

Semi-Annual CNP Progress Report

April 8, 2025

Agenda

- Foundations
- Progress Updates by Sector
- 2025 Update to the CNP



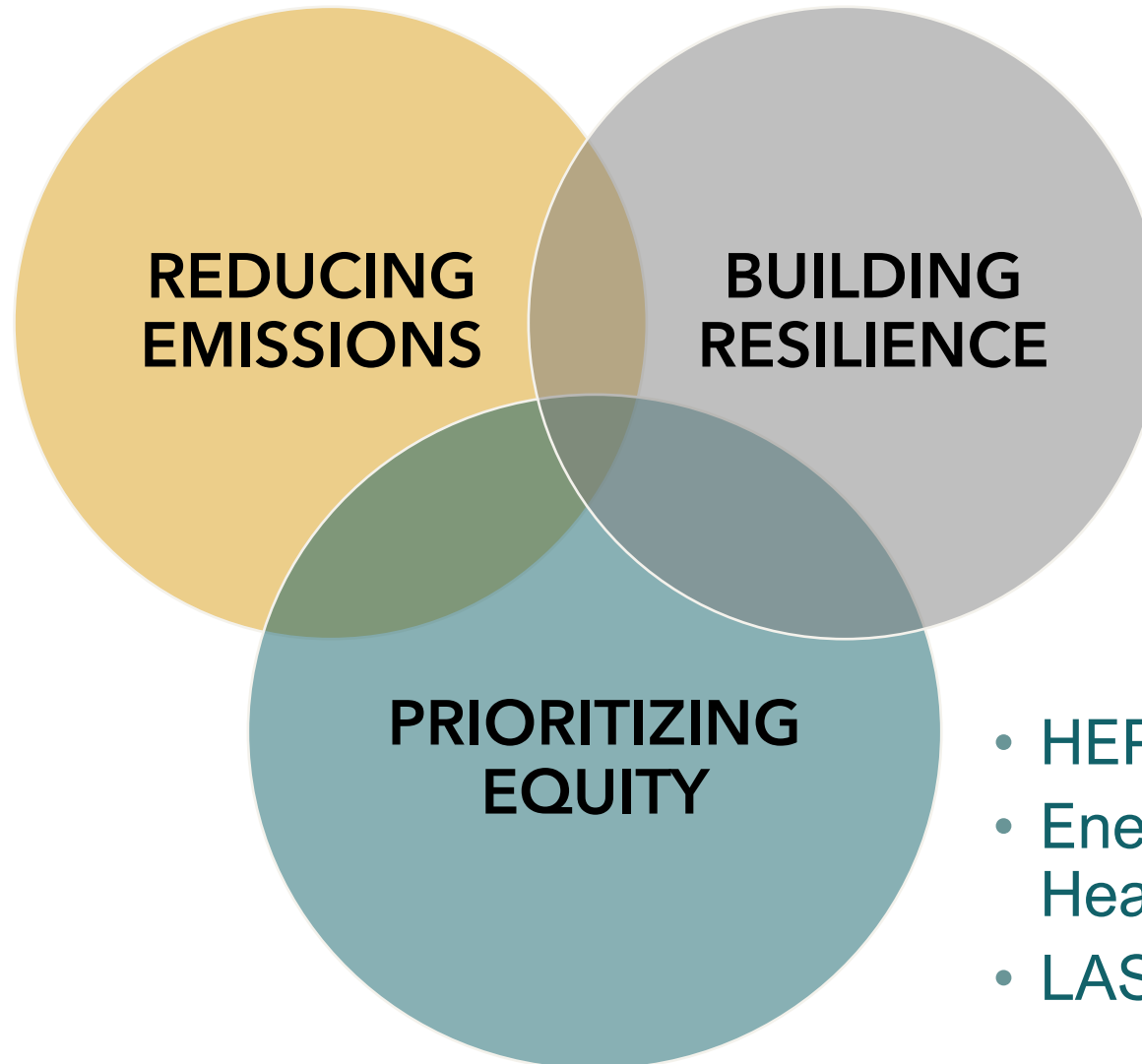
Foundations



CNP Goals

with project examples

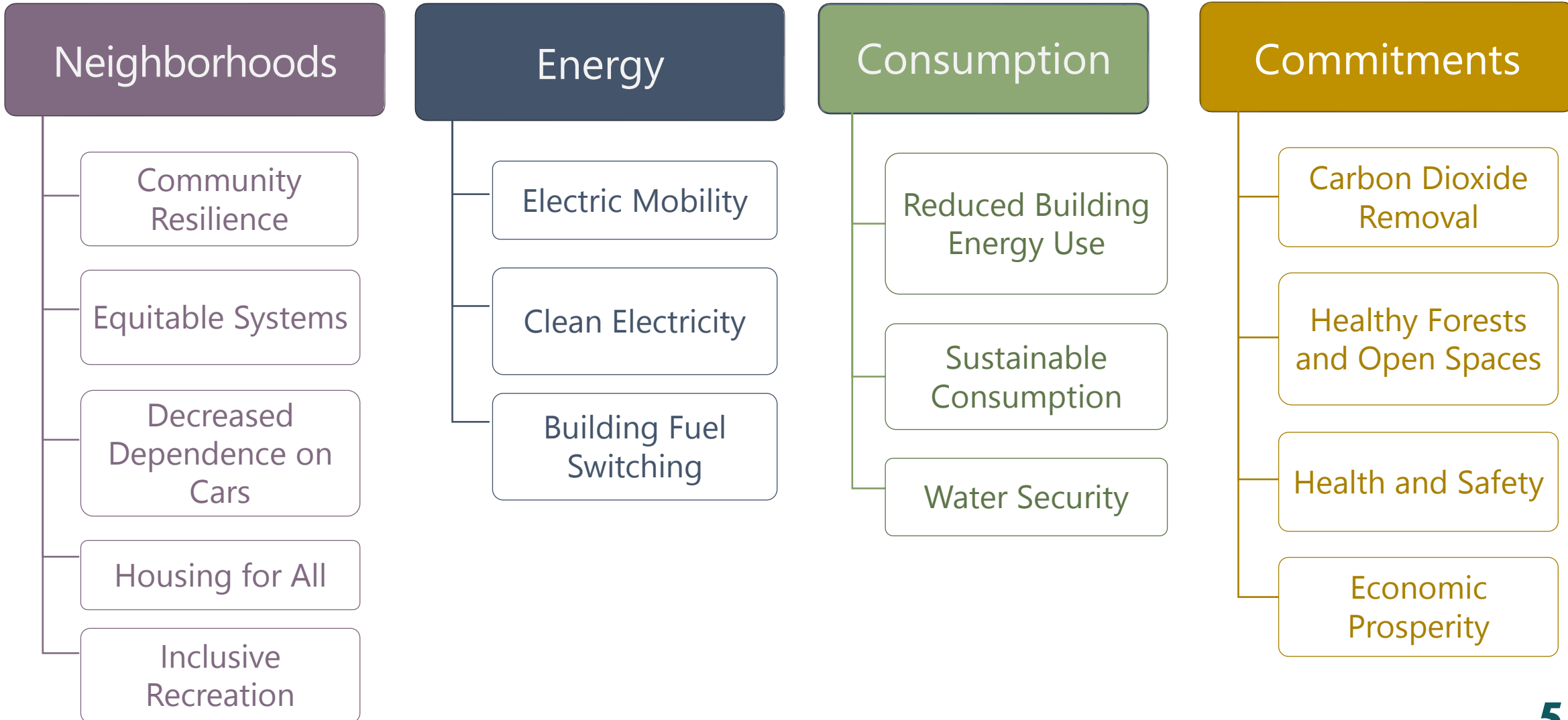
