydrogen
- D. Be an Ostrich

We are Team A

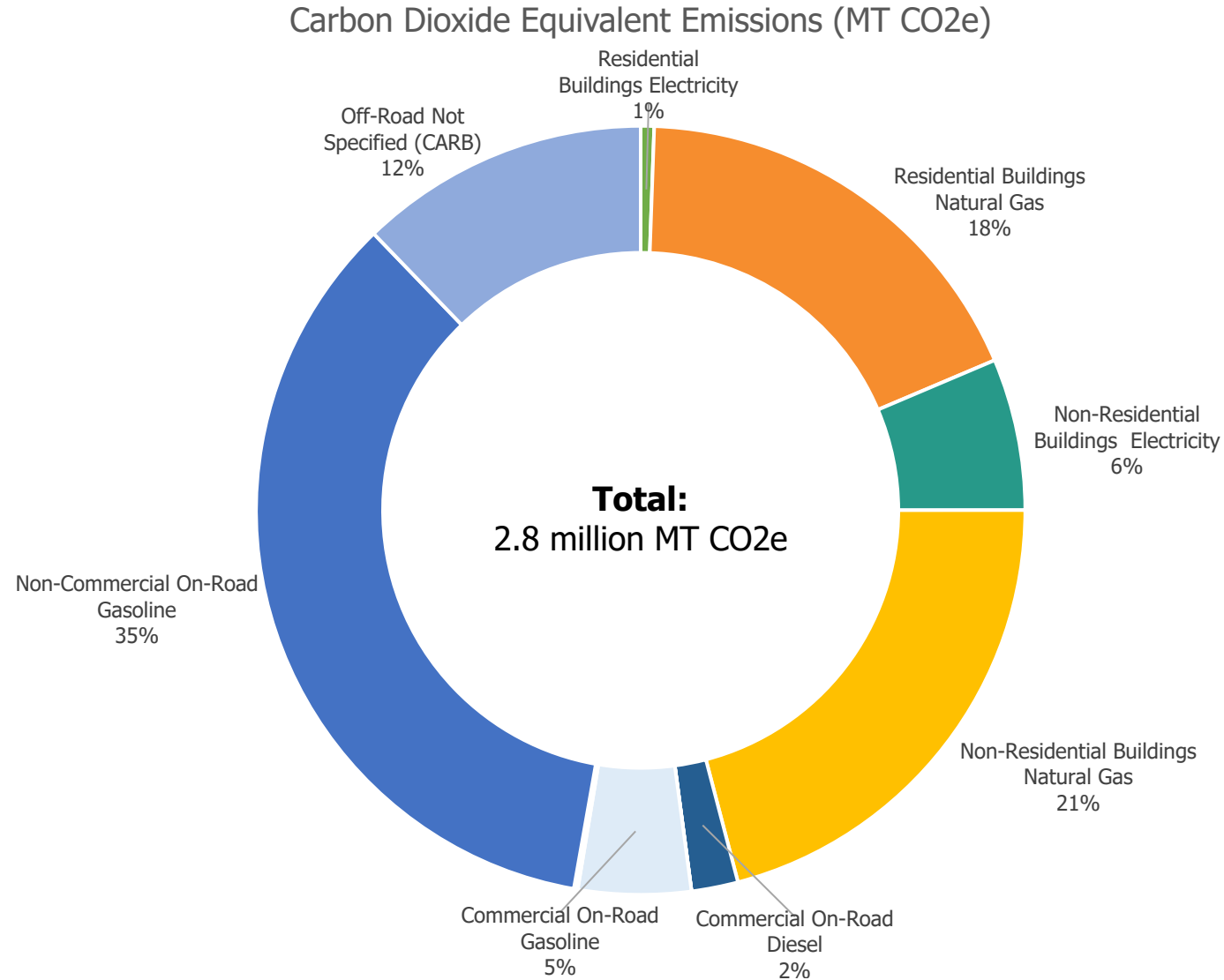


# SVCE Territory 2021 GHG Emissions by Sector



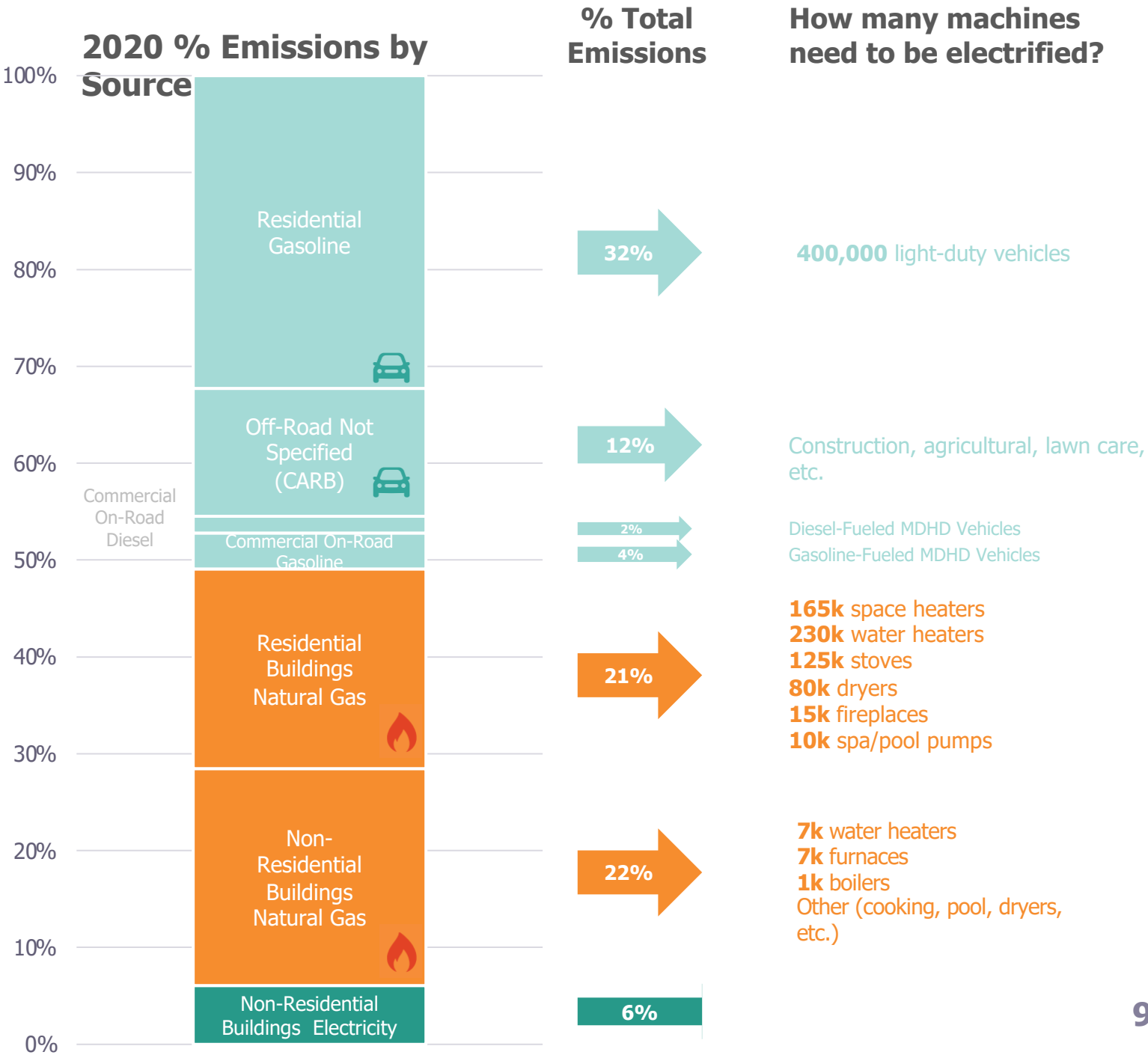


# SVCE Territory 2021 GHG Emissions by Subsector





# Over 1 Million Machines to Replace





# Three-Legged Stool

- A. Regulation (rules that prohibit the sale and installation of polluting devices)
- B. Assistance (financial, concierge, direct install, financing)
- C. Change Infrastructure (rate design, training, permitting modernization, cheerleading)

We are Teams A, B, and C



# SVCE Building Electrification Programs

## Whole-Home Incentives

- Self-serve
- Layering
- Customer finds contractor

**Active**

\$2.6M

~450 households

## Concierge Service (Hotline)

- Answer questions, provide guidance
- Electrification roadmaps
- Support finding contractors

**Development**

Summer 2023

~\$1.15M

Hard to estimate

## Water Heater Loaner

- For emergency replacements (burnout)
- Temporary gas water heater until heat pump can be installed

## Multifamily Direct Install

- No-cost upgrades
- Includes baseboard electric heating replacement
- SVCE-managed

**Planning**

Fall 2023

\$11.5M

~1,500 households

## Tariffed On-Bill Financing

- Proposed pilot to CPUC
- Co-pay for some
- Single family and small multifamily
- Renters and owners
- SVCE-managed

**Planning, will return to BOD**

Early 2024

~\$3M (+~\$3M from state)

~500 households



# FutureFit Homes

**Up to \$8,000** to make the switch to clean, electric appliances.



- Rebates available for: heat pump water heater, heat pump HVAC, Pre-wiring, main panel upgrade, and gas meter removal
- Available for single family homes swapping out existing equipment.
- Additional rebates of \$5,000 for income-qualified CARE and FERA customers.

