



Sunnyvale

Climate Action Playbook Update

*Presentation to:
Bicycle and Pedestrian Advisory Commission
January 21, 2021*

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Today's Agenda

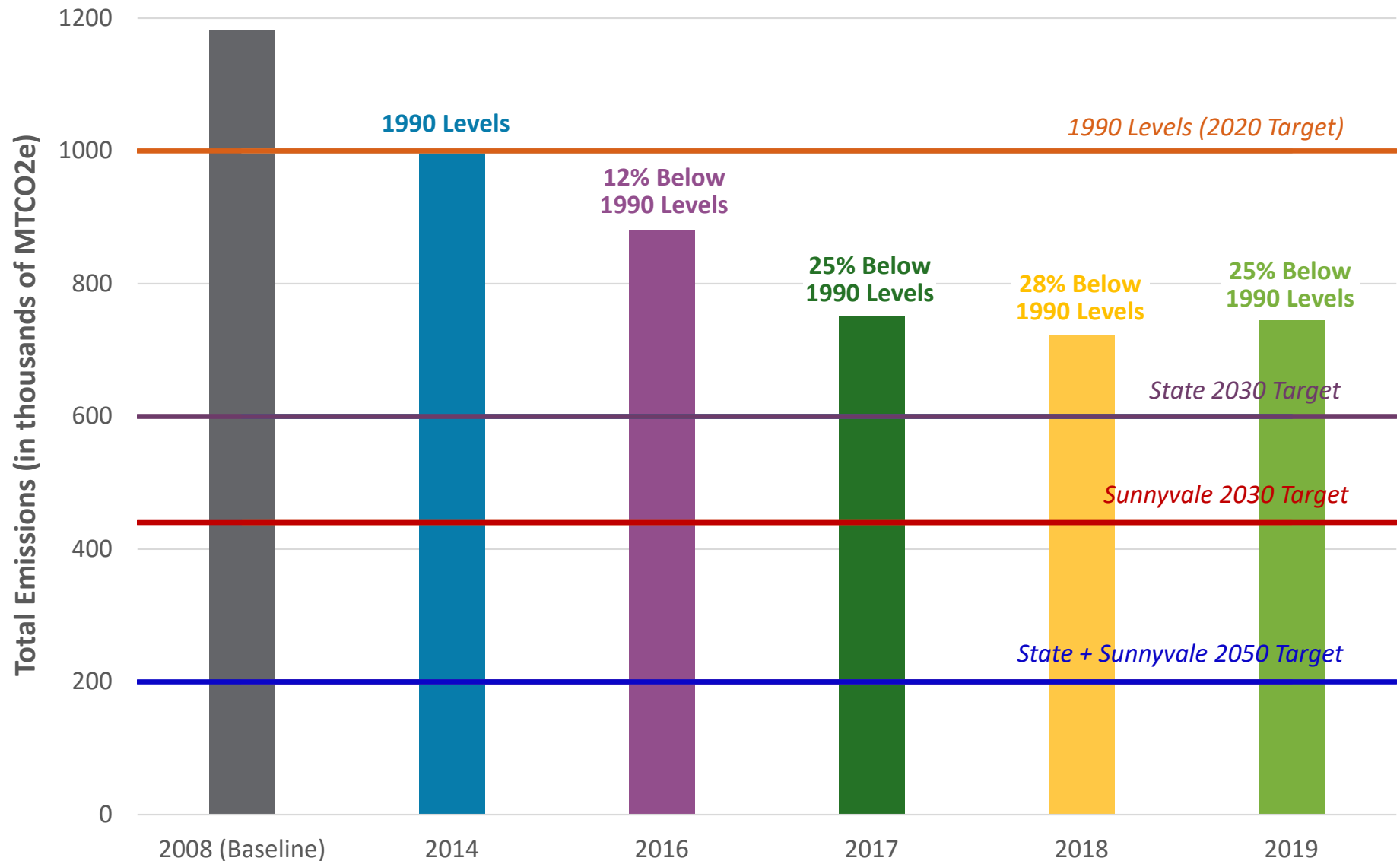
- 2019 communitywide greenhouse gas emissions
- Playbook Progress Update
- Climate Action Scoreboard