- Solar infrastructure
- Incentives for energy efficiency and electrification
- City-wide Energy and Water Conservation Project



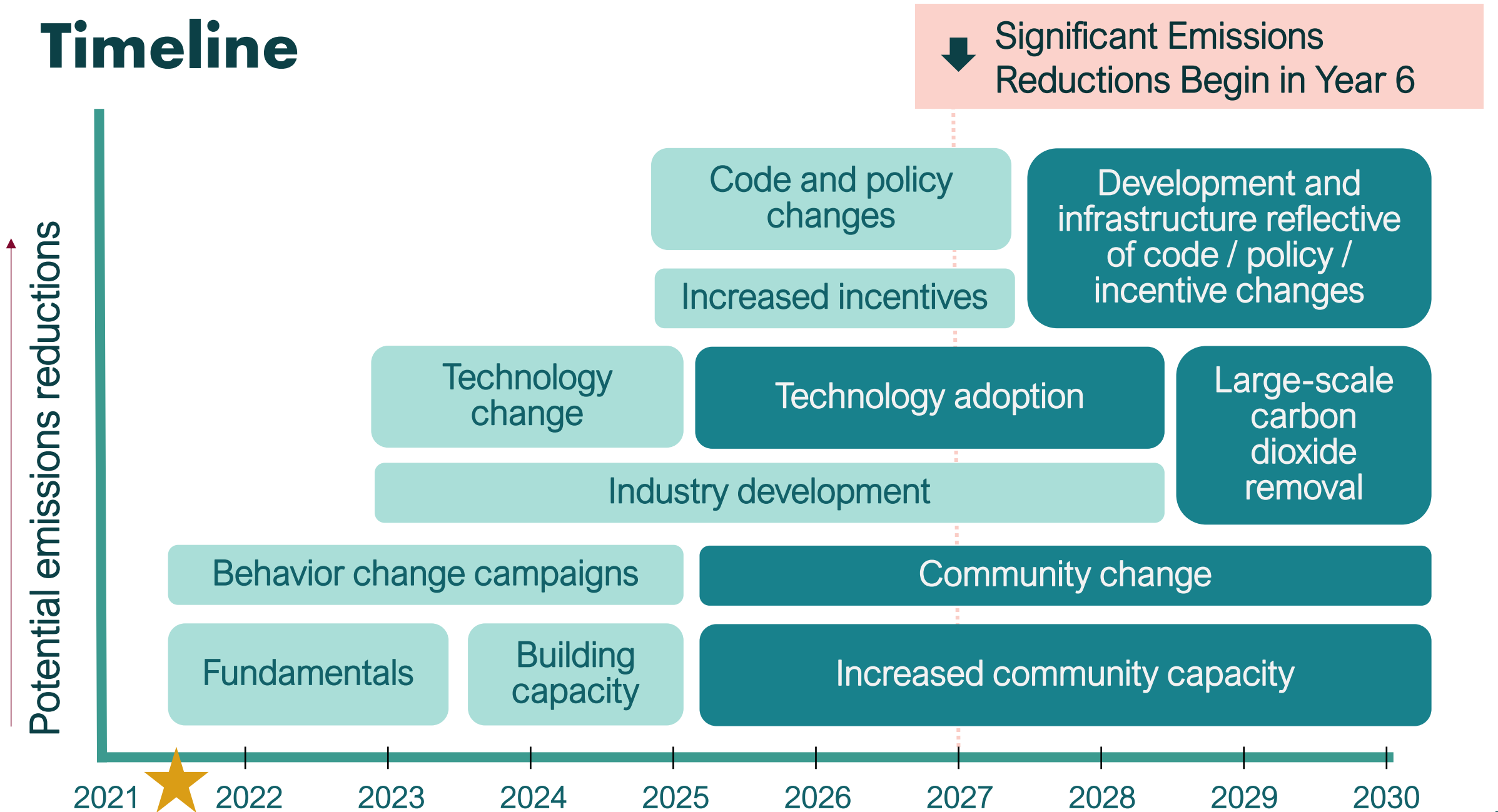
- Floodproofing materials grants
- Forest health collaborations
- Rio de Flag Stream Stewards

