

# Flagstaff Climate Action Update

Jenny Niemann, Climate and Energy  
Specialist, City of Flagstaff

[Jniemann@flagstaffaz.gov](mailto:Jniemann@flagstaffaz.gov)

## Agenda:

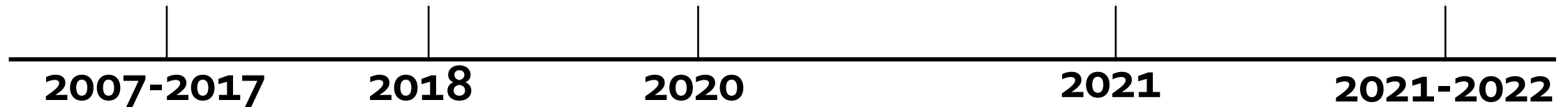
- 1) Flagstaff's climate action planning progression
- 2) Path to carbon neutrality
- 3) Discussion

# Flagstaff's climate work on paper

- 2007:** joined the US Mayors Climate Protection Agreement
- 2018:** Adopted the Flagstaff Climate Action and Adaptation Plan
- 2020:** Council Declared a Climate Emergency

Background  
climate work  
and base-  
building

- **US Mayor's Climate Protection Agreement**
- **Energy efficiency programming**
- **Resilience and Preparedness Study**
- **Greenhouse gas inventories**



Background  
climate work  
and base-  
building



2018  
Climate  
Plan

- **Mitigation**
- **Adaptation**
- **Equity**

2007-2017

2018

2020

2021

2021-2022

A large crowd of people is gathered in a community hall, filling the room from the back to the front. In the foreground, a long wooden table is set up with various items including papers, a laptop, and a microphone. Several people are seated at this table, some looking towards the camera and others looking down at their work. The hall has a high ceiling with exposed wooden beams and a stone wall on the right side. The overall atmosphere is one of a significant community gathering.

# The Climate Emergency Declaration

**September 20, 2019**

Flagstaff community members gathered signatures for a petition requesting a Climate Emergency Declaration

**January 28, 2020**

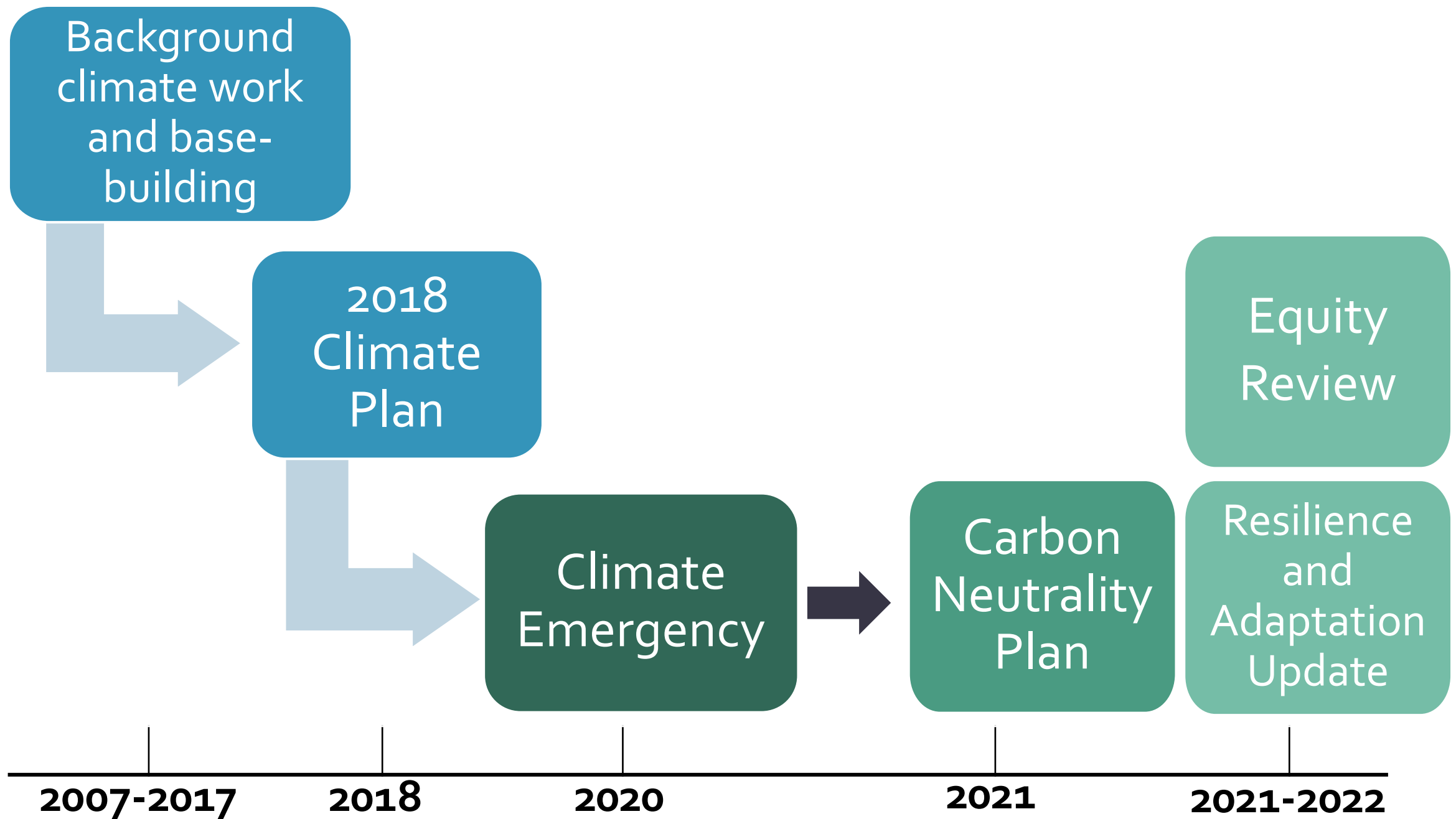
Hundreds of well-organized community members spoke at City Council, making the case for the climate emergency declaration