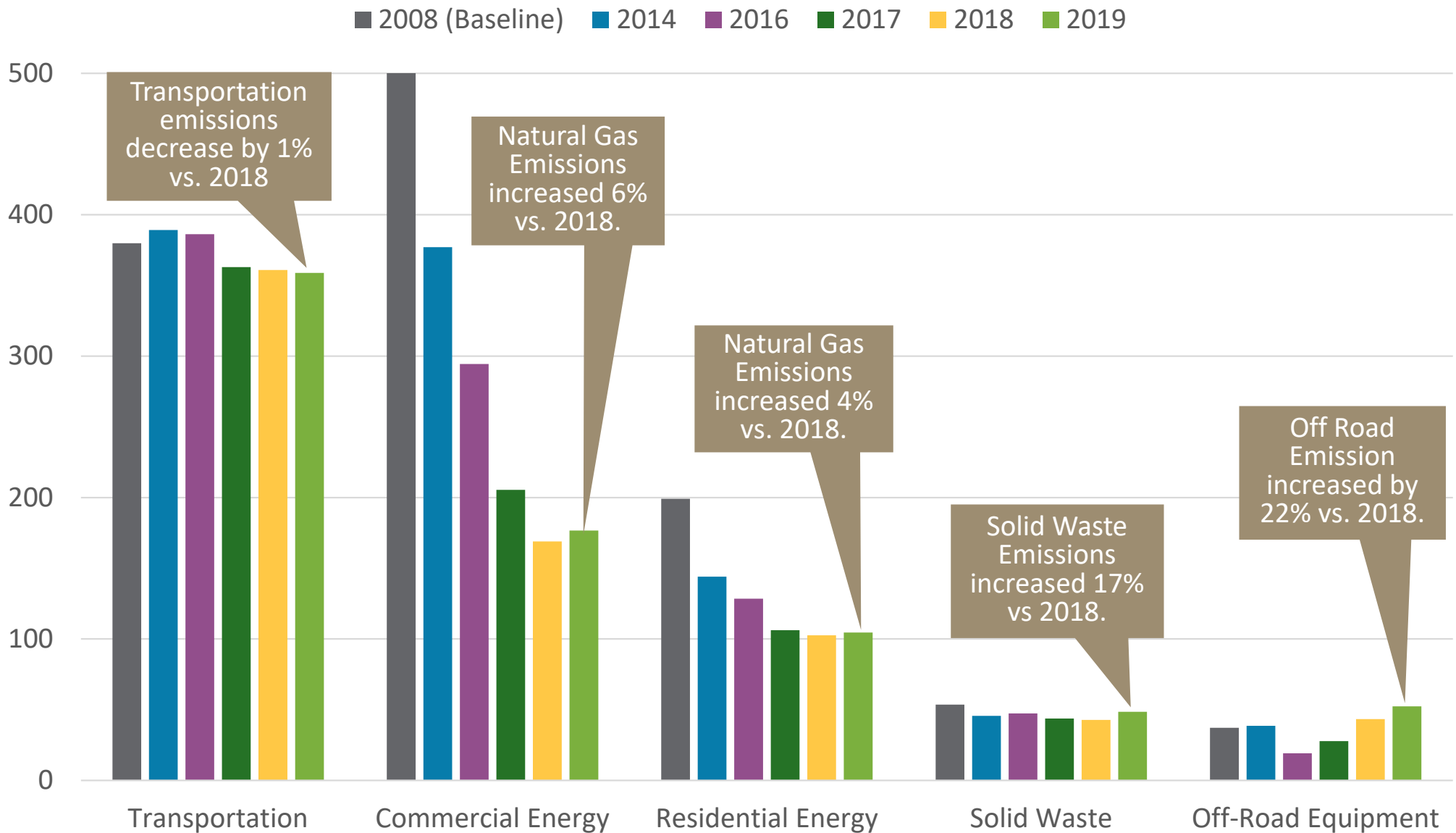
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Sunnyvale 2019 Communitywide Greenhouse Gas Emissions

