



OFFICE OF
SUSTAINABILITY

CITY OF AUSTIN

Environmental Commission

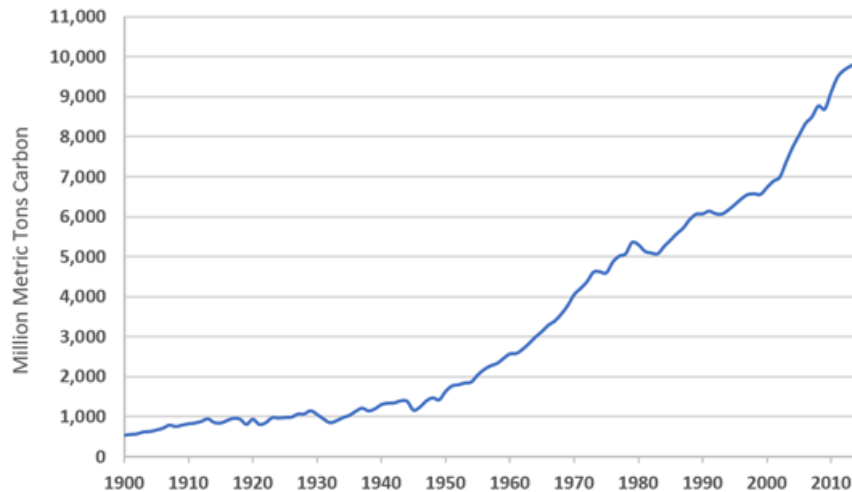
June 5, 2019

Agenda

- Climate Change
- Climate Resilience
- Austin Community Climate Plan
- How to get involved

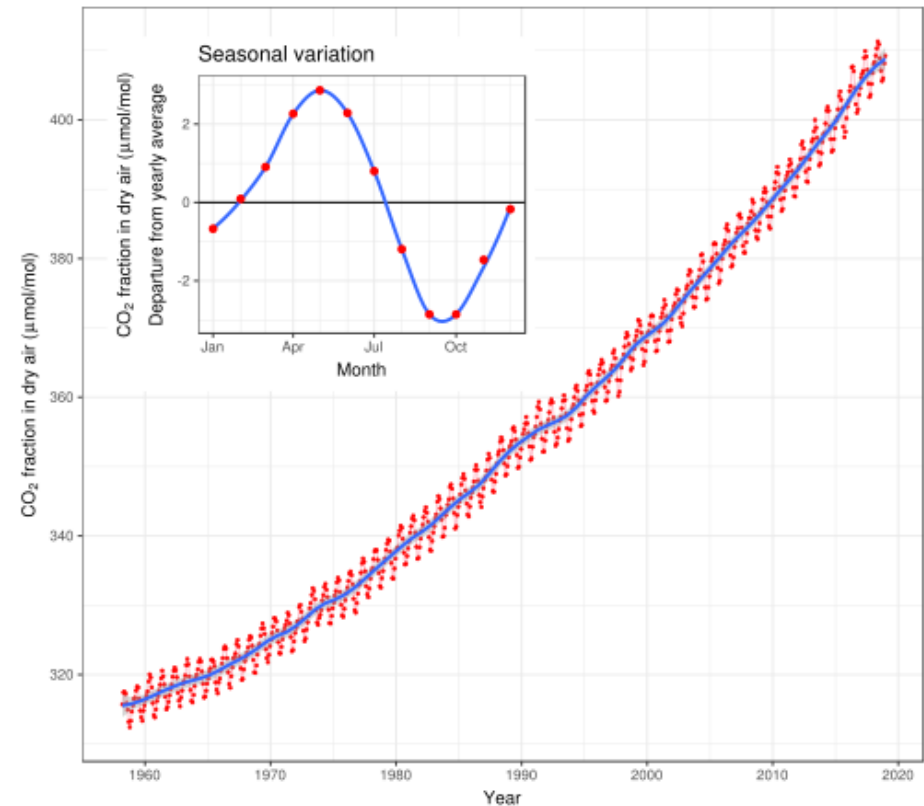
Our activities produce heat trapping gases

Global Carbon Emissions from Fossil Fuels, 1900-2014



Source: Boden, T.A., Marland, G., and Andres, R.J. (2017). [Global, Regional, and National Fossil-Fuel CO₂Emissions](#). Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A. doi 10.3334/CDIAC/00001_V2017.

Monthly mean CO₂ concentration
Mauna Loa 1958 - 2018



Data : R. F. Keeling, S. J. Walker, S. C. Piper and A. F. Bollenbacher
Scripps CO₂ Program (<http://scrippsco2.ucsd.edu/>). Accessed 2019-01-06