**June 23, 2020**

The Climate Emergency Declaration Resolution 2020-09 was adopted unanimously by City Council

# The Climate Emergency Declaration

1. Dramatic increase in **ambition**
2. City-wide **mobilization**
3. **Educating** residents and **engaging** youth
4. Full **community** participation
5. Prioritize **vulnerable communities**
6. Nationwide call for **mobilization**
7. Sets a goal of **carbon neutrality by 2030**
8. Calls on **all governments** to act



# Climate action through a regional plan

- Importance of the comprehensive / regional plan
  - Development approvals
  - Transportation planning
  - Specific plans

2014 Flagstaff  
Regional Plan

Regional  
Plan  
Amendment

2024 (?)  
Regional  
Plan

2018  
Climate  
Plan

Climate  
Emergency

Carbon  
Neutrality  
Plan

2007-2017

2018

2020

2021

2021-2022

# Climate action outside of a climate plan

- **Other plans**
- **Investments and infrastructure**
- **Policies and codes**

## Plans

Regional  
Transportation  
Plan

High  
Occupancy  
Housing Plan

Active  
Transportation  
Master Plan

## Investments

FWPP Forest  
Treatment  
program

New  
transportation  
tax

Street  
Standard  
Revisions?!

## Policies

NAU campus  
parking fees

2018  
Building  
Codes

2025 Building  
Code Update

2014

2016

2018

2020

2022

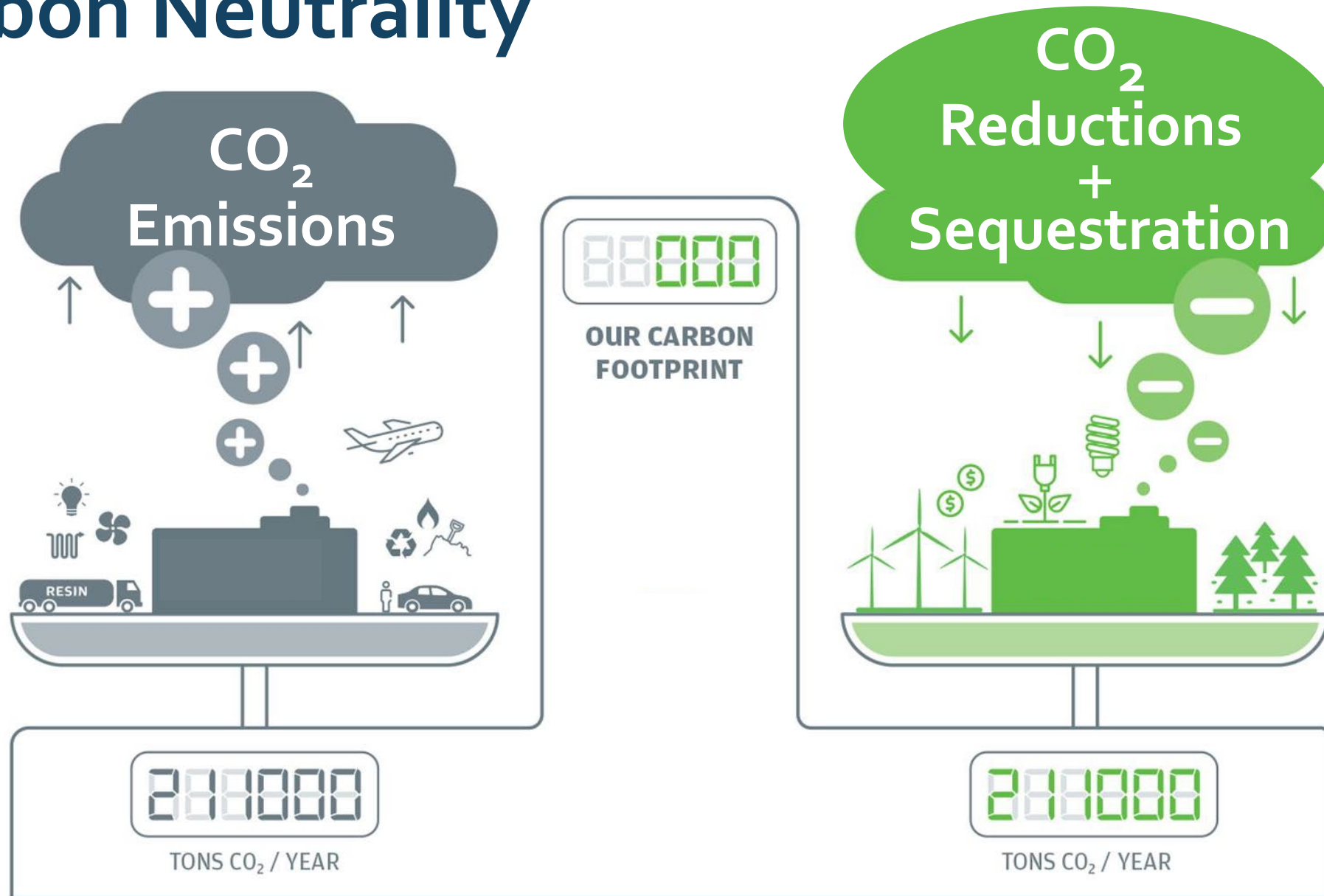
2024



# How we'll get to carbon neutrality

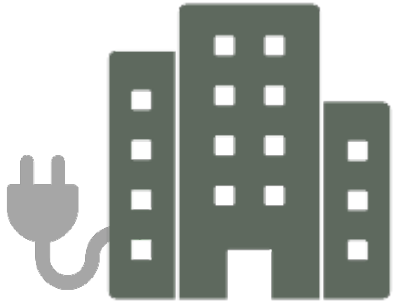
- Cleaner **Electricity**
- Reducing Building **Energy** Use
- Building **Fuel** Switching
- **Materials** Management
- **Transportation** Shift
- **Electric** Mobility
- Carbon **Sequestration**

