

A large, stylized graphic of a lightbulb is positioned on the left side of the slide. The bulb part is a light green outline, and the base is composed of several horizontal green bars. Inside the bulb, there is a blue checkmark.

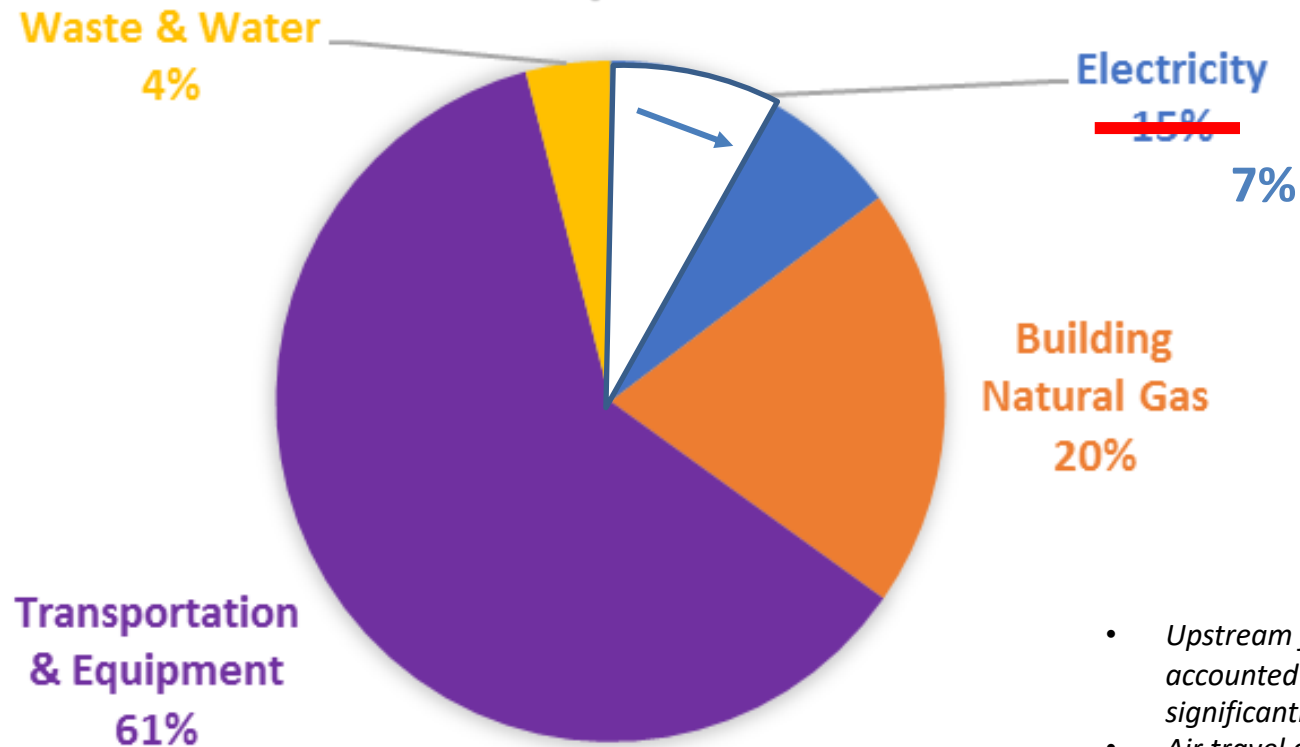
# Community Programs Update

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April 2020

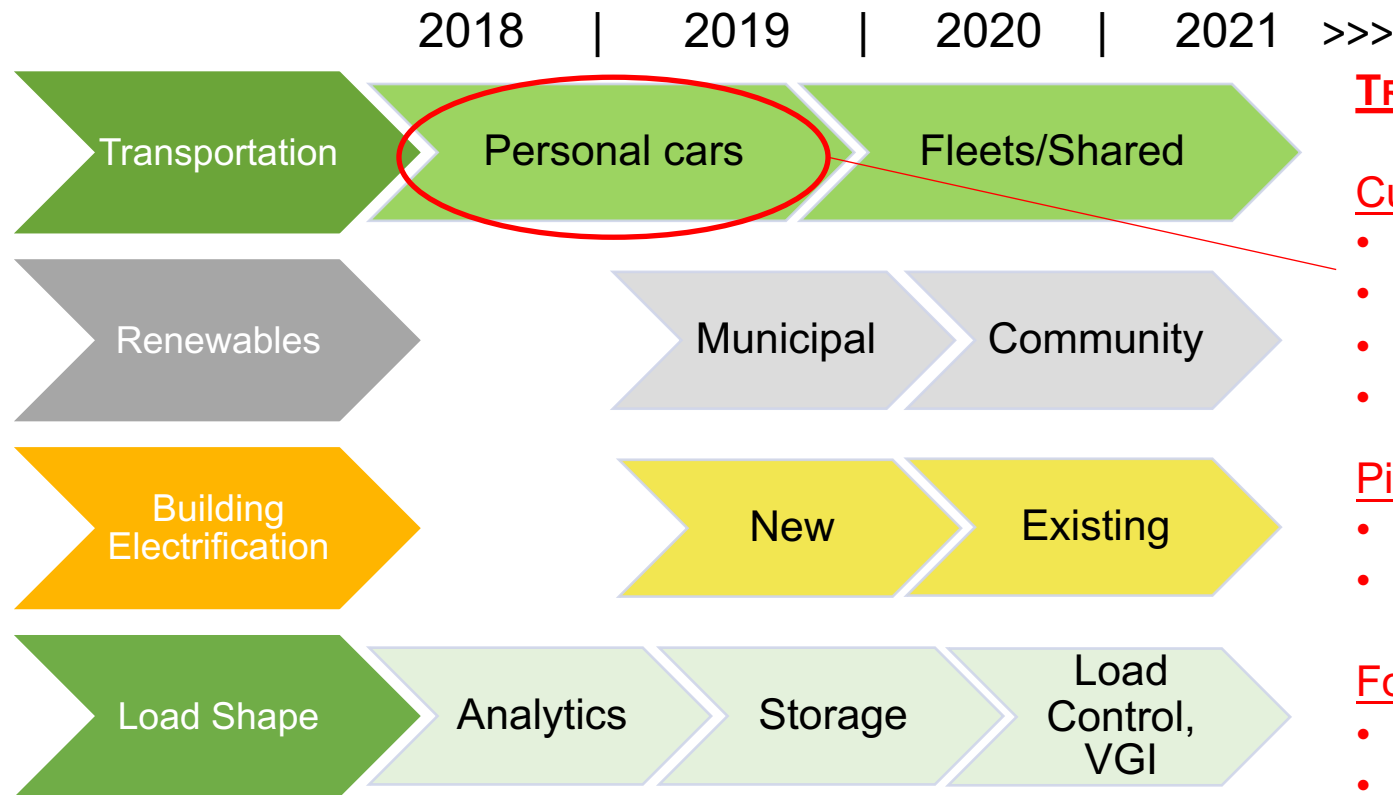
# San Mateo County Emissions

## ~~2015~~ RICAPS EMISSIONS INVENTORY 2018 “Back of Envelope” Calculation



- *Upstream fugitive emissions are not accounted for so NG impact is likely significantly higher.*
- *Air travel and embedded carbon of products not included*

# High-Level Roadmap: Transportation



## TRANSPORTATION ELECTRIFICATION

### Current

- EV Ride & Drive Campaign
- New EV Dealer Incentive Program
- DriveForward Electric (Low Income EV Program)
- EV Charging Infrastructure Program (in development)

