

City of Phoenix Climate Action Planning ASCE Phoenix Branch Framework Overview

February 10, 2021

Nancy Allen

Matthew Potzler, PhD



C4O
CITIES

All action is climate action.



How you power your
home/business

How you get around

How much waste you produce

All action is climate action.



How you power your
home/business



How you get around

How much waste you produce

All action is climate action.



How you power your home/business

How you get around

How much waste you produce



All action in climate action.



How you power your home/business

How you get around

How much waste you produce



Introduction



- Phoenix joined C40 Cities in Feb. 2020
- Mayor Kate Gallego affirmed Phoenix commitment to the Paris Climate Accord
- C40-compliant Climate Action Plan by Dec 2021



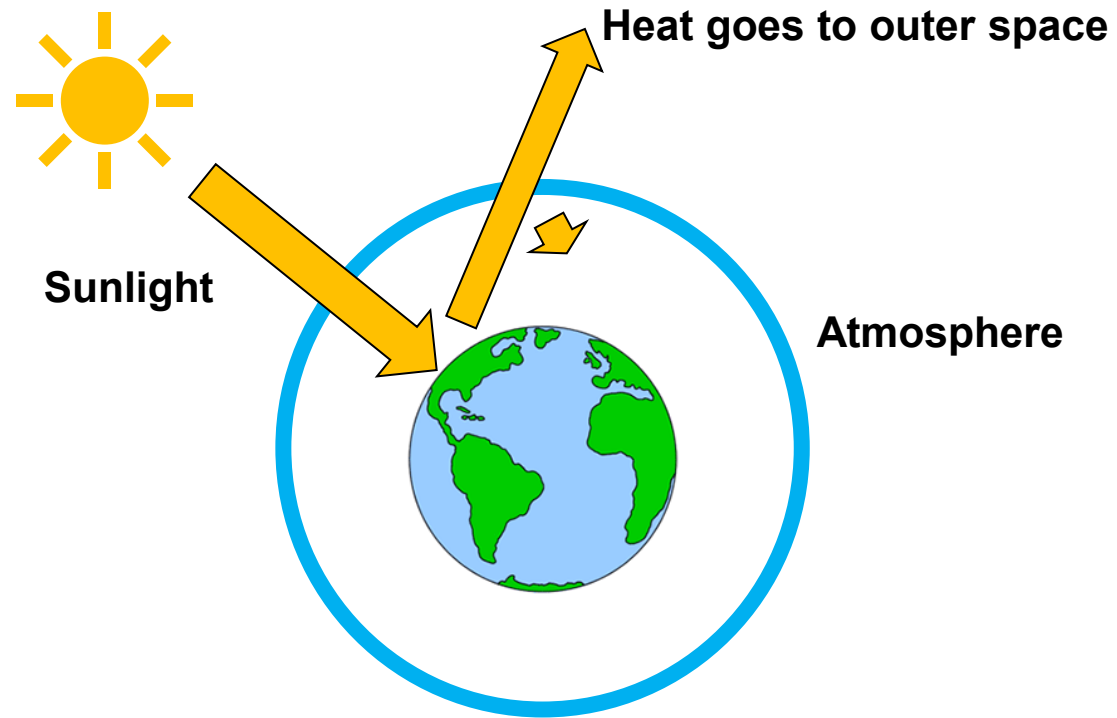
Introduction



Introduction - Why Greenhouse Gases?