... that are building
up in the atmosphere



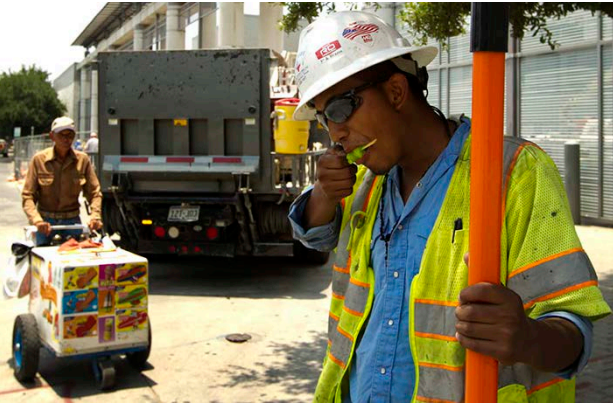
**THE NATURAL
GREENHOUSE EFFECT**



**THE ARTIFICIAL HUMAN
GREENHOUSE EFFECT**

Existing Climate Hazards for Austin

2011 Heatwave



2011 Drought



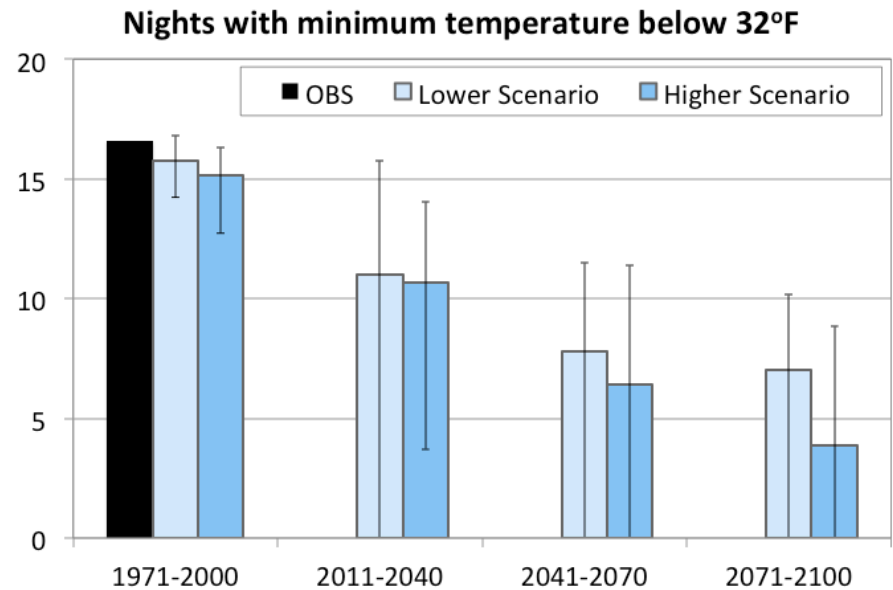
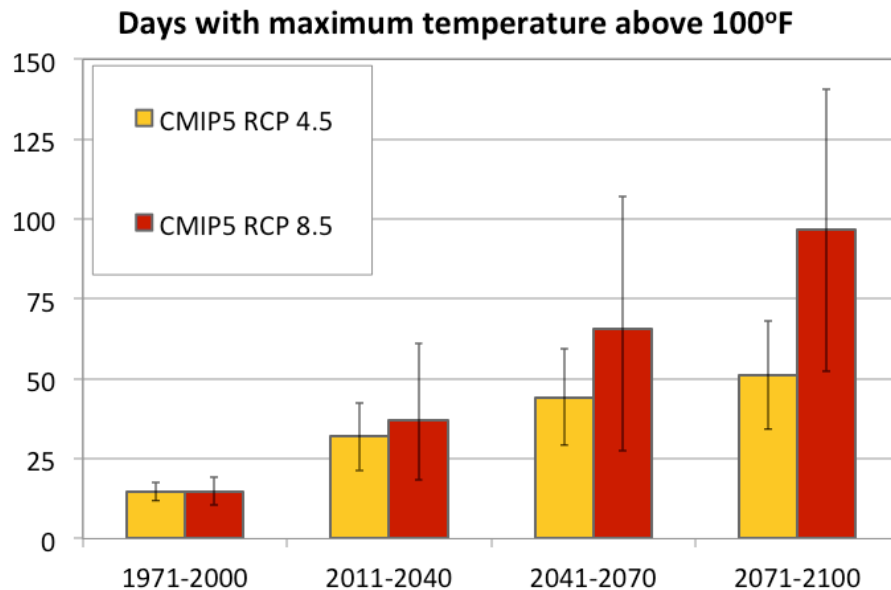
2013-2015 Floods



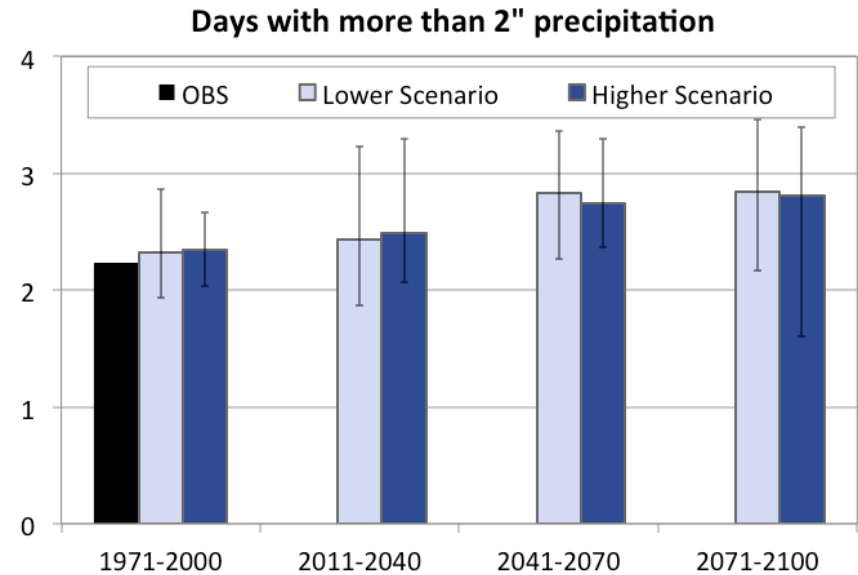
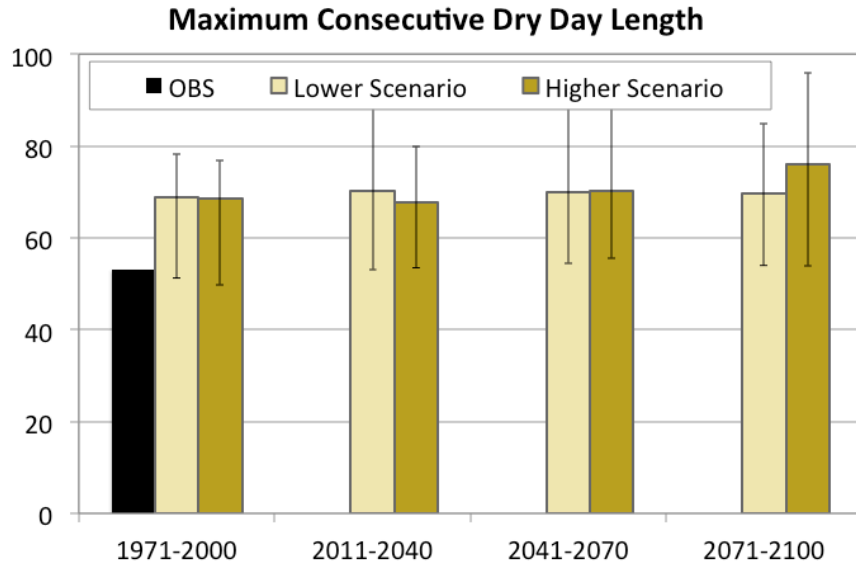
2011 Steiner Ranch Fire



