AUSTIN CLIMATE EQUITY PLAN

FIRST DRAFT - July 6, 2020

STEERING COMMITTEE STATEMENT

(SC CHAIRS - COMING SOON)

EXECUTIVE SUMMARY

Over the past few years, it has become clear that ~~our~~ the climate is changing~~.~~, it's changing faster than anticipated and the global community is not reducing emissions quickly enough. Enter 2020, and we are experiencing the COVID-19 global pandemic, a massive economic

downturn and nationwide protests in support of the Black Lives Matter movement. In this global moment of change, the systemic solutions needed to combat racism and the exploitation of the environment are inextricably linked and needed more than ever. The time for real change is now.

In 2014, when the Austin City Council adopted the goal of net-zero communitywide emissions by 2050, it was considered a bold and aggressive goal. Austin's first Community Climate Plan, adopted in 2015, was a robust set of strategies and actions to get us moving in the right direction. Over the past five years, ~~it~~ the Community Climate Plan has accomplished this intention. The goal of "net-zero" is now well known, but the need for more action is ever present. Emissions have peaked and are headed downward in Austin, but ~~we~~ there is still a need to do more to keep pace with current scientific recommendations and avoid further~~the worst~~ climate impacts. The City of Austin government can do a lot, but we can't do it alone.

The Steering Committee for the Austin Climate Equity Plan is proposing the goal of reaching net-zero communitywide greenhouse gas emissions by 2040, followed by negative emissions with a steep decline. This is bold and aggressive, and based on the C40 Deadline 2020 trajectory. We also believe that the climate crisis can only be addressed fully when we also address racial inequality, so we set out to create a plan that would include everyone in the Austin community, and strive to deliver a cleaner, healthier, more affordable and accessible plan for this city.

There are five sections in this plan to address community-wide emissions: Sustainable Buildings, Transportation and Land Use, Transportation ~~Electrification~~Decarbonization, Food and Product Consumption and Natural Systems. Collectively, the plan offers 17 sub-goals to be met by 2030 and keep the community on track for net-zero by 2040, as well as 71 strategies to be implemented by 2025. These new goals and strategies — paired with essential community plans like The Austin Energy Resource Plan, Project Connect, The Zero Waste Master Plan, Austin Strategic Mobility Plan and Water Forward — can keep us on the pathway to a safe climate and a more equitable Austin.

The City of Austin is well-positioned to provide leadership in creating effective partnerships with private businesses and nonprofit leaders to drive change and fully implement this plan. At the same time, there are many opportunities for external partners and organizations, both public and private sector, to provide leadership. Implementation is the real challenge. We must ensure the City and everyone collectively in Austin, does their part to reduce emissions and in a way that eliminates disparities defined by race. In order to be successful, meeting the goals in this plan must be followed up with creative funding proposals, inclusive engagement and focused implementation to meet our carbon goals while at the same time benefiting those in our community who need it most.

LAND ACKNOWLEDGEMENT

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THE CLIMATE CHALLENGE

I. Global Climate Goals, Actions and Urgency

It is estimated that human activities have already caused approximately 1.0°C of global warming above pre-industrial levels. While the Paris Climate Agreement established the target of limiting global warming to 2.0°C, a Special Report by the Intergovernmental Panel on Climate Change warns that the lower target of 1.5°C is necessary. The report demonstrates that there would be considerable differences in the severity of impacts between global warming of 1.5°C and 2°C, and that at 1.5°C the adaptation needs and would be more manageable and a wider range of solutions will be viable. If global warming continues to increase at the current rate, it is likely that we will reach global warming of 1.5°C between 2030 and 2052.

INSERT GRAPHIC: Global Trajectory v. Paris Climate Commitments v. 1.5 Necessary Reductions

The United Nations Environment Program's 2019 Emissions Gap Report suggests that we are close to missing the opportunity to limit global warming to 1.5°C. It also says that if we rely only on the current commitments outlined in the Paris Agreement, we can expect a rise in global warming of over 3.0°C this century. The report calls for nations to take urgent and impactful actions if we are to meet a 1.5°C target (or even the 2°C target). This will require profound structural transformation for societies, economies, infrastructures and governance institutions, and will bring co-benefits for humans and the planet. The 1.5°C target is still possible, but each day that we delay makes the path to achieving it increasingly more difficult and costly.

INSERT GRAPHIC: 2010 Lost Decade on Climate Change MIT Tech Review

Though the United States pulled out of the Paris Agreement In 2017, US mayors representing 466 cities (including Austin) and 71 million Americans stepped up to state their continued commitment to the agreement and its actions. On a global scale, cities account for two-thirds of the world's energy consumption and 70% of carbon emissions. As major contributors to climate change, cities have the power and opportunity to produce major solutions, regardless of national leadership. Additionally, cities often have established relationships with local businesses, residents and institutions. This allows for quick, decisive and more context-sensitive decisions, action and solutions. Research shows that more than half of the emissions reductions needed to uphold the Paris Agreement can be delivered through "city action" where municipal governments

have control. However, the change will not be easy, as average per capita emissions need to drop by almost half with the wealthiest cities creating the most emissions being called on to deliver the fastest and most impactful changes.

QUOTE:

From C40: "For centuries, cities have helped foster some of mankind's greatest ideas. It is no stretch of the imagination to believe that cities will now take the lead in addressing climate change."

II. Air Quality, Climate and our Health

The World Health Organization estimates that 4.2 million people per year die from diseases linked to air pollution. These include stroke, heart disease, lung cancer and chronic respiratory disease. The air pollutants causing this public health issue are particulater matter — fine particles of dust, smoke or even pollen — and gases in the air that can be harmful to human and environmental health.

The Environmental Protection Agency uses five major air pollutants to calculate their Air Quality Index — ground-level ozone, particle pollution, carbon monoxide, sulfur dioxide and nitrogen dioxide. In Central Texas, air quality is typically good. But, the Regional Air Quality Plan released by the Capital Area Council of Governments reported that O3 levels in the Austin region are very close to reaching concentrations harmful to human health. The report also estimated that exceeding these levels could cost the region billions of dollars in lost economic growth.

Although O3 is the only pollutant currently in danger of reaching these levels in our region, lowering it could also help reduce particulate matter. High levels of particulate matter can cause significant health problems, and often spike during climate-related events like wildfires, which are likely to occur more often due to climate change.

Examples of linked impacts between climate and air quality in this plan include:

- Reducing the reliance on single-occupancy, internal combustion engine vehicles will reduce carbon emissions and air quality pollutants, including NOx and O3.
- Energy efficiency and shifting to clean energy sources will lead to decreased carbon emissions as well as NOx and particulate matter.
- More trees and natural spaces will provide carbon sequestration and particulate matter pollution filtration, mitigating harmful climate and air quality impacts.

Commented [KJA1]: 1. The data from https://www.capcog.org/wp-content/uploads/2020/01/Deliverable_1.1.2-2016_Austin-Round_Rock_MSA_Air_Quality_Report.pdf shows a steady decline from 1999 - 2016, Austin Energy Decker Creek facility, showed the highest numbers of NOx (2.06 tpd) of the 30 companies reviewed and listed in the 2016 report, TGS is not even listed.

III. Environmental Justice and Economic Opportunity

Climate change is often referred to as the “great equalizer”, but we know that climate change does not affect everyone equally and that low-income communities and communities of color disproportionately bear the brunt of the impacts. The effects of extreme weather — an increasing number and severity of natural disasters, worsening levels of air pollution, depleting water supplies, diminishing crop yields and the general exhaustion of natural resources — exacerbate the socioeconomic inequities that are already plaguing these communities. This is why we will not solve climate change without addressing equity and why we cannot talk about climate change solutions without talking about racial and environmental justice.

The environmental justice movement seeks to remedy the direct negative impacts of climate change on people and communities. It aims to address the fact that people of color disproportionately live and work in areas that are the most affected by climate change impacts. Environmental justice advocates have demonstrated that this link is more than coincidental and that communities of color and low-income communities are routinely targeted for the placement of facilities that have negative environmental and health impacts, like landfills and industrial plants. The importance of acknowledging the history of environmental injustices and creating equitable environmental and climate policies has recently reached mainstream politics. However, the topic of environmental justice is not new.

INSERT GRAPHIC: Asthma Rates in Adults in Austin

The legacy of these historical inequities has led to higher rates of chronic diseases in communities of color and low-income communities like respiratory and cardiovascular disease. Lack of access to social services, affordable healthcare and healthy foods are compounding effects that become most visible during climate disasters and health crises, such as the recent COVID-19 pandemic. These disparate impacts highlighted during the COVID-19 crisis have many parallels to what we see during climate disasters. For example, communities of color are less likely to have access to health care, adequate food, housing and paid sick time. They are more likely to work in low-wage jobs deemed “essential” — like food service, construction and healthcare. These realities make it harder for communities of color to “bounce back” after a climate-related event or a global pandemic. We must ensure that lessons learned from this recent crisis help us be more prepared for future climate action.

In an effort to address the climate crisis along with historical inequities, the Green New Deal Resolution was brought to the US Congress in 2019, sponsored by Representative Alexandria Ocasio-Cortez and Senator Ed Markey. The Green New Deal seeks to

facilitate a “just transition” for communities across the United States to a greener, more resilient, and equitable economy and calls for the following:

- Achieving net-zero greenhouse gas emissions;
- Establishing millions of high-wage jobs and ensuring economic security for all;
- Investing in infrastructure and industry;
- Securing clean air and water, climate and community resiliency, healthy food, access to nature, and a sustainable environment for all; and
- Promoting justice and equality.

Nearly 100 Congressional representatives have signed House Resolution 109, recognizing the duty of the federal government to create a Green New Deal, with cosponsors from Texas including US Representatives Lloyd Doggett (Austin), Joaquin Castro (San Antonio) and Veronica Escobar (El Paso). The Austin City Council also passed resolution 20190509-019 supporting the general tenets of the Green New Deal.

In August 2019, The Austin City Council passed resolution 20190808-078, declaring a climate emergency and calling for immediate emergency mobilization to restore a safe climate. This resolution directed the City Manager to reconsider accountability structures, increase external engagement, and accelerate activity towards the net-zero goal.

GROUNDING CLIMATE ACTION IN EQUITY

I. Understanding Our History

Historically, the City of Austin has supported policies and created structures that perpetuate racial and economic inequities. It is the responsibility of the City government to drive systemic change to eliminate these inequities. By examining our city's history, we can understand how systemic inequality causes some communities to carry more of the burden of climate change than others.