**[SVCleanEnergy.org/Home-Rebates](https://SVCleanEnergy.org/Home-Rebates)**





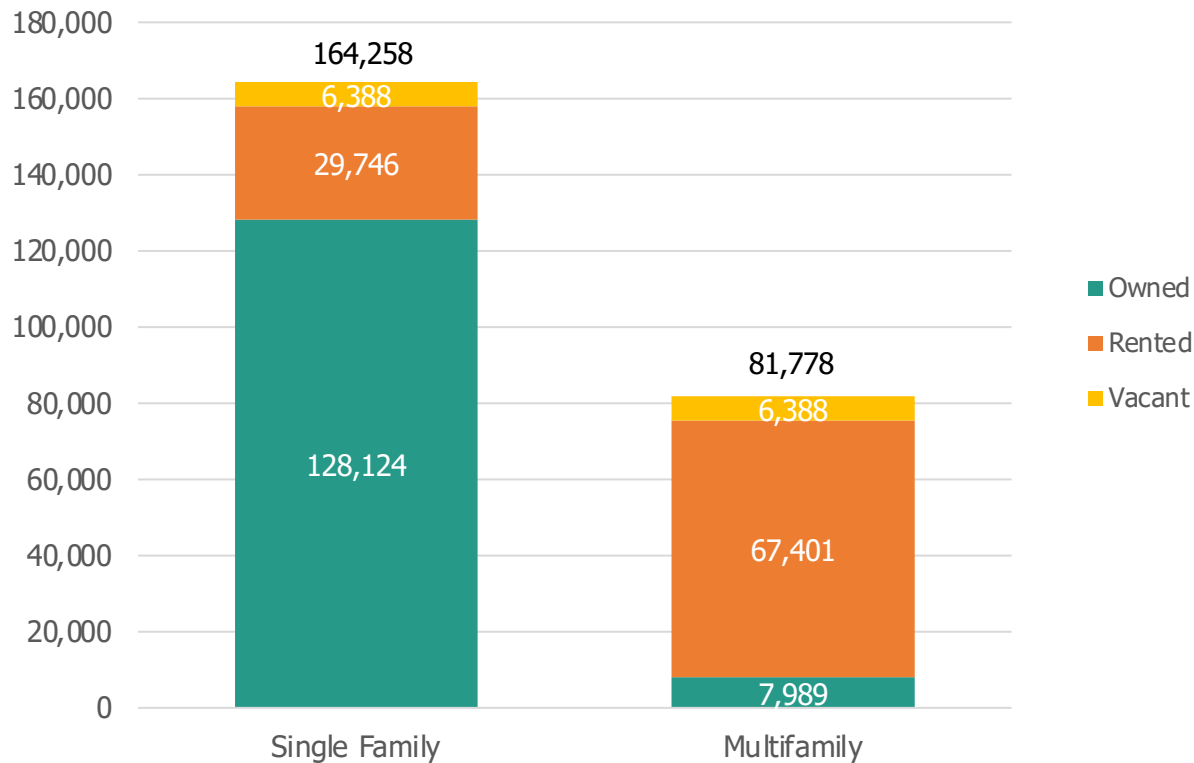
# Meet People Where They Are

- A. Housing Type
- B. Age
- C. Occupancy
- D. Income



# Housing Counts by Type

Tenure by Home Type



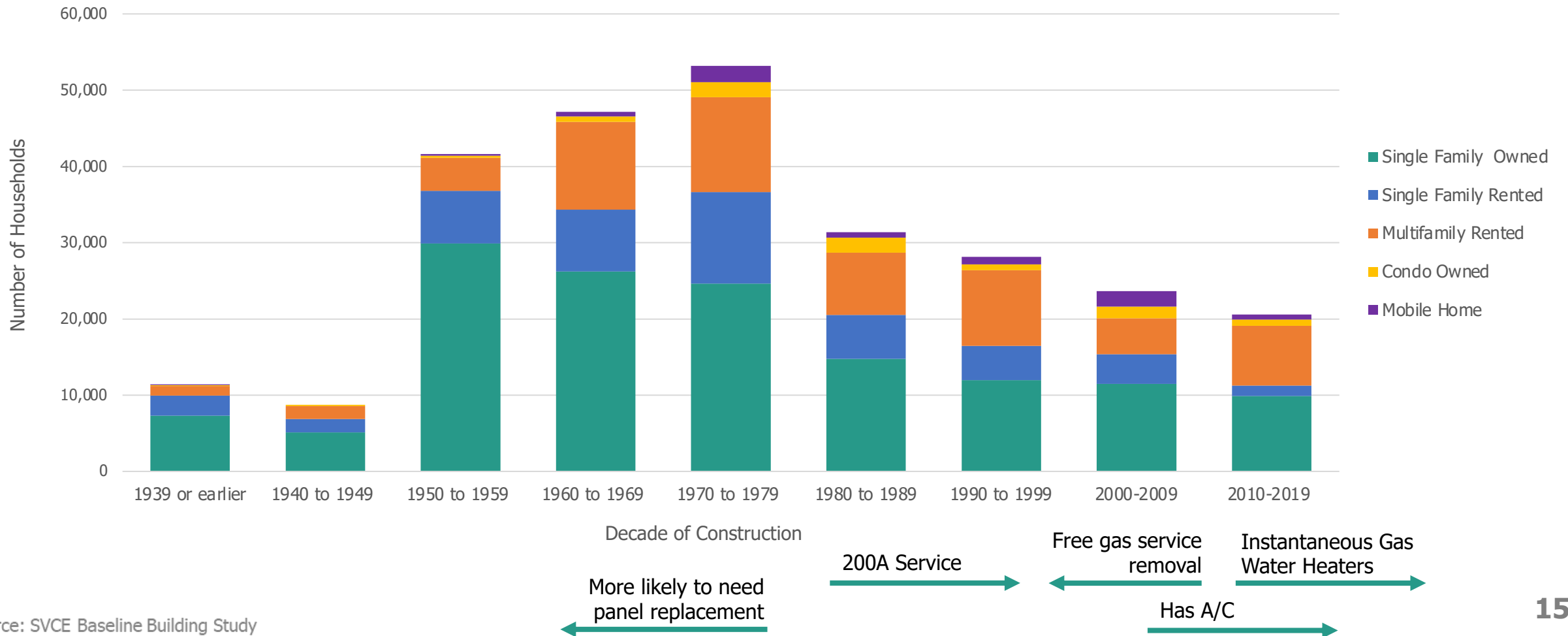
SVCE territory includes ~250,000 housing units, the majority being single-family or multi-family in large (5+ unit) buildings.

20% of single-family homes are rented

90% of multifamily homes are rented

# Housing Units by Vintage and Type

Homes in SVCE Territory by Vintage and Type





# Programs Equity Framework

Guiding principles - Identify our values that will structure our approach to bringing greater equity to our programs.

- 1. Meaningful community engagement** – We will actively listen to and collaborate with individuals and organizations with strong ties to communities across our customer base.