Higher temperature averages and extremes



More extreme precipitation & drought conditions

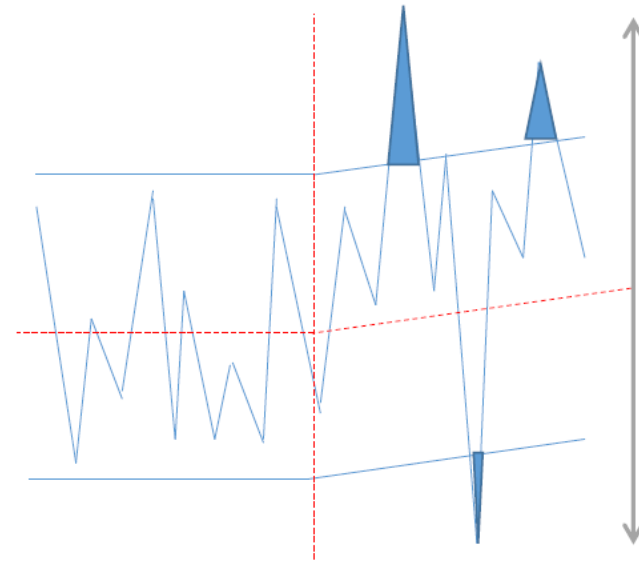
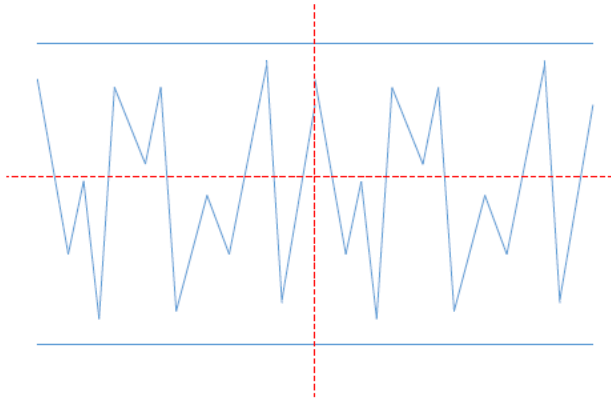


Climate Change: Game Changer

The past = the future

vs.

Uncertain future



Climate projections = increase in shocks/stressors



HIGHER TEMPERATURES



EXTENDED PERIODS OF DROUGHT



INTENSE RAIN AND FLOODING



INCREASED RISK OF WILDFIRE

Our Response

Mitigation

- Actions that limit the magnitude and / or rate of climate change
 - Energy usage
 - Renewable energy
 - Sustainable transportation
 - Reforestation
 - Methane capture and use

Resilience

- Actions taken to manage the unavoidable impacts of climate change
 - Infrastructure protection
 - Flood mitigation
 - Wildfire preparation
 - Emergency response
 - Business continuity plans

Council Resolutions and City Actions

- 2007 – Initial Climate Protection Plan
- 2013 – Study Climate Changes on Central Texas
- 2014 – Net Zero Community GHG Emissions
- 2015 – Council Adopted the Community Climate Plan
- 2017 – Austin Energy - 65% renewable energy by 2027
- 2018 – Assets and Operations Climate Resilience Plan
- 2019 – Major Revision of the Community Climate Plan

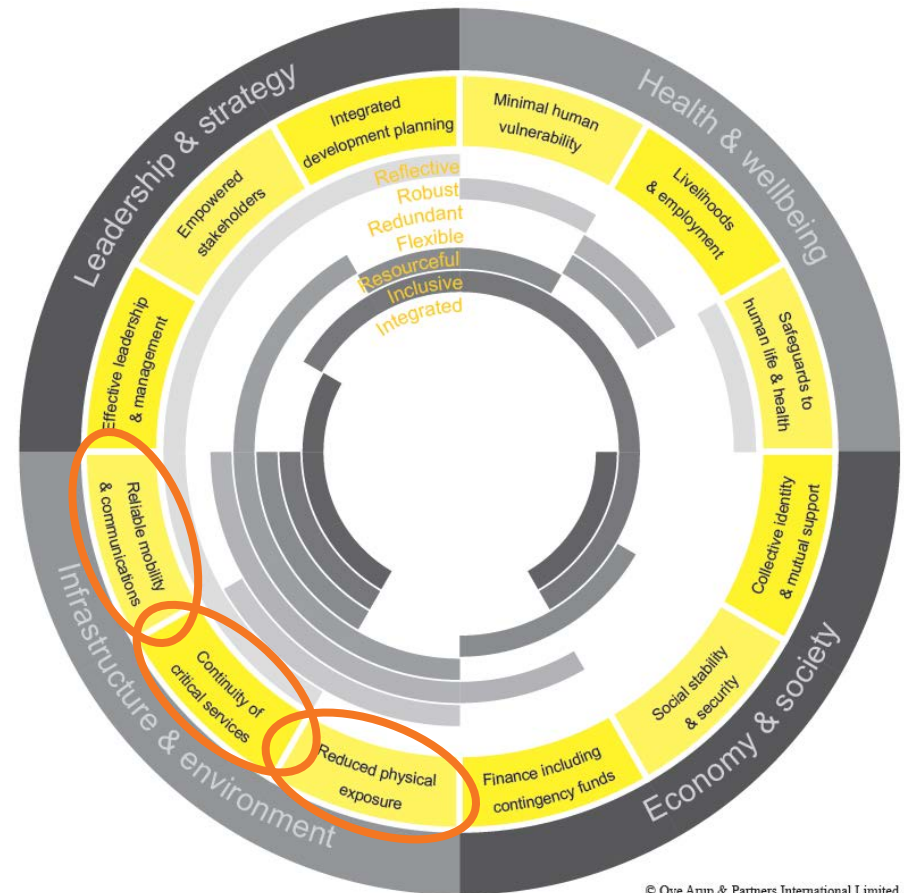
Agenda

- Climate Change
- Climate Resilience
- Austin Community Climate Plan
- How to get involved