History of Racism in Austin City Planning

Austin has a long history of systemic racism and racial inequity that continues today. Since the city was founded, Black communities and other communities of color have been excluded, marginalized and discriminated against as a result of City policies and practices.

One of the most damaging chapters of Austin’s history is the 1928 Master Plan, which divided the city along racial lines using a practice called redlining. The practice of redlining designated specific parts of the city, mostly East of present-day IH-35, where community services for Black and Hispanic/Latinx residents would be offered. Those

who tried to live outside of this area were denied services like utilities and access to public schools. Redlined districts were then used by financial institutions to decide which neighborhoods they would or would not invest in, making it harder for communities in these areas to get loans. Additionally, deed restrictions and City ordinances often prohibited people of color from buying or renting homes outside of East Austin.

[PODER] Under the 1957 Industrial Development Plan, property in East Austin was zoned as “industrial,” including existing single-family residential areas. This allowed residential homes and schools to be built on industrial-zoned land alongside hazardous and polluting facilities. These burdens were not shared equally among all Austin residents, as this same zoning was not allowed in the western parts of the city.

Local Environmental Justice and Community Organizing

Community-based organizations such as PODER (People Organized in Defense of Earth and her Resources) and other Eastside activists have examined the impact of the City of Austin’s historical land use and planning policies and how they have negatively impacted residents in East Austin. The siting of infrastructure like the Tank Farm fuel storage facility, BFI Recycling Plant and City of Austin’s Holly Power Plant in 1948 raised concerns about the destruction of the natural environment and vibrant culture in East Austin neighborhoods. Community members and activists have since worked to re-define environmental issues as social and economic justice issues, and collectively aim to frame these concerns as basic human rights issues.

Gentrification and Inequality: Austin’s Changing Demographics

A steady growth in jobs within the technology, transportation and warehousing sectors has made Austin a desirable migration destination. This has resulted in population growth and an influx of higher wage earners that have put a strain on housing availability and affordability. 2010 census data shows a major shift in the demographics of East Austin and surrounding communities. While Austin has received much recognition as one of the “best places to live in the U.S.”, it is also consistently noted as a city with severe racial disparities persisting from legacies of lack of access to opportunity for people of color.

Based on data from the City of Austin Demographer, the African-American share of the city’s overall population likely declined from 2010 to 2014, from 8.1 percent to 7.8 percent. In 1990, Austin’s African-American population stood at 12.4 percent. Communities of color and low-income communities are particularly at risk of being displaced by wealthy white Austinites due to the historic and current inequities in housing, health care, education, criminal justice, jobs and other quality-of-life outcomes that stem from decades of City practices and policies. Community members have repeatedly called for the City to recognize and acknowledge this systemic racism that has been caused and perpetuated over time.

II. Today's Inequities and Climate Impacts

Climate change affects everyone, but across the world and right here in Austin, the impacts are not felt equally among all communities. Due to systemic racism, communities of color are particularly vulnerable. Other marginalized groups include, but are not limited to:

- Low income communities
- Youth
- LGBTQIA+ Communities
- Immigrant, migrant, and/or refugee communities
- People with disabilities
- People experiencing homelessness
- People with criminal records
- Seniors

These marginalized groups often experience heightened risk and increased sensitivity to climate change and have fewer resources to help them cope with, adapt to and recover from climate disasters. In the coming decades, we expect the changes in Austin's climate to negatively impact all residents — especially those living in heat-prone and flood-prone areas of the city, and for those who work outside. In particular, marginalized communities face:

- Increased exposure to heat-related illnesses, respiratory illnesses, or vector borne diseases
- Displacement and reduced mobility due to flooding, extreme weather and extreme heat-related impacts to neighborhoods and transportation systems
- More exposure to emissions and environmental pollution
- Less representation in local government
- Fewer financial resources to respond to environmental and economic stresses

III. Shared Vision: An Anti-racist Approach

Austin's Climate Equity Plan is part of a bigger shift towards normalizing and institutionalizing equity within the City government. The City's Equity Office is working across departments to identify opportunities to increase equity in City services, programs and policies. This plan is a roadmap intended to guide the City's consideration of equity in its climate policies and programs to achieve more environmentally and economically just outcomes for the greater Austin community.

INSERT GRAPHIC - Climate Change / Racial Equity Venn Diagram

Racial equity is the condition when race no longer predicts a person's quality of life outcomes in our community. We recognize that racial inequity is wrong and

solving climate change is impossible without racial equity. In Austin, this means our Plan will only succeed if we center racial equity in the plan's goals and strategies. We realize that City of Austin infrastructure, policies and investment have historically and systemically neglected and even harmed low-income communities and communities of color. The City acknowledges these injustices and the need to right these wrongs by creating a culture of equity within its institutions. We recognize that:

- Low-income communities and communities of color are the most impacted by extreme weather, and climate change will worsen existing harms and challenges.
- Low-income communities and communities of color must be prioritized to receive the disproportionate benefits of the transition to a pollution-free society.
- If we design and implement programs to serve low-income communities and communities of color, we will positively impact all residents in the Austin area.

Because of this, we have created the following themes and associated Equity Tool with screening questions to ensure our climate plan will increase racial equity: Health, Affordability, Accessibility, Just Transition, Community Capacity, Cultural Preservation and Accountability.

IV. Advancing Equity through our Goals and Strategies

To develop the goals and strategies for this plan through an equity lens, our Advisory Groups followed a specific six-step process adapted from the Government Alliance on Race and Equity.

INSERT GRAPHIC - OUR EQUITY TOOL 6 Step Process

Additionally, all recommendations went through an Equity Screening Tool to identify potential burdens or harms to low-income communities and communities of color. The tool allowed our Advisory Groups to build their goals and strategies in a way that reduces and eliminates these burdens and works to improve quality of life for these communities. The tool centered on seven equity objectives:

1) **Health** - Strategy improves mental and physical health outcomes for low-income communities and communities of color. The strategy upholds the fundamental human right to clean, healthy and adequate air, water, land, food, education, transportation, safety and housing.
2) **Affordability** - Strategy lowers and stabilizes costs related to basic living needs (housing, food, utilities, healthcare, transportation, etc.) for low-income

communities and communities of color.

3) **Accessibility** - Strategy increases access to jobs, housing, transportation, funding, education, healthy foods and a clean environment for low-income communities and communities of color. Strategy removes barriers through City infrastructure, policy and investments.
4) **Just Transition** - Strategy ensures economic justice so that low-income communities and communities of color are prioritized in the benefits of the strategy and are protected from any potential negative consequences.
5) **Community Capacity** - Strategy elevates the voices of low-income communities and communities of color by developing and strengthening the skills, abilities and resources that a community needs to survive, adapt and thrive.
6) **Cultural Preservation -** Strategy deliberately and respectfully honors cultural relevance and history to preserve the cultural heritage of the past and present to benefit all generations.
7) **Accountability** - Strategy ensures that low-income communities and communities of color can hold governments and institutions accountable for equitable implementation.

V. Community Climate Ambassador Program

An important part of building and implementing this Plan has been reaching out to groups that have historically been left out of the climate conversation. In building the plan, we created a Community Climate Ambassador Program to engage underrepresented groups — specifically, people of color — in conversations around energy, transportation, food and access to nature. The primary role of our ambassadors was to gather and share information about climate issues with their community and social circles.

Ambassador Recruitment and Process

As part of this new model of engagement, we put out a citywide call for applicants who could engage with underrepresented communities about climate-related issues. 12 ambassadors were selected and compensated to facilitate discussions around challenges, barriers and opportunities facing these groups. Each ambassador was tasked with hosting a minimum of three gatherings to produce a minimum of five interview reports. This allowed us to elevate the voices of people in our community who have been underrepresented in previous plans.

Conducting engagement in this way involved using City resources to build community relationships and trust. This does not mean that other parts of our community will be left out or ignored, merely that additional resources were devoted up-front to ensure equitable outreach. The ambassador interviews were conducted without City staff present, because we recognize that government officials are not always the most appropriate people to create spaces for genuine, authentic conversations.

Commented [KJA2]: We recommend providing more details – sample pool size, how ambassadors and interviewees were selected, how the information was managed, how the ques ions were developed, etc.

Outcomes and Key Takeaways

In traditional community engagement, people are invited into the process after the planning has already been completed. We wanted to flip this around by first listening and understanding our community's needs. The major themes from ambassador interviews were:

- **Healthy Environment:** Concerns about pollution, cleanliness and green space.
- **Culture:** Loss of community history and/or culture.
- **Affordability:** Affordable housing, living, food, gentrification and displacement concerns.
- **Economic Opportunity & Empowerment:** The need for better education, stronger partnerships and more information.
- **Food and Product Consumption:** Conserving resources, reuse and recycling, clean energy and rainwater collection.
- **Mobility:** Biking, sidewalks, commuting and transit.
- **Climate Preparedness:** Community resiliency, flooding and safety.

Many of the reports submitted by the Climate Ambassadors were diverse with different areas of focus. While the Climate Equity Plan will not be able to address all of the equity challenges that came up in these discussions, the goal was to find opportunities for the plan to address some of the community's concerns that we might have been previously unaware of.

INSERT QUOTE FROM AMBASSADOR ABOUT EXPERIENCE

INSERT GRAPHIC - COMMUNITY CLIMATE AMBASSADORS

INSERT QUOTE FROM AMBASSADOR ABOUT WORKSHOPS

AUSTIN'S CARBON FOOTPRINT AND CLIMATE GOALS

I. Carbon Accounting Framework

Citywide emissions are measured using an accounting framework called the Global Protocol for Community Scale Greenhouse Gas Emissions Inventories, or GPC. The GPC was developed by a group of international non-governmental organizations and is widely used by cities and communities throughout the world. The international popularity of the GPC allows for global comparisons and insights into greenhouse gas emissions accounting. This protocol categorizes emissions into three scopes depending on where emissions occur geographically.

INSERT GRAPHIC - Scope 1, 2, 3, Boundaries of GHG Accounting

Only Scope 1 (emissions released within the City) and Scope 2 (emissions from electricity consumed within the City) emissions are currently included in Austin's Community Greenhouse Gas Inventory. Scope 3 emissions occur outside of Austin because of activities inside Austin, and are therefore difficult to calculate accurately and reliably. For this reason, they are not included in the direct emissions inventory. They were, however, addressed by the Natural Systems, Consumption and Sustainable Buildings Advisory Groups during the climate planning process and they will continue to gain focus as Scope 1 and 2 emissions are mitigated.

II. Emissions and Trajectory for Austin

The Austin Community Greenhouse Gas inventory is broken into the five sectors shown below.

