

Introducing the Flagstaff Sustainability Program and the Carbon Neutrality Plan

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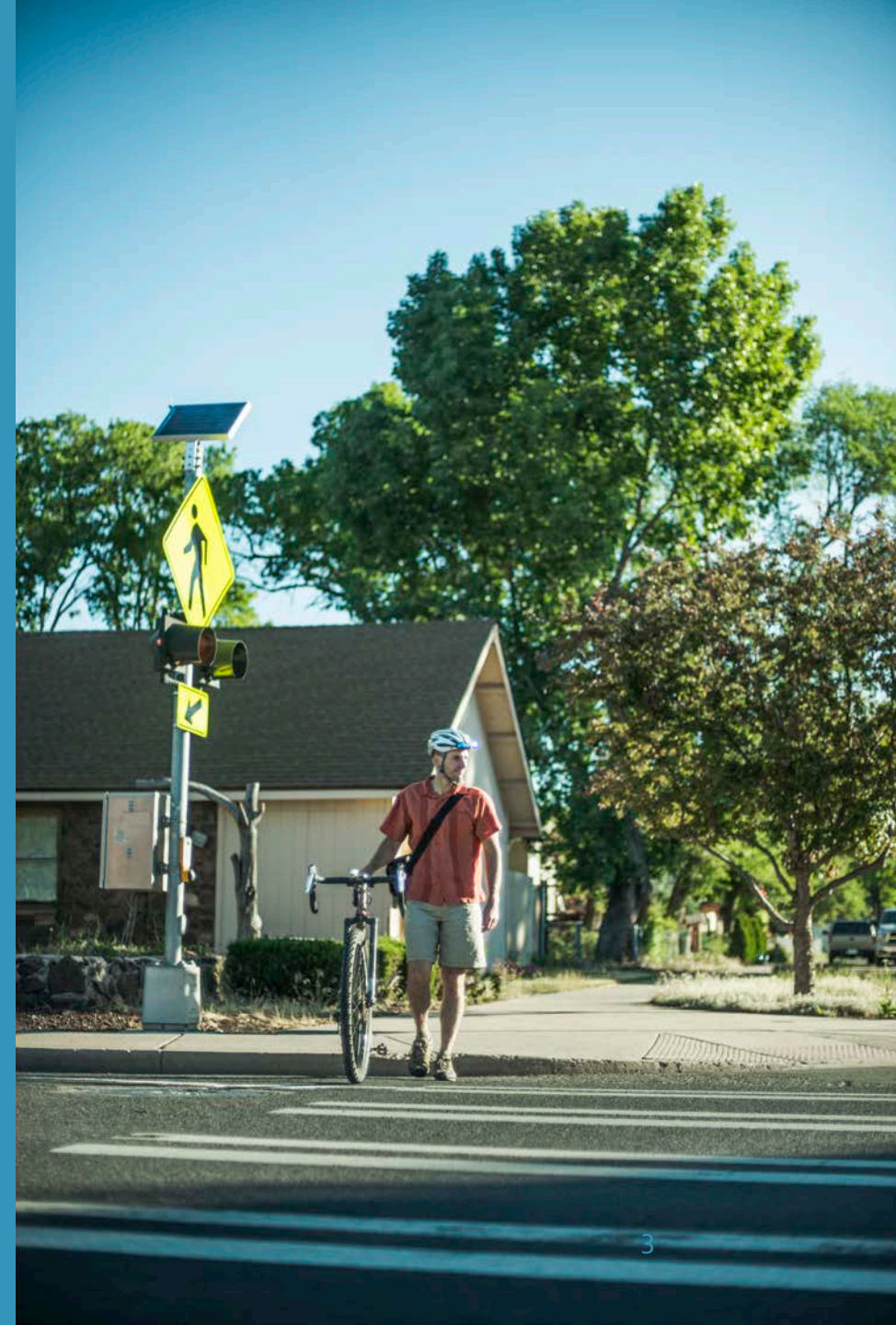
City of Flagstaff – Sustainability Section



I am here to...

1. Introduce you to the Draft Carbon Neutrality Plan.
2. Get your feedback on the Plan: are we on the right track?
3. Ask for your help in spreading the word.

Background: Climate Action in Flagstaff



Climate Change in Flagstaff

Compared to today, by 2050, on average we can expect to see...



- Hotter temperatures.
- Increased aridity and more severe drought conditions.



- Less snowpack.
- More precipitation as rainfall instead of snowfall.



- Increased wildfire risk.

Vulnerabilities: What's at Risk?

Climate change will have cascading impacts in our community from health to housing.



Water



Land Use & Housing



Tourism & Economy



Health

Not all people face the same threats from climate change

Climate change threats and vulnerabilities can vary based on:

- Age
- Health conditions
- Income
- Race and ethnicity
- Physical ability
- Neighborhood
and more.



Climate Action History



November 2018

Adoption of Flagstaff's first Climate Action and Adaptation Plan.

January 2020

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

June 2020

The [Climate Emergency Declaration Resolution 2020-09](#) was adopted unanimously by City Council.