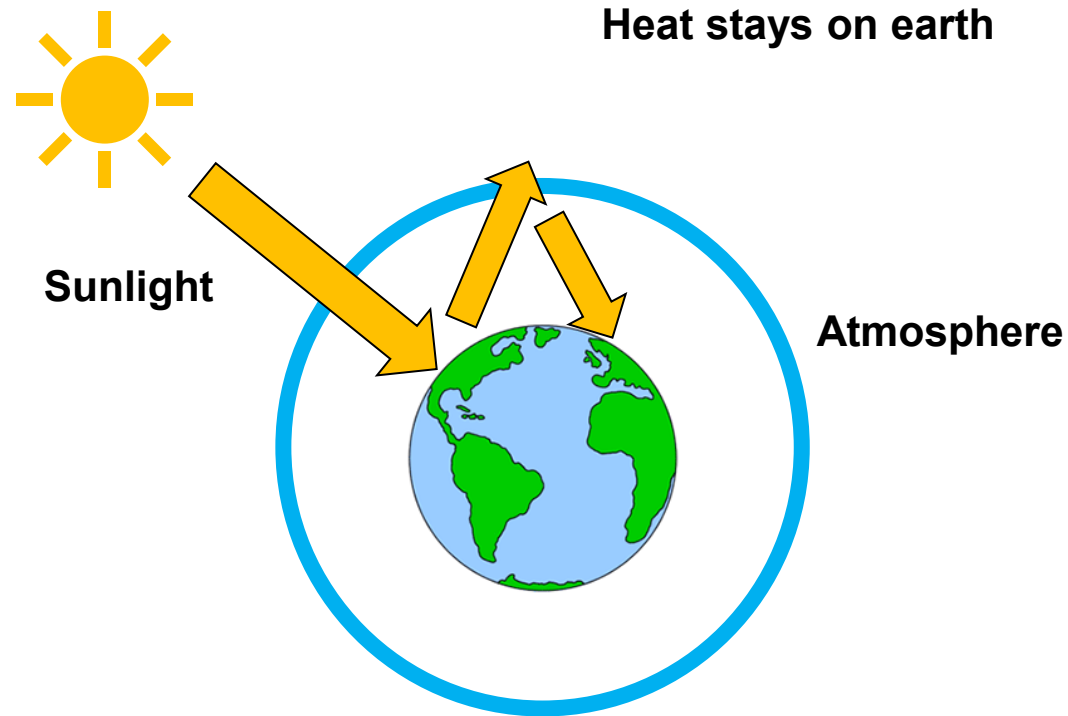
Greenhouse Effect

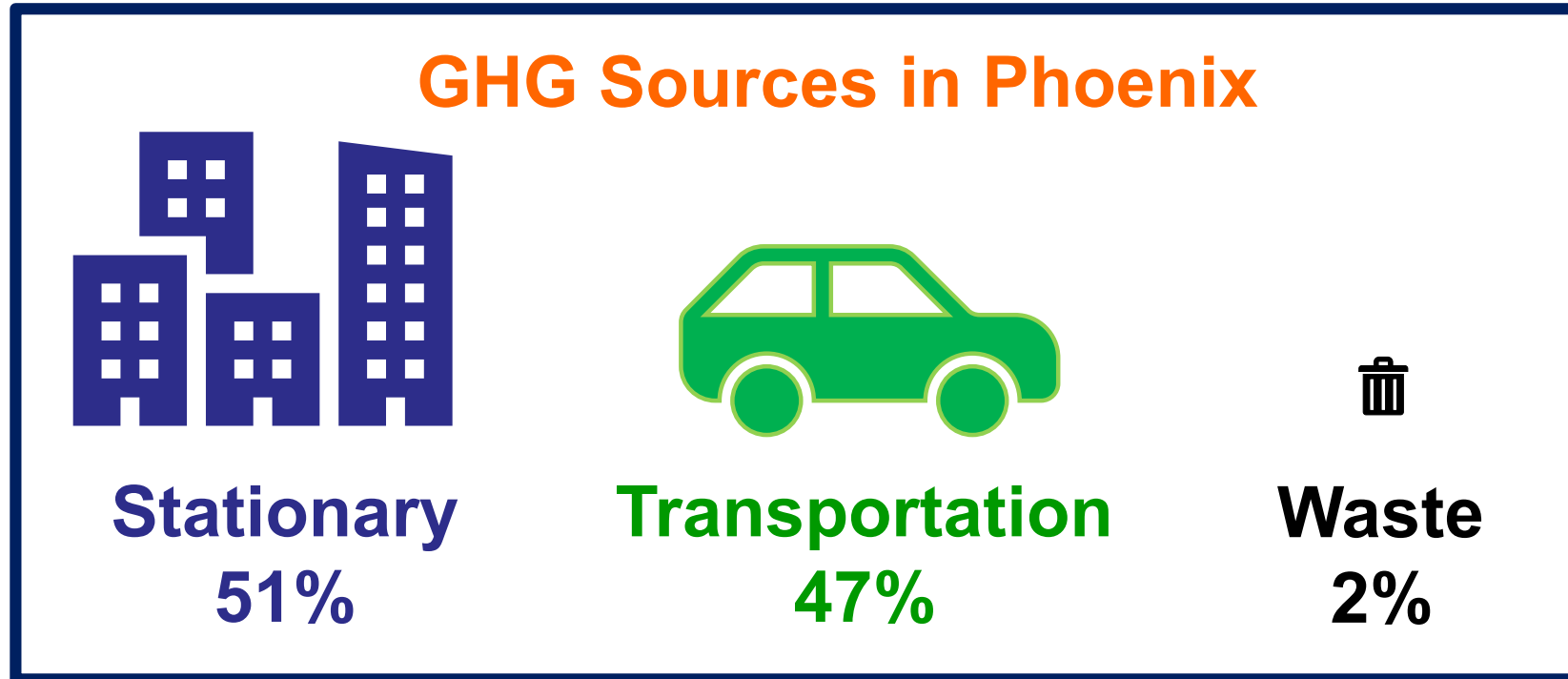


Introduction - Why Greenhouse Gases?