Total Emissions by Year

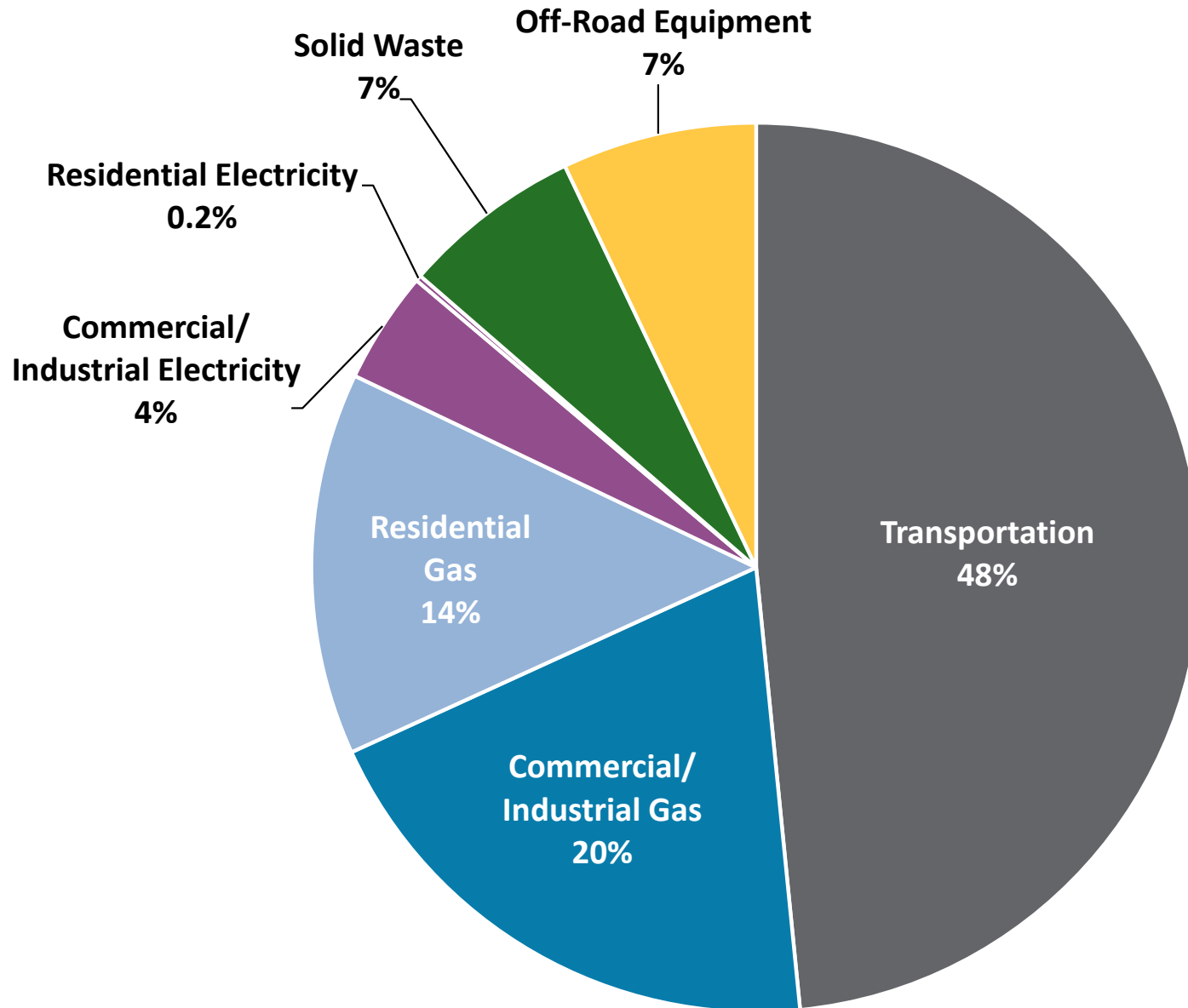


Emissions from 2008-2019 by Sector



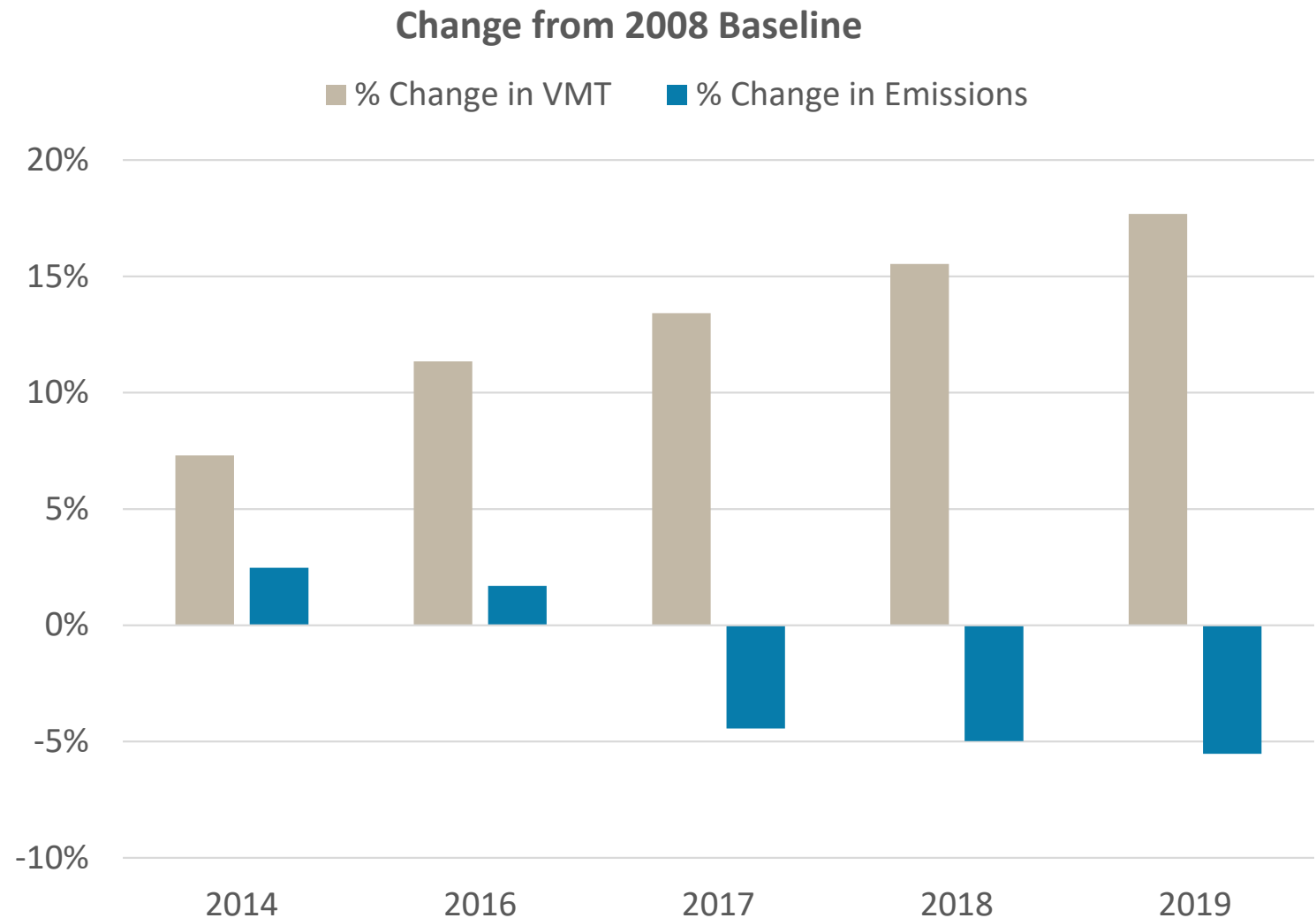
Emissions from Caltrain, water treatment and distribution, and wastewater treatment are <1% of total and therefore not shown here

