

DRAFT



Sunnyvale

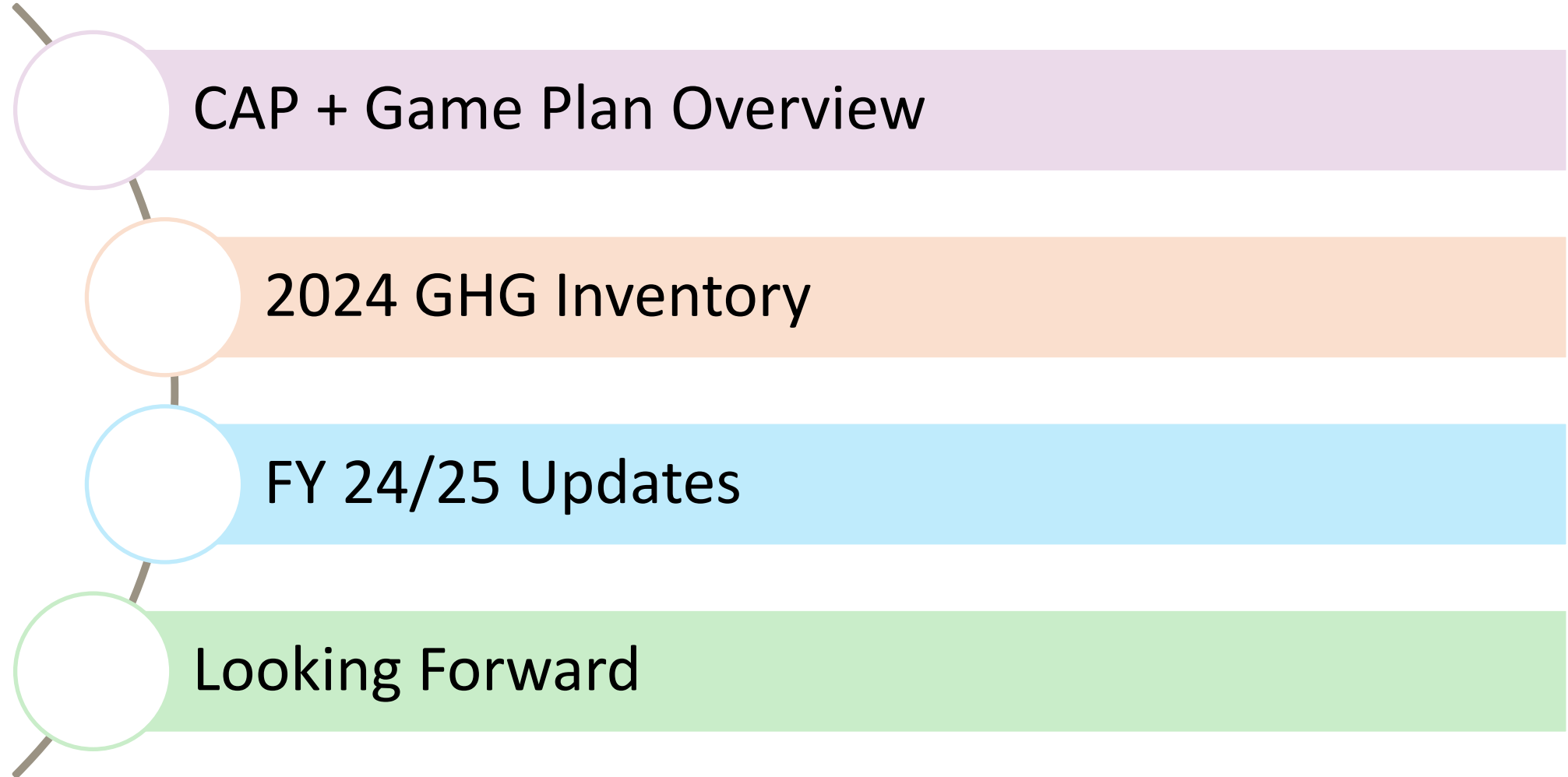
Climate Action Playbook Annual Update

October 23, 2025

Environmental Services Department



Agenda





CAP + Game Plan 2028 Overview

Sunnyvale's Climate Action Playbook



Six Playbook Strategies for the Win



PROMOTING CLEAN
ELECTRICITY



DECARBONIZING
BUILDINGS



DECARBONIZING
TRANSPORTATION &
SUSTAINABLE LAND USE



MANAGING RESOURCES
SUSTAINABLY



EMPOWERING OUR
COMMUNITY



ADAPTING TO A
CHANGING CLIMATE

How the Playbook is Organized







Strategy 1: Promoting Clean Electricity

Play 1.1: Promote 100% Clean Electricity

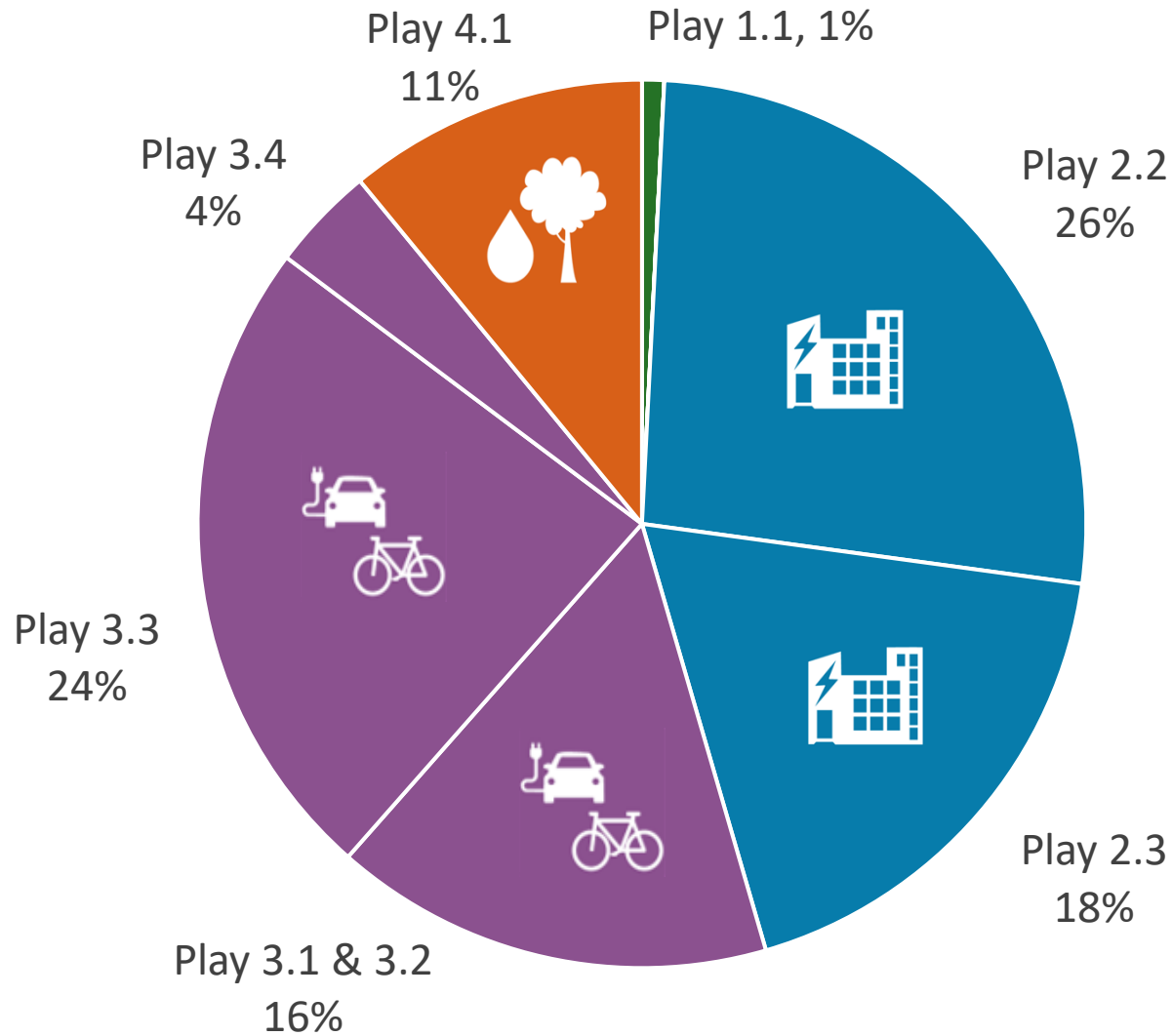
| <i>Metric: % Participation in Clean Electricity</i> | 2030 | 2045 |
|---|------|------|
| | 100% | 100% |

Move 1.A Continue to support and steer Silicon Valley Clean Energy (SVCE) in providing clean power and decarbonization programs.

Playbook Metrics

| | 2030 | 2045 |
|--|------|--------|
|  Strategy 1: Promoting Clean Electricity | | |
| Play 1.1: % Participation in Clean Electricity | 100% | 100% |
| Play 1.2: % Electric Load from Solar | 3% | 5% |
| Play 1.3: % Electricity Demand in Local Battery Storage | 2% | 5% |
|  Strategy 2: Decarbonizing Buildings | | |
| Play 2.1: % Reduction in Residential Natural Gas Use | 44% | 92% |
| Play 2.2: % Reduction in Non-residential Natural Gas Use | 38% | 86% |
| Play 2.3: % All-electric New Buildings | 100% | 100% |
|  Strategy 3: Decarbonizing Transportation and Sustainable Land Use | | |
| Play 3.1: % Reduction in Vehicle Miles Traveled (VMT) per person | 20% | 30% |
| Play 3.3: % On-road Zero Emission Vehicle Adoption in Sunnyvale | 42% | 90% |
| Play 3.4: % Off-road Zero Emission Equipment Adoption | 30% | 75% |
|  Strategy 4: Managing Resources Sustainably | | |
| Play 4.1: % Reduction in Landfill Organics | 75% | 75% |
| Play 4.1: Reduce Landfilled Garbage (Pounds per person per day) | 1 lb | < 1 lb |

Breakdown of Game Plan 2028 Reductions by Play



Total Emission
Reductions by 2030
412,374 MTCO₂e

2025 CAP Reporting Calendar

Q1

| Jan | Feb | Mar |
|-----|------------------------------------|-----|
| | Complete Dept Check Ins (meetings) | |

Q2

| Apr | May | Jun |
|--|-----|---|
| Progress Update to Sustainability Commission (SC) (4/21) | | Complete 2024 Annual CAP Progress Updates |

Q3

| Jul | Aug | Sep |
|---------------------------------------|--|--|
| Annual Citywide CAP Imp. Team Meeting | Complete 2024 CAP Metrics Complete 2024 GHG Inventory | Publish 2024 Updates to CAP Scoreboard |