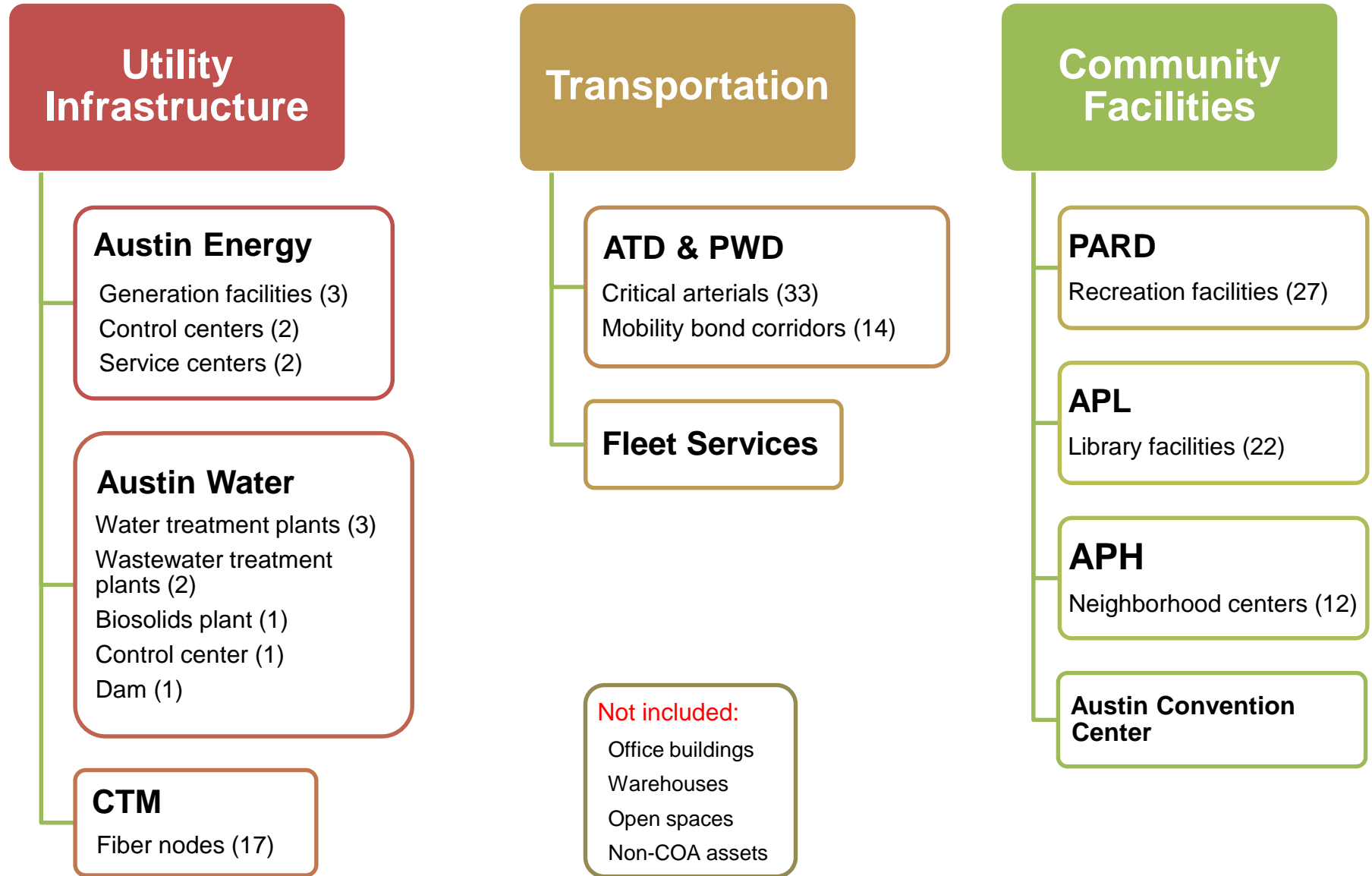
City Climate Resilience Framework

Developed by Arup for Rockefeller Foundation

- Leadership & Strategy
- Infrastructure & Environment
 - Reliability of mobility
 - Continuity of critical services
 - Reduce physical exposure
- Economy & Society
- Health & Well-being



What is included in “Assets and Operations”?



Assets and Operations - Recommendations

1. Resilience Strategies



2. Education and Outreach
3. Neighborhood Resilience
4. Community Resilience Plan

Community Climate Resilience - 20190509-019

The City Manager is directed to work with the Office of Sustainability to perform a literature review of climate resilience plans of peer cities, to explore available, potential partnerships (such as the 100 Resilient Cities model), and to return to Council no later than August 22, 2019, with recommendations for creating a comprehensive, community-wide climate resilience plan that is fair, just, and equitable. Recommendations should include funding options, such as grants or other revenue sources, to

- 1) fund a position for a Chief Resilience Officer and staff necessary to produce a resilience plan; or
- 2) hire a consultant to draft or assist city staff with drafting a comprehensive resilience plan; or
- 3) other recommendations for achieving this objective.

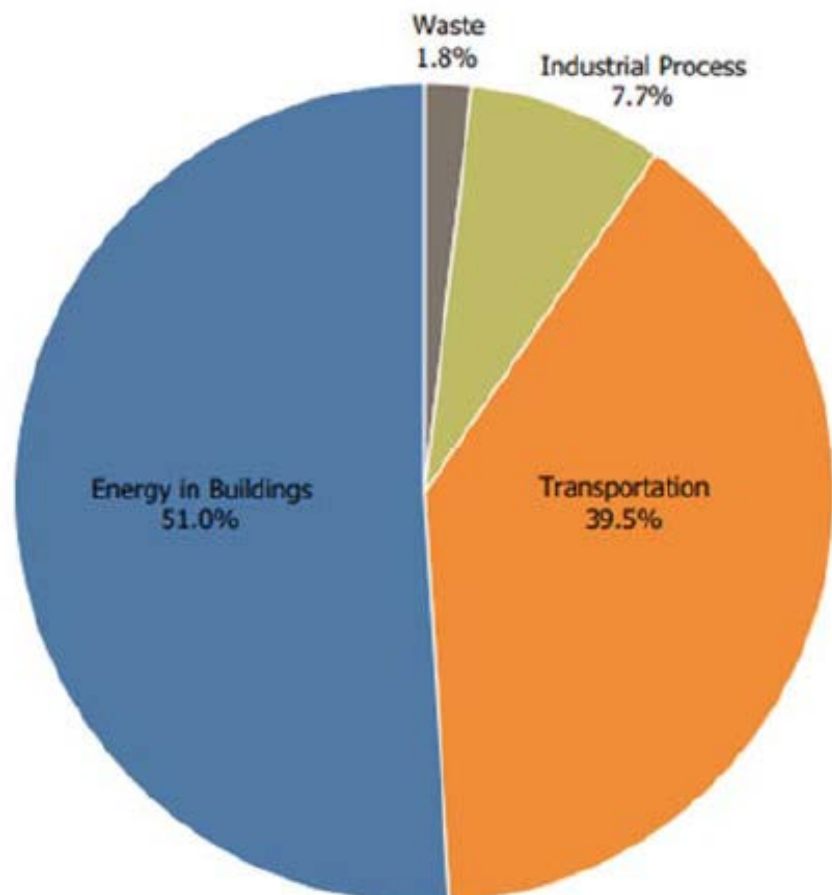
BE IT FURTHER RESOLVED:

The Council recognizes we are already experiencing the adverse consequences of climate change, understands the urgency of creating a blueprint to prepare for and respond to the shocks and stressors of catastrophic climate events, and supports the general tenets of the Green New Deal.