# Carbon Neutrality



# Flagstaff's Greenhouse Gas Emissions

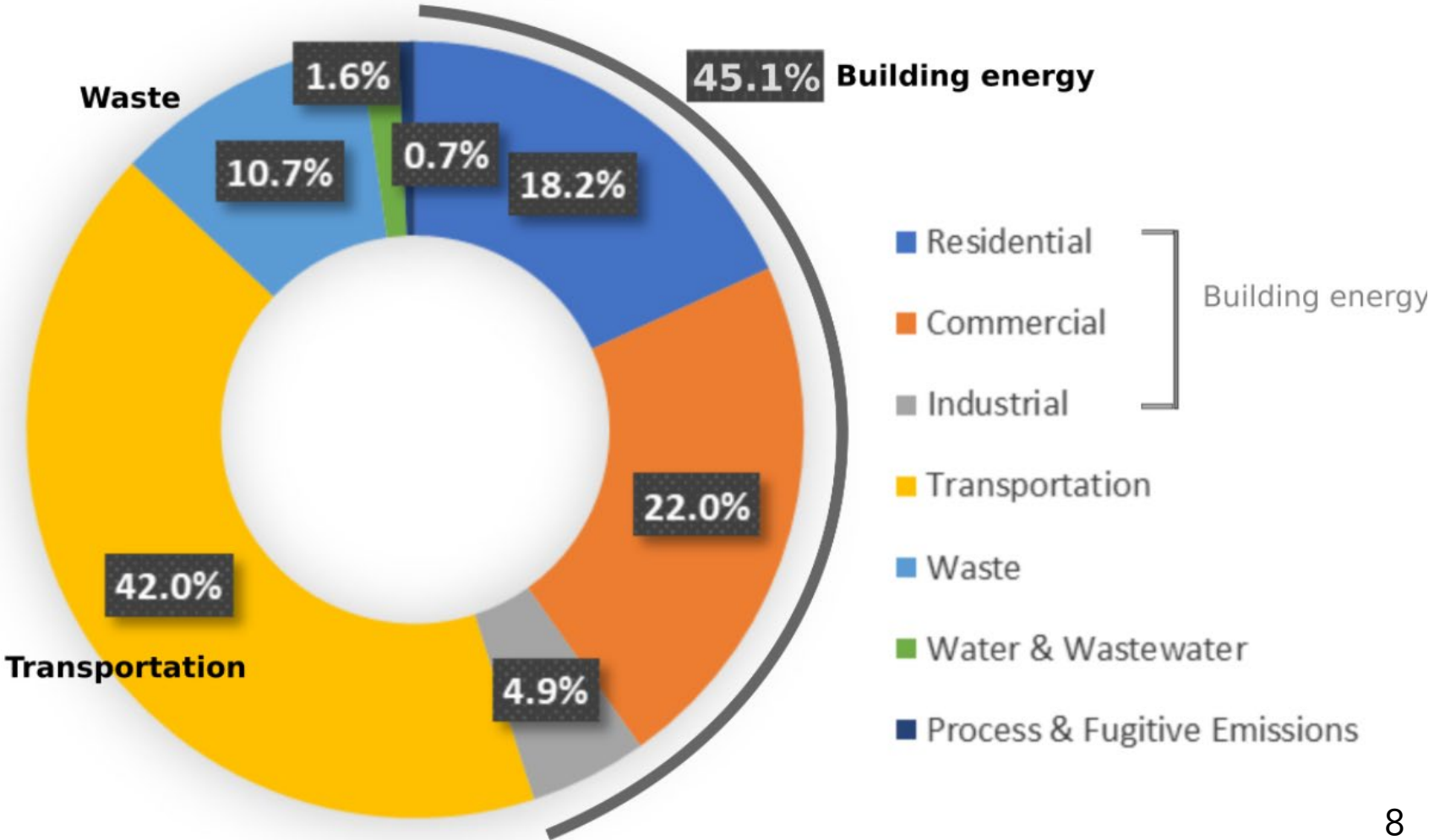