- 2. Multi-sector approach through strategic partnerships** – By coordinating with and leveraging other programs and funding, we will maximize the energy, economic, and health benefits of decarbonization for our customers.
- 3. Data-based equity decisions** – By increasing the use of equity data metrics in our program design and evaluation, we will improve our effectiveness, increase transparency, and facilitate accountability.
- 4. Tailored, adaptable programs** – We will design programs tailored to the target community's needs and adapt our design as necessary, informed by our program impact evaluations.





# Programs Equity Framework

Primary and secondary equity indicators establish designations for underserved communities.

## **Primary: Socioeconomic Vulnerability Index (SEVI)**

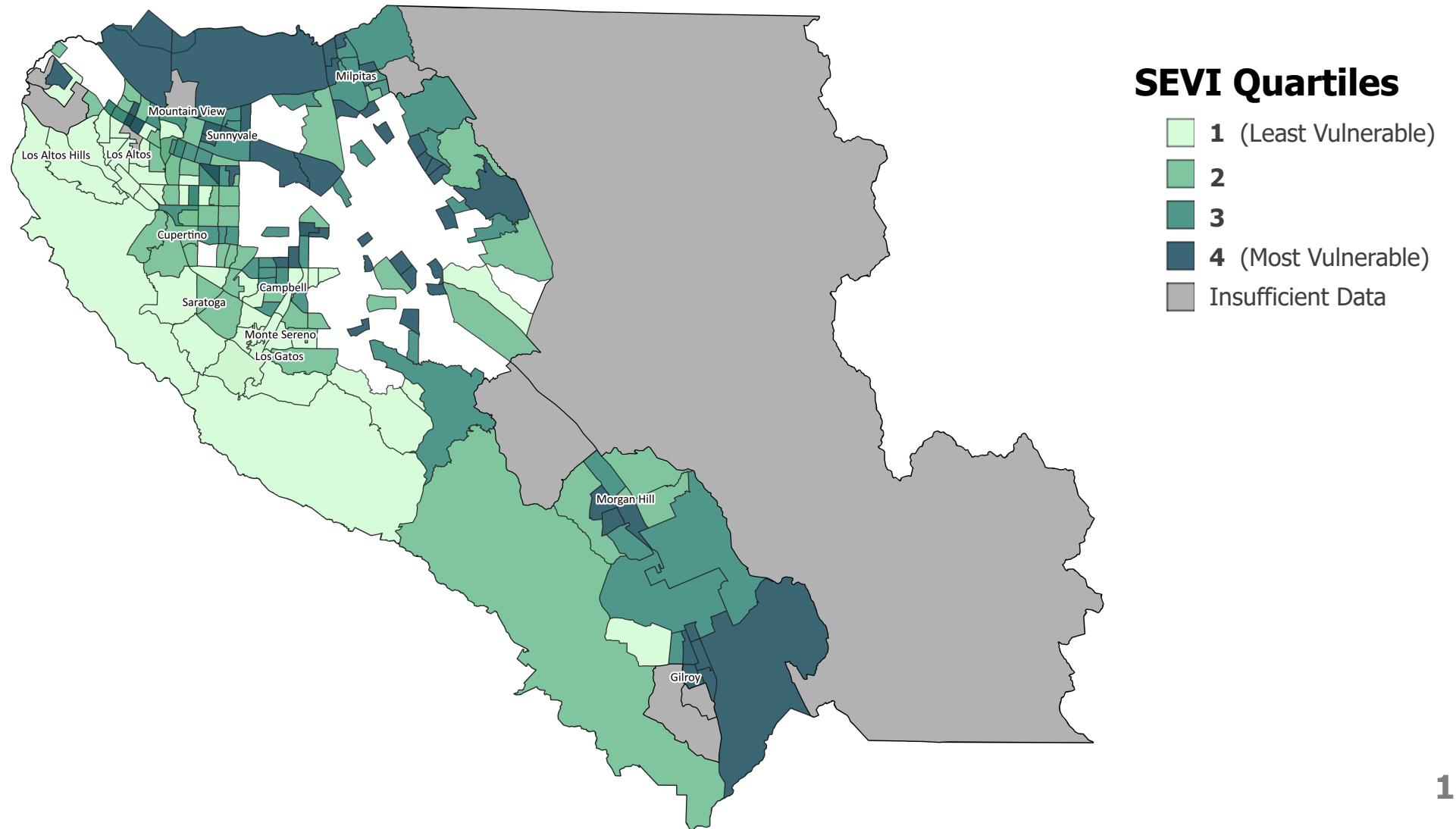
- Census tract metric calculated from scores for poverty, linguistic isolation, education attainment, housing burden, unemployment
- Regionalized, ranked into quartiles (SEVI I-4)
  - SEVI 1 = lowest SEVI scores, most affluent
  - SEVI 4 = highest SEVI scores, most underserved/vulnerable