INSERT FIGURE: Austin's GHG Emission Trends by Sector from 2010 - 2018

The majority of Austin's current emissions come from on-road transportation and energy used in buildings. In the last eight years, the GHG emissions from energy in buildings has fallen nearly 20%, despite a corresponding 20% growth in Austin's population during~~in~~ the same time period. This reduction is ~~predominantly~~ due to Austin Energy's increasing electricity generation via renewable sources and Texas Gas Service

Company's emission reductions through pipeline replacement and end-use energy efficiency programs. Austin Energy has laid out additional plans for significant decarbonization of their power supply in their Resource Generation Plan. Texas Gas Service Company has proposed additional emission reduction strategies utilizing Renewable Natural Gas ("RNG"). However, these reductions realized from the energy sectors efforts have been partially offset by rising emissions from on-road transportation.

[graphic showing the increasing population v. decreasing emissions would be helpful]

Vehicle miles travelled (VMT) and vehicle fuel efficiency are the two main factors effecting ~~that affect~~ on-road transportation emissions. In Austin, VMT has been steadily increasing for decades, mirroring population growth, as more residents are driving farther ~~further~~. Meanwhile, vehicle fuel efficiency has ~~been~~ increased ~~ing~~ each year since 2005, meaning that vehicles can travel further on less fuel, as the result of ~~due to~~ technology improvements. However, since VMT is increasing at a higher rate than fuel efficiency, there has been an ~~overall~~ net increase in transportation emissions over the last eight years.

Extrapolating current trends shows a continuation of Austin's current predicament — falling emissions in ~~electricity generation~~energy offset by rising emissions from on-road vehicles. Figure [X] shows past and projected Community GHG emissions for Austin, assuming no additional actions are taken. ~~there is no action beyond Austin Energy's Resource Generation Plan~~.

INSERT FIGURE: Austin's Past and Projected Community Emissions

We are proud to report that Austin's GHG emissions peaked in 2011 and have since decreased by 13%. Despite this improvement, we are committed to ~~more~~ taking the steps necessary to ~~action than ever is needed to~~ continue and accelerate this trend.

Another important consideration when estimating Austin's GHG emissions is the interconnectedness of our region. The Austin city boundary is a logical but arbitrary geographic boundary for our emissions. For instance, transportation is often a regional phenomenon that is more effectively assessed across multiple connected counties or a Metropolitan Statistical Area rather than within a city boundary. Austin is part of the Austin-Round Rock MSA which encompasses five counties: Travis, Williamson, Bastrop, Hays and Caldwell. To provide perspective on Austin's emissions, we estimated the GHG emissions of the Austin-Round Rock MSA in Figure [X] below.

INSERT FIGURE: Austin's GHG Emissions vs. MSA Emissions

As shown, the emissions for the MSA are more than double those of just the city of Austin alone. An important note is that the Austin-Round Rock emissions estimate is not an official GPC inventory, but it was derived using similar methods.

III. Austin's Climate Goals

Austin's first Community Climate Plan was adopted In 2015 by the Austin City Council. This plan set the target to reach net-zero community-wide greenhouse gas emissions by 2050. A recent review showed that progress had been made and that 58% of all the strategies outlined in that inaugural plan were fully attempted. But Austin is growing, and along with population and economic growth comes increases in construction activity and regional travel. The need for particularly aggressive action is more urgent than ever. Additionally, there have been advances in renewable energy and sustainable technology that continue to decrease costs and improve feasibility. Given this, a new goal is being established for **net-zero community-wide greenhouse gas emissions by 2040, followed by negative emissions with a steeply declining trajectory.**

INSERT GRAPHIC - 2010-2030 Emissions and 2050 v. 2040 Goals

Beyond moving up the net-zero target year from 2050 to 2040, the new target has a more aggressive emissions reduction schedule than a linear or "straight line" target. This sharp target curve was deliberately chosen based on two influential reports: C40's Deadline 20/20 Report and the latest United Nations Environment Programme Emissions Gap Report.

The Deadline 20/20 report was released in 2016 and presented a pathway for global cities to meet the commitments made in the Paris Agreement. Based on current GHG emission levels, Gross Domestic Product and population, the report sorted cities into one of four typologies. These typologies characterize the emissions reduction timelines necessary for meeting global targets to limit global warming to 1.5 degrees Celsius. Because Austin has a high GDP per capita and a high current emissions rate, it was sorted into the typology with the most rapid decline in emissions. According to C40's logic, since Austin is a wealthy city with high GHG emissions per capita, it should be able to reduce emissions quickly compared to other global cities.

The UN Environmental Programme Gap Report was released in November 2019 and painted a dire picture for limiting global emissions to 1.5 or even 2 degrees Celsius. This report examined global emission rates to show that reductions since 2016 have not been remotely close to meeting the goals outlined in the Paris Climate Agreement. It

Commented [KJA3]: The executive summary states "Aus in's first Community Climate Plan, adopted in 2015, was a robust set of strategies and actions to get us moving in the right direction. Over the past five years, it has **accomplished this intention**." Considering that only 58% of the strategies in the 2015 plan were fully attempted, this section would appear to contradict the executive summary.

What percent of the 2015 strategies were accomplished and can he City provide additional information on what attempted means?

Is there any governance around the monitoring and reporting of hese efforts? External audit?

serves as a sobering reminder of the monumental transition that still needs to take place to avert the worst impacts of global climate change.

In light of this information, we have adopted a target trajectory that follows a steep decline advised for cities like Austin in the Deadline 20/20 report, but with a steeper reduction curve which emphasizes the urgency of massive global emissions cuts outlined in the UNEP Gap Report.

IV. Quantitative Analysis of this Plan and Meeting our 2030 Targets

The goals from all sections were modeled against our Austin Community Greenhouse Gas Inventory. The performance to target is shown in the figure below.

INSERT GRAPHIC - Top Down Strategy focused inventory graph to target

The figure uses a "Business as Usual" baseline, which assumes current electricity demand being met by the Electric Reliability Council of Texas. The largest reduction from this baseline will come from energy sector reductions. These include Austin Energy's latest Resource Generation Plan, which will result in lower ~~. This will create a massive reduction in GHG emissions because the~~ carbon intensity of Austin Energy's electricity generation ~~will be lower than~~compared to the overall ERCOT grid. Texas Gas Service Company's ongoing emission reduction programs will continue to make significant reductions in carbon emissions from direct use of natural gas. Other notable decreases come from our building ~~electrification~~ net-zero goals and the reduction of refrigerant leaks in our community.

In the transportation sector, the most impactful strategy will be our ambitious ~~electric vehicle~~alternative fuel vehicle adoption targets. The goal of 40% of all vehicle miles travelled by ~~EVs~~alternative fuel vehicles in 2030 will require a transformation of the auto industry and exponential growth in alternative fuel vehicle~~EV~~ sales in the next decade. ~~EV adoption works well with Austin Energy's decarbonization of electricity because the emissions reductions from driving EVs increases as Austin Energy decarbonizes their electric generation.~~ Increasing mass-transit and people-powered transportation also provide substantial reductions in carbon emissions that have many co-benefits from their adoption.

Commented [KJA4]: The Austin Energy Resource Generation Plan only contemplates the emissions of City owned generation assets with he primary reduc ions coming from the retirement of the Coal power plant. However, hat plan does not take into account the total generation needed to support he City of Austin. In order to understand he actual emissions from the electric grid he City will need to consider total generation, not just City owned assets.

Commented [KJA5]: Has the City considered fixed cost for EVs, home chargers, and the associated electricity to the COA modeling? This will have a significant impact on affordability.

Commented [KJA6]: Electric vehicles will only lower emissions in he City of Austin if the power generation is primarily renewable. There is not a plan to achieve that goal. The Austin Energy Resource Genera ion plan only focuses on City owned generation, which is not the actual electric emissions. Additionally, he significant adoption of EV's proposed in this plan will drive up he need for additional power generation, his has not been addressed.

We recommend incentivizing all alternative fuel vehicles that provide reduced emissions in the transportation sector. Natural gas vehicles (NGV) are 90% cleaner than the Environmental Protection Agency's (EPA) current NOx standard and emit 21% fewer greenhouse gas emissions than comparable gasoline and diesel vehicles. These vehicles are readily available for fleet operations and provide a cost-effective means for real immediate emission reduc ions.

However, even if we reach all of the goals in our individual strategies we don't project that we will meet our 2030 emissions target. Figure [X] below shows the remaining projected gap to our 2030 emissions target and possible solutions to meeting the target.

INSERT GRAPHIC - Remaining gap to target with possible solutions - Natural Systems / Offsets

Natural systems currently fall outside the scope of our emissions inventory, but clearly present an opportunity to store carbon and reduce our community GHG emissions. Also, carbon offset markets are another potential method for meeting our future goals if we can't sufficiently reduce emissions. Natural systems sequestration is often developed into carbon offsets and sold on a national or global scale. As offset markets mature and natural systems accounting becomes more standardized, we hope that these two sectors can provide the flexibility to meet our emissions targets over the next decade.

2030 GOALS AND STRATEGIES

Climate Action is a Shared Responsibility

INSERT DIAGRAM - VENN DIAGRAM of Community / Business / Government

While climate action requires shared responsibility, it must be acknowledged that we all have common, but differentiated responsibilities. This concept is a principle of the United Nations Framework Convention on Climate Change and one which notes that wealthier, industrialized nations have a particular responsibility to mitigate emissions, and more resources to do so. When this concept is applied on a microscale to the Austin community, it is important to acknowledge the barriers to action for many community members, and the critical role of large institutions with resources to lead by example.

While cities can create policies, incentives and regulations to push this work forward, the flexibility of the private sector can create market disruption and acceleration through innovative technology. Consumers have the ability to shift market demand to favor more sustainable practices and products, but the private and public sector must collaborate to ensure these remain accessible and affordable to all income levels. In this way, our collaboration is key to the transformative change we need, and only together can we turn our visions into reality.