The Climate Emergency Declaration

1. Calls for a dramatic increase in **ambition and** city-wide **mobilization**.
2. We'll need **full community** participation, and to prioritize **vulnerable communities**
3. Sets a goal of **carbon neutrality by 2030**
4. Requires a framework for action that is constantly evolving and responding to changing conditions and **opportunities** – this is the **Carbon Neutrality Plan**.

Three Core Types of Climate Action

AKA
Mitigation, or
reducing our
greenhouse gas
emissions, which are
how we contribute
to climate change

Reducing
our impact

Preparing
for change

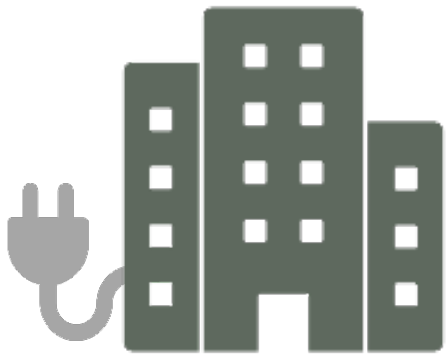
AKA
Adaptation, or
building
resilience to
long-term
changes and
short-term
shocks

AKA
Equity, or ensuring
fair distribution of
resources, access
and opportunities

Helping
the most
vulnerable

Flagstaff's Greenhouse Gas Emissions

Powering Buildings



Transportation Emissions



Consumption & Landfill



Flagstaff Carbon Neutrality Plan

draft review

Carbon Neutrality means...

1. Reducing our community emissions (our impact) as much as possible.
2. Balancing the remaining emissions with projects that **REMOVE carbon dioxide** from the atmosphere – to achieve ‘neutrality’ – or zero NET impact.

Unavoided CO2 emissions remaining

Sequestration and other negative emissions initiatives



The CNP...

- Is a **framework for action**.
- Is a **living** document. It will be continuously evolving, to respond to changing conditions and **opportunities**.
- Requires **bold action** and **big shifts**, to transform our systems.
- Requires **aligning City-wide decisions** through the carbon neutrality lens.
- Has been informed by conversations with over 1,900 community members over the last 8 months.

Goals

Mitigation

- Achieve carbon neutrality by 2030

Adaptation (2018 CAAP)

- Prepare the city's communities, systems, and resources to be more resilient to climate change impacts.

Equity (2018 CAAP)

- Address climate change in a manner that prioritizes those most impacted and ensures the costs and benefits of climate adaptation and mitigation are equitably distributed.

To achieve carbon neutrality, we will...



**To achieve
carbon
neutrality,
we will...**

**Strengthen
our
Neighborhoods**

Equitable
Systems

Community
Resilience

Decreased
Dependence
on Cars

Community Resilience

Flagstaff will increase our ability to anticipate, accommodate, and positively adapt to and thrive amidst changing climate conditions or hazard events while enhancing quality of life, reliable systems, economic vitality, and conservation of resources.

We will integrate adaptation elements into all emission reductions actions, building systems that are more resilient to both short-term shocks and long-term change.



Equitable Systems

Flagstaff will ensure the fair and just distribution of the benefits of climate action and strive to reduce the unequal burdens created by climate change.

We will...

- Design targeted policies and programs that serve disadvantaged communities first.
- Proactively engage community leaders on an ongoing basis.
- Incorporate equity considerations as a foundational element of every climate action the City develops and implements.



Decreased Dependence on Cars

Flagstaff will **transform** our transportation and land use systems so that we depend less on cars. This means reducing the vehicles miles we travel (VMT), and shifting many trips to walking, biking and the bus.

We will...

- We will change our land use, to accept and incorporating appropriate density and mixed uses.
- Encourage **vibrancy, appropriate density, and attainability** in existing neighborhoods, so that more folks can walk to daily needs.



Decreased Dependence on Cars - continued

We will...

- Create **networks for walking and biking** that are comfortable and attractive for all ages and abilities.
- **Encourage** residents and visitors to walk, bike, roll and take the bus.
- Transform COF transportation **policies and planning** to focus on moving people, not cars.
- Support **transit/bus** operations.
- Avoid Congestion Mitigation and Air Quality (CMAQ) non-attainment status.

**To achieve
carbon
neutrality,
we will...**



Electric Mobility

Flagstaff will embrace the electrification of mobility options, shifting to vehicle-replacing e-bikes and bike share, electrifying buses and taking advantage of the rapidly evolving vehicle market.

We will...

- Electrify Flagstaff's **busses**.
- Welcome electric **micro-mobility devices** as healthy, affordable and low-impact options.
- Support residents, companies & institutions in the transition to **electric vehicles**.



Clean Electricity

Flagstaff will obtain as much of its electricity as possible from sources that do not produce greenhouse gas emissions.

We will increase solar and renewables on:

- **New** buildings and homes.
 - **Existing** buildings and homes.
 - **City-owned** buildings and operations.
-



Building Fuel Switching

Flagstaff will shift building fuel sources from fossil fuels to electricity. This enables us to take advantage of increasingly cleaner electricity.