### Pilots

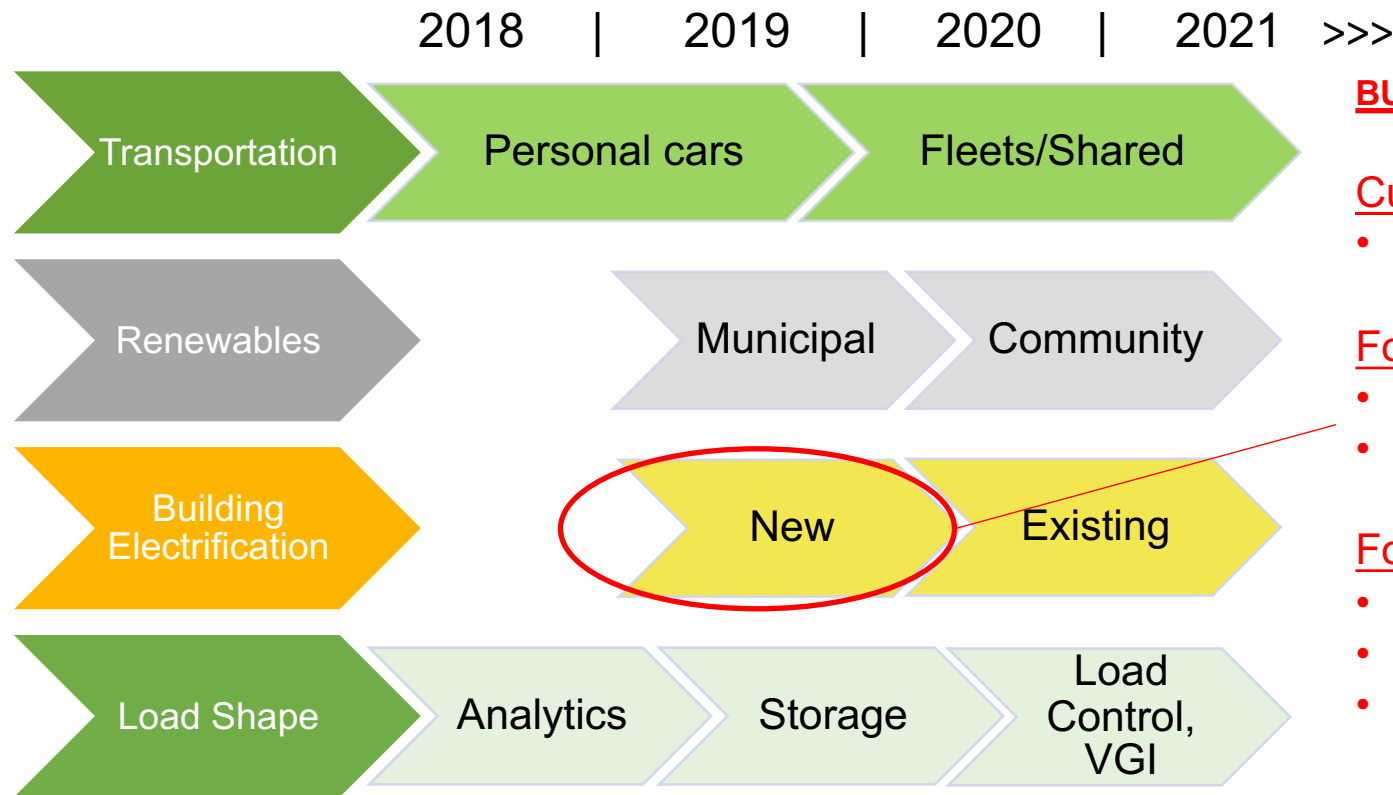
- Smart Charging
- Low Power Charging

### Forthcoming

- Transportation Network Companies (Ride-Hailing)\*
- Curbside Charging Pilot\*
- Municipal Fleets
- E-Bikes