#1  
Powering  
Buildings



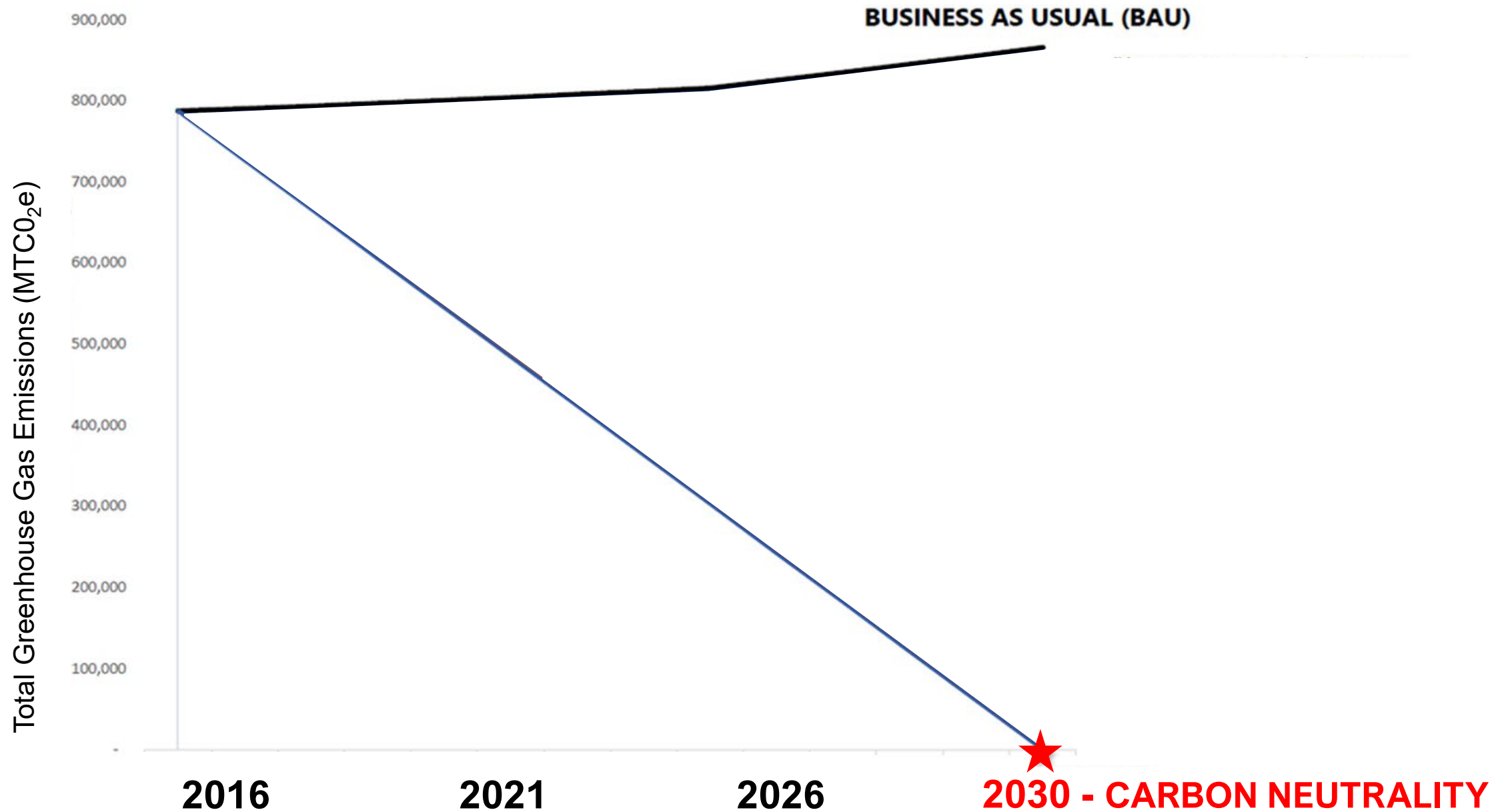
#2  
Car Emissions