- HEPA filter distribution
- Energy Upgrades for Healthy Homes Program
- LASS-CAP

Climate action provides resources across the community



Timeline

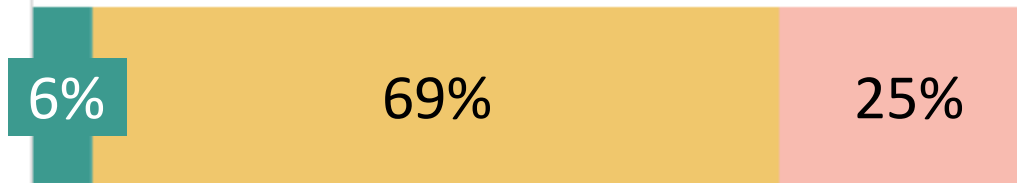


Progress Update

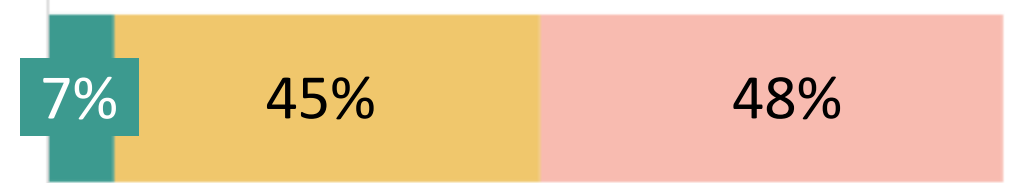


CNP Actions Update: 58% of actions are completed or in progress

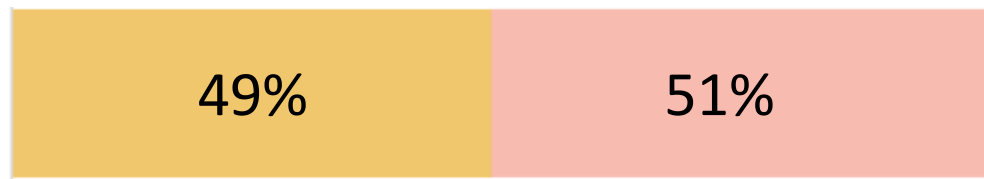
Priority 1: Neighborhoods



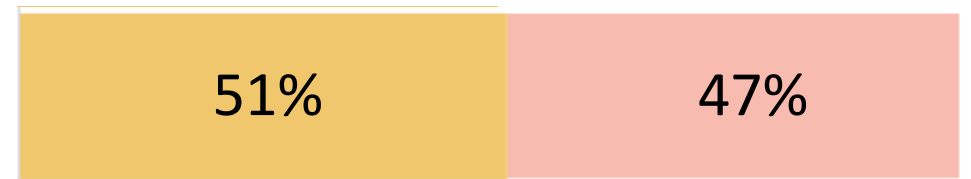
Priority 2: Energy



Priority 3: Consumption

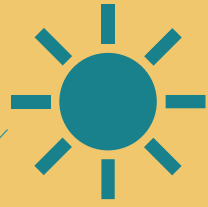


Priority 4: Commitments



■ Done ■ In Progress ■ Not started

BUILDING ENERGY



Renewable energy



**Energy efficiency +
electrification**

WHERE:

City-owned buildings

Community buildings

Progress: Renewable Energy

Sector	Goal	Progress
Residential solar systems	2,000 systems 10 MW	<u>68% complete</u> 1,082 systems added 6.8 MW added
Solar on commercial and industrial buildings	15 MW	<u>2.6% complete</u> 0.4 MW added
City solar	100% of City electricity from City solar or power purchase agreements	Goal met!