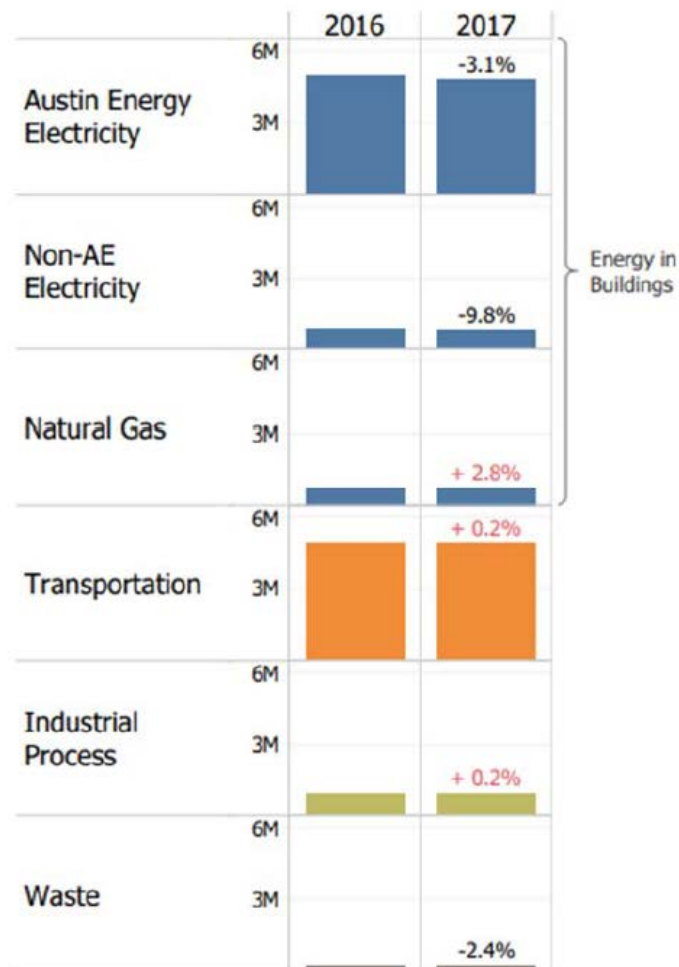
Agenda

- Climate Change
- Climate Resilience
- Austin Community Climate Plan
- How to get involved

Austin / Travis County GHG Inventory



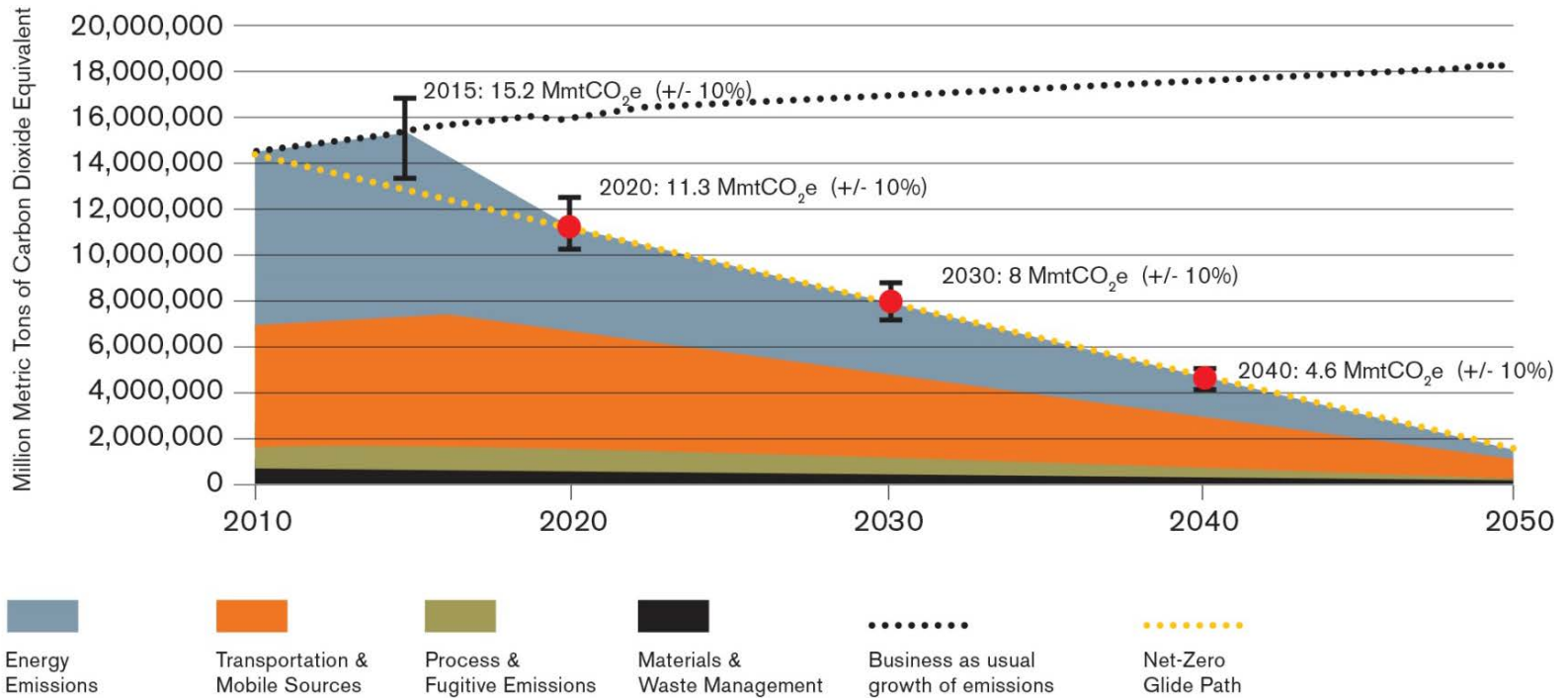
2017 Travis County Carbon Footprint
12.5 million metric tons carbon dioxide-equivalent



Travis County Emissions Sectors

Comparison between 2016 and 2017 emissions (shown in millions of metric tons of carbon dioxide-equivalent)

What does net-zero in 2050 mean?