2019 Emissions by Sector

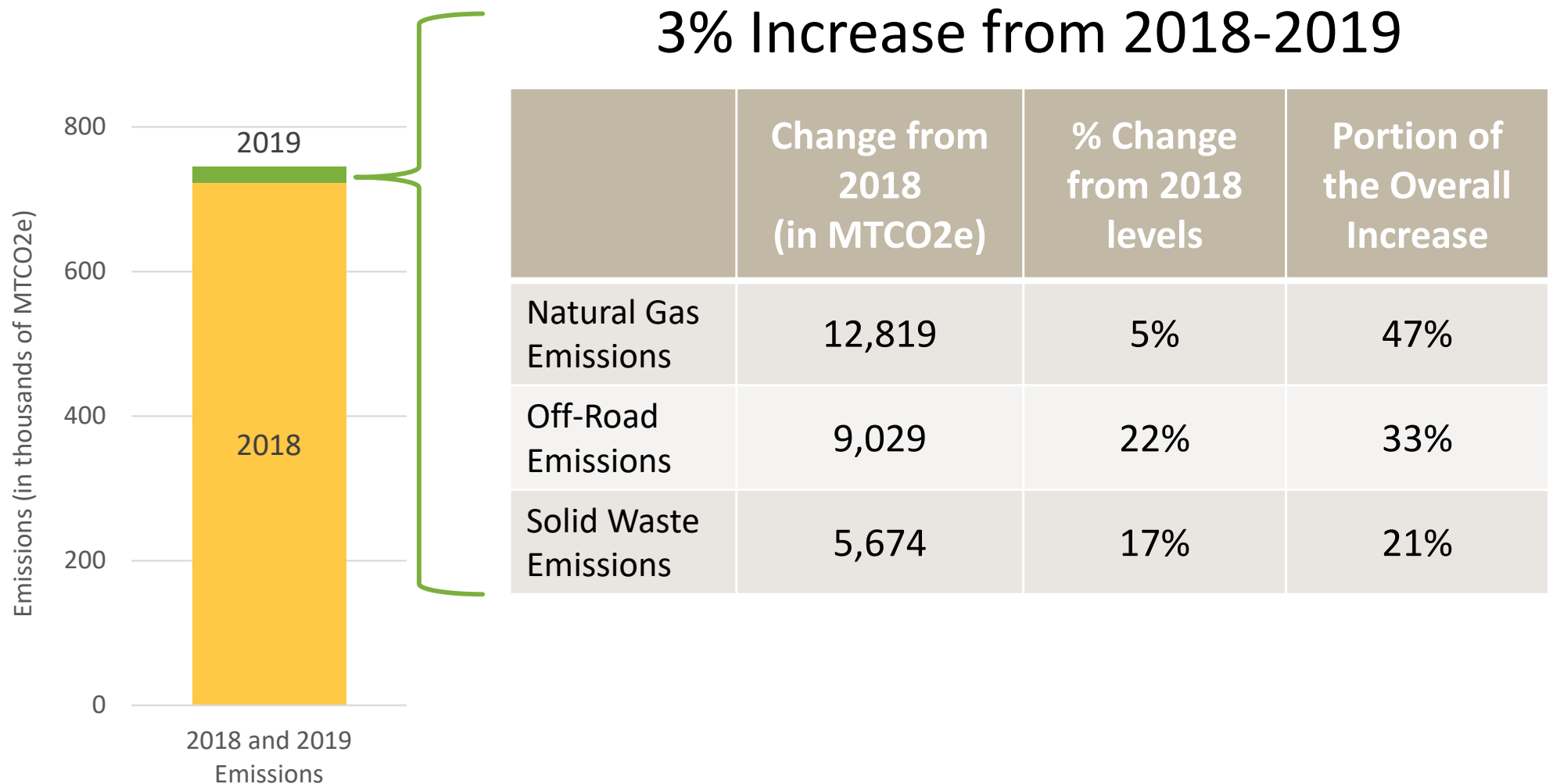


Transportation Emission Trends

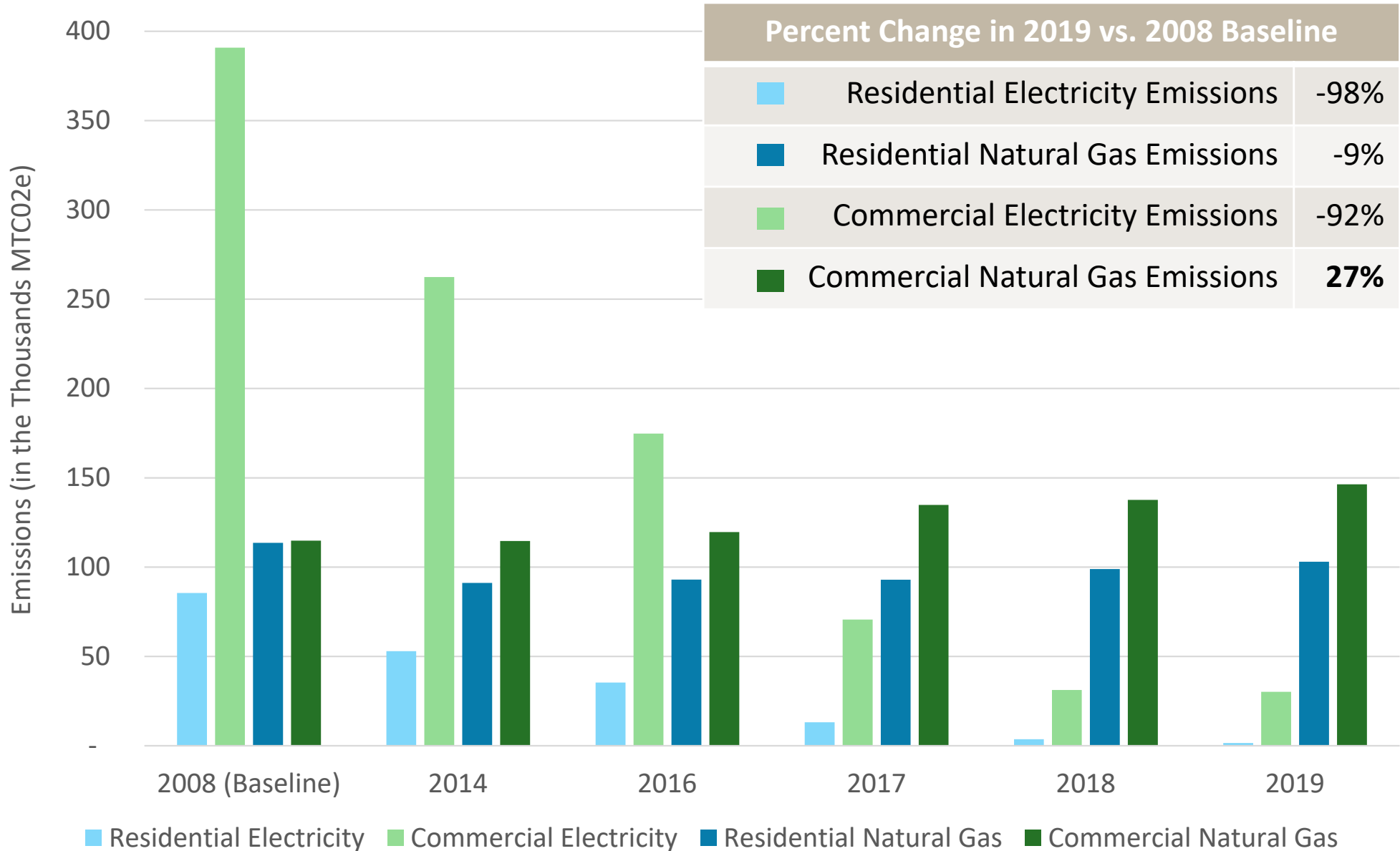
Decreased emissions due to increased EV ownership and fuel efficiency