Actions: Renewable Energy

Foundations

- Building code – solar readiness
- Northern Arizona Solar Co-op
- Rebates for energy service upgrades
- Municipal solar systems

Upcoming Actions

- Engaging businesses to encourage commercial installations
- Building code updates
- More solar co-ops
- Solar for All Arizonans grant: \$156M to install residential and community solar throughout the state.



Highlight: Green Business Boot Camp

- Learn from experts
- Connect with other local businesses
- Develop projects
- Gain access to resources
- First in-person cohort May 1 – June 12
- Partnership with Local First Arizona, Economic Vitality, and Sustainability



Progress: **Building Energy Use**

Sector	Goal	Progress
Residential Buildings	Retrofit 50% of existing homes (12,500)	<ul style="list-style-type: none">• 509 homes supported through City Energy Rebates• Community-wide data not available
Commercial Buildings	Deep energy efficiency retrofits for 25% of existing buildings	Data not yet available
	15% of commercial buildings fully electrify	Data not yet available



Actions: **Building Energy Use**

Foundations

- Weatherization and Energy Rebates
- Community engagement and education on energy efficiency and building electrification
- Green Business Boot Camps
- Residential Sustainable Building Incentive

Upcoming Actions

- Energy Upgrades for Healthy Homes (HUD-funded retrofits)
- Building code updates
- State energy rebates
- Heat Pump Bulk-Buy
- Heat Pumps for the Sustainability Office (grant funded)



Highlight: Home Weatherization & Energy Rebate Program

FY25 Stats:

- 140 households assisted
- 1st heat pump dryer
- Closed for the year

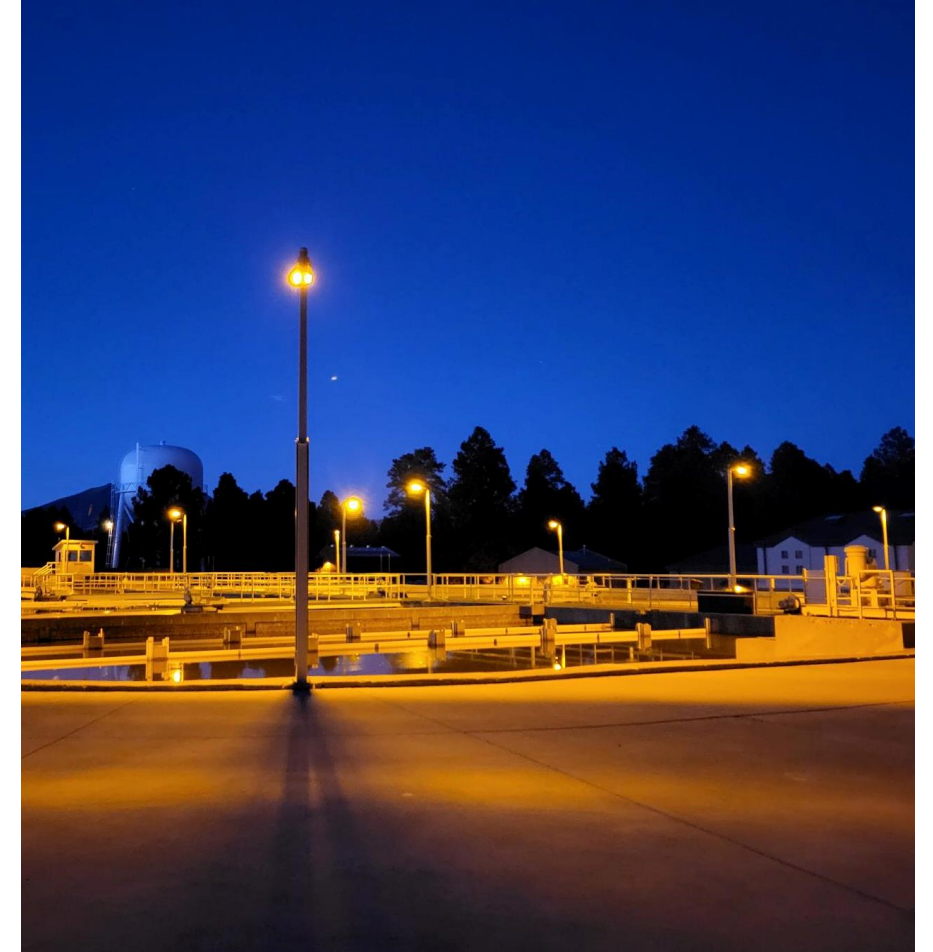
FY26 Changes:

- Improve accessibility and equity



Highlight: City-wide Energy & Water Conservation Project

- 6,851 lights retrofitted to LEDs
- 30 facilities improved weatherization
- 730 MTCO₂e avoided annually (equivalent to ~100 homes energy use for a year)
- \$225,000+ saved annually on utility bills



TRANSPORTATION



**Vehicle
electrification**



**Decreasing car
dependency**

WHERE:

City travel

Community travel

Progress: **Electric Mobility**

Topic	Goal	Progress
Portion of our travel that is electric	30% of vehicle miles traveled will come from electric vehicles	<ul style="list-style-type: none"> 1,082 EVs registered in Flagstaff (1.3% of total vehicles registered)* Continuing to work with partners on VMT composition data
COF fleet	All new COF sedans and SUVs will be EVs (2022)	EV-first policy – electrification considered for every vehicle
Charging Stations	Provide 50 community charging stations	<p><u>36% complete</u></p> <p>18 EV charging stations installed</p>
	Provide additional EV charging stations for fleet as needed	<ul style="list-style-type: none"> 39 EV stations + 10 outlets for EVs across 14 COF facilities

*Source: APS – EPRI Analysis of Experian Data, 2025

Actions: **Electric Mobility**

Foundations

- APS-sponsored community EV charging stations
- COF fleet chargers
- EV-First Policy
- Fleet Electrification Assessment
- Fleet rightsizing

Upcoming Actions

- EV charging fees for public use for Council review on May 6 and May 20 (for effective date July 1)
- EV Ride and Drive: May 30-31
- Expanding EV infrastructure at COF facilities
- Streamlining EV procurement



Highlight: COF's Growing Electric Fleet



Progress: **Active Transportation**

Topic	Goal	Progress
Vehicle Miles Traveled (VMT)	Maintain 2019 VMT levels	2025 Flagstaff Trip Diary Results: <ul style="list-style-type: none"> • Pedestrian mode share up 1% • SOV usage down 5%
Density and Access to Transit	20% increase in residential density	LASS-CAP and Regional Plan are analyzing opportunities for new density.
	25% decrease in distance to transit	
Active Transportation Master Plan	Full funding and rapid implementation	Significant funding achieved for Butler Avenue, Downtown mile pedestrian and bike connections.



Actions: Active Transportation

Foundations

- Active Transportation Master Plan
- Butler Avenue iterations
- Road right-sizing
- Vulnerable Road Users Risk Exposure Assessment by MetroPlan
- E-bike fleet optimization

Upcoming Actions

- MetroPlan's Safe Routes to School work to improve active transportation connectivity for schools.
- Safe Streets Master Plan - led by Engineering, Planning, MetroPlan
- Micromobility share engagement is ongoing



Highlight: COF E-Bike Fleet

- **17 e-bikes** in the City's fleet
- **8 facilities** using e-bikes for city operations
- **Water Services** rides 100+ miles a month!
 - Traveling between water plants
 - Collecting water quality samples
 - Investigating water supply lines



OPTIMIZING CONSUMPTION



Food



Waste

Progress: Waste Reduction and Food Systems

Topic	Goal	Progress
Landfill emissions	Reduce methane emissions from the landfill by up to 98%	<ul style="list-style-type: none">- Landfill methane emissions increased 4% from 2016 to 2023- Landfill operations moving to a lined cell
Landfill diversion	80% community waste prevented and diverted from landfill	<ul style="list-style-type: none">- 13% diversion rate in 2023*



Actions: Waste Reduction

Foundations

- Community waste prevention events
 - Fix-It Clinics and Drop-Off Days
 - Treecycling and Pumpkin Drop-Off
- Behavior change education and marketing
- Recycling education in schools, for organizations, and through Recycle by City
- Residential food scraps drop-off

Upcoming Actions

- Zero Waste Ambassadors
- Food Recovery Business Feasibility Study
- Increasing volume at food scrap drop-off locations

Highlight: Residential Food Scraps Drop-Off

- **5** locations:
 - Flagstaff Family Food Center
 - Hal Jensen
 - Flagstaff CSA & Local Market
 - The Aquaplex
 - Bow and Arrow Park
- **23,000+** pounds collected since April 2024
- **486** residents participate yearly



Actions: **Food Systems**

Foundations

- 3 community gardens
- Coop & composter rebates
- Animal keeping support
- Zoning code: established “urban farm” as a land use

Upcoming Actions

- Establish new growing space at McAllister Ranch
- Food Action Plan—Phase 3 of USDA grant project
- Full Circle Garden Workshops



Highlight: Full Circle Garden Workshops

- **Free workshops** on community-requested topics that encompass the whole gardening process
- **Partnerships** with local growers and educators
- **Connecting** Flagstaff gardeners with local experts' knowledge and experiences in our unique growing climate



**BUILDING
RESILIENCE**



**IMPROVING
EQUITY**



OUTCOMES

- **Improved health**
- **Connected neighborhoods**
- **Prepared communities**
- **Reduced living costs**

Actions: **Community Equity**

Foundations

- Equity Climate Advisory Group
- Youth Climate Advisory Group
- Sustained engagement via social media
- HEPA filter distribution

Upcoming Actions

- Wood stove rebates
- Equity Fellow
- Energy Upgrades for Healthy Homes (HUD-funded)



Highlight: Energy Upgrades for Healthy Homes

- Available to Flagstaff residents below 80% AMI
- Free energy upgrades such as:
 - Heat pump
 - Upgraded insulation
 - Induction stove
- Apply today!
 - Flagstaff.az.gov/EUHH



Actions: **Community Resilience**

Foundations

- Neighborhood Sustainability Grants
- Stream Stewards
- Neighborhood Engagement and Volunteer Services
- Climate Resilience Project
- Flood prevention grants

Upcoming Actions

- Pine needle clean-ups across Flagstaff neighborhoods
- Volunteer Hub: Official Launch in July 2025
- Stewardship Hubs
- Resilience Hubs continue building community strength



Highlight: Community Workshops at the Resilience Hubs

Community Building workshops:

- Ready Set Go
- DIY HEPA Filters
- Financial Emergency Preparedness
- Neighborhood Resilience Leadership
- Storytelling and Creativity



Highlight: Join us at Earth Day!