More GHGs in atmosphere means more heat for us



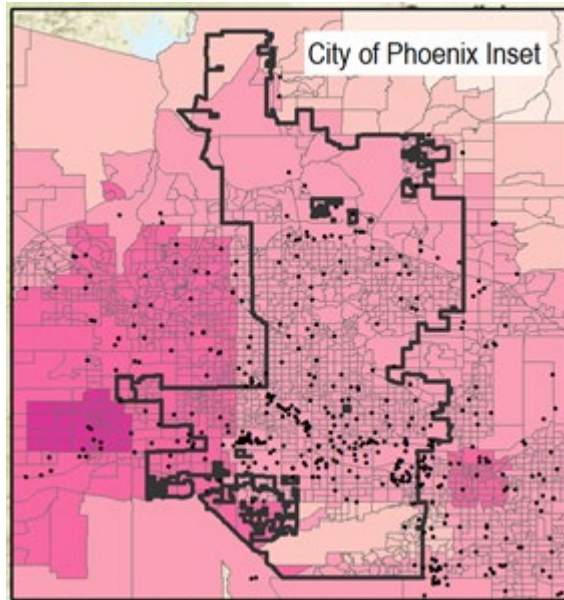


The largest sources of GHGs are from the generation of electricity and use of gasoline fuel.

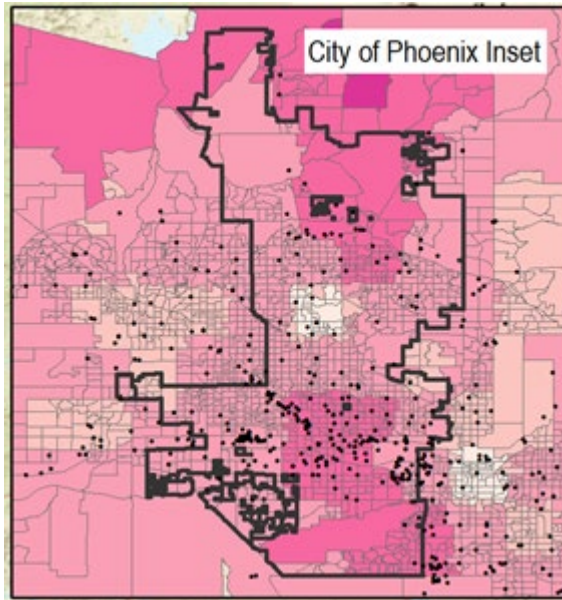
Introduction



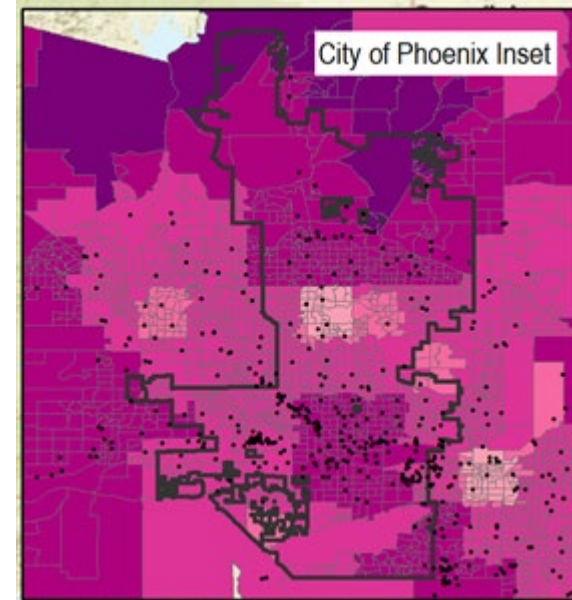
Extreme Heat: Maximum Summer Temperature (Darker colors signify higher temperatures)