Coordinated City Plans and Strategies

INSERT GRAPHIC - Honeycomb Climate Plan surrounded by Plans

Austin Energy Resource, Generation, and Climate Protection Plan to 2030

The Austin Energy Resource, Generation, and Climate Protection Plan to 2030 commits Austin Energy to provide affordable, dependable and safe electricity service to residents and businesses while pursuing the directives set forth in the City of Austin's climate protection and sustainability goals and the Austin Climate Emergency Resolution. As a part of its commitment, Austin Energy will maintain an energy supply portfolio sufficient to offset customer demand while eliminating carbon and other pollutant emissions from its electric generation facilities as rapidly as feasible within the limitations set by the

Austin City Council. Austin Energy commits to providing access to the benefits of this 2030 Plan for low income communities and communities of color. The plan calls for:

- 93% carbon-free generation by 2030, 100% by 2035
- 1,200 MW conservation, including 225MW peak capacity
- 1% of retail sales per year in energy efficiency savings, at least 25,000 customer participants annually, 25% limited income
- 375 MW local solar, 200 MW customer-sited, front or behind meter
    - Shared solar - expand when automated billing allows
    - Preferential access to moderate and limited income for community solar
- 40 MW local thermal storage
- Commitment to equity evaluation for programs

Commented [KJA7]: The Austin Energy Resource Generation Plan only contemplates the emissions of City owned generation assets with he primary reduc ions coming from the retirement of the Coal power plant. However, hat plan does not take into account the total generation needed to support he City of Austin. In order to understand he actual emissions from the electric grid he City will need to consider total generation, not just City owned assets.

Texas Gas Service Company - Emission Reduction Strategies

Texas Gas Service Company is committed to finding ways to reduce emissions and engage in proactive conservation efforts as we move toward a low carbon future. Since the City published the first Climate Action Plan in 2015, their programs have reduced annual emissions in the City of Austin by 22,785 metric tons of CO2e, which represents one year of electric use in 14,145 homes. Texas Gas Service Company will continue its efforts to prioritize low-income communities. Their programs within Central Texas have provided more than $300,000 in rebates for affordable housing properties and assistance to 877 low-income customers through the Free Equipment Program.

Austin Resource Recovery - Zero Waste Master Plan

The Austin City Council approved adoption of Austin Resource Recovery's Master Plan in 2011. The plan serves as a guide for the City to achieve its goal of zero waste by reducing the amount of trash sent to landfills by 90% by the year 2040. Waste prevention, recycling and composting are activities that support sustainability and slowing climate change. Austin Resource Recovery's zero waste efforts assist the City's sustainability initiatives by encouraging resource efficiency and managing materials for a second life, rather than managing waste. ARR's Master Plan is currently being revised and is anticipated to be considered by the Austin City Council in Spring 2021.

Capital Metro - Project Connect

Capital Metro's Project Connect is a plan for how we move people today and plan for tomorrow. It is an integrated transit system that will bring jobs to our region, improve the environment and better connect people so everyone can thrive in our community.

Project Connect includes more options: expanded MetroRapid, neighborhood circulators, expanded MetroExpress service, more Park & Rides, more MetroRail, a new downtown transit tunnel and new light rail service. The light rail vehicles would run separate from other vehicles — so cars don't get stuck behind a train, and transit doesn't add to the same traffic we all fight.

Project Connect was adopted as an integral part of the Austin Strategic Mobility Plan, which was unanimously approved by the Austin City Council in 2019.

Austin Strategic Mobility Plan

The Austin Strategic Mobility Plan is a comprehensive multimodal transportation plan for the future of our transportation network — and it is needed for us to achieve the mobility outcomes that will help to improve and sustain the quality of life for all community members. Austinites want our city and our transportation network to be safe, accessible, and inclusive for all members of our community. The plan presents the policies needed to guide us and the actions necessary to achieve our common goals as identified in the Imagine Austin transportation vision. In reviewing past public engagement efforts, eight mobility goals emerged as recurring themes raised by Austin residents that serve as the goals for the Austin Strategic Mobility Plan: Commuter Delay, Travel Choice, Health & Safety, Affordability, Sustainability, Placemaking, Economic Prosperity and Innovation.

Top strategies outlined in the plan:

1. Reduce traffic fatalities and serious injuries by focusing on safety culture and behaviors
2. Move more people by investing in public transportation
3. Manage congestion by managing demand
4. Build active transportation access for all ages and abilities on sidewalk, bicycle and urban trail systems
5. Strategically add roadway capacity to improve travel efficiency
6. Connect people to services and opportunities for better health
7. Address affordability by linking housing and transportation investments
8. Right-size and manage parking supply to manage demand
9. Develop shared mobility options with data and emerging technology
10. Build and expand community relationships with plan implementation

Water Forward

Water Forward is an integrated water resource plan created through a collaborative effort in response to the historic Central Texas drought from 2008-2016. The plan includes strategies of conservation, water reuse, protecting our Core Colorado River supplies, increasing drought supplies and community engagement to meet the 2040 water demand target of 182,000 acre-feet of water per year. Water Forward demand reduction strategies most relevant to sustainable buildings include: Advanced Metering Infrastructure, benchmarking, and use of reclaimed water to meet non-potable water demands.

The Water Forward plan recommendations will be implemented using an adaptive management approach, which means adjustments will be made to respond to changing conditions. Implementation of Water Forward recommendations will help Austin Water continue its commitment to providing clean, safe, reliable and affordable water services to customers.

Austin's Community Climate Goals [two-page spread]

Sustainable Buildings

- All new buildings will be Net Zero Carbon by 2030, and all existing buildings will be Net Zero Carbon by 2040, while striving to reduce energy burden across the city.
- By 2030, reduce community-wide greenhouse gas emissions from refrigerant leakage by 25%.
- Goal 3: By 2030, reduce embodied carbon footprint of building materials used in local construction by 40% from a 2020 baseline.
- GOAL 4: By 2030, equitably reduce water demand by XX,XXX acre-foot of water per year.

Commented [KJA8]: What do we mean by energy burden?

Commented [KJA9]: We look forward to working with the City of Austin to developing additional emission reduc ion plans and achieving he overall goals.

Transportation and Land Use

- By 2030, 80% of new non-residential development is located within the city's growth centers and corridors
- By 2030, 70% of new housing units are located within the city's growth centers and corridors while preserving 10,000 deeply affordable housing units and producing 1,000 deeply affordable units.
- By 2030, public transit will make up 5% of distance traveled for all trips in Austin.
- By 2030, people-powered transportation will make up 4% of distance traveled for all trips in Austin.

Transportation ~~Electrification~~Emission Reduction

- By 2030, 40% of total vehicle miles traveled in Austin are ~~electrified~~ alternative fuel vehicles ~~(460,000 electric vehicles)~~ and vehicle ownership is diverse

culturally, geographically and economically.

- By 2030, Austin has adequate and equitably distributed charging infrastructure that is a mix of level 1, 2, and DC fast charging and CNG fueling stations for NGV's to accommodate 40% of total alternative fuel~~electrified~~ vehicle miles traveled in the City. This translates to 226 megawatts of electrical load and could mean over 37,000 charging ports.
- The Austin-Round Rock MSA will be a global leader in transportation ~~electrification~~ emission reductions by adopting policies and technologies that maximize the economic and health benefits for all while evolving with and defining the growth of this emerging industry.

Food & Product Consumption

- By 2030, ensure 100% of Austinites, with a focus on the food insecure, can access a pro-climate, pro-health food system that is community-driven, prioritizes regenerative agriculture, supports dietary and health agency, prefers plant-based over animal-based foods, and minimizes food waste.
- By 2030, reduce greenhouse gas emissions from institutional, commercial, and government purchasing by at least 50%.
- By 2030, reduce the community-wide per capita disposal rate to be among the top three lowest disposal rates in the US.

Natural Systems

- Protect 10-30% of farmland in the 5-county region through legal protections and/or regenerative agriculture programs — the equivalent of 500,000 acres.
- Move towards achieving 50% tree canopy cover citywide by 2050, with a focus on increasing canopy cover in areas where coverage is lower than average.
- Include all City-owned lands under a landscape management plan that results in neutral or negative carbon emissions and maximizes community co-benefits.

Commented [KJA10]: We would like to discuss how TGS can support this goal.

11. Introduction to our Goals and Strategies

City staff, local experts, and residents of Austin have come together to recommend the following goals and strategies, aimed at curbing emissions and achieving equity through climate action. Community members participated in a ten-month long process through the Steering Committee and Advisory Groups, Community Climate Ambassadors program, Community Workshops, and individuals sharing experiences to help develop successful and holistic goals and strategies for this report. In all, nearly 200 residents of Austin participated in the process. To ensure that we are properly considering equity, it was important for the Steering Committee, Advisory Groups, Climate Ambassadors and

staff to explore the historical and structural disparities that exist in Austin and recognize that race is the primary determinant of social equity.

INSERT GRAPH of Cumulative Hours Contributed to the Plan

The Advisory Groups were divided by topics, including: **Sustainable Buildings, Transportation and Land Use, Transportation** Decarbonization~~Electrification~~**, Food and Product Consumption and Natural Systems.** Goals and strategies created by these Advisory Groups are meant to reduce greenhouse gas emissions and alleviate inequities and wrongs by critically transforming regional institutions and creating a culture of sustainability and equity. Throughout the process, the Advisory Group members, along with staff participants, were required to attend an equity training, host community workshops on their topic, invite topic experts to present and have facilitated discussions to craft their goals and strategies.

OVERARCHING STRATEGIES

Throughout the creation of this Plan, a few issues arose across Advisory Groups that didn't fit in one category, but were seen as essential to the success of this plan. Climate Change and Equity are massive challenges, and to meaningfully reduce our emissions and create benefits for those who need it most, different thinking is needed. The three overarching strategies are: Green Jobs Training, Regional Collaboration and Carbon Dioxide Removal.

Strategy 1: Green Jobs Training

Create a Green Jobs Training Program that fills the gap between the work this plan wants to see get done and people who can actually do it.

- Ensure an adequately educated workforce to perform installation and maintenance of green industries through a skill-up training program specifically focused on communities of color and low-income communities. Including green infrastructure, tree and landscape maintenance, solar installation, HVAC systems, etc.
- Ensure permanence of these workers in the workforce, provide career paths not just temporary jobs. Ensure a living wage. Include considerations for "Returning Citizens" (the formerly incarcerated)

Commented [KJA11]: TGS believes we can partner with this City on his initiative to poten ially provide funding and programs to train the workforce on RNG, HVAC, Landscaping, etc.

Strategy 2: Regional Collaboration

Create a Texas Climate Collaborative, linking elected officials as well as City Staff, who are working to implement recently adopted Climate Plans in San Antonio, Houston, Dallas, and Austin. The group should focus on lessons learned from specific implementation and also big picture issues like aggregating demand for new technology and State-wide policy changes. Leverage existing networks such as C40, Climate Mayors, or the Urban Sustainability Directors Network.

Strategy 3: Carbon Dioxide Removal

Explore how Austin can support deeper negative emissions via Carbon Dioxide Removal (CDR) strategies. Explore and create guidelines for CDR strategies such as geologic sequestration and carbon utilization (including biochar, Bio-energy with carbon capture and storage, synthetic limestone, industrial products like bicarbonate, methane energy, and gaseous CO2). Ensure equity and permanence are considered in this process.