\* Approved

# High-Level Roadmap: Buildings



## BUILDING ELECTRIFICATION

### Current

- Reach Codes

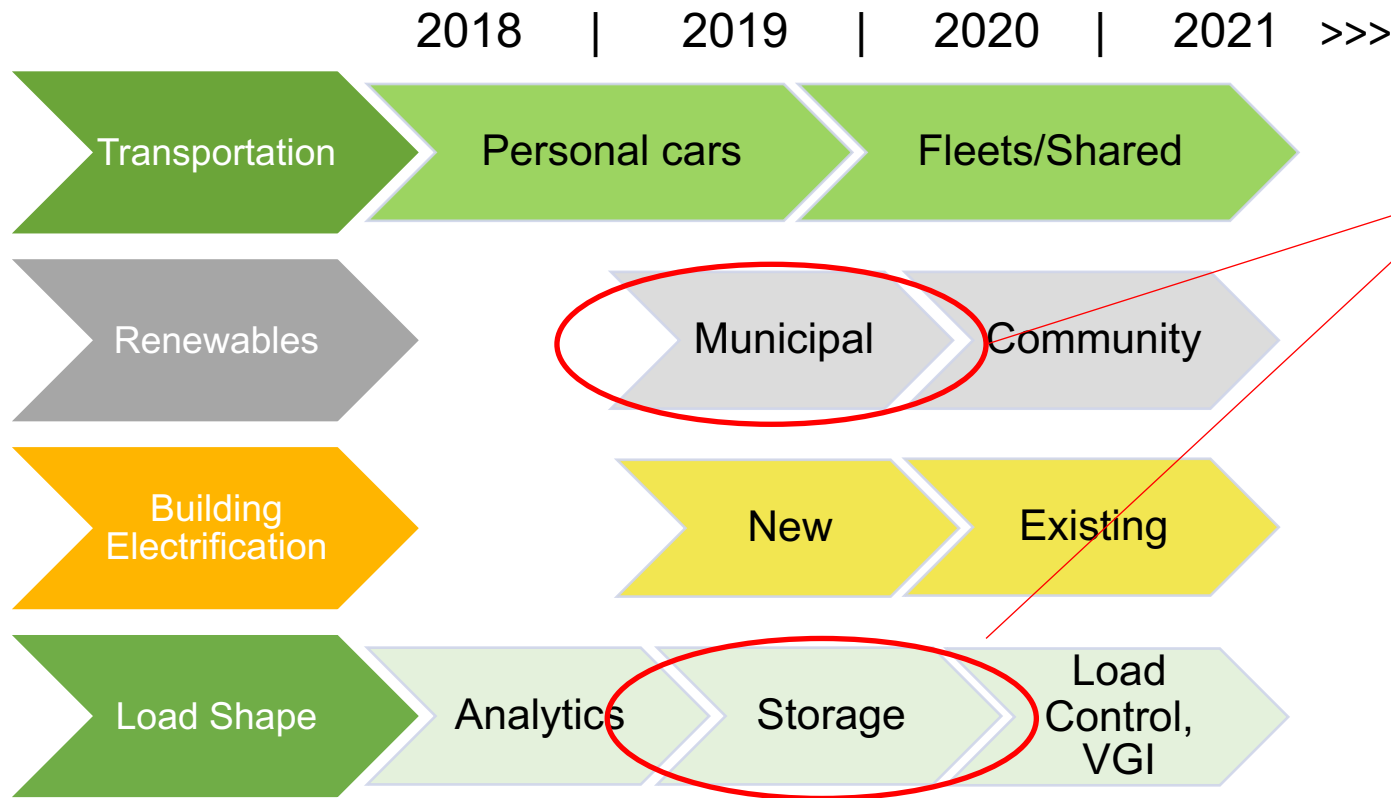
### Forthcoming – approved

- Technical Assistance & Contractor Training
- Consumer Education Campaign

### Forthcoming – to be proposed

- Low income turnkey program
- HPWH incentives
- Heat pump technology pilot

# High-Level Roadmap: Distributed Generation



## RENEWABLES & STORAGE

### Current

- Muni Critical Facilities

### Forthcoming

- Medically Vulnerable Resilience
- Solar + storage systems (resi, muni, comm)