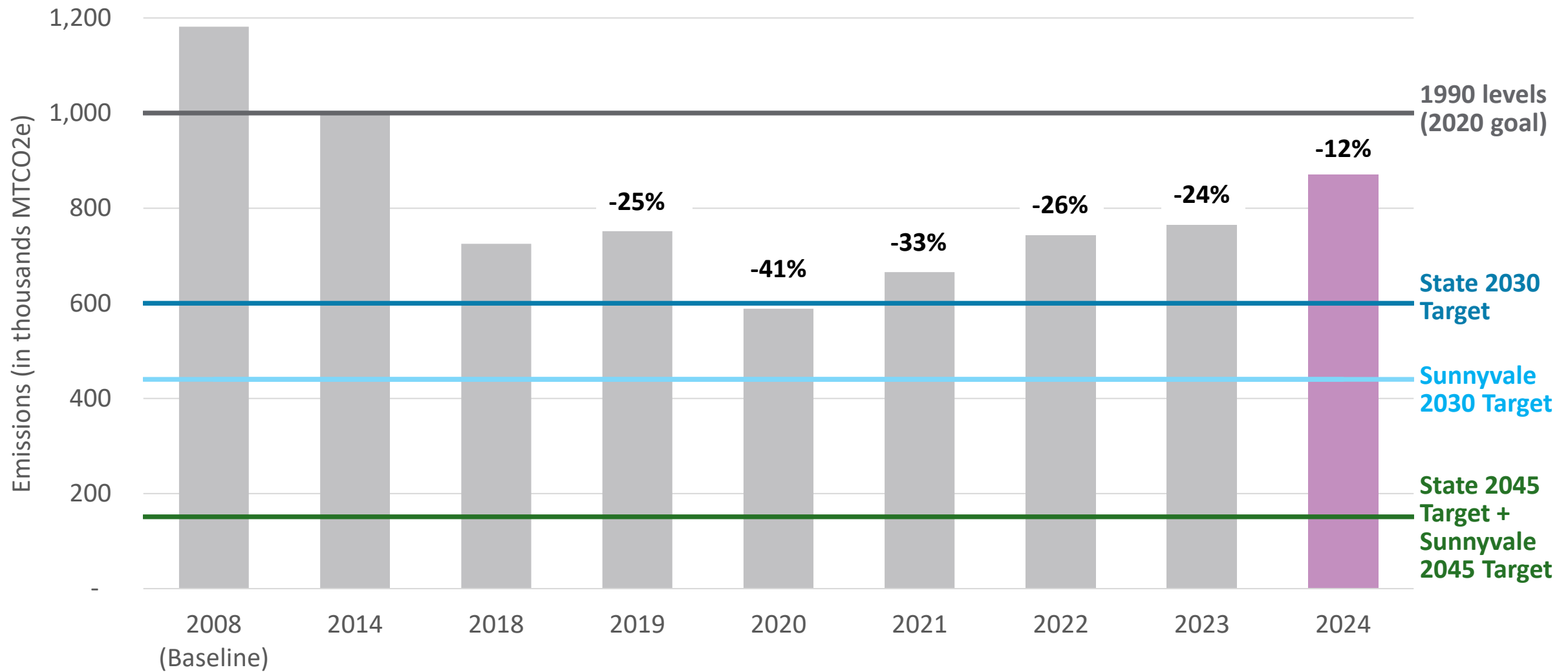
Q4

| Oct | Nov | Dec |
|---|-----|-----|
|  2024 Annual Update to City Council (SS, 10/28) SC + BPAC Joint Study Session Complete Dept Check Ins (email updates) | | |