Commented [KJA12]: TGS would like to support this goal and work with the City of Austin to explore how this can be accomplished.

SUSTAINABLE BUILDINGS

When operational and embodied carbon from building materials and construction are taken into account, buildings are responsible for nearly 40% of global emissions. While operational emissions have been the largest area of focus in climate planning, embodied carbon accounts for about 11% of global emissions from buildings. [1]

Commented [KJA13]: We think it would be more impactful and relevant if we use a number here specific to Austin.

In Austin, strides can be made in reducing building-related emissions by ~~electrifying~~ adopting efficient end-use equipment in buildings, ~~driving electric and natural gas~~energy use emission reductions, including source-to-site emissions, addressing refrigerants and more sustainably managing construction materials. ~~Since our electricity is becoming increasingly cleaner through Austin Energy's transition to renewables, the majority of our buildings' operational emissions will soon come from natural gas. This makes electrifying buildings an important next step in reaching our emissions goals.~~

Another key area of addressing climate change is how we manage refrigerants. Globally, and particularly~~especially~~ in Austin, refrigerants have played a critical role in modern life by enabling the comforts of air conditioning and refrigeration. Unfortunately, they are a significant part of our carbon footprint and have between 1,000 and 9,000 times the global warming potential of carbon dioxide.[2] According to Project Drawdown, refrigerant management is the single most important strategy we can use to successfully reverse global warming, and this is an area that Austin has yet to address.

Improving our buildings isn't just about reducing emissions. Since Americans spend nearly 90% of their time indoors, and because of efforts to seal building envelopes for energy savings, indoor air is often 2 to 5 times more polluted than outdoor air. The COVID-19 pandemic has made us very aware that ensuring safe and healthy indoor air quality in buildings is an important part of public health.

It's also important to consider reducing energy costs in our community. In Austin and across the nation, income disparities are largely tied to race, illustrating the need to address racial equity by focusing on lowering energy costs. In Texas, low-income customers spend an average of 10% of their income on energy, compared to 3% for non-low-income households.[3] Cost effective solutions and ~~innovtative~~innovative programs will help Austin close the gap and eliminate energy inequality. We also want

[1] 2019 Global Status Report for Buildings and Construction Sector: UN Environment Programme
[2] Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming; 2017
[3] Texas Energy Poverty Institute

to ensure that we expand building improvement jobs to low-income communities and communities of color to strengthen opportunities for our local workforce.

Callout: What is embodied carbon?
"Embodied carbon takes into account the entire lifecycle of a building — from the materials extracted to build it to the construction, use and eventual demolition and disposal of the building materials."

Callout: What is source energy?
"Source energy is a measure that accounts for the energy consumed on site in addition to the energy consumed during generation and transmission in supplying the energy to your site. This is a vital input to assess and understand environmental performance."

GOAL 1: All new buildings will be net zero carbon by 2030, and all existing buildings will be net zero carbon by 2040, while striving to reduce energy burden across the city.

Strategy 1: Ensure benefits flow to under-resourced communities
Pursue a comprehensive energy poverty mitigation strategy by partnering with trusted community organizations and affordable housing developers in equitable outreach and program development. This will ensure that the benefits of repair, energy conservation and renewable energy incentives and programs flow to low-income communities and communities of color.

How we'll get there:
Create partnerships and work with any future Community Climate Ambassador cohorts to gain feedback and insights on improving program accessibility. Ensure a cross-~~departmental~~functional approach that also emphasizes partnerships with green infrastructure stakeholders to ensure trees and greenery are utilized and placed strategically to shade buildings and help further conservation. Continue and expand Austin Energy's and Texas Gas Service Company's efforts to support efficient, affordable housing and low-income customers.~~,~~ ~~f~~From 2015-2019 Texas Gas Service Company has provided more than $300,000 in new construction rebates for affordable housing properties and assistance to 877 low-income customers through their Free Equipment Program. Austin Energy has.....

Strategy 2: Enhance understanding of energy consumption
Enhance resident and building owner understanding of energy savings opportunities, benefits and carbon impacts of energy consumption. This will be done through direct

outreach, culturally-relevant communications, expanding benchmarking requirements for all existing buildings and better energy and water data access.

How we'll get there:
Focus on opportunities to partner with affordable housing and multifamily properties and better expand information access to low-income customers. Explore workforce development and training opportunities for students of color in schools and universities.

Commented [KJA14]: TGS would like to help create and deliver this training to the community.

Strategy 3: ~~Electrify~~ Net-zero carbon buildings
Adopt new codes and local amendments to ensure transparent source energy efficiency, demand response, storage and distributed generation. Set a goal of ~~electrifying~~ net-zero carbon for all new buildings for which it is practical by 2025, and 25% of existing buildings ~~that currently use natural gas~~ by 2030.

How we'll get there:
In addition to new code adoption, encourage ~~electrification for gas to electric component replacement~~net-zero carbon practices on existing buildings through incentives and education of contractors and residents.

Strategy 4: Decarbonize the gas sector

Commented [KJA15]: To align with discussion in the electric section and ensure an unbiased discussion of solutions, the following should be included:
Every level of the natural gas industry has worked effectively to keep methane out of the atmosphere. A recent US Environmental Protection Agency inventory shows hat emissions from production in 2018 were 24% lower than previously thought and that only 1% of methane in natural gas is emitted from well to customer each year. Distribution systems have reduced emissions by 73% since 1990 to less han 0.1% of all the natural gas produced in the United States

Texas Gas Service Company is committed to finding ways to reduce emissions and engage in proactive conservation efforts as we move toward a low carbon future. Since the City published the first Climate Action Plan in 2015, their programs have reduced annual emissions in the City of Austin by 22,785 metric tons of CO2e, which represents one year of electric use in 14,145 homes. Texas Gas Service Company will continue its efforts to prioritize low-income communities. Their programs within Central Texas have provided rebates for affordable housing properties and assistance to low-income customers through the Free Equipment Program.

Texas Gas Service Company will work with the key stakeholders, including the Office of Sustainability, to further develop emission reduction strategies, including but not limited to, RNG, existing energy efficiency program expansion, offsets, carbon capture and research and development of new technologies.
~~Establish a carbon emission reduction target of X% by 2030 from the use of natural gas in the City of Austin while keeping rates affordable.~~

How we'll get there:
This target could be met by pipeline replacement programs, user efficiency measures, bio-methane, renewable gas credits, choice-programs, carbon offsets and other applicable measures. ~~*(Set this target after the TGS study is complete in June)*~~

Strategy 5: Ensure equitable workforce development for emerging technologies
Prioritize local investment in climate mitigation and create equitable workforce development and training opportunities for emerging technologies by partnering with local unions, education and advocacy organizations that serve communities of color and low-income communities.

How we'll get there:
Partner with local universities and schools, such as Huston-Tillotson University, Austin Community College, and the Career and Technical Education Program at Austin ISD, to develop workforce opportunities. Pursue partnerships and support from local clean technology companies that can help create internship, apprenticeship, training and employment opportunities for individuals. Increasing these opportunities can have a positive economic impact on families, aid in relationship-building and support community capacity to drive decision-making in future projects and programs.

Commented [KJA16]: TGS would like to work with the City of Austin to achieve this goal.

INSERT GRAPHIC - ZERO CODE for Buildings

Quote:
Ambassador interview excerpts on clean energy and buildings:
"I am interested in the subject of climate change. For example, using solar panels on local buildings in downtown and in homes, it would be very helpful to have solar-powered homes in every community."

Commented [KJA17]: Will here be a part of he document that provides more details about he Ambassador program that includes quantifiable data? How many ambassadors, sample pool size for the people they spoke with etc. Has here been a broad community survey done on the same topic or only qualitative Ambassador lead discussions?

"Number one priority should be seeding and investment of renewables corporations of solar and wind!!! There should be requirements of new construction to have solar and wind."

GOAL 2: By 2030, reduce community-wide greenhouse gas emissions from refrigerant leakage by 25%.

Strategy 1: Capture and destroy old refrigerants
Develop a refrigerant destruction program that places a price on older high Ozone-Depleting Substances and Global Warming Potential refrigerants.

How we'll get there:
The program could be run by the City or a contractor and would increase the capture of old refrigerants and safely destroy harmful gases. Develop a feasibility study to examine the process of design and deployment of the program. Explore similar programs in other cities and determine potential funding opportunities.

Strategy 2: Improve building codes to encourage cleaner refrigerants
Closely follow developments in revised building codes that allow the use of low and no Global Warming Potential refrigerants — such as California's state building code changes and US Green Building Council policies — and move forward with code amendments and other local action as soon as feasible.

How we'll get there:
In the meantime, partner with organizations that are innovators in low to no Global Warming Potential refrigerants and highlight successes in marketing efforts. Leverage any market trends to stimulate voluntary action.

Strategy 3: Create incentives for leak detection and repair
Partner with grocery stores, convenience stores, restaurants, restaurant supply companies, refrigerated warehouses and HVAC tune-up and repair companies to create an incentive for designing and tracking refrigerant leak detection, prevention and repair.

How we'll get there:
Ensure incentives are able to engage a diversity of sectors and business sizes in participation. Prioritize outreach and program development to support local, small businesses owned by people of color.

Strategy 4: Awareness and training for HVAC service providers
Create an awareness, education and training campaign for local HVAC service providers, building owners, operators, inspectors and maintenance leads on the importance of refrigerant management and strategies for leak detection, prevention, and repair.

How we'll get there:
Ensure training and education is provided in multiple languages and is accessible to workers of color in this industry. Approach stakeholders with empathy and emphasize the importance and benefits of this work.

Strategy 5: Reduce the volume of refrigerants
Emphasize the link between design and refrigerant use by reducing and preventing the use of refrigerants, particularly those with high Global Warming Potential through the extent possible, through codes and incentives that favor passive design, reduction and efficiency.

Quote:

“Implement special programs for Black, Indigenous and people of color-owned businesses. An example is sustainable building discounts for folks that may want to renovate to make their buildings more sustainable” - Community Climate Ambassador

Storytelling:
THE HEB at Mueller Case Study would work well here.

GOAL 3: By 2030, reduce the embodied carbon footprint of building materials used in local construction by 40% from a 2020 baseline.*

**Target cannot exceed 500 kg CO2e/m2 (~100 lbs CO2e/sf).*

Strategy 1: Lead by example through design and construction standards
Develop City of Austin design and construction specifications and purchasing agreements to result in low-carbon, healthy buildings.