Austin COMMUNITY CLIMATE PLAN 2015



Climate Plan Strategies

Electricity and Natural Gas

- Buildings and Integrated Efficiency
- Promote Behavior Change
- Resource Technologies

Transportation and Land Use

- Infrastructure and Service
- Land Use
- Demand Management
- Policy and Planning
- Vehicles and Fuel Efficiency
- Economic and Pricing Solutions

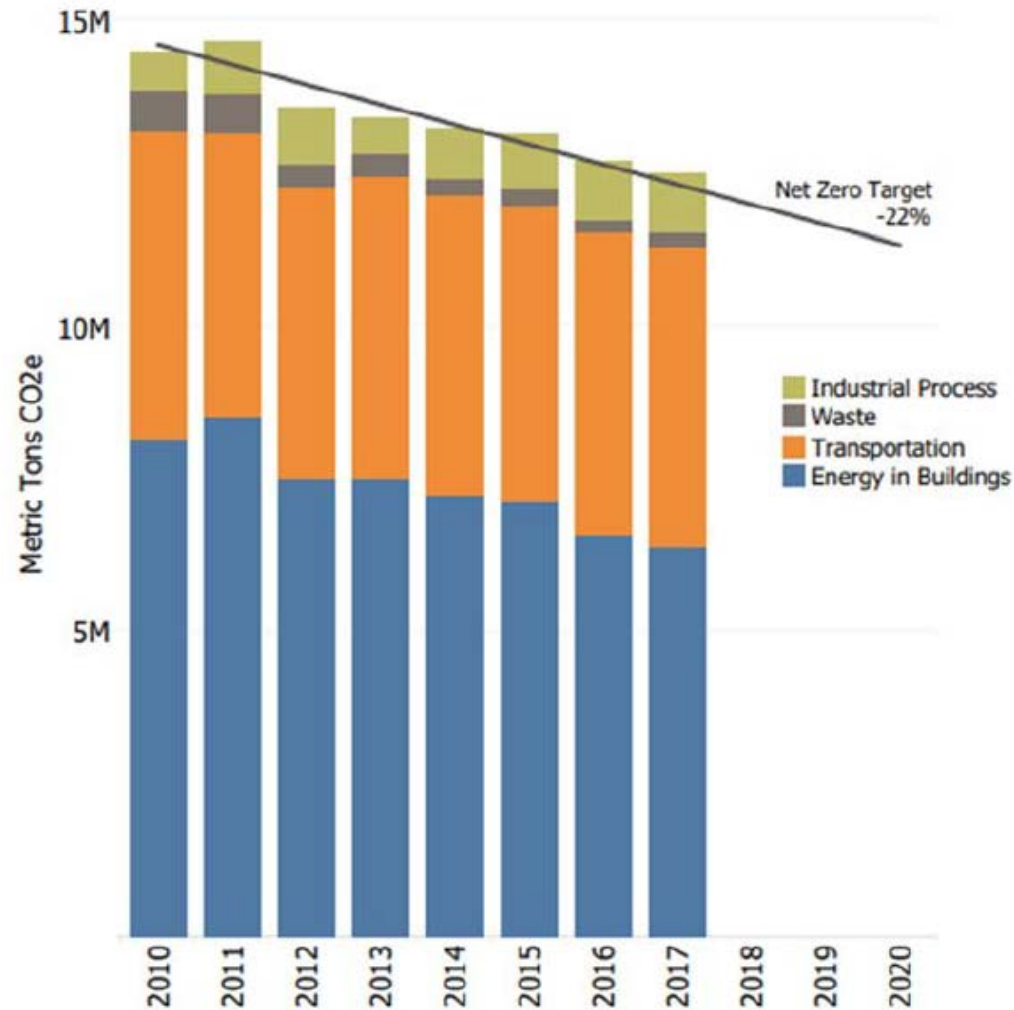
Materials and Waste Management

- Organics Diversion
- Purchasing
- Methane Management
- Recycle / Reduce / Reuse

Industrial Process

- Fuel Switching
- Process Optimization
- Capture and Destruction
- Local Offsets