These programs are managed by Power Resources

# COVID/Recession Impacts

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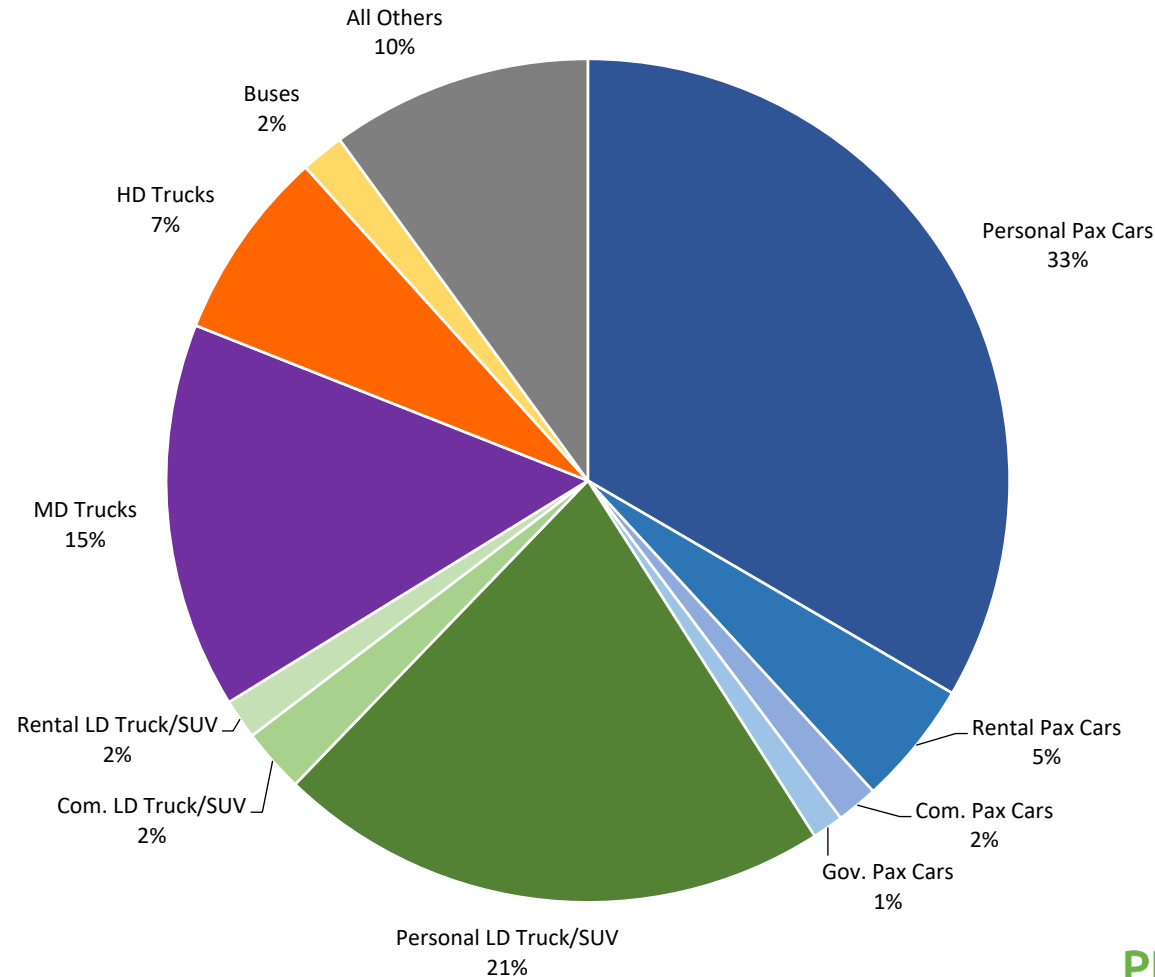
- Significant uncertainty
  - Duration of pandemic crisis
  - Length of current shutdown
  - Whether future shutdowns will be required
- Economic & Social Impacts
  - Reduced vehicle purchases
  - Reduced property owner investments
  - Potential ongoing “distancing” requirements/preferences
- Program Emphasis
  - Transportation as economic multiplier
  - Infrastructure for jobs
  - Low-income strategies
  - Fewer group events, more custom or peer-to-peer

# Transportation Electrification

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# Transportation Emissions Detail

## 2019 Transportation GHG Emissions



Ride-Hail drivers =  
100,000 – 200,000 daily  
vehicle-miles travelled in  
San Mateo County