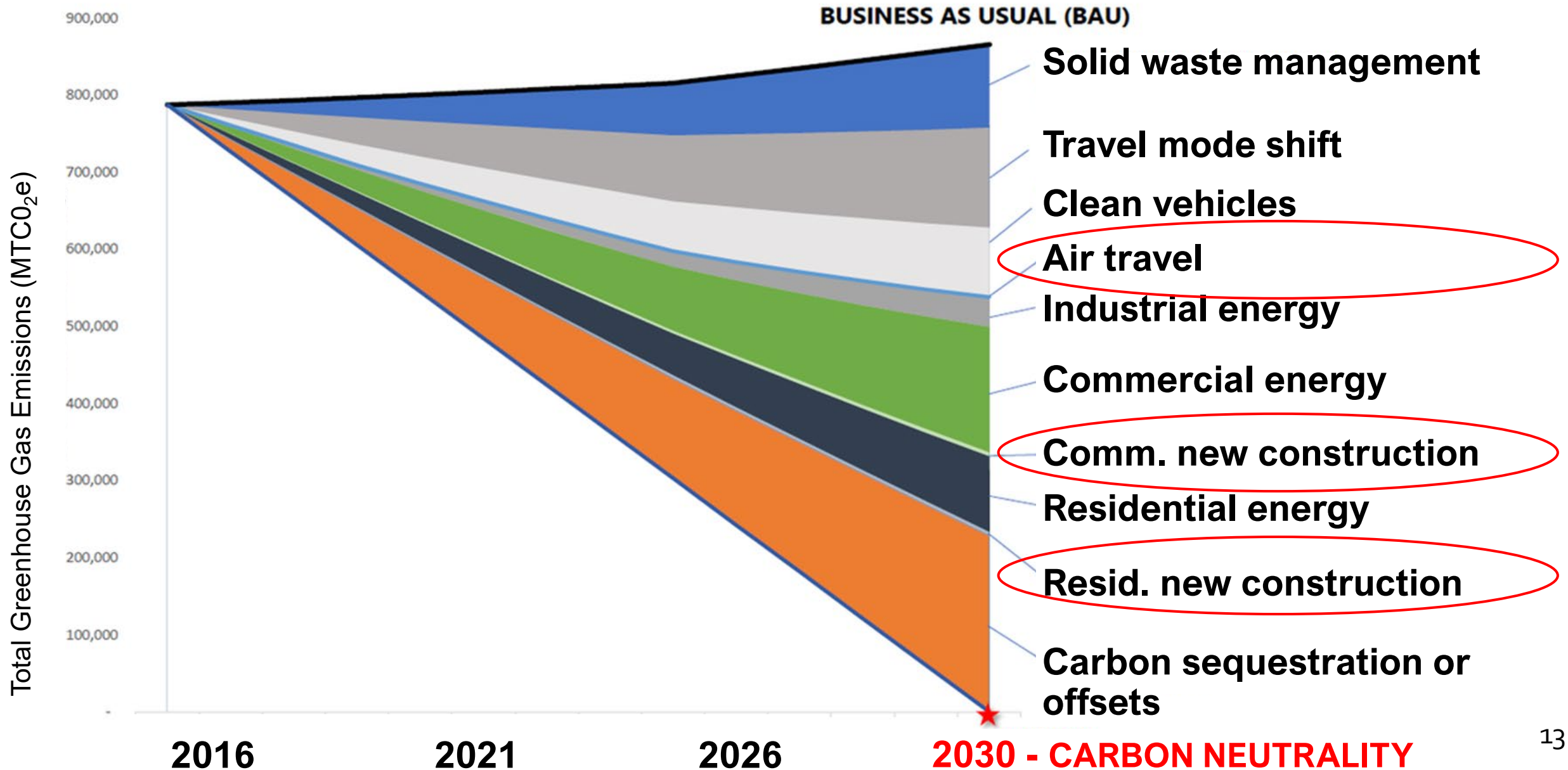
Community Emissions by Sector: 2016 and 2018 Average