Key Emissions Drivers in 2019



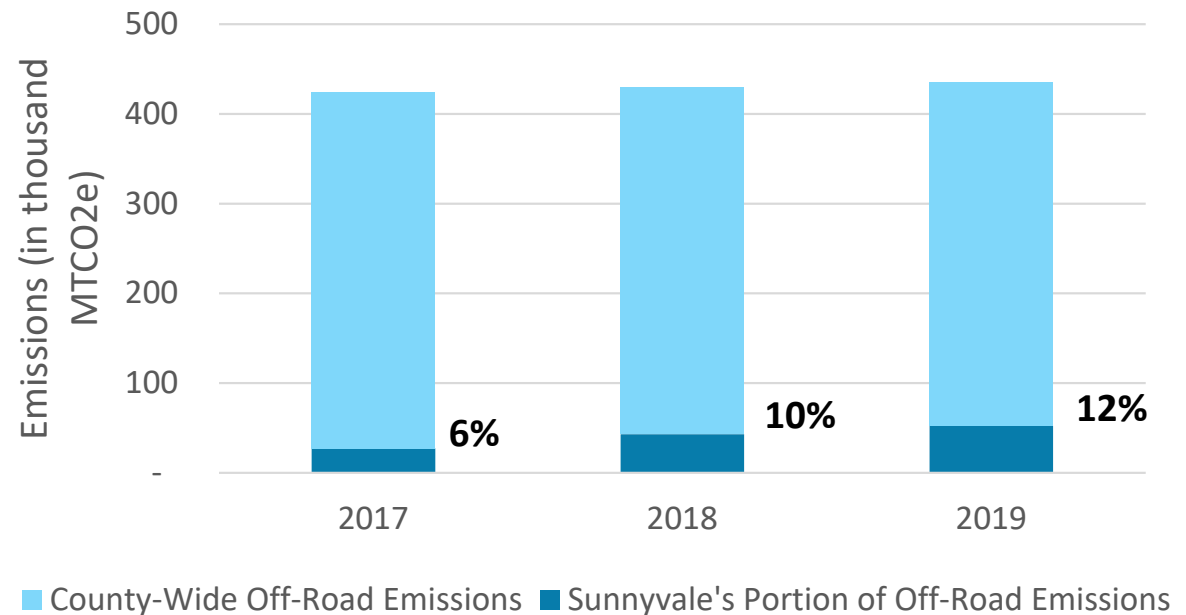
Energy Sector Emission Trends



Off-Road & Solid Waste Emissions

Off-Road:

- Sunnyvale's proportion of County-wide emissions has increased due to higher proportion of housing
- County-wide emissions in this category have increased



Solid Waste:

- Emissions increased 17%

Looking Forward

- Transportation remains the largest contributor, but decreasing due to EV adoption
- Natural Gas consumption has continued to grow
- Continue to try to refine methodology for solid waste and other sectors