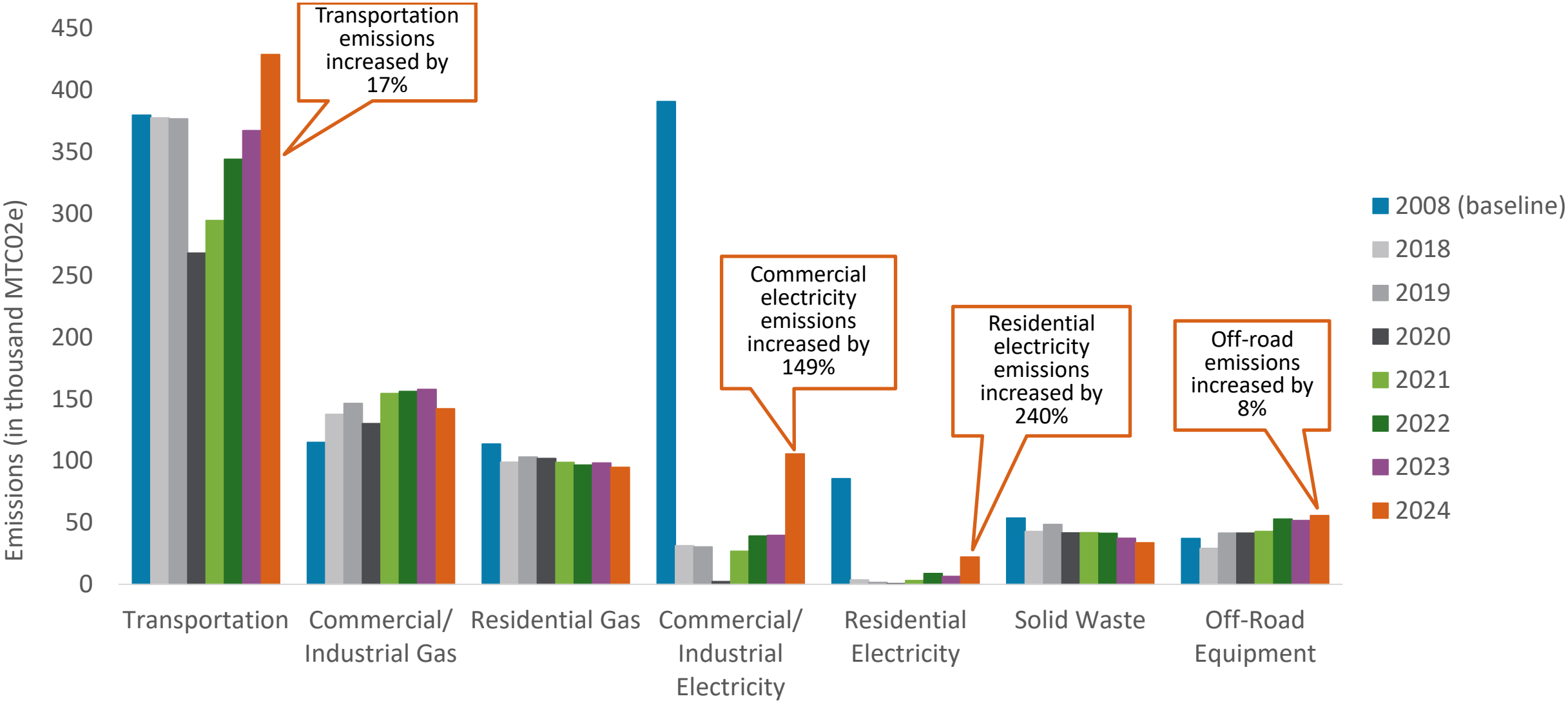


2024 Greenhouse Gas Inventory

Total Emissions by Year



Emissions Overtime by Sector



Key Drivers

Electricity

SVCE expected to return to carbon free in 2025

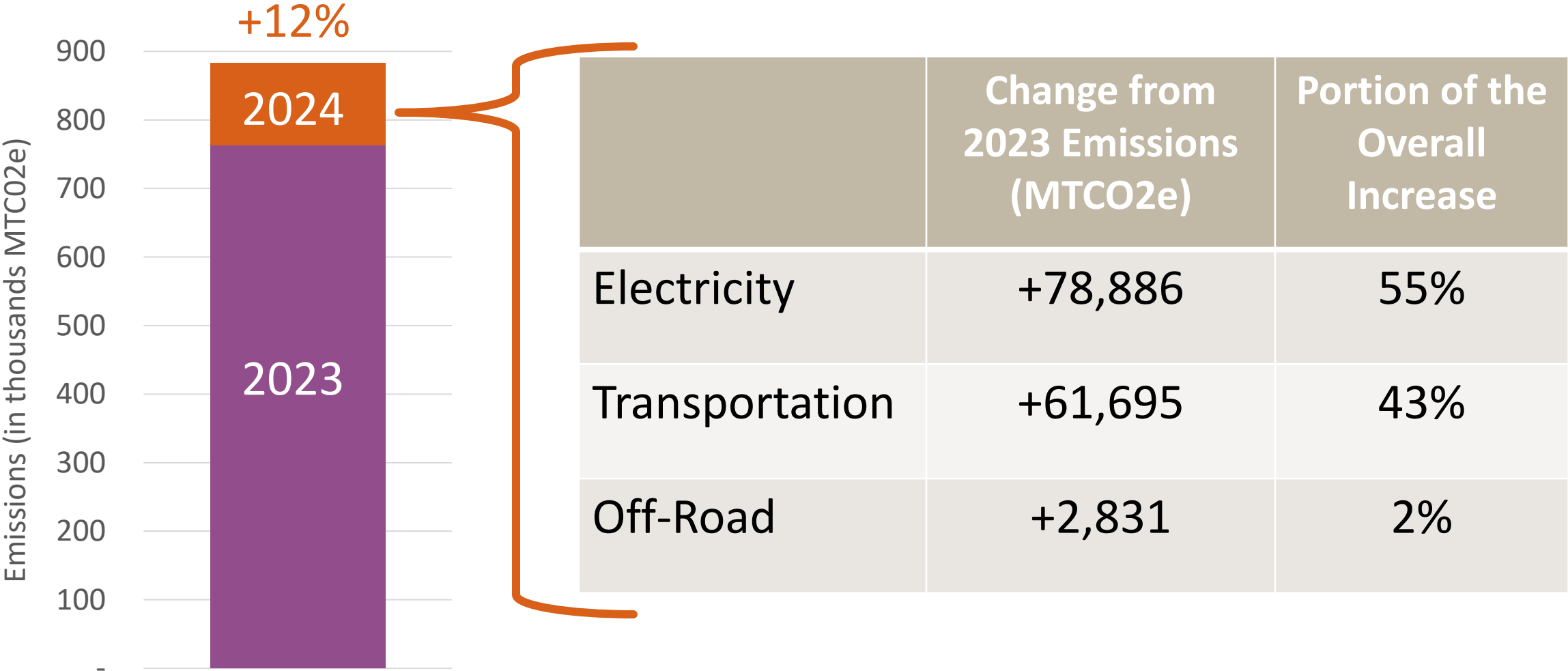
| Electric Power Generation Mix* | PG&E | SVCE |
|---------------------------------------|-------------------------------------|-------------|
| | | GreenStart |
| Specific Purchases | Percent of Total Retail Sales (kWh) | |
| Renewable | 23% | 43% |
| • Biomass & Biowaste | 3% | 3% |
| • Geothermal | 0% | 11% |
| • Eligible Hydroelectric | 1% | 0% |
| • Solar Electric | 14% | 21% |
| • Wind | 4% | 8% |
| Coal | 0% | 0% |
| Large Hydroelectric | 12% | 36% |
| Natural Gas | 2% | 0% |
| Nuclear | 63% | 0% |
| Other | 0% | 0% |
| Unspecified Sources of Power** | 0% | 21% |
| TOTAL | 100% | 100% |

Transportation

CARB EMFAC methodology changed

- County-based data includes more heavy-duty vehicles
- Skews results toward higher fuel use and less fuel-efficient vehicles
 - Gasoline fuel use increase: 12%
 - Diesel fuel use increase: 26%
- Doesn't reflect Sunnyvale's strong EV adoption

Change from 2023 to 2024



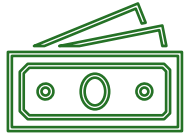


FY 24/25 Updates

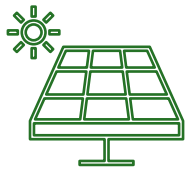


Strategy 1: 100% Clean Electricity

SVCE Programs Impacts