**Historical Average
over 1986-2005**



**Predicted:
Lower Emissions**



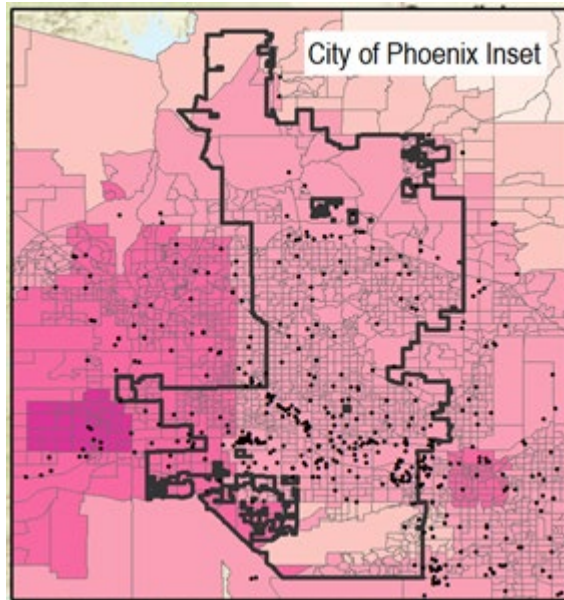
**Predicted:
Business as Usual**

RTI Study 2020

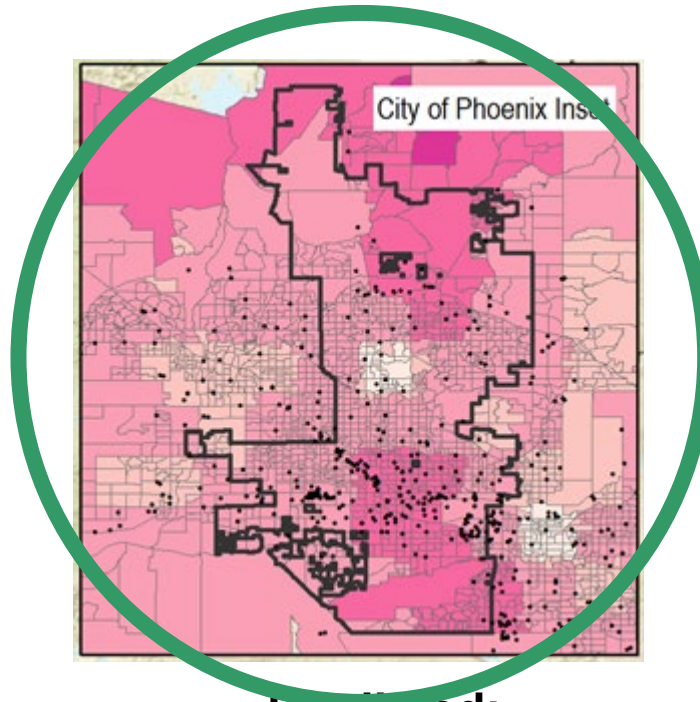
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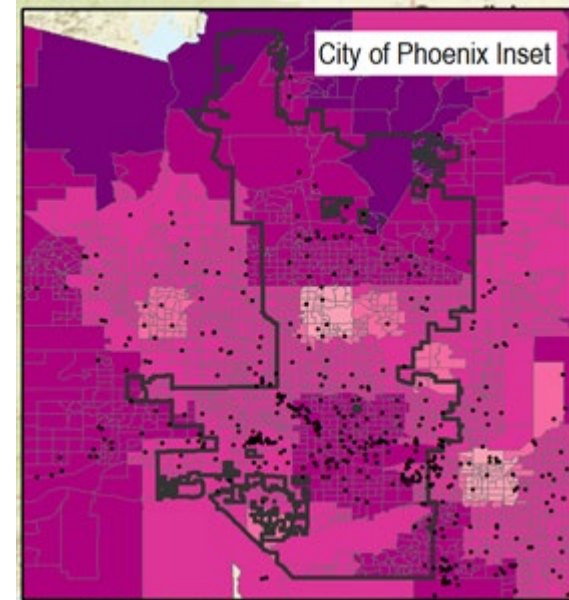
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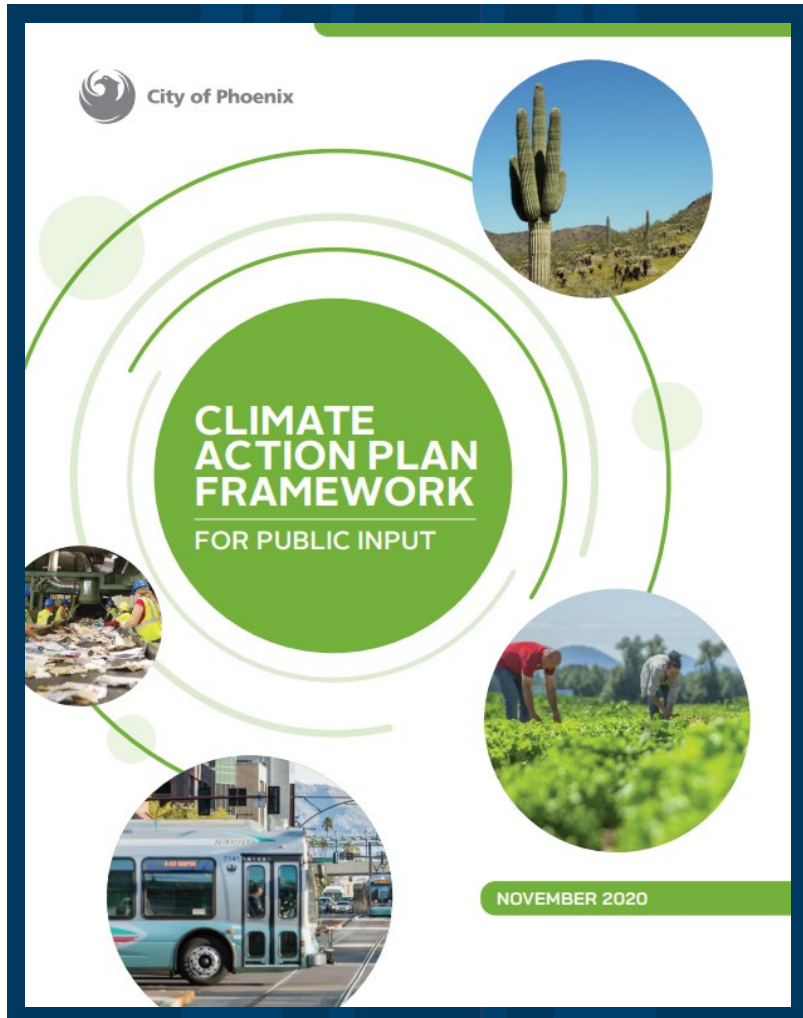
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**Predicted:
Business as Usual**