How we’ll get there:
As an example, encourage lower-carbon building materials, whole building life cycle analysis, healthy building certifications and building reuse and deconstruction in City-funded projects. Purchasing policies should be structured to promote building product transparency and preferred outcomes. Ensure healthy building strategies and certifications are prioritized in community centers, libraries and other community facilities serving low-income communities of color first.

Strategy 2: Incentivize lower-carbon materials
Enhance and integrate lower-carbon building materials and deconstruction practices into City incentive programs — like the expedited permitting process, planned unit development guidelines and Austin Energy’s Green Building program — to transition voluntary design guidance into planning and development agreements over time.

How we’ll get there:
Consider feasibility and cost to determine the most effective pathways to stimulate voluntary action. Invest in culturally-relevant marketing to highlight success cases to and drive market participation.

Strategy 3: Educate stakeholders on materials best practices
Create a performance framework and educational programming for industry professionals and the general public, with a focus on low-income communities and communities of color, to reduce the lifecycle and negative health impacts of building

materials and construction practices.

How we'll get there:
Provide resources that address and help mitigate the health impact of materials from the point of extraction to operation, including availability of Environmental and Health Product Declarations. Environmental Product Declarations can help ensure the health of people exposed to material extraction, manufacturing and recycling processes, while Health Product Declarations focus on the health impact of the product during use within the building. Both declarations work to protect communities at different potential points of exposure.

Strategy 4: Stimulate decarbonization with local producers
Prioritize partnerships within local materials markets to decarbonize high-impact materials, specifically: glass, steel, aluminum, concrete, drywall and carpet.

How we'll get there:
Leverage and align with existing local and national efforts to create equitable outcomes in materials decarbonization and look for opportunities for coworking and collaboration among businesses.

INSERT GRAPHIC - Building LCA steps

Quote: *Ambassador interview excerpt on historic preservation:*
"What needs to be preserved? Schools, park areas, recreational facilities, Black businesses, and of course the churches...new people moving in and tearing down older homes and buildings are destroying a lot of Austin history."

Storytelling:
Potential case studies: Library, Creative Action (deconstruction/preservation), Oracle (concrete)

GOAL 4: By 2030, equitably reduce water demand by XX,XXX acre-foot of water per year.

Strategy 1: Engage residents in technological transitions and conservation programs

Enhance community engagement strategies and create partnerships with community organizations to advance equity through Austin Water's Water Forward strategies, including smart water meters, incentives and ordinances.

How we will get there:
Collect, analyze and respond to demographic data on incentive program participation. Gather input on program experience, including low-income residents' experience with smart water meters. Develop and implement targeted outreach efforts to enhance program participation, collect input and better engage residents in decision-making processes.

Strategy 2: Adjust barriers to program participation

Adjust structural barriers that prevent program participation. Collaborate with City departments and/or community organizations to explore strategies to expand enrollment in the Customer Assistance Program and increase participation in other programs serving low-income customers.

How we will get there:
Undertake equity assessments of program design, including extending eligibility to multi-family properties, modifying existing repair programs, streamlining application processes and increasing outreach to qualified customers not currently enrolled in these programs. Create partnerships across City departments and/or with community organizations to enhance workforce development opportunities in water and green jobs.

Strategy 3: Reduce carbon emissions at the water-energy nexus

Assess how the reduction of water demand is associated with energy consumption in residential and commercial buildings, as well as Austin Water facilities. Identify and pursue synergistic water conservation and energy management optimization efforts through programs and partnerships.

How we will get there:
Complete an evaluation of energy usage across Austin Water facilities and develop a plan to reduce usage spikes and decrease demand. Develop methodologies to quantify how customer reduction in water demand also reduces the City's energy usage and related greenhouse gas emissions. Encourage partnerships between Austin Water and Texas Gas Service Company to utilize renewable natural gas produced at Austin Water facilities to further reduce emissions.

TRANSPORTATION AND LAND USE

Transportation will soon become the largest contributor to our community's greenhouse gas emissions, and therefore the most critical factor to reaching our climate plan goals. Where our residents live, work, and play and how they move around our city greatly impacts our community-wide emissions. Coordinated transportation and land use strategies can improve access to different types of transportation, create more affordable housing, support diverse communities and reduce greenhouse gas emissions. The vision of this section is to cultivate a person-centered network of complete communities that meets the needs of low-income people of color of all ages and abilities.

Transportation and land use are broad topics that have a major impact on both the quality of life of members in our community and on our greenhouse gas emissions. Recent Council-approved and -endorsed plans, such as Imagine Austin, Austin Strategic Mobility Plan, Capital Metro's Project Connect, the People's Plan and the Austin Strategic Housing Blueprint, include strategies that attempt to provide a more sustainable growth pattern, reduce our dependence on cars and increase the number of affordable housing units.

While these exciting plans provide direction on how the Central Texas region might grow, the equity and climate discussion is somewhat new to this topic. Low-income communities, communities of color and people with disabilities have felt the brunt of publicly-supported racist and ableist policies and dwindling resources. As a result, they are often forced to make difficult decisions under the weight of this oppression. In addition, the influx of people moving to Austin over the last 30 years has dramatically increased property values in Central Texas, which has forcefully displaced low-income people, people with disabilities and communities of color.

GOAL 1: By 2030, 80% of new non-residential development is located within the growth centers and corridors

Strategy 1: Plan for complete communities
Adopt complete communities plans that reverse negative impacts on areas experiencing displacement and that preserve neighborhoods in communities of color. Some examples include neighborhood, village, corridor and station area plans.

How we'll get there:
Align future development with regional planning efforts like the Imagine Austin Growth Concept Map, CAMPO 2045 Plan and other regional planning efforts in surrounding cities like Bastrop and Manor.

Strategy 2: Work with employers on location and amenities
Work with medium and large employers to locate their place of business along activity centers and corridors. Encourage them to include community amenities such as parks, transit stops, healthy food locations, health centers, community centers and facilities for seniors.

How we'll get there:
Employers receiving direct financial benefits from the City of Austin shall fund anti-displacement measures, including supporting small minority businesses and advancing workforce development programs.

Strategy 3*:* Create mobility hubs
Create community mobility hubs, including park-and-rides, that offer a variety of first- and last-mile mobility options adjacent to transit stops to offer a complete trip experience.

How we'll get there:
Improve the physical access to and through the station area so it is accessible to all. Identify necessary resources to carry out and maintain placemaking and beautification opportunities, including hiring low-income communities, communities of color and people with disabilities. Work with artist and community groups to design and create "beautification" projects.

Strategy 4: Phase out free parking
Phase out the practice of providing free parking spaces to employees at City of Austin facilities and other large employers located within 1/2 mile of the Austin Strategic Mobility Plan's transit priority network. Instead, offer a parking cash-out or commuter benefits program and support for teleworking.

How we'll get there:
Providing free or subsidized parking for higher income, predominantly white employees who have other options incentivizes them to drive. This reduces funding and support for other modes like public transit that are disproportionately used by low-income communities and communities of color. We should focus parking-reduction strategies on large employers to lessen the potential negative impacts on communities of color,

particularly those who have been displaced to parts of the city where transit service is less frequent or unavailable. We should conduct an inclusive engagement process to provide affordable parking and other multimodal access options for essential services. These could include transit stops, healthy food locations, health centers, community centers, multi-family residences, facilities for seniors and construction sites.

INSERT GRAPHIC - Austin Affordable Parking Program Map

INSERT PHOTO - Mayor's Mobility Challenge Picture

GOAL 2: By 2030, 70% of new housing units are located within the city's growth centers and corridors while preserving 10,000 and constructing 1,000 deeply affordable housing units.

Strategy 1: Offer immediate affordable housing assistance
Engage directly with communities vulnerable to displacement and connect them with services. Proactively monitor affordable housing properties at risk of losing affordability to extend affordability periods.

How we'll get there:
Increase fair housing enforcement and education. Incorporate robust tenant protections for all rental properties receiving City support, including streamlining the application process for affordable units. Support tenant organizing and engagement and provide legal and other assistance to tenants facing eviction or displacement. Provide tenant relocation assistance and emergency rental assistance.

Strategy 2: Fund affordable housing
Fund at 100% the City's current Housing Trust Fund and support capacity building for community development corporations.

How we'll get there:
Land bank in gentrifying areas to acquire and develop affordable housing. Recalibrate, streamline and expand density bonus programs to serve renters at or below 60% Median Family Income. Support the creation of deeply affordable units within the growth centers and corridors at 20% and 30% MFI and below. Implement a Preference Policy to prioritize new City-subsidized affordable units for income-qualified households that are appropriately sized to the unit and/or have ties to the City.

Strategy 3: Enhance community engagement

Include low-income communities, communities of color and people with disabilities who are directly affected by systemic inequalities in the Housing Investment Review Committee activities. Enhance direct outreach of Housing and Planning Department-subsidized affordable units in gentrifying areas with culturally-relevant communication strategies.

GOAL 3: By 2030, Public Transit will make up 5% of distance traveled for all trips in Austin

Strategy 1: Expand and improve public transportation
Work with major transit agencies in Austin, like Capital Metro, CARTS and the Texas Department of Transportation, to expand and improve public transportation services.

How we'll get there:
Hire residents from the affected communities to review past decisions that negatively impacted low-income communities, communities of color and people with disabilities. Conduct a community needs assessment to identify gaps in services based on greatest mobility needs, and ensure projects are integrated and coordinated across City Departments and other institutions. Expand paratransit, defined as flexibly scheduled and routed services, available to any address and community member in the coverage area regardless of distance from bus routes, including those with professional medical and psychiatric diagnoses, guidance and documentation. Work to ensure that transit improvement projects do not accelerate displacement and gentrification.

Strategy 2: Promote free transportation options
Create comprehensive, user-friendly resources connecting community members with free transportation options.

How we'll get there:
In partnership with community-based organizations, promote awareness of existing free transportation resources in a culturally competent way for low-income communities, communities of color and people with disabilities.

Strategy 3: Transit stations and stops
Partner with Capital Metro and community organizers to engage low-income communities, communities of color and people with disabilities to improve transit stops, stations and access to these facilities.

How we'll get there:

Enforce ADA and Public Rights-of-Way Accessibility Guidelines regulations to ensure that transit and public spaces in and around the stop are accessible to all and connect to critical services like healthy food locations, health centers, community centers, multi-family residences and facilities for seniors.