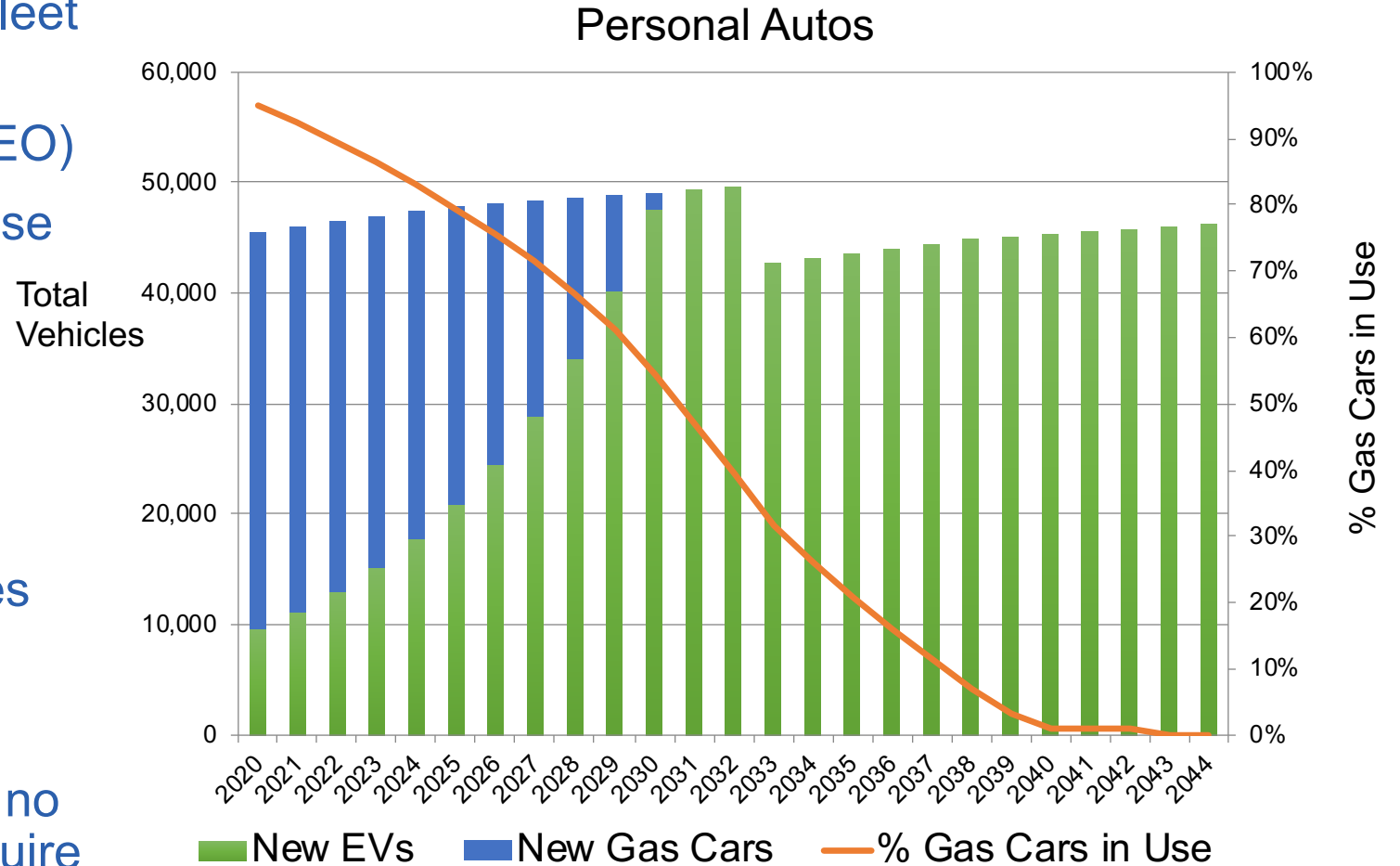


# 2045 Replacement Analysis

- ~680,000 vehicles in SMC (80k fleet incl. ~50% SFO rentals)
- Carbon neutral by 2045 (Brown EO)
- Transportation emissions decrease of 45% by 2030 (AB 32)

## Requires:

- 19% YOY EV growth
- EVs are 42% of new vehicle sales by 2025 and 100% by 2031
- All gas vehicles replaced ~2042
- Vehicle lifetimes must be kept to no more than 13 years and may require early retirements