We will electrify...

- **New** buildings and homes.
- **Existing** buildings and homes.
- **City-owned** buildings.

We will undertake fuel switching training & education



**To achieve
carbon
neutrality,
we will...**



Reduced Building Energy Use

Flagstaff will reduce energy use – and energy costs - from heating, cooling and powering buildings.

We will reduce energy use in:

- **New** buildings and homes.
 - **Existing** buildings and homes.
 - **City-owned** buildings.
-



Sustainable Consumption and Waste Management


Flagstaff will consume more sustainably, reuse and recycle more, and then reduce emissions from the landfill.

- Reduce emissions from the Cinder Lakes **Landfill.**
- Encourage **sustainable consumption.**
- **Divert more waste** from the landfill.



**To achieve
carbon
neutrality,
we will...**

**Uphold our
Commitment**



Carbon
Dioxide
Removal

Carbon Dioxide Removal (CDR)

CDR = The process of removing carbon dioxide from the atmosphere.

CDR must be part of any carbon neutrality portfolio.

Flagstaff will measure the remaining community emissions not reduced through target strategies, then balance with an equivalent amount of CDR.

-
- We will establish a portfolio of CDR and negative emission initiatives.
-



Outcomes of the FCNP:

Miles we travel	Vehicle Miles Traveled (VMT) hold steady at 2019 levels [1.59M/day (internal)].
	30% of our miles traveled will be in electric vehicles (or have zero tailpipe emissions).
Solar in the community	2,000 home solar systems are installed for 10MW in power from residential solar. 10MW of solar on commercial buildings. 5MW of solar on industrial buildings.
City of Flagstaff: Renewable Energy + Energy Use	COF 100% renewable electricity by 2025. 50MW Solar installation at Red Gap Ranch and a 10MW solar at landfill .
	Energy efficiency and fuel switching in municipal buildings .
Retrofits and electrification	Retrofit ~50% of existing homes (12,500 total residential retrofits) to reduce energy use and electrify homes. City directly supports 4,000 – 5,500 of these retrofits.
	25% of all commercial buildings get a deep energy efficiency retrofit . 15% of commercial buildings fully electrify .

Climate Action Makes Life Better

- Renewable energy
- Reduced waste
- Healthy forests
- Thriving economy
- An inclusive community
- Secure water resources
- Connected neighborhoods
- Resilience for all communities
- Affordable, accessible, and multimodal transportation
- Neighbors helping neighbors

Funding

Funding for climate action could come from a variety of sources:

- Increase existing City **fees** on certain activities, such as increasing the Environmental Management Fee.
- Propose a new **sales tax** that would have to be approved by voters, similar to how Cities pay for road projects, municipal buildings, and other large city investments.
- Issue **bonds**, a mechanism for the City to pay for large infrastructure projects.
- Apply for **grants** from the federal government and private organizations or foundations.
- **Allocate** City resources to climate-focused initiatives.

Many hands....

Carbon neutrality actions will be taken by many different actors:

- The market
- Utility companies
- Community members
- Local businesses
- Other governmental actors

Collaboration, creativity and problem-solving will be key!

Housing in Flagstaff & Carbon Neutrality

- Climate change will disproportionately harm vulnerable communities.
 - Vulnerabilities and risk from climate change.
 - Housing market and cost of living. Exacerbation of existing issues.
- Climate action should:
 - Avoid **harm** to vulnerable communities.
 - Historical wrongs
 - Be designed to **help** vulnerable communities
 - **Targeted universalism**
 - Awareness of unintended consequences

Housing in Flagstaff & Carbon Neutrality

Climate action can impact housing.

- **Building energy**
 - Cost of building housing
 - Cost of living – energy and utility costs
- **Transportation costs**
 - Increasing non-car mobility options
 - Reducing transportation costs
- **Land use**
 - Climate action is aligned with solutions to the housing emergency: infill, increased density, zoning changes to allow for appropriate density and flexibility in our existing neighborhoods.
- **Health and housing**

Timeline

- Now** Review of the **Draft** Carbon Neutrality Plan
- May 18** **City Council Meeting** to review and adopt the CNP.

How to get involved

Go to www.Flagstaff.az.gov/Climate to:

- Review the Plan
- Take the **Community Forum Survey** - by April 20th!
- Visit the **Open House website**
- Attend an **Open House**:
 - Thursday, April 15th, 6:00-7:00pm.
 - Saturday, April 17th, 10:00-11:00am.



Flagstaff Climate Emergency Open House

64%

Path

Discuss

▶ Welcome

▶ How to Use This Site

2. Introduction to the Climate Emergency

▶ We Need the Community!

▶ We Need You!

▶ We Need Big Shifts!

3. Core Principles

▶ Climate Change 101

▶ How Flagstaff Contributes to Climate Change

▶ Equity in Climate Solutions

▶ Equity in the Carbon Neutrality Plan



Climate Change 101



Watch later



Share



2:40 / 3:03



YouTube



Questions & Discussion

Thank you!

www.Flagstaff.AZ.gov/Climate

Contact me any time:

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