## **Additional indicators:**

- CARE/FERA
- Medical baseline



# Socioeconomic Vulnerability Index (SEVI)





# Learn more

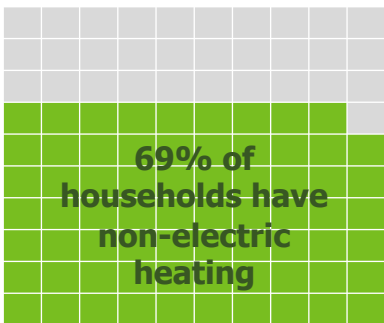


- **svcleanenergy.org**
- **info@svcleanenergy.org or anthony.eulo@svcleanenergy.org**
- **1-844-474-7823**
- **@svcleanenergy**
- **www.linkedin.com/in/tony-eulo-yes**



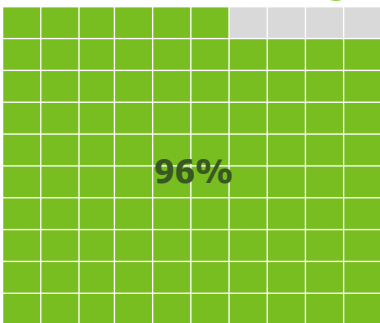
# How many SVCE homes will need electrification measures?

## Space Heating



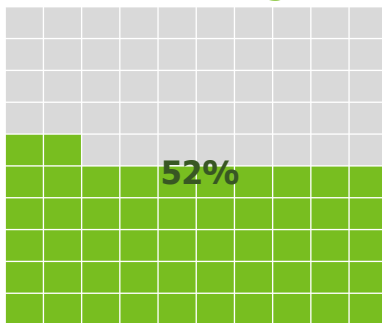
165k heaters need replacement

## Water Heating



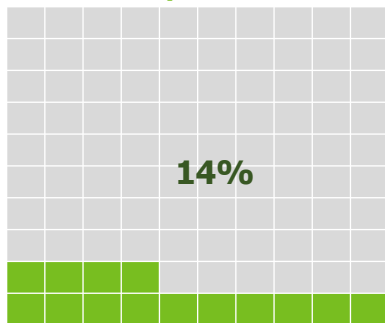
230k water heaters

## Cooking



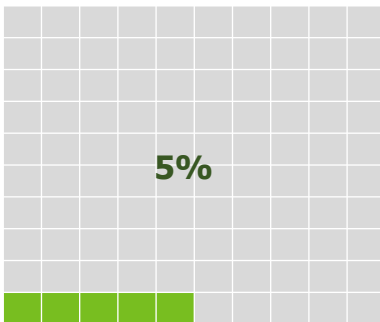
124k stoves

## Dryers



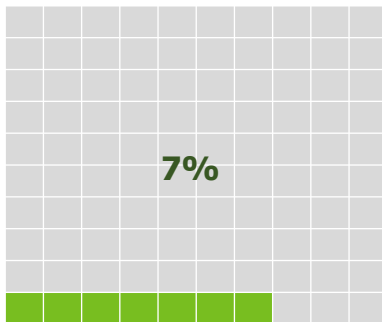
33k dryers

## Pool/Spa Pumps



12k pool/spa pumps

## Fireplaces

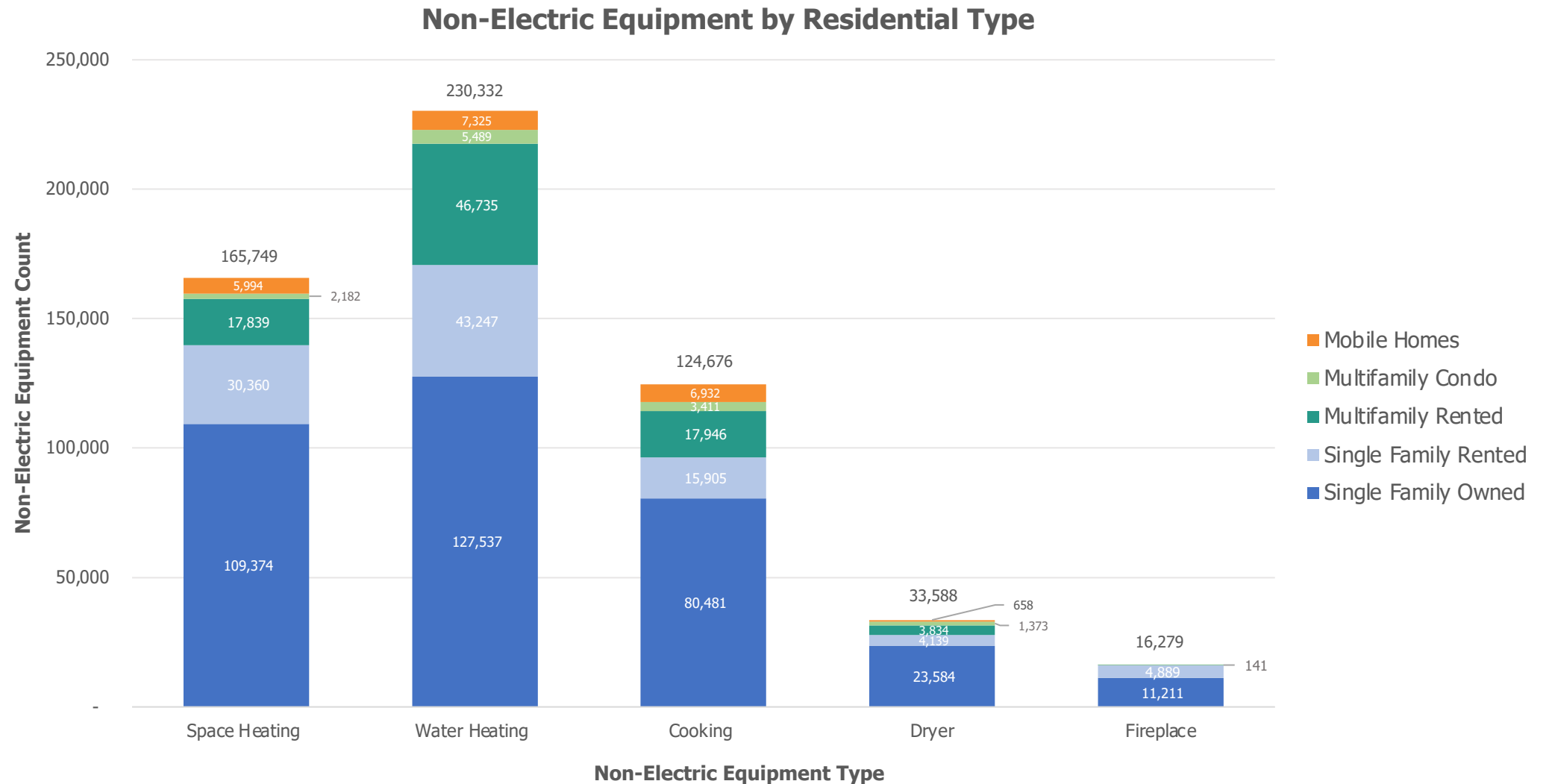


16k fireplaces