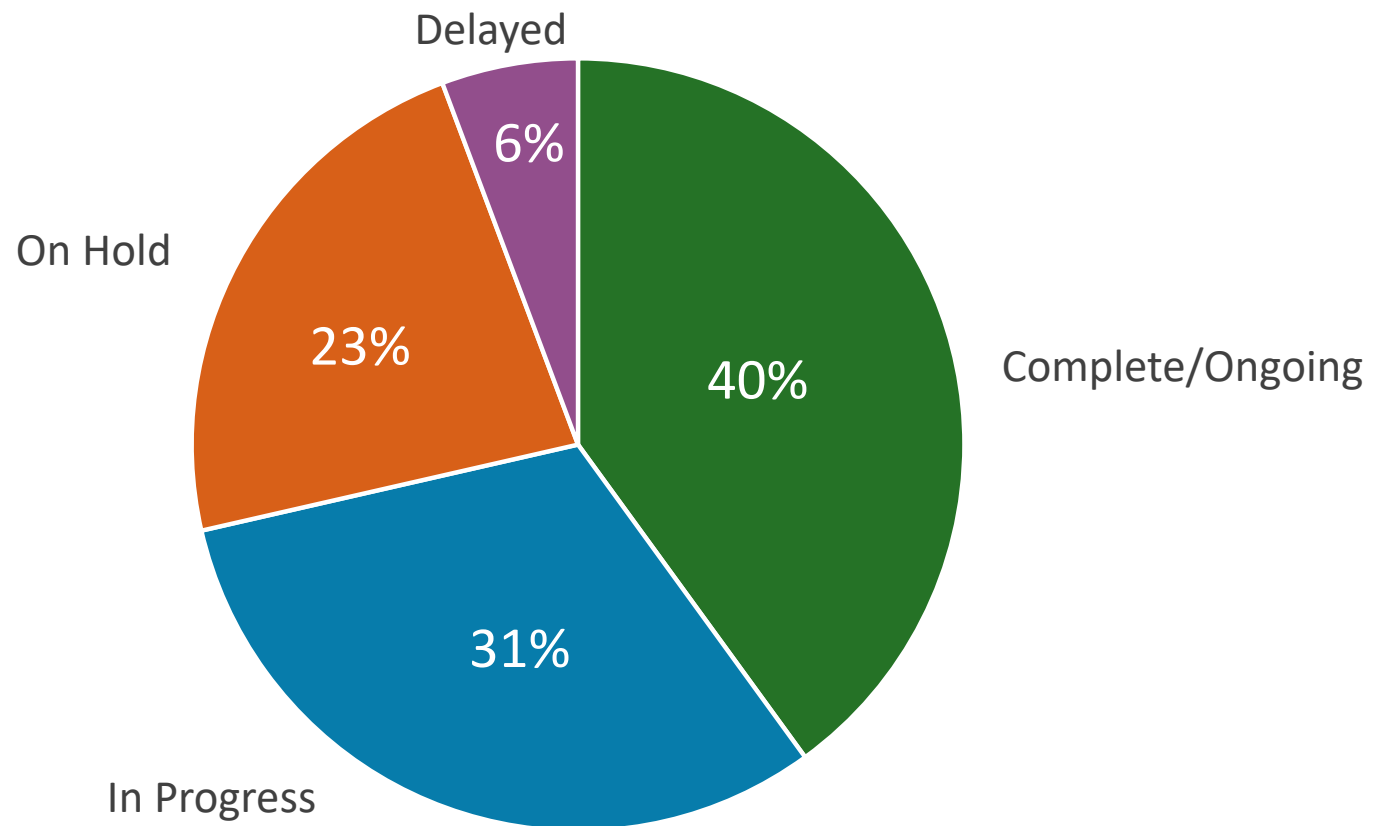


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Playbook Move Progress To Date

Progress Updates for Scheduled Moves

35 Moves Scheduled for FY 19/20



Progress Updates for Scheduled Moves

Key Moves “In Progress”

Strategy 2

- Move 2.B: BayREN Home+ Program workshops and rebates.
- Move 2.C: SVCE FutureFit Heat Pump Rebate program: 40% of overall participation was in Sunnyvale.
- Move 2.D: New Buildings: City Hall, Emergency Operation Center, Cleanwater Center, and Lakewood Branch Library.
- Move 2.E: Reach Codes adopted in 2020.

Progress Updates for Scheduled Moves

Key Accomplishments

Strategy 3

- Move 3.A: New Housing Strategy adopted by City Council in October 2020.
- Move 3.E: Active Transportation Plan adopted by City Council in August 2020.
- Move 3.F: Shared bike pilot ended due to recalled bikes. Ongoing work with City of Mountain View on potential shared bicycle program.
- Move 3.J: Evaluation of key City-owned sites underway for DC fast and Level 2 charging stations.
- Move 3.K: New *Drive Electric Sunnyvale* program provides virtual informational educational workshops.
- Move 3.L: Municipal charging stations – 2 at Corp Yard, 1 at WPCP, 6 at City Hall. Focus on electrifying fleet vehicles.

Progress Updates for Scheduled Moves

Key Accomplishments

Strategy 4

- Move 4.A: Pilot FoodCycle program at multi-family dwelling units underway.
- Move 4.G: Adopted GSI Plan in September 2019. Completed first “green street” on Caribbean Drive in August 2020.

Strategy 5

- Move 5.B: SVCE launched the eHub resource center in 2020.
- Move 5.G: Developed Climate Action Scoreboard.
- Move 5.H: Completed 2019 Community GHG inventory.

Pandemic Staffing & Funding Impacts

- Personnel Impact – Freeze on positions:
 - ◆ ESD – Environmental Programs Specialist
 - ◆ DPW – Transportation Planner for TDM Program
- Non-Personnel Impact:
 - ◆ CAP Projects Budget has available funds:
 - Consultant support
 - Vendors/services
- Timing of some Next Moves delayed due to:
 - ◆ frozen staff positions
 - ◆ shifting of resources for COVID-related operations
 - ◆ logistical limitations on in-person interactions





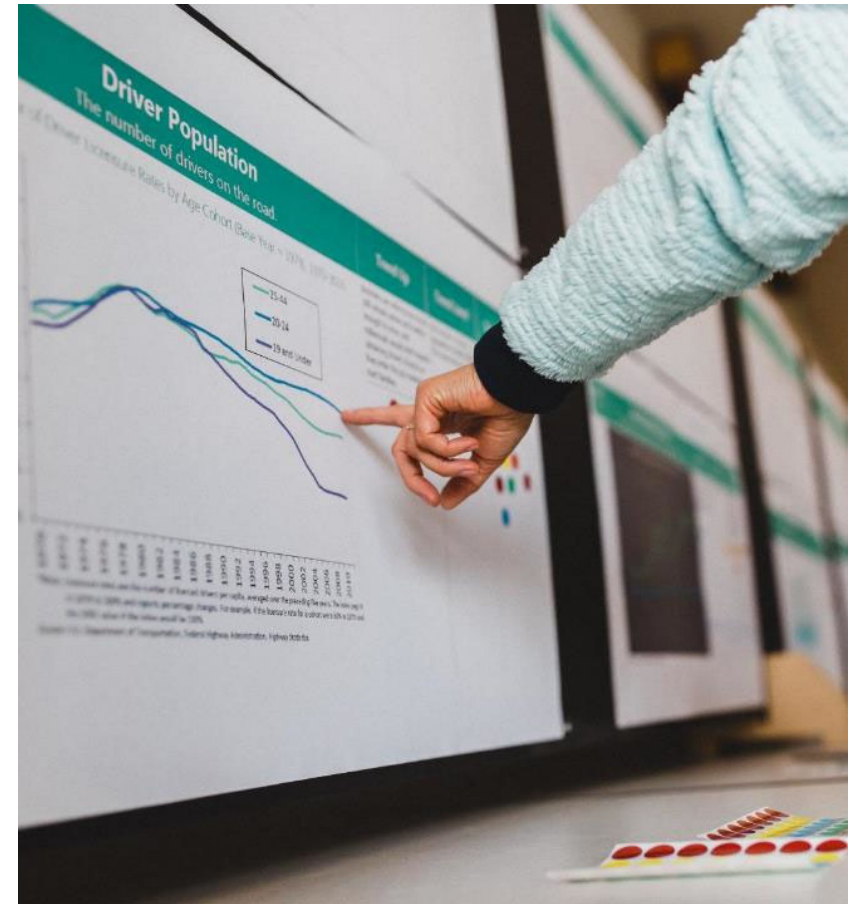
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Sunnyvale's new Climate Action Scoreboard