RTI Study 2020

Climate Action Plan Framework



phoenix.gov/oep/climate

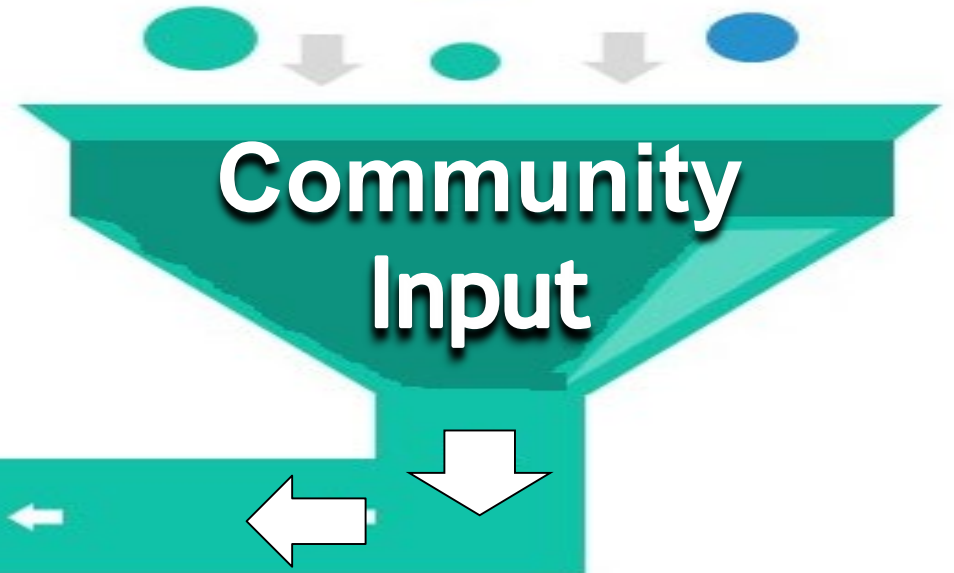
Climate Action Planning



Climate Liaisons - 28 Departments



C40 Pathways Modeling
Data Verification



ACTIONS



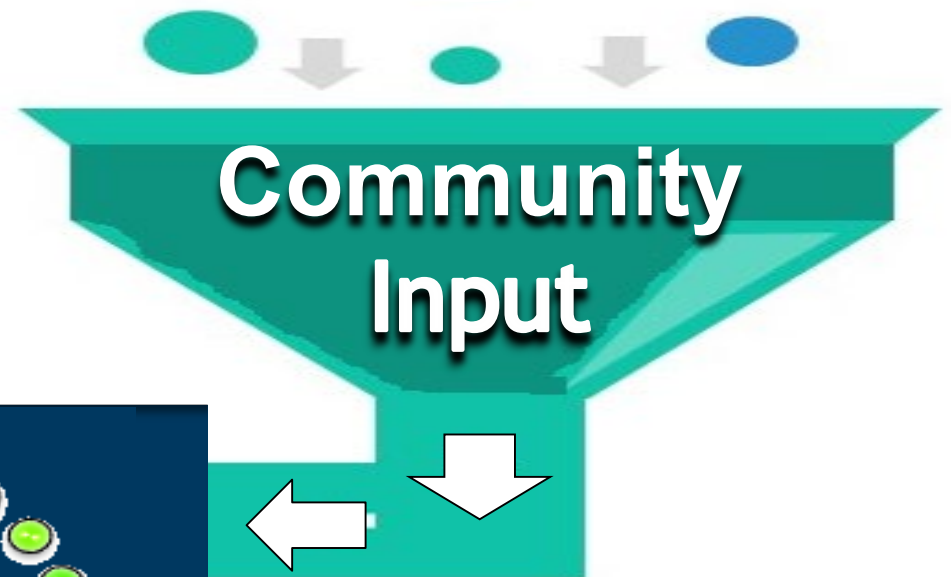
Climate Action Planning



Climate Liaisons - 28 Departments



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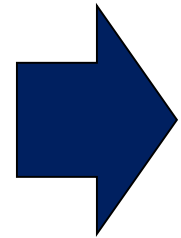
ACTIONS

Mitigation

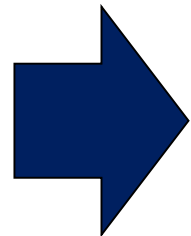
Adaptation



Climate Action Planning

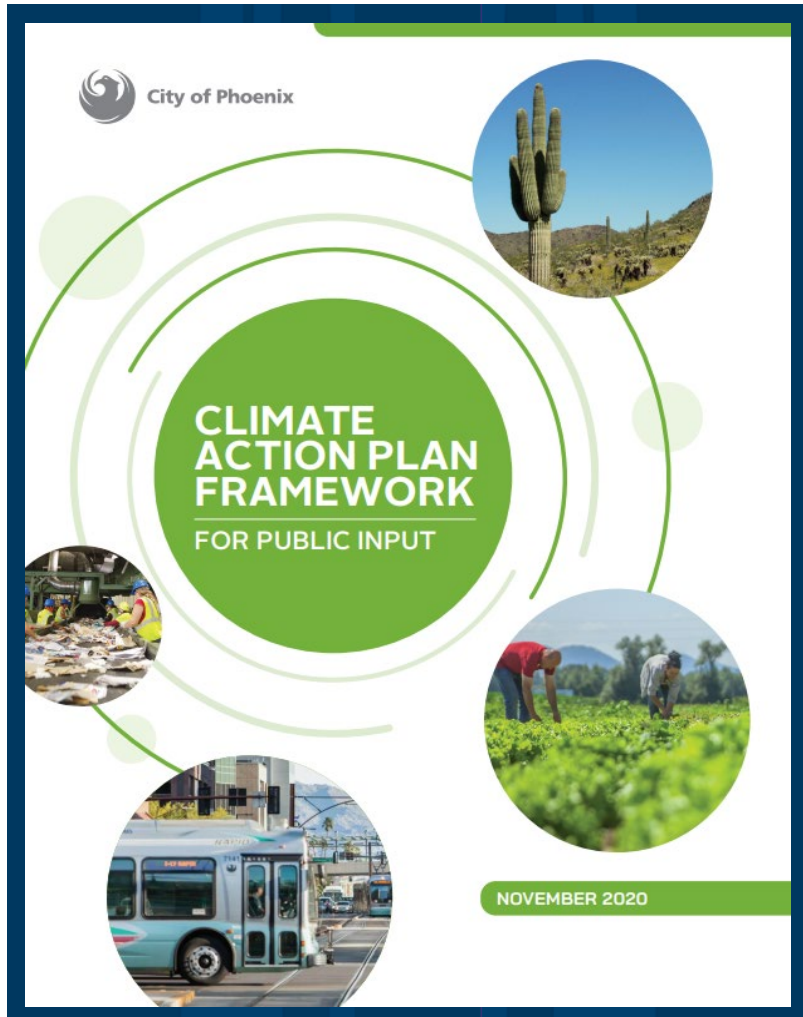


**Stationary Energy Sector
Transportation Sector
Waste Sector**



**Air Quality
Local Food Systems
Heat
Water**

Climate Action Plan Framework



Sector Goals

2050 Goals

Quickstart Action Examples

Short, Mid, Long-term Goals

Key Achievements

Stationary Energy Goals



2050 Goal:



New buildings are
Net Positive
in energy & materials



15
vibrant compact
complete centers

Goal 1

Add 50 MW **Solar** by
2030

Goal 2

Reduce energy use
25% by 2025

Goal 3

Secure 200MW of
renewable energy to
offset electricity use in
City Operations.