Austin Community GHG Emissions

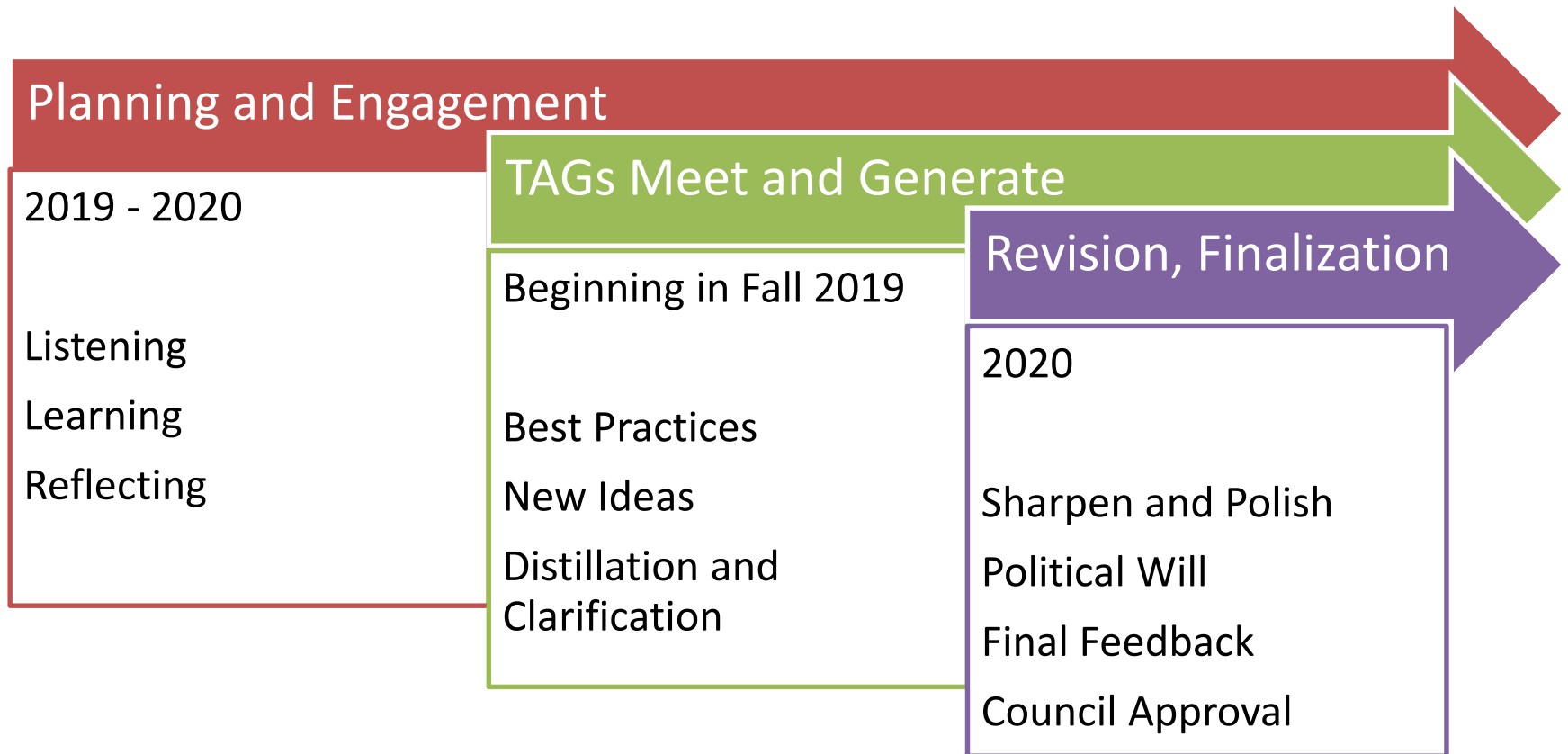


Emissions trends with interim reduction targets for Travis County

2019 Austin Climate Plan Revision

- Structure
 - Joint Sustainability Committee oversight
 - Smaller dedicated steering committee
 - Topic focused Technical Advisory Groups
- Technical Advisory Groups
 - Buildings and Electrification
 - Transportation and Electric Vehicles
 - Consumption of Goods
 - Education and Engagement
 - Natural Systems
- Engagement
 - All 10 districts for everyday Austinite input
 - Equity across the plan
 - Businesses and Institutions
 - Local experts and activists
 - Regional approach if possible

Draft Schedule



Agenda

- Climate Change
- Climate Resilience
- Austin Community Climate Plan
- How to get involved

www.austintexas.gov/climate

[Resilience and Adaptation](#)
[City Resources](#)

[VIEW SUMMARY](#)

[REQUEST A SPEAKER](#)

CLIMATE CHANGE

The Climate Program leads City efforts to implement strategies that address the challenges of climate change for Austin.

Three goals guide this work:

1. Carbon neutrality for City of Austin operations by 2020.
2. Net-zero community-wide greenhouse gases by 2050.
3. Effective strategies for resilience in the face of climate-related threats.

But it's going to take more than City action to protect and preserve what's best about Austin. **Everyone has to do their part to cut carbon.**

[Climate Change in Austin](#)

[Vea este video en español](#)

Tips for Cutting Your Carbon

Austin is green and we all want to keep it that way! Commit to taking action to reduce your carbon footprint and help ensure a safe, healthy, vibrant Austin for many years to come.

Beginner actions you can start taking today.

Intermediate actions to up your efforts.

Advanced actions for carbon-cutting superstars.

TOP CONTENT

- ★ [Bright Green Future School Grants](#)
- ★ [Climate Change](#)
- ★ [Rethink/ Mobile App](#)
- ★ [News & Media Center](#)
- ★ [Austin Green Business Leaders](#)

[Learn About Climate Change](#)
LEARN MORE ABOUT CLIMATE CHANGE

[City Policies and Plans](#)
CITY POLICIES & PLANS

[Progress Updates](#)
PROGRESS UPDATES

[Resilience and Adaptation](#)
RESILIENCE & ADAPTATION

[City Resources That Can Help](#)
CITY RESOURCES

Individuals Taking Action



10 WAYS TO REDUCE YOUR CARBON FOOTPRINT



DITCH THE PLASTIC WATER BOTTLES
Invest in a reusable water bottle. You'll save money and the environment.



DRIVE MORE EFFICIENTLY
Use the accelerator lightly, coast to red lights, stay near the speed limit, and go inside instead of idling in parking lots or drive-thrus.



ADJUST YOUR THERMOSTAT
Set to 78 in the summer and 67 in the winter. Be sure to turn off the heat and AC completely when you're not at home.



KEEP TIRES PROPERLY INFLATED
When the pressure is low, cars have to work harder and burn more gas.



TURN OFF LIGHTS & UNPLUG DEVICES
Every little action adds up to energy savings.



USE COLD
And do your laundry to decrease the



ADD WALK
Try to incorporate walking one



RECYCLE
Keep stuff out of the trash that can be recycled.



EAT MORE
Taste the difference and support the



USE ALTERNATIVE
Aim for at least one alternative mode of transportation in your

LEARN MORE: AUSTINTEXAS.GOV



ADVANCED ACTIONS TO REDUCE YOUR CARBON FOOTPRINT



INTERMEDIATE ACTIONS TO REDUCE YOUR CARBON FOOTPRINT



RIDE THE BUS AT LEAST ONE DAY PER WEEK
Downloading the Capital Metro mobile app makes it easy. With the app, your smartphone becomes your ticket. Use the app for schedules, maps, and real-time arrival information.



START COMPOSTING AT HOME
Let nature recycle your coffee grounds, food scraps, and yard waste into fertilizer for your garden, lawn, or flower beds. Austin Resource Recovery offers classes and rebates to get you started.



CHOOSE A GREENER CAR
If it's time to trade in that clunker, look for a car that's electric or a hybrid, uses alternative fuel, or is highly fuel efficient. AAA Texas offers a free guide to help you choose the car that will work best for you AND reduce your carbon footprint.



ORGANIZE NEIGHBORHOOD SHARING / SWAPPING
Your trash might be someone else's treasure. Give the things you no longer use a new home instead of sending them to the landfill.



TAKE THE SLOW ROAD
Why drive to Dallas, Houston, or San Antonio when you can take the bus or train instead? Free Wi-Fi, dining and lounge options, and seats with ample leg room are available on Amtrak, Megabus or Greyhound for what you'd pay for gas to drive - and with none of the traffic headaches.