# COVID/Recession & Program Plans

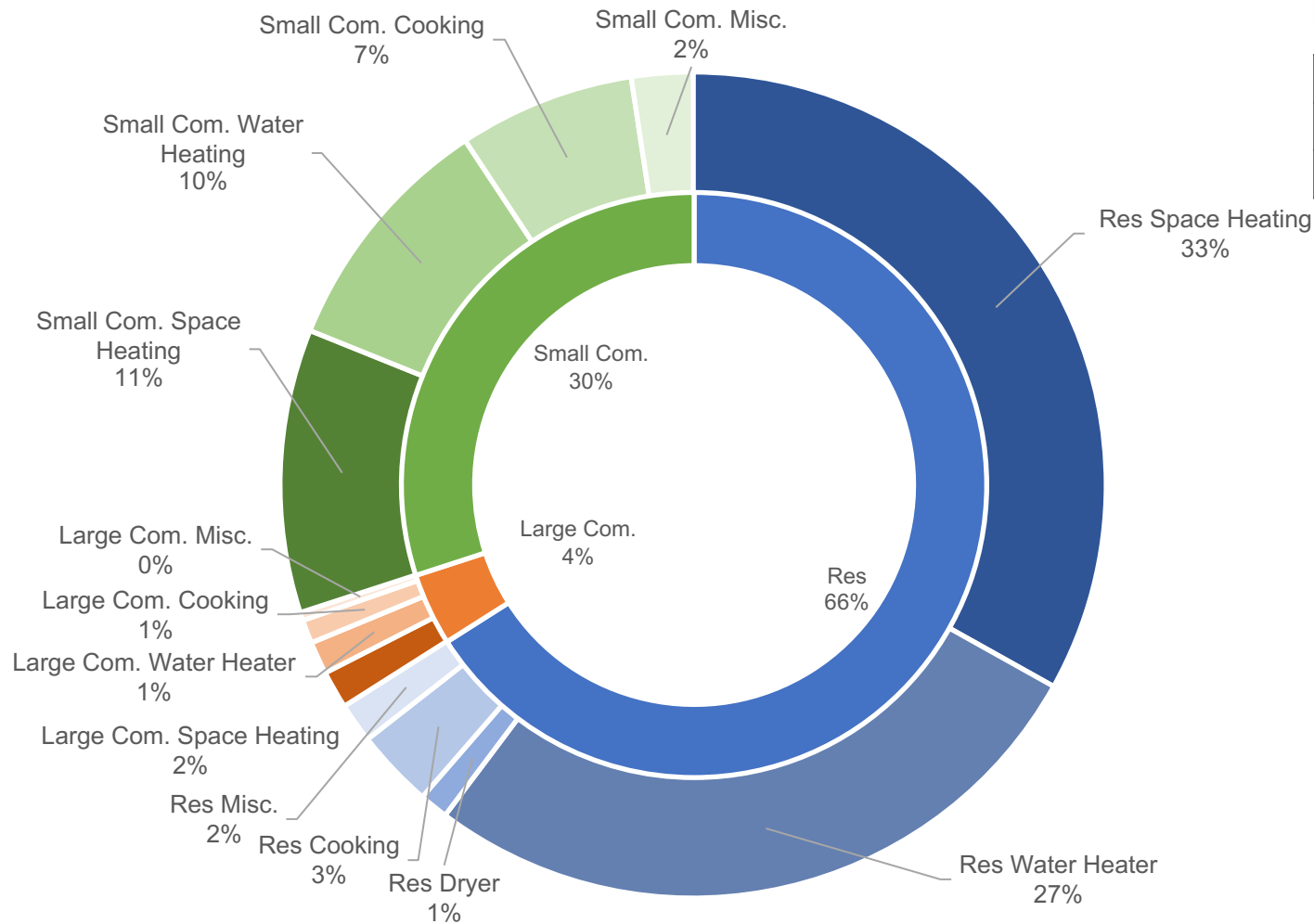
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- EV Ready – infrastructure incentive program
- Lyft EV rental pilot
- New & Possible adjustments:
  - E-Bikes and Fleets
  - Ride & Drive program
  - EV purchase incentive (incentive level, delivery model, new/used)

# Existing Building Electrification

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# Natural Gas Emissions Breakdown



## Residential Sector Characteristics

# Total Housing units	279,457
% Single Family units (1-4 units)	73%
% Multi Family units	27%

## Commercial Sector Characteristics

# of employees	% of businesses	% of employees
0-9	78%	13%
10-49	17%	25%
50-499	5%	38%
500+	0.23%	24%

# Existing Building Objectives

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- Create initial momentum and establish market
- Low hanging fruit first (single family water heaters)
- Partner with regional and statewide programs (BayREN, BDC, SGIP, etc.)
- Establish workforce readiness
- Promote economic benefits through job creation

## Already approved

- Contractor training
- Marketing program

# Under Discussion

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## 1. Low Income Program

- **Program:** Turnkey electrification & healthy home upgrades for low income residents.
- **Goal:** 400-500 homes over 4 years.
- **Addl Objectives:** Low income benefits, jobs, workforce development

## 2. Heat Pump Water Heater Program

- **Program:** Gas to HPWH replacement incentive. Combine with BayREN incentives.
- **Goal:** ~1,200 over 4 years
- **Addl Objectives:** Decarbonization, jobs, market development

## 3. Technology Pilot

- **Program:** Pilot integrated electric space and water heating with load shifting thermal storage. Potentially lower cost than separate retrofits.
- **Goal:** Pilot in ~5 homes to prove viability & help technology development to address market needs

# CAC Support Opportunities

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## 1. Transportation (1 group)

- Help promote EV engagement strategies, leverage networks and relationships with community groups (rec. meet monthly)

## 2. Buildings (3 groups)

- 1-2 CAC members participate in low income RFP process (ad hoc)
- HPWH outreach subcommittee to assist with promotion and buy-in with other enviro groups (rec. meet monthly)
- 1-2 CAC members as part of the tech pilot “assessment team” (rec. meet qtlly)