You're invited to the...

EARTH DAY CELEBRATION



**Sat., April 19
11 am - 2 pm**

 **Bushmaster Park**
(3150 N. Alta Vista Dr.)



Learn more at www.flagstaff.az.gov/EarthDay

- 50+ local exhibitors talking about FUN ways to take action!
- Workshops!
- Free bus rides!
- Bike fix-it station!
- Community clean-up!
- Music!
- Food!

Actions: Carbon Dioxide Removal

Foundations

- Four Corners Carbon Coalition
- Innovate Green Pitch Competition

Upcoming Actions

- International CDR Coalition
- Engineering requirements for concrete – monitoring and encouraging changes at the federal and state levels
- Continuing to seek funding



Highlight: Innovate Green



INNOVATE GREEN
BUSINESS SOLUTIONS TOWARDS
A MORE RESILIENT FLAGSTAFF

Ready to win your share of
\$30,000?
Join the 2025 Innovate
Green Challenge!

ELIGIBILITY:

- Applicants must be in Flagstaff
- Ideas must reduce or remove carbon dioxide, convert waste into marketable materials or conserve water

CHOOSE FLAGSTAFF THE CITY OF INNOVATION
FLAGSTAFF SUSTAINABILITY OFFICE
ESTABLISHED 1909



- Our Innovate Green Challenge takes place this weekend: April 11th and 12th.
- Innovate Green - formerly known as the *Innovate Waste Carbon Neutrality Challenge* – catalyzes sustainable solutions and supports local businesses.
- Past winners have focused on carbon dioxide removal – as well as forest health, waste reductions and public health.

UPDATE TO THE CARBON NEUTRALITY PLAN



- **Data update**
- **Progress update**
- **Municipal operations plan**
- **Equity scan**
- **Resilience and adaptation connections**
- **Redesign**

CNP Update Goals

- Update the Plan to reflect progress in the four years since adoption.
- Improve community understanding of the CNP.
- Elevate adaptation priorities and reference the existing plans and ongoing work related to adaptation.
- Advance COF understanding and implementation of the CNP.
- Expand the implementation of community equity goals.



CNP Update **Content**

Data Update

- Past greenhouse gas emissions
- Greenhouse gas emissions projections

Progress Update

- CNP actions completed
- New CNP actions
- New areas of collaboration



Municipal Operations Plan

- Plan reorganization to highlight municipal actions.
- Findings from Climate Action Leadership workshops with COF Divisions.

Equity Scan

- Stronger integration of equity in each target area, including vulnerability analysis findings.
- Equity-Climate Advisory Group input.



Resilience and Adaptation Connections

- Improved references to other COF plans that contribute to Flagstaff's resilience and preparedness.
- Climate Profile update.
- Incorporation of and updates to the COF Resilience and Preparedness Study.

Redesign

- Reorganization.
- Professional design.
- Online CNP dashboard.

CNP Update Process

The community will have frequent opportunities to learn about the Plan update and provide feedback.

- **Spring and Summer:** Progress updates to Council
- **Quarterly:** Progress updates to the Sustainability Commission
- **Fall 2025:** Community workshops
- **Ongoing:** Monthly Climate and Coffee meetings
- **Ongoing:** Topic-specific deep-dives offered through community events.
- **Spring 2026:** Final draft presented to Council

Thank You!

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See you at
Earth Day!
April 19th
Bushmaster Park

Jenny Niemann

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Many adopted plans focus on climate adaptation - including fire, flooding, and drought

The Carbon Neutrality Plan (CNP) intersects with and supports many other City of Flagstaff, Coconino County, and regional plans. These initiatives, crucial for adapting to a changing climate, are overseen, and executed by multiple divisions within the City of Flagstaff and other entities across Northern Arizona.

Some of the relevant intersecting plans are listed, and linked, below:

1. [Flagstaff Regional Plan](#)
2. [Airport Emergency Operations Plan](#)
3. [City of Flagstaff Emergency Operations Plan](#)
4. [Coconino County All Hazards Emergency Operations Plan](#)
5. [Carbon Neutrality Plan](#)
6. [Forest Stewardship Plan](#)
7. [Coconino County Multi-Jurisdictional Hazard Mitigation Plan](#)
8. [Community Wildfire Protection Plan](#)
9. [Flagstaff Watershed Protection Project](#)
10. [Hazardous Fuels Mitigation Guidelines](#)
11. [Rio de Flag Flood Control Project](#)
12. [Stormwater Strategic Plan](#)
13. [Water Conservation Strategic Plan](#)
14. [Water Services Strategic Plan 2025](#)
15. [Water Services Integrated Master Plan and Council-Adopted Water Policies](#)