# Preliminary Emission Reduction Targets Needed to Achieve Carbon Neutrality



# Preliminary Emission Reduction Targets Needed to Achieve Carbon Neutrality



# Carbon Neutrality Pathways

## Scenario A: Transformative change

Doing everything we can to reduce emissions before relying on sequestration.

- Disruptive, systemic shifts in transportation and land use.
- Relies as little as possible on carbon sequestration.

## Scenario B: Behind the scenes

Focus on easier changes and technological advancement. Avoids the most disruptive changes.

- LOWER emissions reductions.
- MORE carbon sequestration.

# Cleaner Electricity

## What it means

100% of our electricity will come from sources that do not emit greenhouse gasses.

## How we get there

- SOLAR!
  - Now the cheapest energy source in history.
  - Solar United Neighbors
  - Potential Red Gap Ranch solar project.



# Reduced Building Energy Use

## What it means

Reducing emissions from heating, cooling and powering buildings by 80% by 2030.

## How we get there

- More efficient buildings
- More aggressive building codes: eventually requiring net zero energy buildings.
- Retrofitting 12,500 homes by 2030.



# Fuel Switching

## What it means

Shifting from fossil fuels to electricity for water heaters, furnaces, stoves, industrial processes.

## How we get there

- Electrify everything.
  - Retrofit 12,500 homes by 2030.
  - Electrify City-owned buildings.
- State legislation.



# Materials Management

## What it means

- Reducing consumption
- Diverting more materials from the landfill

## How we get there

- Composting drop-off sites.
- Landfill gas collection and flare system.
- Large-scale digestion and solar installations at the landfill.



# Transportation: The Big Shift

## What it means

- Depending far less on cars.
- Taking many more trips by walking, biking and the bus.
- Accepting appropriate density.

## How we get there

- Commitment to transformation, bold action and difficult decisions.
- 15-minute neighborhoods.
- Investment in active transportation infrastructure.



# Electric Mobility

## What it means

- New electric mobility: e-bikes, e-bike share, hoverboards, scooters.
- Electric busses (Mountain Line)
- Electric vehicles.

## How we get there

- Electrification is not a silver bullet: priority must be reducing car usage.
- Welcoming new technologies and modes of travel.
- Prioritizing the vehicles driving the most miles.



# Carbon Sequestration

## What it means

The process of capturing and storing atmospheric carbon dioxide, removing it from the atmosphere.

## How we get there

- The amount of sequestration needed depends on the amount of emission reductions we achieve through climate action.
- Exploring regenerative agriculture, meadows, and forests.
- Red Gap Ranch is a possible site for an innovative sequestration project.