Sunnyvaleclimateaction.org

Goal of Scoreboard

- CAP Move 5.G: Implement improvements for climate action data performance tracking and reporting progress to the public (e.g., community dashboard).
- Goals:
 - ◆ Track implementation progress
 - ◆ Improve transparency
 - ◆ Increase availability and accessibility of climate data for the public
- Target audience:
 - ◆ Community members
 - ◆ Boards/Commissions
 - ◆ Councilmembers
 - ◆ Other cities
- Scoreboard vs. Scorecard



Structure of Scoreboard

Scoreboard

- Snapshot of Strategies, Plays, and Moves
- Status of Move progress
- GHG emissions reductions

Playbook

- Storyboard of Playbook
- Deep dive into Plays
- Highlights key metrics
- Includes call to action

Scoreboard Landing Page

Current Score

The Climate Action Playbook is a plan for how our community can reduce greenhouse gas (GHG) emissions and address climate change. Just as a sports playbook identifies a team's winning strategies for achieving success on the field, the Climate Action Playbook contains winning strategies to meet California's new targets for deeper emissions reductions. We are aiming to reduce emissions by:

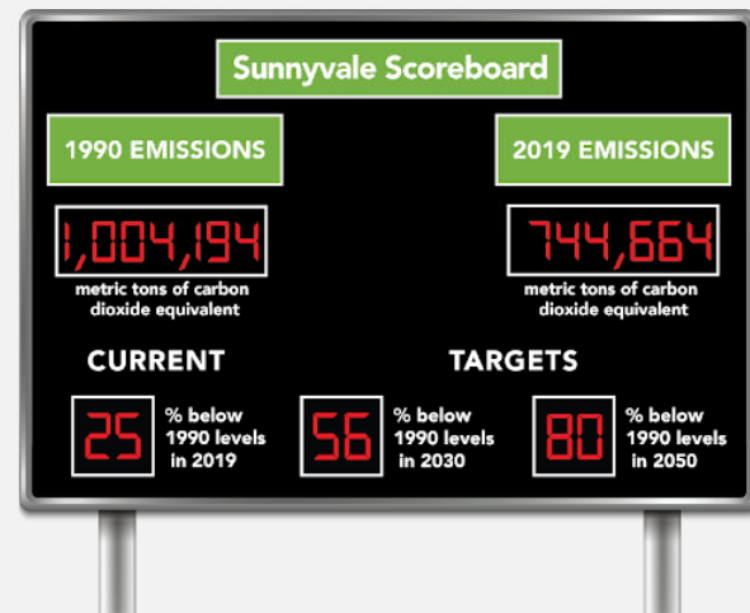
- **56% below 1990 levels by 2030** (exceeding the State's 40% by 2030 target), and
- **80% below 1990 levels by 2050.**

The Playbook lays out the following path to achieving these targets:

- **Six key Strategies** that outline the overarching approach for bold climate action
- **Eighteen Plays** within the Strategies that identify areas for action and measurable targets to define progress
- **Game Plan 2022**, which contains 46 "Next Moves" (specific actions) that the City and community can collectively take to address climate change.

As of 2019, Sunnyvale's community-wide emissions are 25% below 1990 levels, which are defined as 15% below 2008 by the [California Global Warming Solutions Act, AB32](#). We are making great progress but must keep playing to stay in the game to reach our 2030 target.

To learn more about sustainability efforts in Sunnyvale, [Read the full Climate Action Playbook](#) and visit the [City of Sunnyvale Sustainability webpage](#)



Scoreboard Landing Page


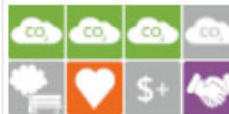

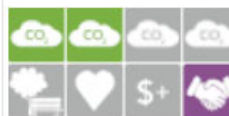
Game Plan 2022 At-a-Glance

The following table provides an at-a-glance view of the status of each one of our actions. Expand each Strategy and Play to find each of the Moves, it's status and the co-benefits it will provide the community as it is implemented.

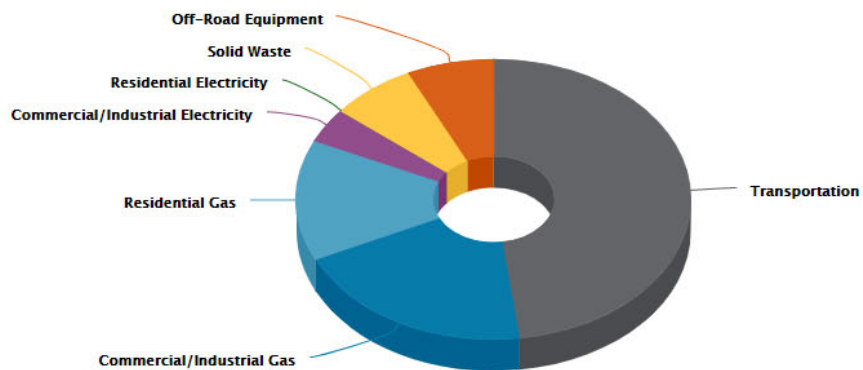
1: PROMOTING CLEAN ENERGY

Play 1.1

Promote 100% clean electricity

Move	Description	Timeline	Status	Co-Benefits
1.A	Continue to support and steer Silicon Valley Clean Energy (SVCE) in providing clean power and decarbonization programs.	FY20 - FY22	Complete 	
1.B	Collaborate with SVCE to target direct access customers to shift to 100% clean electricity.	FY20 - FY21	In Progress 	