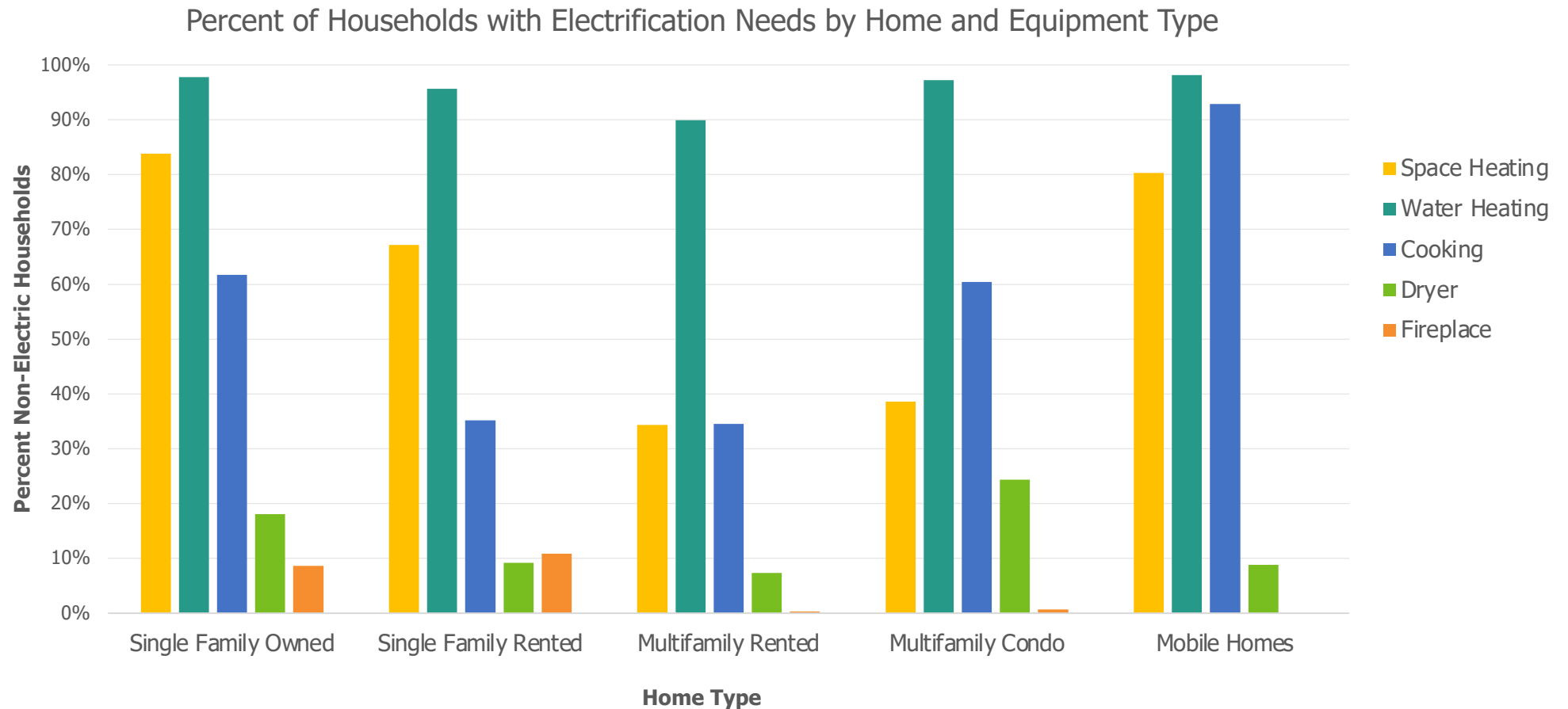


# Scale of Electrification by Housing Type





# Electrification Needs by Home Type

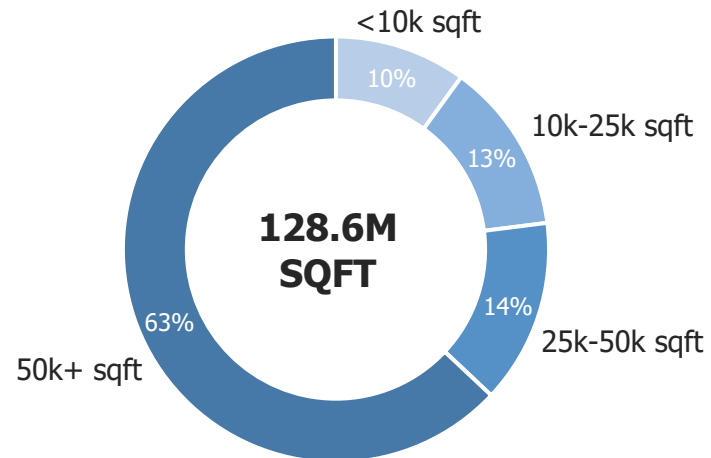




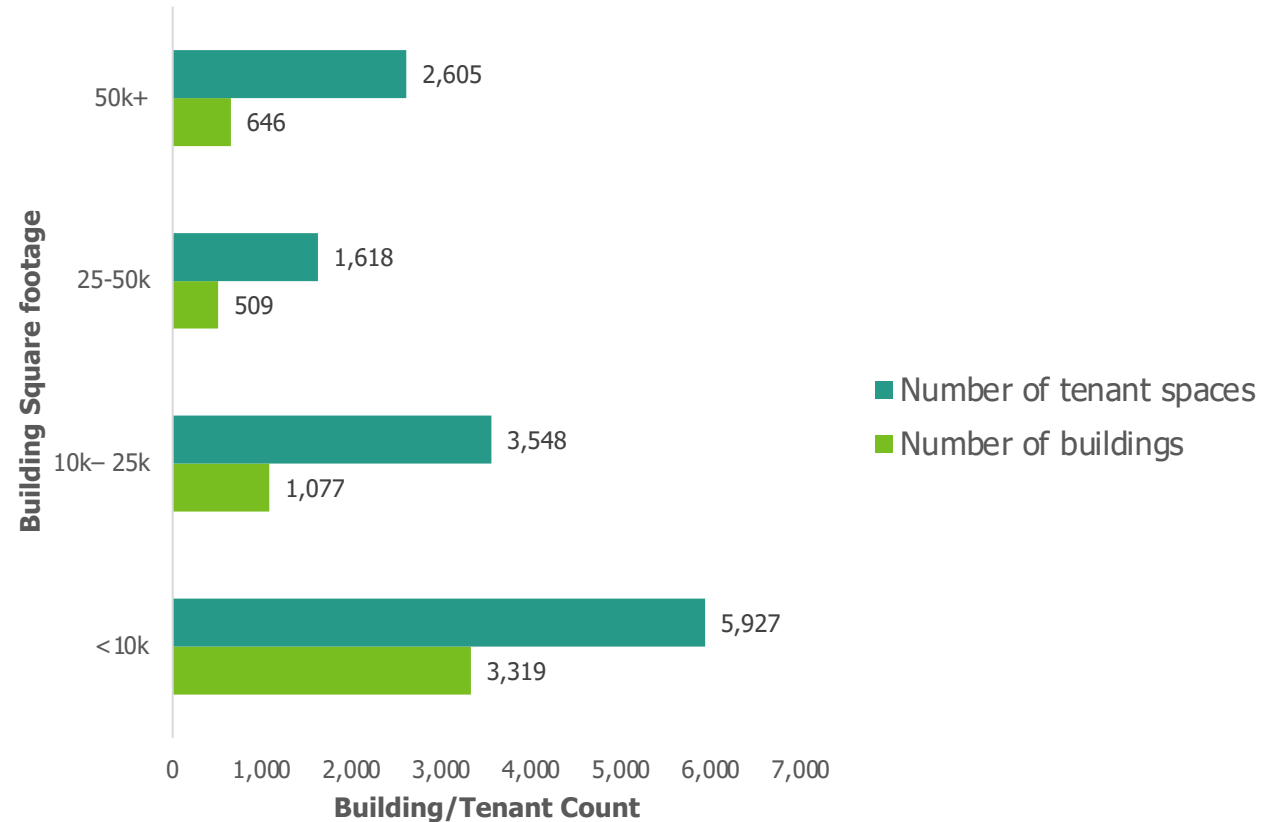
# Commercial Buildings in SVCE Territory

Total Buildings: 5,551

Percent of Total Non-Residential Building Square Footage



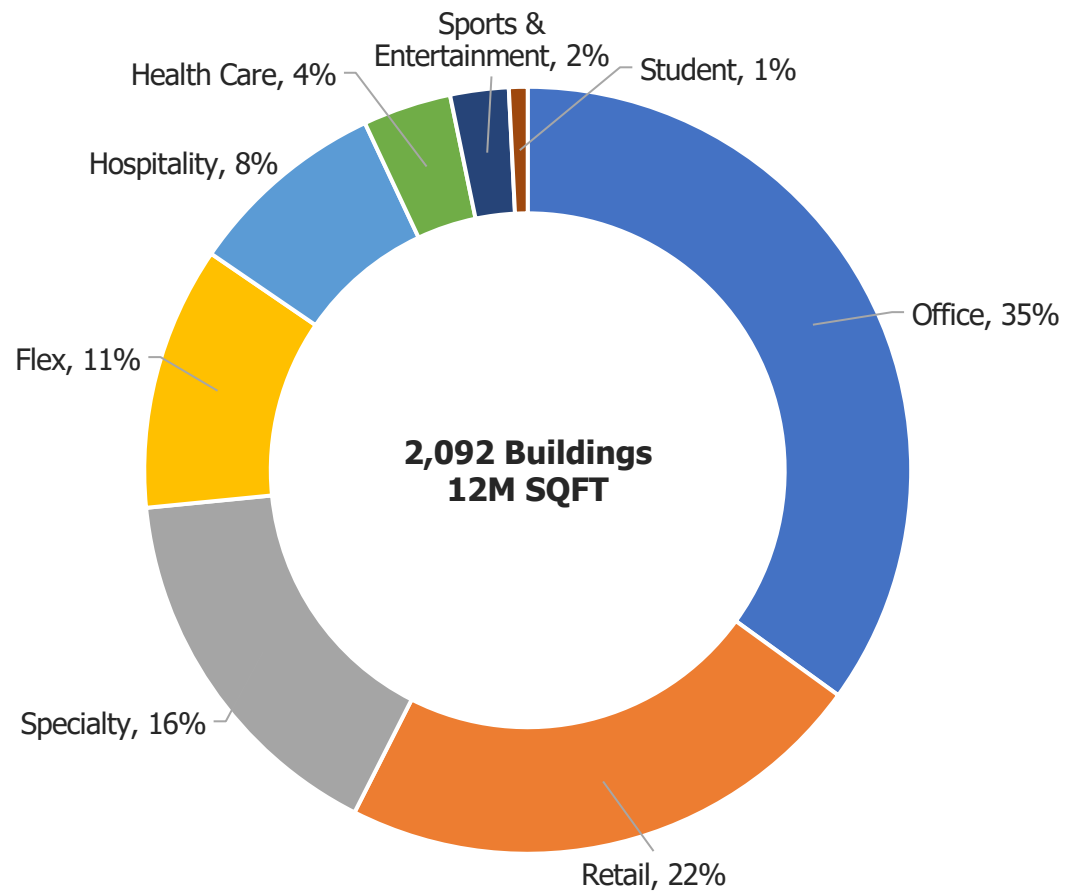
Number of Non-Residential Buildings and Tenant Spaces by Square Footage