\$6,811,600 in on-bill savings in Sunnyvale; 64,210 households served; \$779,290 in rebates claimed



\$215,790 in cash payments to customers generating solar in Sunnyvale



282 heat pump HVAC Upgrades



177 pre-wired circuits for electrification



121 EV Chargers Installed



169 heat pump water heaters installed



Strategy 1: 100% Clean Electricity

FY 24/25 Moves Status

| Complete or Ongoing | In Progress | On Hold | Delayed |
|---------------------|-------------|---------|---------|
| 75% (3) | 0 | 25% (1) | 0 |

| Strategy 1 Metrics | 2024 Metric | 2030 Goal |
|---|-------------|-----------|
| Metric 1: % Clean Electricity | 90% | 100% |
| Metric 2: % of Electricity from Solar | 6.1% | 3% |
| Metric 3: % of Electricity from Battery | N/A | 2% |





Strategy 3: Decarbonize Transportation

Drive Electric Program Attendance



*FY24/25 - 424 attendees

- *FY 24/25 is the first-time hosting three in-person events (one EV Expo and two EV Ride & Drive). Fiscal years prior had two



FY23/24 - 292 attendees



FY22/23 - 256 attendees



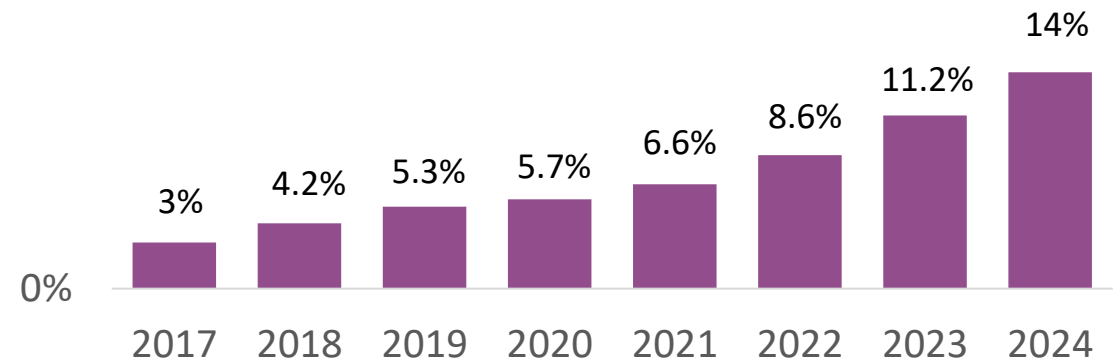
FY21/22 - 166 attendees

Percent Zero-Emissions Vehicles in Sunnyvale

2030 Target

40%

20%





Strategy 3: Decarbonize Transportation

FY 24/25 Moves Status

| Complete or Ongoing | In Progress | On Hold | Delayed |
|---------------------|-------------|---------|---------|
| 31% (4) | 38% (5) | 8% (1) | 23% (3) |