Scoreboard Landing Page



GHG Emissions

2019 Inventory by Sector

The City tracks and reports on its sources of GHG emissions by developing a GHG inventory. The City's first inventory was for year 2008, and has been updated regularly since 2014. In the absence of 1990 emissions data by sector, the 2008 emissions are referenced throughout this Scoreboard. In 2019, communitywide GHG emissions totaled 744,664 metric tons of carbon dioxide equivalent (MTCO₂e). Knowing where the biggest sources of GHGs are helps us to prioritize actions around the biggest opportunities for reductions. Transportation emissions arise from fossil fuel-powered vehicles on city streets. Commercial and Residential Gas emissions come from heating buildings and water using natural gas. Emissions from Natural Gas use make up almost a quarter of our overall emissions. We can anticipate the emissions in these sectors to remain high until we transition those activities to run on clean electricity and improve alternative means of travel within the city.

Playbook Page

Playbook



Promoting Clean Electricity →

Every year we add enough new local solar to power 245 homes! Is yours next?

[What is Clean Electricity? →](#)

[GHG Emissions from Electricity →](#)

[Promote 100% Clean Electricity →](#)

[Increase Local Solar →](#)



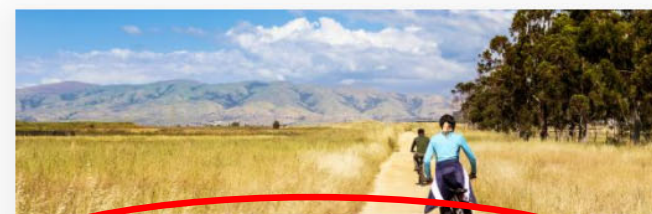
Decarbonizing Buildings →

The energy required to power our buildings makes up 38% of our GHG emissions. To reach our goals, they must be powered carbon-free.

[What is Building Decarbonization? →](#)

[Energy Use in Existing Buildings →](#)

[Electrification of Existing Buildings →](#)



Decarbonizing Transportation - Sustainable Land Use →

Driving is up by 18%, but emissions are trending down thanks to cleaner vehicles!

[Addressing Transportation GHGs →](#)

[Reduce Vehicle Miles per Person →](#)

[Increase Shared Mobility Options →](#)

Decarbonizing Transportation Page

Decarbonizing Transportation - Sustainable Land Use

Driving is up by 18%, but emissions are trending down thanks to cleaner vehicles!

Addressing Transportation
GHGs



Reduce Vehicle Miles per
Person



Increase Shared Mobility
Options



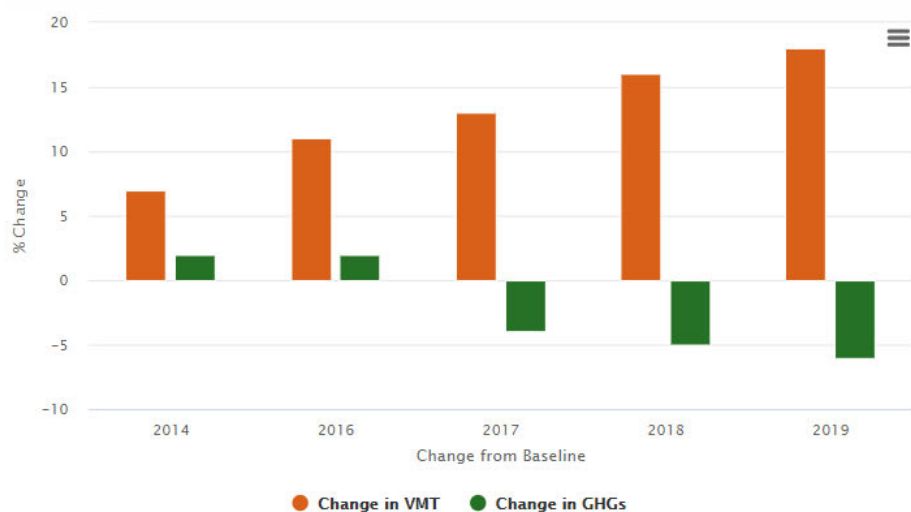
Increase Zero-Emission
Vehicles



Be Part of the Solution



Decarbonizing Transportation Page



Addressing Transportation GHGs

More Miles Driven But With Cleaner Vehicles

Since our 2008 baseline inventory each year the number of vehicle miles traveled has increased as our city and region have continued to grow. Even in those early years of climate action, our GHGs were not rising in step with increases in the number of miles driven.

Decarbonizing Transportation Page



Play 3.2: Increase shared mobility options

Active Transportation Plan

The City just released an update to our Active Transportation Plan! This document lays out a plan to improve pathways for biking and walking throughout the city with extensive recommendations to ensure Sunnyvale residents of all ages abilities can choose healthy and safe modes of travel.

More information about the plan process is available on on the [City of Sunnyvale website](#) and [download the full plan](#) to learn about all the changes coming to our shared streets.

Decarbonizing Transportation Page

Be Part of the Solution

Resources for Active and Electric Transport

Gas-powered vehicles are the largest source of emissions in Silicon Valley. Switching to an electric vehicle powered with clean electricity or getting around under your own power by biking or walking is often the single biggest action one can take to protect the planet and doesn't require sacrificing comfort and is often more fun!



Driving electric saves money! Take charge and lead the way to kick fossil fuels for good!

Take charge and kick fossil fuels for good!



EV Assistant can help you browse and compare cars, discover electric vehicle incentives and savings, and find charging options for home and on the road.

Learn more



Stay up to date on new opportunities for electric driving and more by signing up at the bottom of the page

Sign up



Questions?

Thank you!