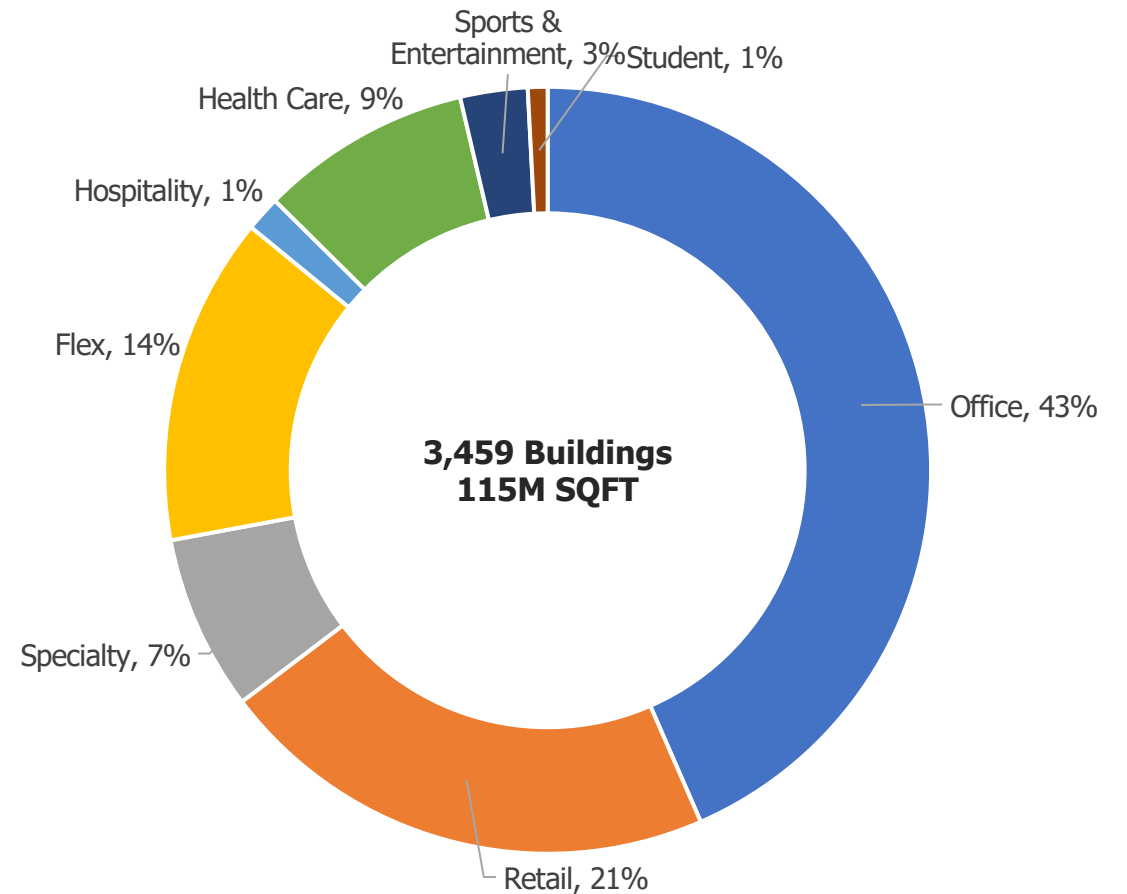


# Commercial Building Occupancy by Tenant Type

## Single Tenant Buildings



## Multi-Tenant buildings with separate HVAC systems

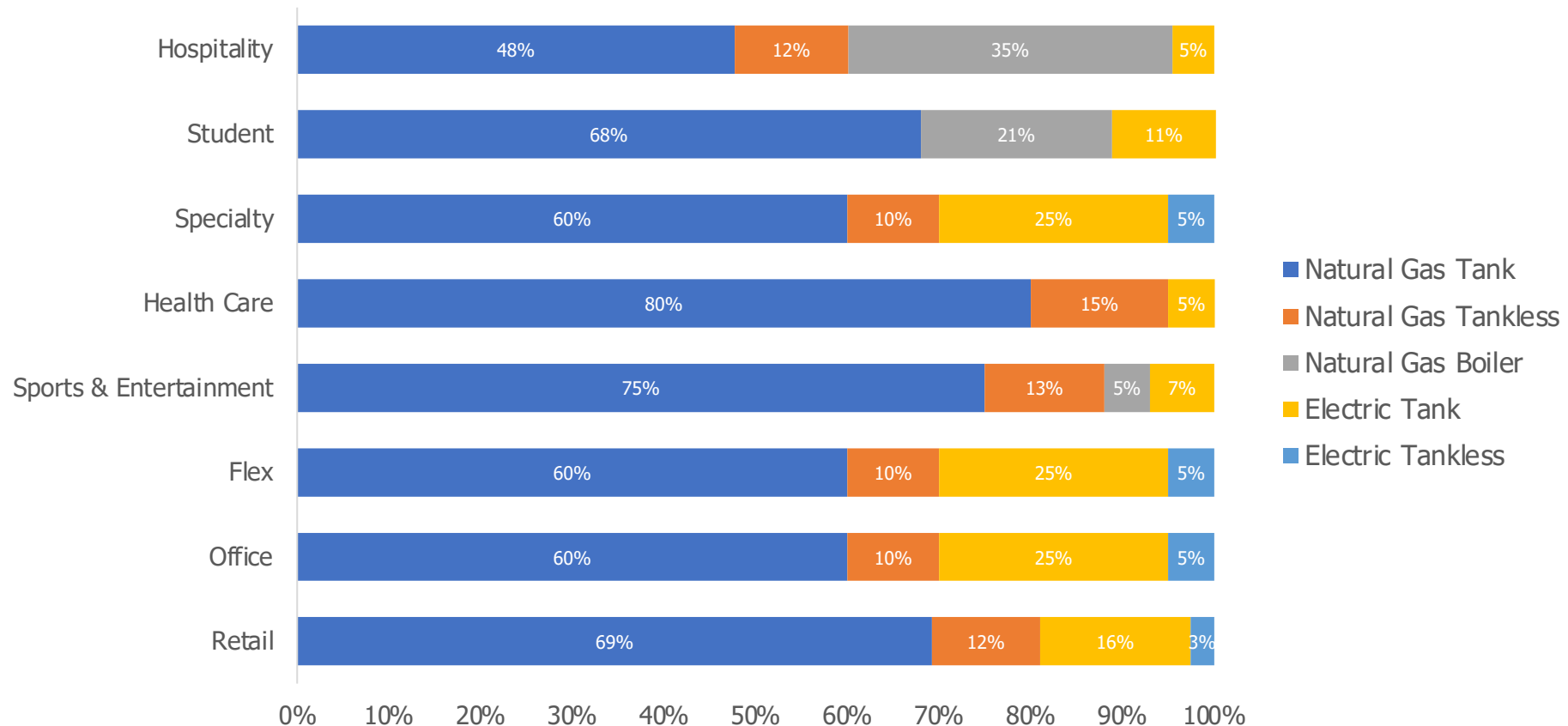






# Commercial Water Heating Equipment Types (<30k SQFT)

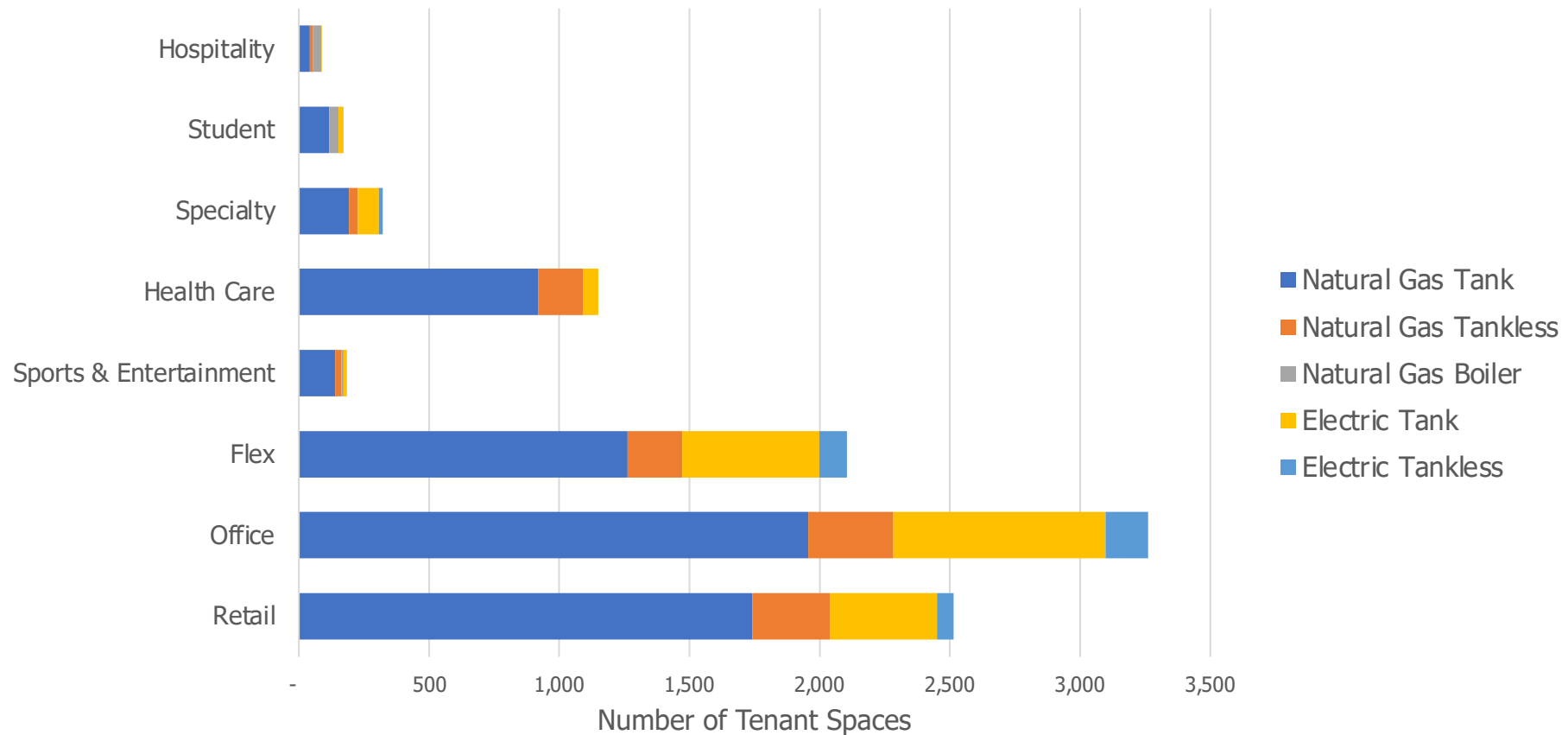
**Water Heating Equipment Type Estimates for Buildings <30k sqft**  
Percent of tenant spaces with each type of equipment, by building type





# Commercial Water Heating Equipment Types (<30k SQFT)

Total quantity of tenant spaces with each type of equipment by building type  
for buildings <30,000 sqft





# Commercial HVAC Equipment Types (<30k SQFT)

HVAC Equipment Type Estimates for Buildings <30,000 sqft