Electric Vehicle Infrastructure (EVI) Updates

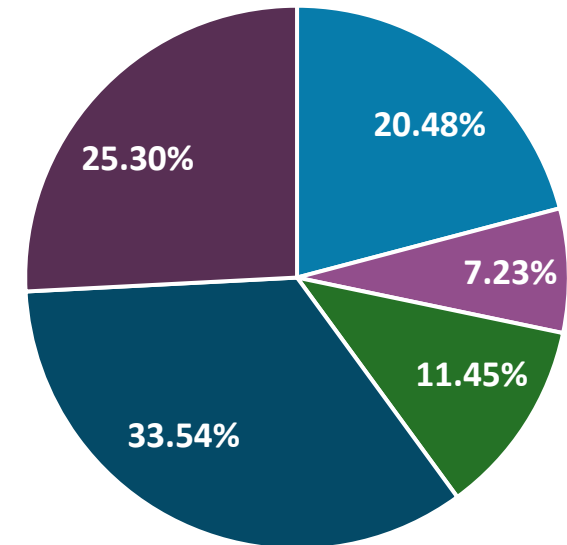
430 Publicly Accessible EV Chargers, 22 Chargers at City Facilities

Municipal Fleet increased from 22 EVs in 2024 to 56 EVs in 2025

Community Feedback: suggest additional EV Chargers should be at Parks, Schools and Businesses

City participation in Bay Area Charging Smart Cohort

Community feedback on placement of EVI



- Businesses
- *Other
- Schools
- Multi-Family
- Parks

*City Facilities, Caltrain Station, near Single Family Homes



Strategy 3: Decarbonize Transportation

Safe Routes to School Improvements at San Miguel Elementary and Columbia Middle School

Constructed Multi-use Path on Moffett Park Drive

Buffered Bike Lane on Borregas Avenue

Converted Portion of Part-time Bike Lane to Full-time on Homestead Road

Began Evelyn Avenue Class I Trail Design

East Channel Trail Study Underway

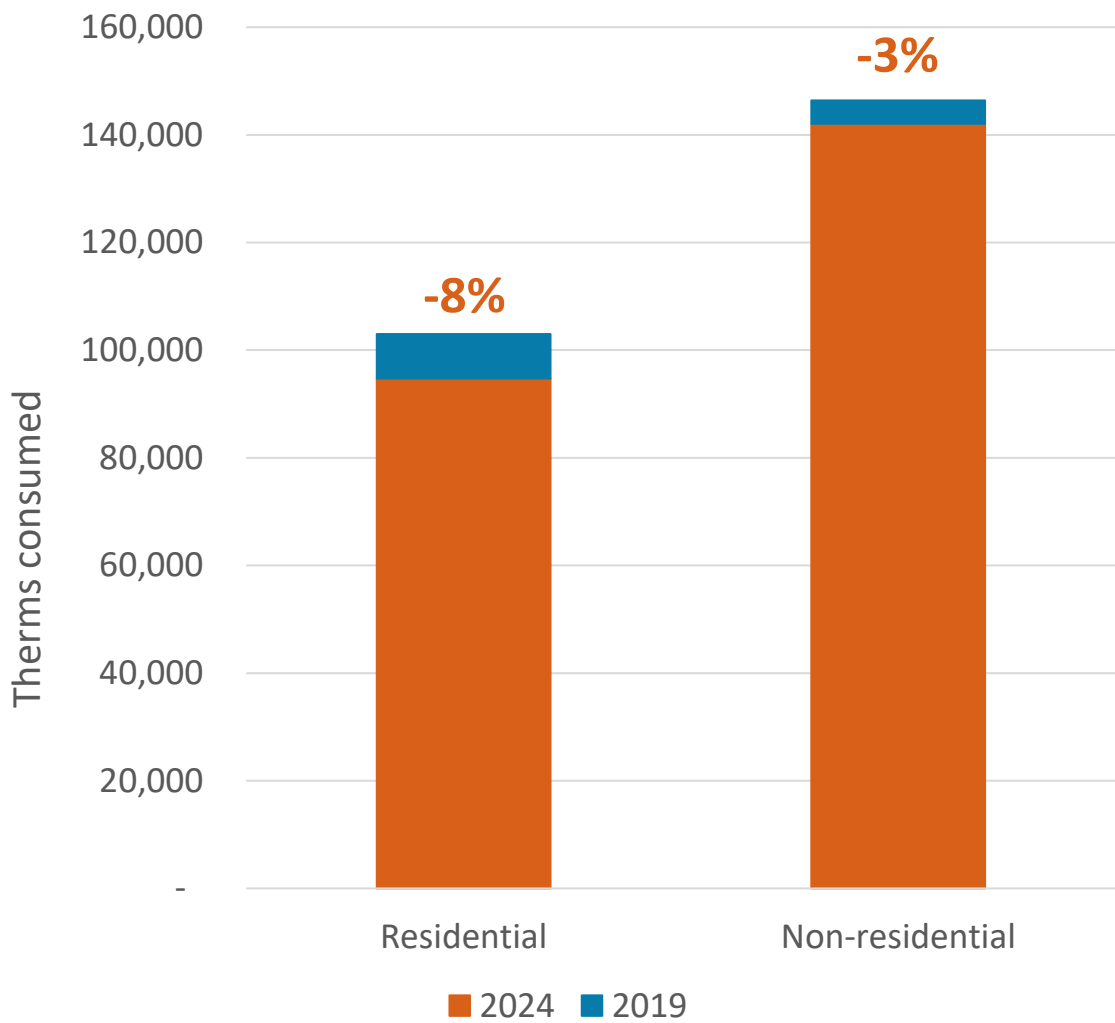
Launched Peery Park Rides in March 2025





Strategy 2: Decarbonize Buildings

| Strategy 2 Metrics | 2024 Metric | 2030 Goal |
|--|-----------------------|------------------------|
| Metric 4: % of existing businesses (major remodel) meeting CALGreen and LEED Silver % of existing homes (major remodels) meeting CALGreen | 100% | 100% |
| Metric 5: % of natural gas use reductions for residential and non-residential buildings | Res -8% | Res -44% |
| | Non-res -3% | Non-res -38% |
| *Metric 6: % of new buildings (with final permits) that are all-electric | N/A | 100% |