Goal 4

Three new
**conservation and
renewable-energy
programs** by 2025.

Goal 5

Promote development
of **microgrids**

Goal 6

**Net-Positive
Buildings** by 2050

Goal 7

**Net-zero electrical
grid** by 2050

Stationary Energy – Quickstart Example



- Install solar at city housing sites for a total of 872 kW by 2021.

Osborn



Fillmore Gardens



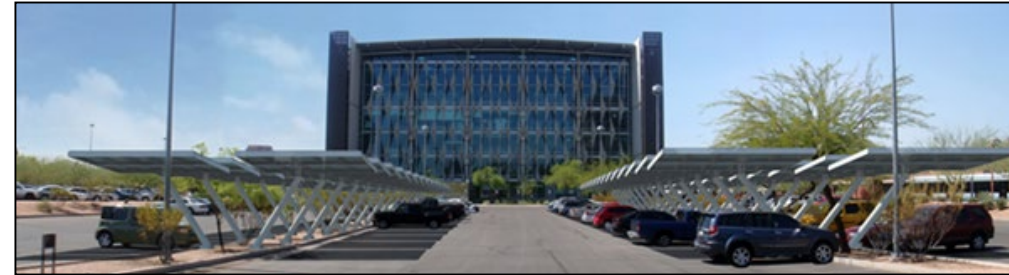
Stationary Energy – Key Achievement



Solar on 50 City Properties



***Rental Car Center Solar
Installation: 4.2 MW***



Burton Barr Library: 148 KW



***Lake Pleasant Water
Treatment Plant – 7.5 MW***

Transportation Goals



2050 Goal:



Transit
in every Phoenix
neighborhood



90%
of residents
within 10-minute
walk of transit



40%
of commutes by
walking, biking,
transit & car-share

Goal 1

Implement the city's Complete Streets Policy and Active Transportation Program to encourage **multiple modes of transportation.**

Goal 2

Increase the use of **alternative fuels.**

Goal 3

Increase the adoption and rollout of **electric vehicle and electric-vehicle charging stations.**

Goal 4

Reduce the number of **vehicle trips** taken.

Waste Goals



2050 Goal:



Zero Waste

through participation
in the circular economy



40%

Waste diversion
by 2020

Goal 1

Implement programs to increase the **reuse and recovery of waste materials** and promote social and economic value.

Goal 2

Reduce GHG emissions resulting from degradation of waste by increasing **landfill gas capture**.

Goal 3

Increase waste-diversion **participation by all residents and businesses**.

Goal 4

Transition to **green alternatives** from environmentally hazardous materials.

Goal 5

Expand **brownfield redevelopment along the Rio Salado** in Phoenix.

Goal 6

Reduce GHG emissions from water and wastewater treatment by **capturing biogas from treatment processes**.

Air Quality Goals



2050 Goal:



Clean Air

Out-performing
federal standards



Excellent or
good visibility on
90% of days

Goal 1

Decrease **ozone precursor emissions**, like nitrogen oxides and volatile organic compounds from municipal vehicles by 10% by 2025.

Goal 2

Decrease **emissions of dust/particulate matter** (PM-10 and PM-2.5).

Local Food Systems Goals



2050 Goal:



Goal 1

All people living in Phoenix should have enough to eat and have access to **affordable, healthy, local, and culturally appropriate food.**

Goal 2

Businesses that produce, process, distribute, and sell local and healthy food should be recognized as integral to the economy and **encouraged to grow and thrive** in Phoenix.

Goal 3

Growing food in Phoenix and the region should be **easy and valued**, for personal or business use.

Goal 4

Food-related waste should be prevented, reused, or recycled via sustainable food production practices that maintain a healthy environment.

Goal 5

Develop food policies and actions that address local and global challenges posed by climate change, urbanization, political and economic crises, population growth and other factors.

Heat Goals



**2050
Goal:**



Everyone within a
**5-Minute
Walk**
of a park or pathway

**2030
Goal:**



25%
Tree and
shade canopy

Goal 1:

Create a network of cool corridors in vulnerable communities to facilitate movement from residents' homes to their places of employment, education and play.

Goal 2:

Increase shade provided by trees or constructed shade in parks, streets and right-of-way.

Goal 3:

Provide resources and services to residents to manage heat.

Goal 4:

Increase the use of high albedo, or reflective, materials in infrastructure projects.

Goal 5:

Develop HeatReady certification for cities.