REPLACE YOUR LIGHT BULBS WITH LEDs
LEDs use up to 90% less energy and last 10 to 25 times longer than incandescent bulbs (and five times longer than compact fluorescent bulbs). Save money on your energy bill and receive an Austin Energy rebate for your LED purchases - that's a win-win!



SIGN UP FOR THE GREENCHOICE PROGRAM
Be a wind fan. Choosing Austin Energy's GreenChoice for your electricity adds clean energy to the grid every day with 100% renewable Texas wind.



WEATHERIZE YOUR HOME
Work with a qualified Energy Professional to inspect and test attic insulation, ductwork, heating and cooling equipment, weather stripping, plumbing penetrations, and windows. Identifying and fixing any problems will lower your monthly energy expenses, and rebates and loans can help with making the improvements.



USE LESS WATER
Energy is needed to treat and process the water we use everyday. Saving water uses less energy, which in turn reduces greenhouse gas emissions. Track your water usage and be WaterWise - Austin Water offers rebates to help.



UPCYCLE + REUSE
Get creative. Make something new from something old that is functional or beautiful or BOTH! Need inspiration or some quick how-to's? Check out the Upcycle That web site for tips and tricks to give used items new life, and then visit Austin Creative Reuse to stock up on crafting supplies.



KEEP COOL
If your air conditioning system is more than 10 years old, replace it with a more efficient one; newer models use up to 40% less energy. Austin Energy offers rebates for a variety of heating and cooling system options.



BECOME A ZERO OR ONE CAR FAMILY
The cost of owning a car can amount to up to 1/3 of the average household budget. Think about all the trips you take and what alternative options are available. Between public transit, car share programs, and plain old biking and walking, you may not need that clunker after all.



OFFSET THOSE FREQUENT FLYER MILES
Neutralize the climate impacts associated with travel by purchasing carbon offsets. Paying an additional \$5 to \$25 will cover the emissions created from most trips, and the money will go toward carbon-capture or reduction projects that support green business, job creation and biodiversity. Austin-Bergstrom International Airport has partnered with The Good Traveler for carbon offset purchases.



BUY USED MOST OF THE TIME
For a fraction of the cost of buying new things, purchasing second-hand items requires no raw materials for production, no energy costs for manufacturing, and reduces the amount of waste sent to landfills.



GET A PROGRAMMABLE THERMOSTAT
Heat and cool your home with an internet-connected thermostat and receive a rebate from Austin Energy. These nifty devices give you control over your home's temperature from any location, save you money, and reduce the risk of power outages for everyone during peak demand periods.

GET YOUR FRIENDS, FAMILY, FRIENDS, AND COLLEAGUES TO TAKE ACTION WITH YOU. VISIT: AUSTINTEXAS.GOV/CLIMATE

ALREADY A CARBON REDUCING EXPERT? VISIT: AUSTINTEXAS.GOV/CLIMATE FOR MORE ADVANCED ACTIONS YOU CAN TAKE!

Businesses Taking Action

- Programs
- Education
- Resources
- Media
- FAQ

RESOURCES & STRATEGIES



DOWNLOAD

7 REASONS BECOME AN AUSTIN GREEN BUSINESS LEADER



READ MORE

Office of Sustainability Oficina de Sostenibilidad

AUSTIN GREEN BUSINESS LEADERS

Whether you're an established green business or just getting started, the Austin Green Business Leaders program can help you protect the environment, save money, and make Austin a more livable place.

Businesses that excel in the program are formally recognized as Silver, Gold, or Platinum Green Business Leaders—which can give you a competitive edge with customers. To learn more about the program, check out [7 Reasons to Join Austin Green Business Leaders](#). Interested in joining? Click on the [Become a Green Business Leader](#) button below to get started.



BECOME A GREEN BUSINESS LEADER



PLATINUM LEADERS



GOLD LEADERS

Green Business is Good Business — especially in Austin!

Currently, the program has 247 members from 10 different categories of businesses, representing over 42,000 employees and over 19 million square feet of green office space!

247
members

42,619
employees

19,743,619
square feet



TYPES OF BUSINESSES

- 45.5% OFFICE
- 18% MANUFACTURING/LIGHT INDUSTRY/WAREHOUSE
- 17% HOME BUSINESS
- 7% GROCERY/MARKET/RESTAURANT
- 6% RETAIL STORE
- 1% BANK/FINANCIAL INSTITUTION
- 1.5% EDUCATIONAL INSTITUTION
- 2% HOTEL/MOTEL

TOP CONTENT

- ★ [Climate Change](#)
- ★ [Bright Green Future School Grants](#)
- ★ [Austin Green Business Leaders](#)
- ★ [Rethink/ Mobile App](#)
- ★ [News & Media Center](#)

Rethink Newsletter AGBL



SUBSCRIBE TO THE
RETHINK/ NEWSLETTER

Sustainable Austin Blog

SUSTAINABLE AUSTIN BLOG

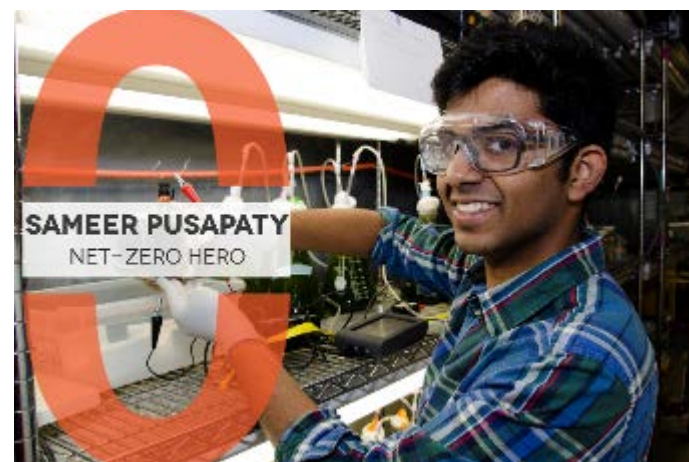
Frequently Asked Questions |
Austin Green Business Leaders

FAQ: AUSTIN GREEN
BUSINESS LEADER

Featured Business Leaders

FEATURED LEADERS

Net Zero Heroes



A large flock of birds, likely seagulls, is captured in mid-flight against a clear blue sky. The birds are scattered across the upper two-thirds of the frame. In the lower third, a group of people is silhouetted against the sky, standing on a wooden pier or boardwalk. The overall scene suggests a coastal or waterfront location during the day.

Questions?

Zach.Baumer@austintexas.gov