* Reach Codes suspended mid-2024



Strategy 2: Decarbonize Buildings

FY 24/25 Moves Status

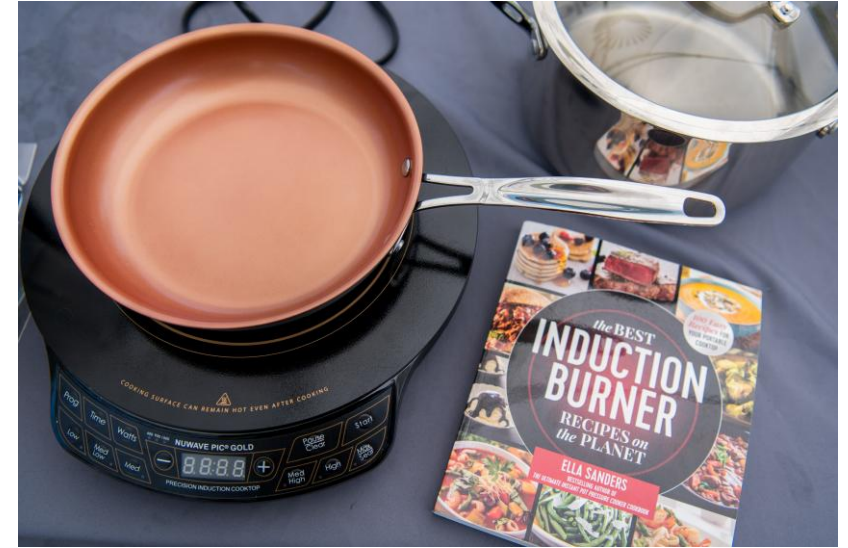
| Complete or Ongoing | In Progress | On Hold | Delayed |
|---------------------|-------------|---------|---------|
| 24% (2) | 63% (5) | 0 | 13% (1) |

Move 2.D: Cool Cooktops – 437 uses since launch

- 94 kits uses
- 9 positive reviews
- 5 transitioned to cooking

Move 2.E: Electrify Municipal Facilities

- Lakewood Library construction underway
- Fire Station 2 to receive solar + battery storage





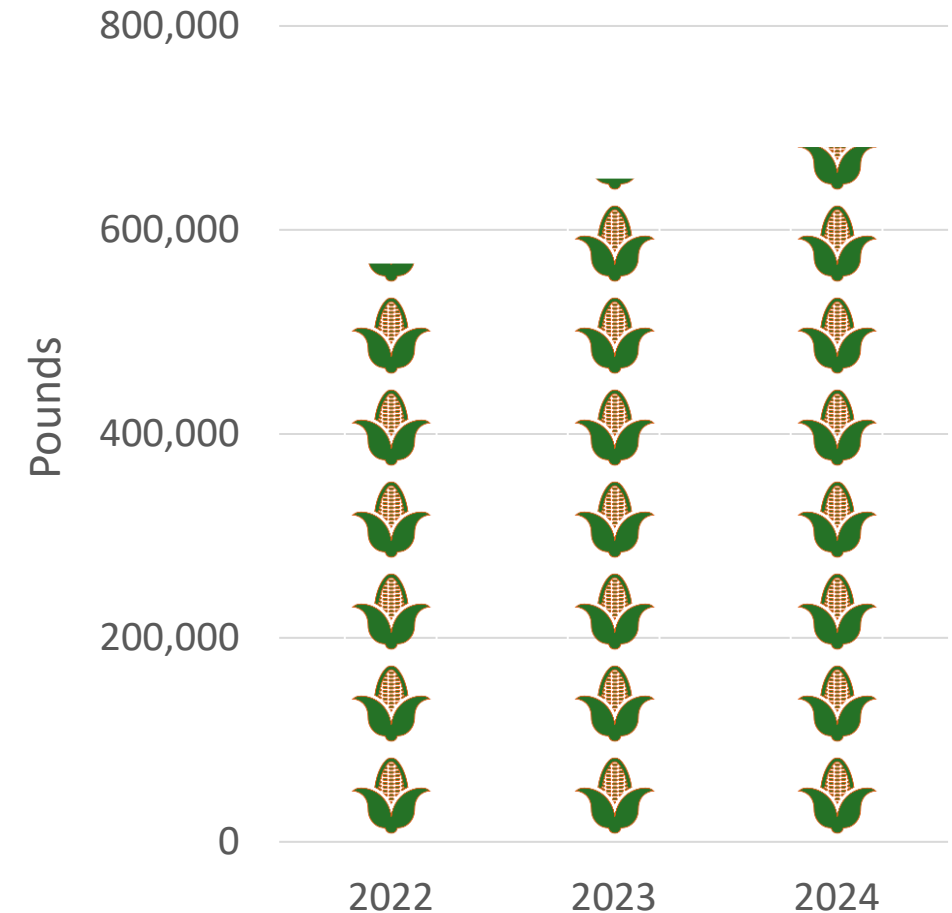
Strategy 4: Managing Resources Sustainably

FY 24/25 Moves Status

| Complete or Ongoing | In Progress | On Hold | Delayed |
|---------------------|-------------|---------|---------|
| 38% (5) | 46% (6) | 0% | 15% (2) |

| Strategy 4 Metrics | 2024 Metric | 2030 Goal |
|---|----------------------------|--------------------------|
| Metric 9: Achieve Zero Waste goals for solid waste | 2.6 lbs per person per day | 1 lbs per person per day |
| Metric 10: % Reduction in Water Consumption | - 19% | N/A |
| Metric 11: Net Number of New Trees on Public Lands | +389 trees | N/A |
| Metric 12: Acreage of Land Treated by Green Stormwater Infrastructure | 1,576 acres | N/A |