CLIMATE ACTION PRINCIPLES



Carbon neutrality is:

1. *Community-driven*
 2. *Motivated by urgency*
 3. *Prescriptive*
 4. *A commitment to accountability*
 5. *An investment in our future*
 6. *Supported by market leaders*
-

Flagstaff will:

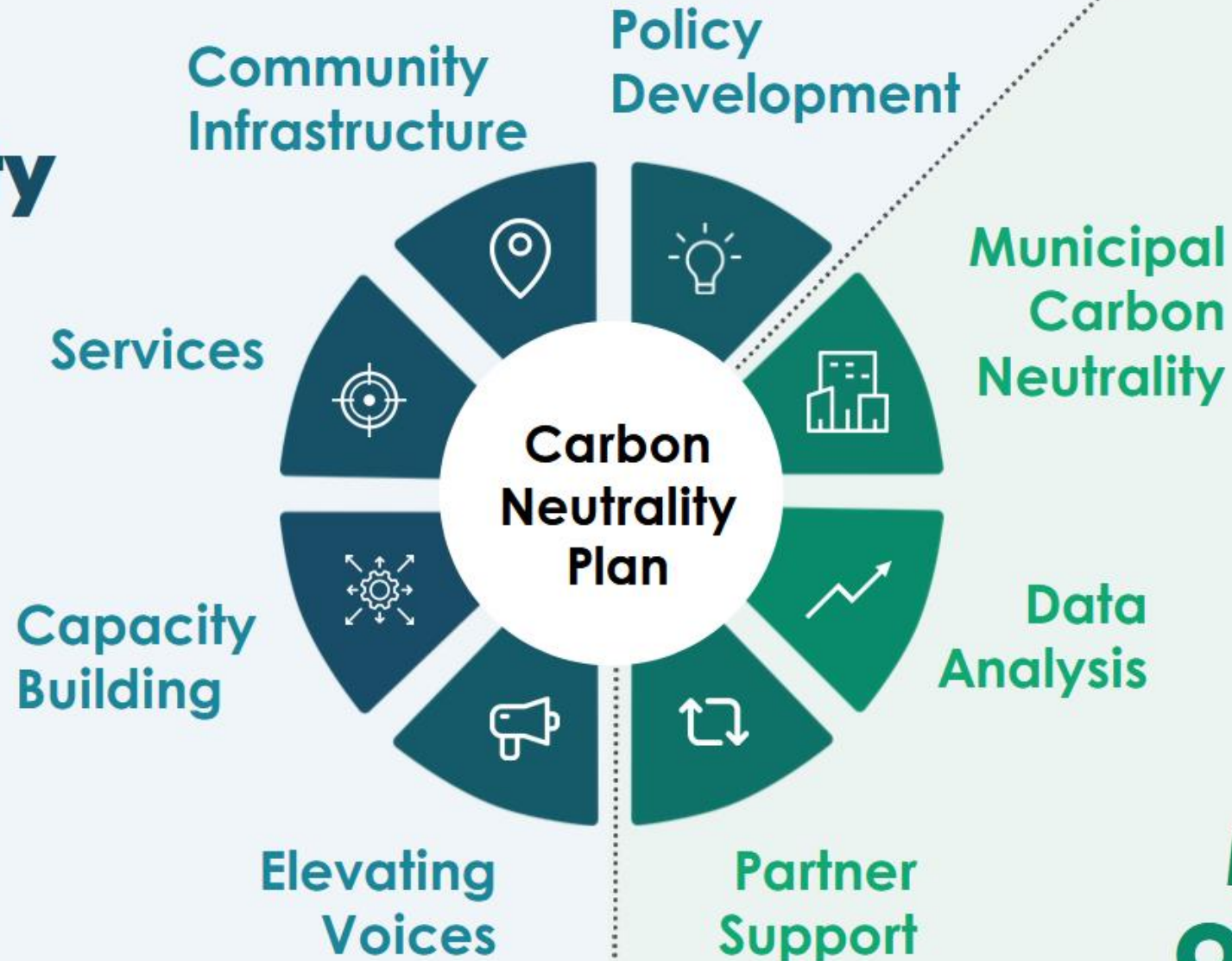
7. *Be a leader*
 8. *Embrace the Big Shift*
 9. *Balance community tensions and create opportunities*
 10. *Center equity and adaptation*
-

Climate action in Flagstaff will:

11. *Produce co-benefits*
12. *Rely on partnerships*
13. *Priorities incentives*
14. *Iterate and adapt over time*