INSERT GRAPHIC - PROJECT CONNECT or CAP REMAP

GOAL 4: By 2030, people-powered transportation (bicycle, walking, wheelchairs, etc.) will make up 4% of distance traveled for all trips in Austin.

Strategy 1: Prioritize bicycle networks
Prioritize planning and construction of bicycle networks in communities of color through a meaningful community engagement process.

How we'll get there:
Utilize Historic Investment Pattern Analysis to ensure historically underserved areas are prioritized when it comes to receiving new bicycle infrastructure. Properly maintain roads by keeping pavement, physical barriers, markings, signage, and signal detection in good condition and free of debris and other impediments. Make intersections safer for bicycles, pedestrians and communities with impaired mobility.

Strategy 2: Bicycle education and training
Provide access to free or reduced-priced bicycles and basic bicycle training for communities of color and train police officers on bicycle laws and racial profiling.

How we'll get there:
People of color may not feel comfortable riding their bike as it makes them more vulnerable to racial profiling. To help address this, the City will invest in community-based alternatives to police while providing more legal protections for bicycle riders. Hire low-income communities, communities of color and people with disabilities to manage and provide bicycle training.

Strategy 3: Sidewalks, urban trails and crossings
Update the City's Sidewalk Plan and Urban Trails Plan with an emphasis on equity and meaningful community engagement.

How we'll get there:

Prioritize historically underserved areas and zip codes with higher rates of chronic illness and/or disability status using lived experience and ground-truthed City of Austin data. Build all high- and very-high priority sidewalk and trail segments and address ADA barriers and gaps in the sidewalk and trail systems according to the Sidewalk Plan/ADA Transition Plan and Public Rights-Of-Way Accessibility Guidelines regulations. These guidelines ensure that sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian are readily accessible to and usable by pedestrians with disabilities. New sidewalk and trail construction should improve access to transit stops, healthy food locations, health centers, community centers, multi-family residences and facilities for seniors. Prioritize low-cost pedestrian crossing improvements for communities of color in areas with poor quality or a lack of pedestrian infrastructure.

INSERT GRAPHIC - Bike Network or Beginning Cycling Class Pictures

TRANSPORTATION

~~ELECTRIFICATION~~EMISSION REDUCTIONS

In May of 2019, The Austin City Council passed resolution 20190509-020, directing the City Manager to include an analysis of transportation electrification into the revision of the Austin Community Climate Plan. Specific requests were made to analyze scenarios, goals, and a plan to address charging infrastructure, vehicle adoption, partnerships, and grid integration.~~.~~

In Austin, our transportation system will soon become the largest emitter of greenhouse gases and the primary source of local air pollution. As of 2018, our community-wide emissions were down by 7.2%, while our transportation emissions increased by 13.5% since 2010. The vast majority of these transportation-related emissions are caused by private cars and trucks. This means that in order to meet our emissions reduction targets, we will need to have more people using sustainable forms of transportation, and the remaining vehicles on the road using alternative fuel vehicles. ~~electrified and powered by renewable energy.~~

The good news is that there have been multiple~~two~~ technical breakthroughs that could help rapidly accelerate the transition to alternative fuel vehicles such as electric vehicles (EVs) and Natural Gas Vehicles (NGVs). First, EVs now have a longer range and are more affordable. Second, the electricity used to charge EVs is getting cleaner through Austin Energy's transition to renewable energy. Finally, the cleanest Heavy Duty truck engine in the world runs on natural gas. The Ultra-Low NOx natural gas engine is 90 percent cleaner than the EPA's current NOx standard. It is certified by both the EPA and the California Air Resources Board to a 0.02 gram per brake horsepower hour(g/bhp-hr.) standard, making it zero emission equivalent (ZEE) or cleaner when considering power generation on a life-cycle basis. When renewable natural gas (biomethane) captured from landfills, wastewater, and food and agricultural waste is used to fuel it, unsurpassed CO2 and GHG emissions reductions are achieved, helping to clean our cities and improve the environment. ~~EVs also offer the additional benefits of lower ownership costs for customers, improved local air quality and potential grid services for Austin Energy.~~

To date, there has been a lot of progress made ~~to electrify~~to transition to alternative fuel vehicle transportation in Austin. There are now over 10,000 EVs in the greater Austin area, and public entities like Capital Metro and the City of Austin are committed to transitioning their fleets to ~~electric~~alternative fuel vehicles. Austin Energy ~~also~~ manages

the Plug-In EVerywhere network, which consists of over 1,000 level 2 charging ports and 30 DC fast charging stations throughout the city and Texas Gas Service Company continues to work with developers and end-use customers to expand the CNG network for NGV's, with the ~~newest~~most recent public station opening in Buda in 2018.

Despite the progress made in ~~Ev~~alternative fuel vehicle adoption, EVs have only been widely accessible for homeowners and people who are primarily high-income and white. In order to make EV ownership truly accessible, we need to make adjustments to our strategies on pricing, information and where charging stations are located. We want EV ownership to be racially, geographically and economically diverse, which means we need to build out the charging network in underserved areas and structure our incentives to be accessible for all. NGV's have been accessible to the general public for quite some time, and conversion of gasoline passenger vehicles is affordable with the added benefit of re-using materials while greatly reducing emissions. In addition, NGV's play an important role in reducing emission in heavy duty fleet vehicles, reducing one traditional diesel-burning heavy-duty truck with one, new ultra-low-NOx natural gas heavy-duty vehicle is the emissions equivalent of removing 119 traditional combustion engine cars from our roadways.

Goal 1: By 2030, 40% of total vehicle miles traveled in the City of Austin are ~~electrified~~ alternative fuel vehicles and vehicle ownership is diverse culturally, geographically and economically. ~~This translates to approximately 460,000 electric vehicles on the road.~~

Strategy 1: Conduct an ~~EV~~ Alternative Fuel Community Needs Assessment
Complete an ~~Electric Vehicle~~Alternative Fuel Vehicle Community Needs Assessment to identify the intersections of mobility challenges, transportation ~~electrification~~ decarbonization and racial and economic justice. The assessment will inform an ~~EV~~ alternative fuel vehicle adoption growth plan that will be supported by enhanced communications efforts and incentives.

How we'll get there:
Work with local community partners, grassroots organizations and connection points like the Austin Energy Customer Assistance Program, ~~and~~ the City Affordable Housing Programs and the Texas Gas Service Company Energy Efficiency Program. Hire local residents in the communities we aim to serve to help conduct the needs assessment. Host community input sessions to build ongoing inclusive relationships that will inform focused outreach to low-income communities and communities of color.

Strategy 2: Create equitable incentives for buying and leasing ~~Evs~~alternative fuel vehicles
Collaborate with community partners to create inclusive incentives for buying or leasing ~~electric~~alternative fuel vehicles. This strategy would supplement existing state and federal programs, prioritize low-income communities and communities of color and focus on geographic areas with limited or no access to transit.

Strategy 3: Reduce tolls for ~~Evs~~alternative fuel vehicles in the Eastern Crescent
Partner with highway and regional mobility authorities to offer a reduced or eliminated toll rate for low-income communities and communities of color who drive ~~Evs~~alternative fuel vehicles on toll roads from the Eastern Crescent to central Austin.

Strategy 4: Launch an e-bike and ~~electric~~ alternative fuel vehicle ~~car~~ sharing program
Create an electric bike and car sharing program centered on low-income communities and communities of color to support functional, low-cost zero-emissions mobility.

How we'll get there:
Be very intentional and equity-focused when considering where to install car-sharing locations, what types of vehicles to include and how to accept payment. Create an income threshold to ensure that low-income residents can access the program and plan specific actions to address displacement.

Strategy 5: Electrify public sector fleet vehicles
Starting in 2021, fleets in public sector agencies like cities, counties, Capital Metro, and school districts will commit to buying 100% ~~electric~~ alternative fuel vehicles when they are available, cost-competitive and meet operational needs.

How we'll get there:
Partner with Austin-area public fleets to participate in the Climate Mayors EV Collaborative Purchasing Program to lower the up-front costs of new electric vehicles. Work with Texas Gas Service Company to increase rebates on NGV's. Consider early retirement of older fleet vehicles where new alternative fuel vehicles~~EV alternatives~~ are economical, and offer retired vehicles for sale locally. Prioritize fleets that operate in the Eastern Crescent. Work on commitments from AISD and Travis County first, then replicate at surrounding cities, counties and school districts.

Strategy 6: Electrify private sector fleet vehicles
By 2030, transition 100% of the gig, rideshare, public health, and delivery vehicle fleets to ~~electric~~ alternative fuel vehicles. Starting with private fleets in the Eastern Crescent,

establish pilots, technical support, regulation, incentives and education for all privately-owned fleets to support rapid ~~electrification~~conversion.

How we'll get there:
Study how the transition to ~~electrified~~ alternative fuel vehicle delivery is already happening in order to determine which policies, incentives and infrastructure are needed to help accelerate the transition. Prioritize working with local ride-share cooperatives, nonprofits serving low income communities, and public health organizations.

Graphic/photo needs and ideas:
Delia Garza and her used Nissan Leaf, TNC driver using a Chevy Bolt, City of Austin fleet EV, City of Austin NGV fleet, Waste Management NGV Fleet, UPS NGV Fleet

GOAL 2: By 2030, Austin has adequate and equitably-distributed charging and CNG infrastructure that is a mix of level 1, 2, and DC fast charging to accommodate 40% of total ~~electrified~~ alternative fuel vehicle miles traveled in the city. This translates to 226 megawatts of electrical load and could mean over 37,000 charging ports.

Strategy 1: Create more low-cost, accessible charging stations
Continue to incentivize the installation of EV charging and CNG ~~charging~~ infrastructure by the City, auto manufacturers and third-party ~~charging~~ companies to create a convenient, reliable and low-cost network accessible to all.

How we'll get there:
Prioritize underserved areas like existing multifamily properties, parks, community centers, libraries, geographically underrepresented areas and low-income communities while mitigating displacement. Work with diverse and representative community partners to continuously improve plans. Fill in gaps by installing EV charging and CNG fueling on publicly-owned land in underrepresented areas, and address maintenance and ongoing support for charging stations.

Strategy 2: Incentivize internet-connected smart charging
By 2030, the City will have a network of intelligent charging that supports grid reliability and resilience, maximized efficiency, reduced emissions, accessibility for all and lower costs for all residents. Incentivize internet-connected charging infrastructure with the ability to manage the start and end time and charge rate across a 24-hour time period while still meeting the driver's needs.

How we'll get there:
Internet connection is needed to ensure the availability and reliability of charging stations. This technology would also provide repair information to technicians, pricing information to customers and intelligent charging for longer charge sessions.