Water Goals



2050 Goal:



100-Year

Clean & reliable
supply of water

Goal 1:
Identify and implement
infrastructure projects to
ensure **water security**.

Goal 2:
Improve **conservation** of water resources
by improving stormwater management,
optimizing water use, conducting water
audits, and utilizing wastewater.

Goal 3:
Increase **outreach** and provide
programs to residents and businesses
to reduce water use.

Goal 4:
Reduce **GHG emissions** from water
and wastewater treatment by
capturing biogas from treatment
processes and increasing **renewable**
sources of energy.

MAG/Regional Interface



- MAG:
 - Heat Relief Regional Network
 - MAG Air Quality Technical Advisory Committee
 - Transportation Division
 - T2050, Valley Metro
- Maricopa County
 - Air Quality & Public Health Departments
- Regional Resiliency Summit
- Maricopa County Food Systems Coalition



MARICOPA COUNTY



MARICOPA COUNTY
FOOD SYSTEM COALITION

State and Federal Interface



- Arizona Water Banking Authority
- 2018 Arizona Hazard Mitigation Plan
- Utilities transitioning to clean energy
- Department of Environmental Quality
 - Air Quality Coalition
- Department of Agriculture
 - Food & Agriculture Policy Advisory Committee
- Clean Air Act
- New Administration
 - Rejoining Paris Agreement



Next Steps



Public Engagement
Virtual Workshops & Topic-Driven Surveys

Spring 2021

Complete C40 Pathways Modeling

Spring 2021

Draft Plan Completed

Spring 2021

Draft Plan Public Comment Period

Summer 2021

Final Plan to City Council

Fall 2021

How to use your voice



Find your Councilmember

<https://www.phoenix.gov/mayorcouncil/find-my-council-district>

Budget Hearings

<https://www.phoenix.gov/budget/fund>

Mayor & Council



The Phoenix City Council is made up of a mayor and eight councilmembers, elected by the people on a non-partisan ballot for four-year terms. Find information on this page to help you get in touch with your councilmember.

- [Use our online search to find your council member](#)
- [View a listing of all City Council staff](#)
- [View a list of City Council Subcommittees](#)
- [View City Council meetings and agendas](#)



Mayor Kate Gallego

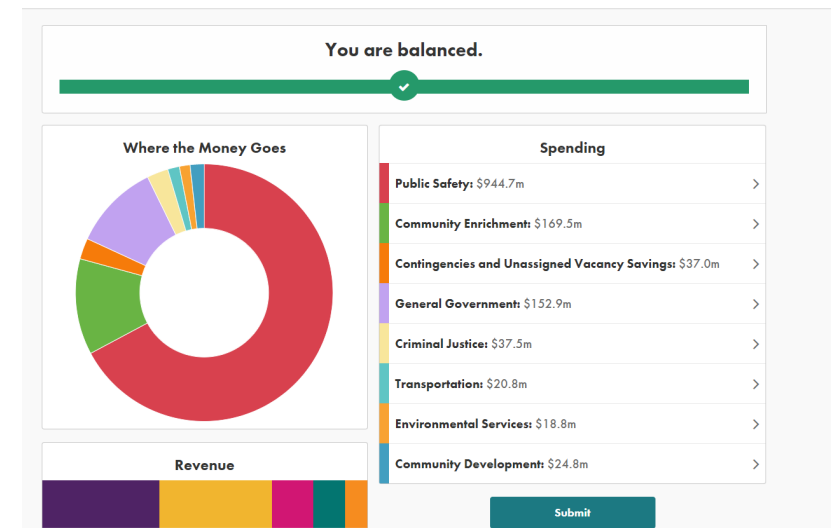
MAYOR'S HOME PAGE



EMAIL MAYOR GALLEGO



City of Phoenix 2020-21 General Fund Budget (by Category)



Comments & Questions



Climate Page, Surveys, Future Workshop Information

www.phoenix.gov/oep/climate

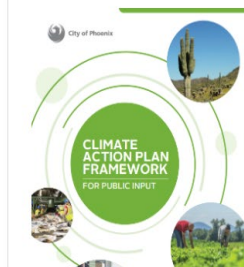
Public can submit questions to
climate@phoenix.gov



- About Us
- Air Quality
- Brownfields Land Recycling Program
- Climate Change
- Environmental Quality and Sustainability Commission
- Food Systems

Phoenix Climate Action Planning

Have a minute? Give us your feedback!
What climate action do you want by 2025?
[Let us know here!](#)



The Draft Climate Action Plan Framework is now available for public review and comments.

View the draft [here](#) or by clicking the photo.