Edible Food Recovered in Sunnyvale

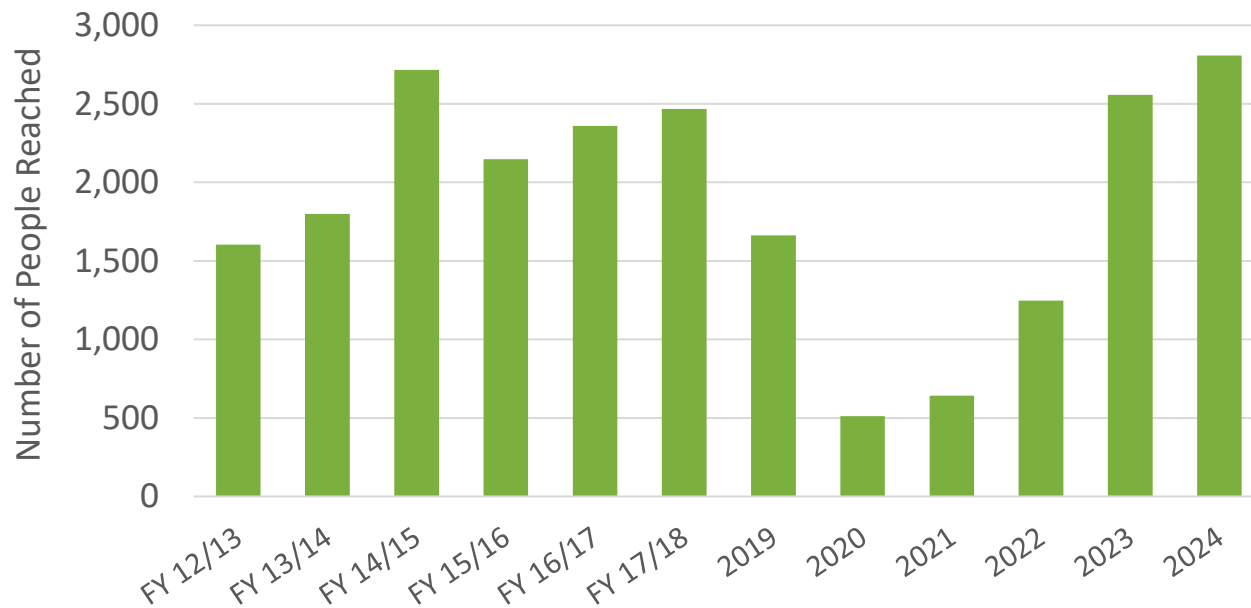




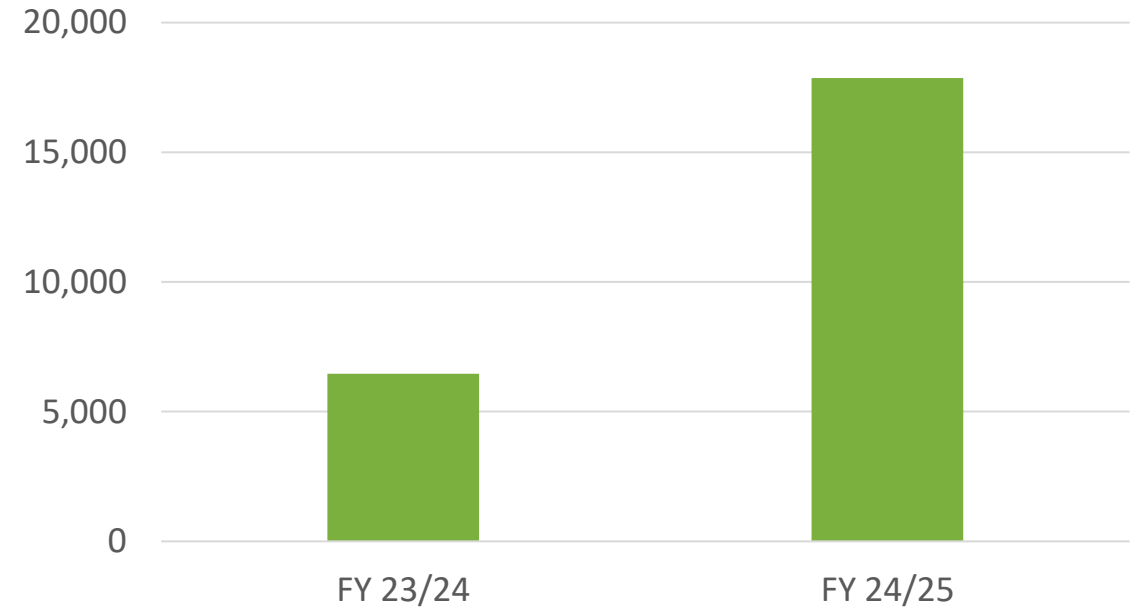
Strategy 5: Empowering our Community

| FY 24/25 Moves Status | | | |
|-----------------------|-------------|---------|---------|
| Complete or Ongoing | In Progress | On Hold | Delayed |
| 44% (4) | 44% (4) | 0 | 11% (1) |

ESD: People Reached Tabling at Events



ESD Instagram Reach





Strategy 5: Empowering our Community

Move 5: Collaborate with Youth

- SVYCA Civics Summit Day + City Hall Tour
- SSN “Stories from Students”
- Quarterly check-in with SVYCA + ESD + LRS

Move 5.G: Sustainable Librarian

- 31 sustainability-themed programs with 1,049 attendees

Move 5.F: “Electrify your Life”

- 73 attendees across 3 events



Earth Day 2025





Strategy 6: Adapting to a Changing Climate

Move 6.A: Regional Collaboration

- Santa Clara County Climate Collaborative (SC4)
- Attend working groups on sea-level rise and flooding, urban forest, and heat and air quality

Move 6.B: Shoreline Protection

- Continuing to meet with Valley Water
- USACE progressing with first year of study while awaiting budget approvals

Move 6.D Update Emergency Preparedness plans for climate-related impacts

- Complete

Move 6.E: Community Resilience Plan







- Regional Shoreline Adaptation Plan grant application prioritized. Baseline research on municipal Resilience Plans conducted.

FY 24/25 Moves Status



| Complete or Ongoing | In Progress | On Hold | Delayed |
|---------------------|-------------|---------|---------|
| 50% (2) | 50% (2) | 0 | 0 |

Grants

Awarded

| Amount | Project/Program | Organization | CAP Strategies |
|-------------|---|--------------------------------|---|
| \$1,000,000 | Fire Station 2 solar+ battery storage (ESD led, DPW support) | SVCE |   |
| \$100,000 | Electrification Engagement (ESD led, LRS support) | SVCE |   |
| \$2,631,383 | Regional Shoreline Adaptation Plan for Multijurisdictional region: Will support compliance with SB 272. (ESD led) | Ocean Protection Council (OPC) |  |
| \$199,020 | Energy Efficiency and Conservation Grant Block Program: Purchase of 5 electric fleet vehicles | Department of Energy (Federal) |  |

Applied, not awarded

| Amount | Project/Program | Organization | CAP Strategies |
|----------|---|--------------|---|
| \$74,678 | Community Preparedness and Environmental Stewardship (LRS led, ESD support) | Valley Water |   |

FY 2024/25 Annual Update

Game Plan 2028 Staff Hired!