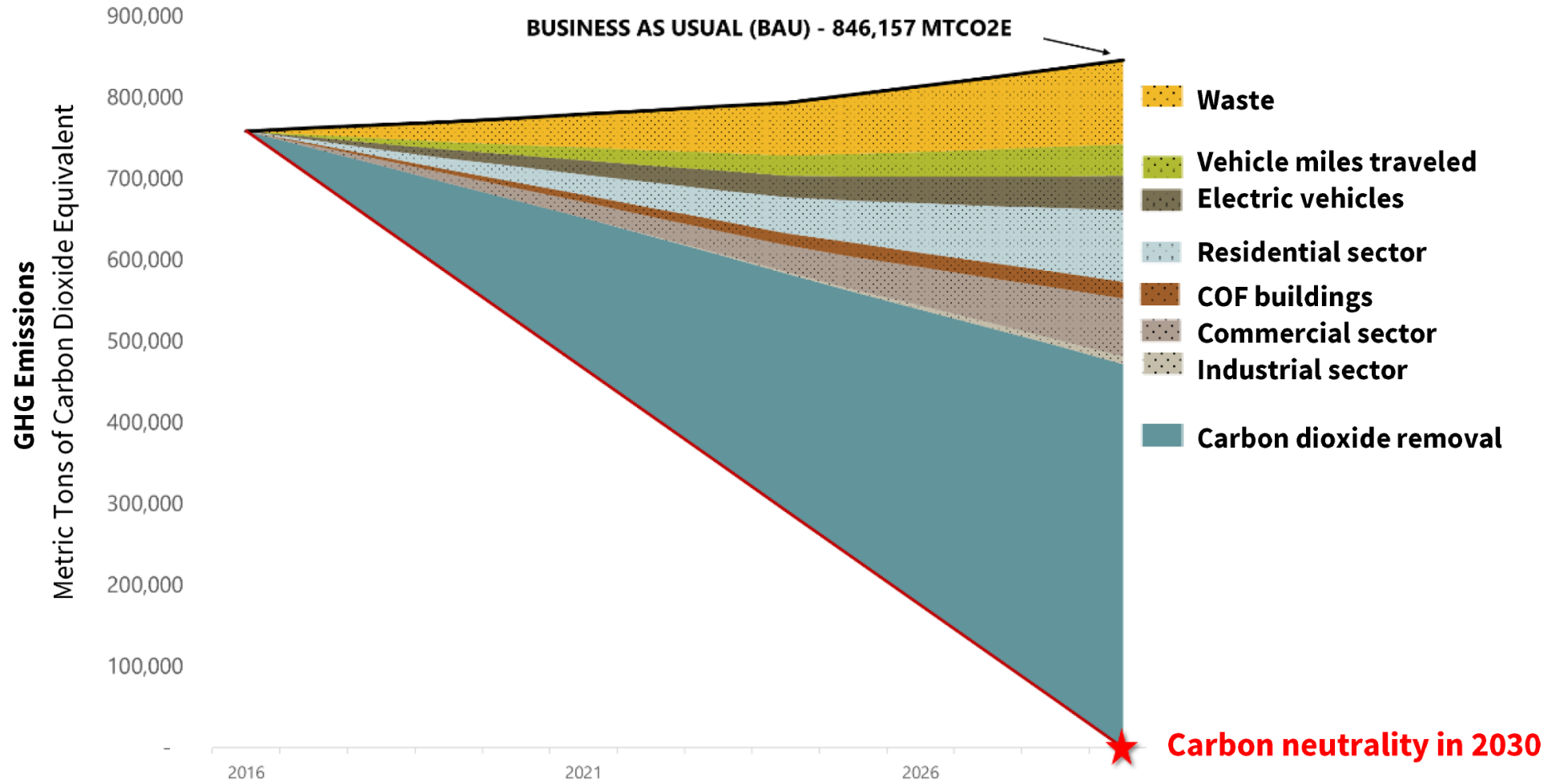
THE INGREDIENTS FOR CARBON NEUTRALITY

Community Action



Municipal Operations

THE CNP EMISSIONS REDUCTION WEDGE



- Reductions from waste**
Flaring and diversion
- Reductions in vehicle miles traveled (VMT)**
Maintain 2019 VMT levels
- Reductions from electric vehicles**
30% of vehicle miles will come from electric vehicles

- Reductions from COF Buildings**
28% from reductions in total energy use. 60% reduction in emissions from natural gas. 100% renewable electricity.
- Reductions from commercial sector**
11% reduction in total energy use. 20% reduction in emissions from natural gas. 69% of electricity is zero-emissions.

- Reductions from residential sector**
43% reductions in total energy use. 62% reduction in emissions from natural gas. 72% of electricity is zero-emissions.
- Reductions from industrial sector**
68% of electricity is zero-emissions.
- Carbon dioxide removal**
471,619 MTCO2e

Sustainability Office

Management – 1.5

Sustainability
Division
Director

Admin
Specialist

Energy – 3

Energy Rebates
and support for
homeowners

Data analysis and
emissions
inventory

COF building
efficiency and fuel
switching

Electric vehicles +
COF bike fleet

Energy Upgrades
for Healthy Homes

Equity and Resilience – 3.75

Flood Prevention
Grants

HEPA Filter
Program

Resilience Hubs

Advisory Groups

Youth and Equity
Engagement

Sustainable land
use

Supporting building
/ zoning code
updates

Neighborhood Engagement and Volunteer Services - 2

Litter Clean-ups
and Adopt-a
programs

Stream Stewards

Signature Events

Employee and
Community
Volunteerism

Food and Waste - 2

Community
Gardens

Residential
Food Scraps
Drop off

Waste
Reduction
Events

Community
Education