Environmental Program Manager - Stormwater

Environmental Program Specialist – Water Conservation

Environmental Program Specialist - Sustainability

Librarian – Sustainability (LT)

Senior Engineer – CIP/Transportation



Looking Forward

Big Ticket Items FY 25/26

Strategy 2

- Building Electrification Strategy
- Green Building Program Update
- Municipal GHG Inventory
- Energy Benchmarking and BPS strategy

Strategy 3

- Metrics to support VMT reduction
- Fleet Electrification
- EV Charging Infrastructure

Strategy 5

- Earth Day
- Youth Engagement
- Business Engagement
- Library Programs
- Move 5.A

Strategy 6

- Shoreline Protection
- Community Resilience

Recap & Big Picture Takeaways

Measuring Progress

- Emissions increase is not reflective of our progress
- We continue to build on CAP Metrics

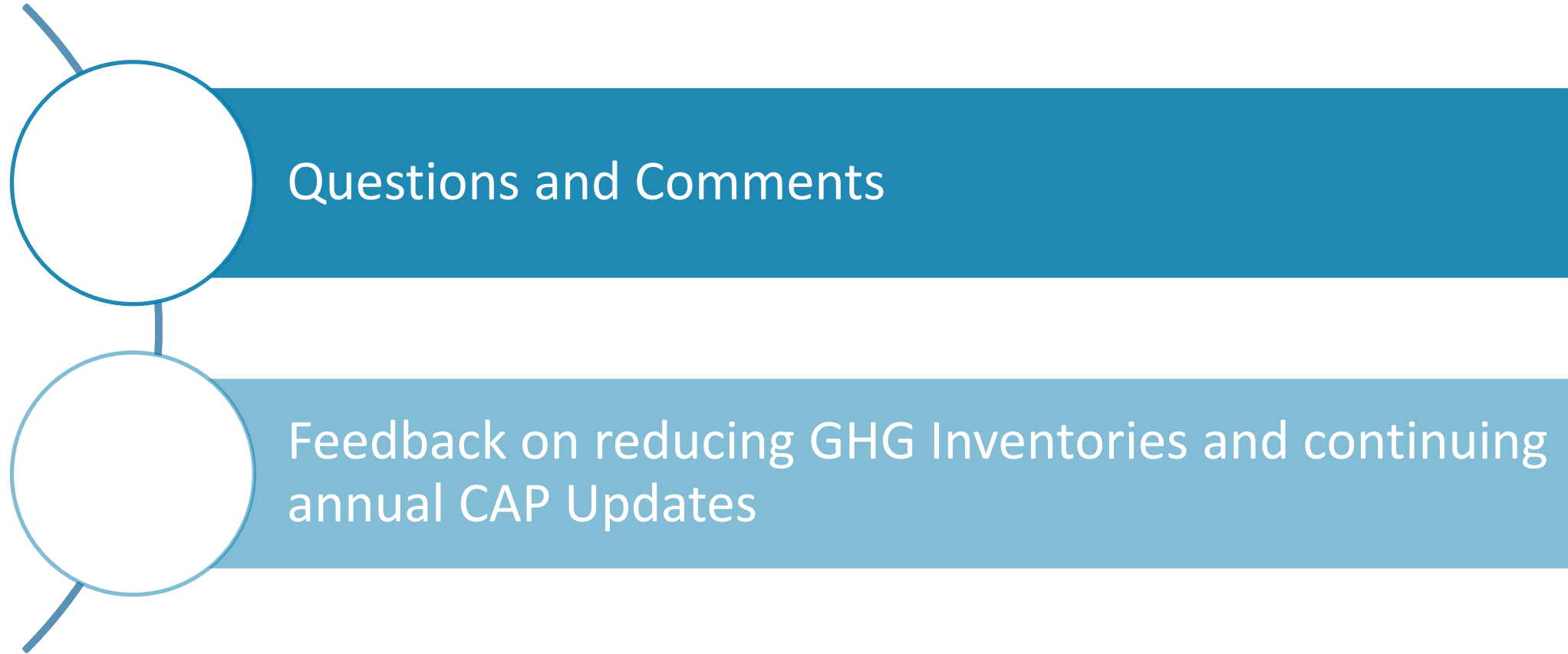
Resource Commitments

- A lot of important work is happening in each of the CAP Strategies
- ~4 months spent on annual updates

Moving Forward

- Reduce GHG Inventory to every 2 years
- Maintain CAP Update Annually (Moves statuses + CAP Metrics)

Discussion





Thank You for Making Sunnyvale a Sustainable City!



Pocket Slides

Delayed Moves

| Move | Dept | Reason | Update |
|--|------|--|---|
| 2.B: Green Building Program Update | CDD | Buildings prioritizing Reach Codes, 2025 building code, and response to AB 130 | Will update once reach codes and 2025 building codes are adopted. |
| 3.B: TDM Program Update | DPW | Staff prioritizing citywide shuttle program | Additional staff brought on to assist with shuttle program |
| 3.K: Additional Metrics related to VMT | DPW | Hiring and onboarding Senior Engineer | Engineer onboarded, Move now in progress |
| 3.P: Small Off-Road Equipment (SORE) fossil-fuel ordinance | ESD | Hiring and onboarding Environmental Programs Specialist + maternity leave | Planned for FY 25/26 |
| 4.I: Prohibit non-functional turf in new construction | CDD | Competing priorities | State policy could make this Move unnecessary, will monitor |
| 4.J: Streamline permitting process for dual piping and graywater systems | CDD | Competing priorities | ESD will support initial steps in FY 25/26 |
| 5.E: Collaborate with large businesses on CAP | ESD | Staff on maternity leave | |

Completed Moves + Major Accomplishments

| Move | Dept | Update |
|---|------|--|
| 2.N: Reach Codes | CDD | Development of alternative pathways to Reach Codes post Berkeley ruling. |
| 3.D: Implement Active Transportation Plan | DPW | Active Transportation Planner hired, 5 major project milestones achieved. |
| 3.F: Peery Park Shuttle | DPW | Peery Park shuttle launched and Citywide Shuttle program under development. |
| 4.B: Reusables Pilot Program | ESD | Now ongoing program with 21 businesses participating and counting. |
| 4.H: Advanced Metering Infrastructure | ESD | Study complete and AMI project funded. |
| 5.C: Sustainability Speaker Series | ESD | Continue hosting and planning well attended events. |
| 5.H + 5.I: Publishing GHG and Improving Reporting Process | ESD | Comprehensive update to Scoreboard website, addition of annual update to Council, and improvements to internal progress tracking and reporting made. |