Strategy 3: Adopt new energy and building codes
Adopt new energy and building codes that address future EV charging and NGV needs. Considerations should include: streamlining the permitting and electrical plan review process, upsizing the electrical requirements for future EV growth, requiring EV chargers and CNG fueling at commercial and multifamily properties and requiring single family homes to be EV charger ready and CNG fueling capable.

How we'll get there:
Having universal guidelines in place across the city enables a more equitable approach by simplifying the charging network and lowering barriers to entry for installing EV charging. Create mechanisms to address the additional costs that drive displacement, such as offsetting costs in underserved areas.

Strategy 4: Expand outreach to underserved groups
Expand outreach to community groups, professional organizations, unions, and property managers with culturally competent information on ~~EV~~ alternative fuel vehicle fueling ~~charging~~ incentives and installation. Collaborate with and learn from existing community and City partnerships.

How we'll get there:
Focus on clarifying the EV charging process and NGV fueling process, raise awareness about available incentives and increase community involvement. Engage EV and NGV industry groups in this strategy to expand the impact beyond our local area.

Graphic/photo needs and ideas:
Map of existing charging infrastructure, photo of DC fast charger, photo of charging stations at a multi-family property, or picture of someone arriving at work and plugging in? Map of existing CNG fueling infrastructure, photo of CNG fueling station, photo of CNG fueling station on commercial property, or picture someone arriving to deliver a package in their NGV.

Goal 3: The Austin-Round Rock MSA will be a global leader in transportation ~~electrification~~ emission reductions by adopting policies and technologies that maximize the economic and health

benefits for all while evolving with and defining the growth of this emerging industry.

Strategy 1: Create a regional coalition to support alternative fuel vehicles~~EVs~~
The City of Austin will take the lead in creating a regional coalition to support ~~EV~~ alternative fuel vehicle adoption within the five-county metro area. The coalition will consist of an inclusive group of government, business and community stakeholders.

How we'll get there:
Policies will include strategies that utilize alternative fuel vehicle~~EV~~s to provide ancillary services for the grid, support community resilience, maximize air quality benefits, and support clean and green economic growth. This can potentially tie in to bulk purchasing power, more rapid adoption.

Strategy 2: Pilot and adopt new technology
Austin will continue to pilot and be an early adopter of emerging technologies for transportation ~~electrification~~emission ~~, and~~reductions and ensure that low-income communities and communities of color can access the benefits first.

How we'll get there:
Pursue grant funding opportunities to test new technologies and take successful pilots into more widespread applications. Increase engagements with governmental agencies, research institutions, etc.

Strategy 3: Prioritize a just transition
Austin will be a leader in the just transition to ~~an electrified~~lower emissions of the regional transportation system by collaborating with community and workforce leadership groups like labor unions, grassroots organizations and businesses. We will ensure that low-income and communities of color are positioned to benefit from the switch to ~~electric~~ alternative fuel vehicle transportation.

How we'll get there:
These collaborations will facilitate training and support for our local workforce, focusing on contractors, electricians, first responders, mechanics, gig workers, rideshare drivers, delivery drivers and battery recyclers. Job training should have an emphasis on underserved groups like women, people of color, people with disabilities and small businesses.

Strategy 4: Expand the alternative fuel vehicle~~EV~~-related business ecosystem

Create a robust alternative fuel vehicle~~electric~~ transportation-related business ecosystem in Central Texas by supporting existing and new local companies focused on the alternative fuel vehicle ~~EV~~ supply chain, including battery technology, home CNG ~~vehicle~~refueling, vehicle manufacturing and software.

FOOD AND PRODUCT CONSUMPTION

In modern American society, the way we consume products and food has had negative consequences for both people and our planet. In 2017, 27,690 tons of non-durable goods with a lifetime of under three years were sent to the landfill in the United States[1].

To fully account for the entire emissions lifecycle of the food and products we consume, we need to shift the focus upstream. This means accounting for the raw material extraction, consumption and eventual disposal or reuse of a product — regardless of where the activities occur. When viewed through this lens, the emissions produced outside of Austin for the food and products we consume inside Austin can be many times greater than locally-created emissions.

While overconsumption is the primary concern for non-food products, underconsumption is the challenge for our food system. In Travis County, 15% of our population is food insecure, and less than 1% of our food supply is produced locally[2]. While many people lack access to sufficient food, our community also wastes far too much. This food waste often ends up in landfills where it creates powerful climate change-causing methane gas as it decomposes, which accounts for about 2% of our community's emissions.

For the non-food products we consume, we should shift our thinking and behavior to a more circular and equitable economy. We can do this through sharing and renting products instead of owning them, promoting and shopping at local circular businesses and helping organizations access alternatives to buying new products. And, all of this can be done while enhancing workforce development opportunities for low-income communities and communities of color.

When considering new strategies around food and product consumption, extra caution should be taken to ensure that we do not perpetuate historical inequities that benefit white and more affluent Austinites. Our programs and activities must be accessible to — and preferably initiated, led and evaluated by — people of color and those with limited economic power. As a society, we should aim to improve racial equity locally and globally by reshaping our economy into a more circular, life-honoring process that improves quality of life and restores planetary health.

INSERT GRAPHIC - Product Life Cycle from Production to Consumption

INSERT FIGURE - ZERO Waste Hierarchy

INSERT FIGURE - Greenhouse Gas Emissions Comparison Using Geographically Based Methods vs. Lifecycle Based Methods

Callout: What are pro-climate, pro-health foods?
[Description]

GOAL 1: By 2030, ensure 100% of Austinites, with a focus on the food insecure, can access a pro-climate, pro-health food system that is community-driven, prioritizes regenerative agriculture, supports dietary and health agency, prefers plant-based over animal-based foods and minimizes food waste.

Strategy 1: Support institutional food procurement
Apply a purchasing framework, support supply-chain infrastructure and build a regional food system network to bolster institutional and corporate food procurement of pro-climate, pro-health options.

How we'll get there:

- Develop a counterpart to the Good Food Purchasing Program for non-public sector organizations that purchase large quantities of food, such as corporations offering in-house employee dining options and hospitals.
- Offer a certification program to recognize institutional and corporate pro-climate, pro-health menus.
- Support a regional food system network to facilitate and coordinate large-scale pro-health, pro-climate food purchasing and distribution from regenerative agricultural producers.

Commented [KJA18]: What will be considered pro-climate?

Strategy 2: Promote and fund community-driven food retail programs
Implement community-driven programs to incentivize and promote more affordable and culturally relevant pro-climate, pro-health choices in prepared and retail food options with a focus on minimizing displacement.

How we'll get there:

- Offer economic incentives for local food establishments that offer an increasing minimum percentage of plant-based menu choices.
- Join or develop a program similar to Zero Foodprint to generate funding to support local food organizations and producers who contribute to a pro-climate, pro-health food system.
- Create a subsidized community-supported agriculture model for local

regenerative food producers who employ low-income communities and communities of color.

Strategy 3: Incentivize pro-health, pro-climate food choices
Develop a variety of community-driven programs and tools to equitably engage and empower the full spectrum of Austin's communities to make affordable and culturally-competent pro-climate, pro-health food choices.

How we'll get there:

- Promoting tools, such a menu labeling scheme or a digital application, that provide lifecycle analysis of food items, enhance product transparency and empower consumer choice of pro-climate, pro-health foods.

Strategy 4: Conduct a food waste root cause analysis
Conduct a food waste root cause analysis and implement changes informed by the analysis to increase participation in food reduction practices by 50%. These practices should support the U.S. Environmental Protection Agency Food Recovery Hierarchy's highest and best use model and include single-family, multifamily and commercial properties.

INSERT FIGURE - Food Recovery Hierarchy and Picture of Black-owned food business

GOAL 2: By 2030, reduce greenhouse gas emissions from institutional, commercial, and government purchasing by at least 50%.

INSERT FIGURE or Callout - Large Purchasers driving downward price pressure for smaller businesses.

Strategy 1: Measure institutional lifecycle emissions
Develop a methodology to measure lifecycle greenhouse gas emissions and other environmental and social impacts from non-residential purchasing and identify a baseline for tracking goal progress.

Commented [KJA19]: Texas Gas Service would like to work with he City to help determine lifecycle emissions.

Strategy 2: Strengthen the City's sustainable purchasing program
Strengthen the City of Austin's Sustainable Procurement Program to serve as a model for others locally and nationally.

How we'll get there:

- Expand the Sustainable Procurement Program to ensure economic and equitable support of all vendors to attain City sustainable purchasing requirements.
- Identify intersections between City sustainability initiatives and the City's procurement process, including opportunities for shared workflows and reporting.
- Engage with departmental purchasing staff on sustainable purchasing initiatives at the small-dollar level.
- Adopt or develop sustainability guidelines for products with the greatest potential for improved environmental and equity outcomes based on criteria such as:
    - Market influence
    - Lifecycle greenhouse gas emissions reduction
    - Reduced toxicity
    - Labor standards
    - Minimum wage requirements
    - Workforce development opportunities
    - Increased recycled and reused content
    - Product circularity and waste reduction
    - Energy and water reduction

Strategy 3: Strengthen non-City institutional purchasing programs

Encourage at least 50% of local large institutional purchasers (2,500+ employees) to collaboratively adopt or modify a set of environmental and social sustainability procurement standards and/or guidelines. Participation should include:

- Historically underutilized businesses and organizations that employ and are led by people of color.
- At least 2,500 local organizations of all sizes.

Strategy 4: Create a sustainable purchasing network

The City of Austin should participate in and facilitate creation of a sustainable purchasing network that includes diverse organizations of all sizes and reduces participation barriers for small, local and historically underutilized businesses and organizations that employ and are led by people of color. The network should provide:

- Access to and guidance on choosing standards for procuring sustainable products and services.
- Bulk purchasing of low-impact products and services, prioritizing historically underutilized suppliers.
- Training and technical assistance.
- Contract specifications and templates.
- Publishing and promoting best practices and case studies.
- A recognition program.

- Networking to support collaborative problem-solving.

Strategy 5: Expand the City's Circular Economy Program
Expand the City of Austin's Circular Economy Program to:

- Use available City-owned space and/or leverage partnerships to create rent-subsidized incubation spaces, grants, loans, and technical assistance for qualifying circular organizations.
- Engage Austin youth in real-life problem-solving opportunities that:
    - Offer hands-on student internships and apprenticeships with Circular Economy Program participants (e.g., expand the EcoRise Green Building Internship Program to include organizations with circular business models).
    - Include teachers and students in City entrepreneurship development projects, like the [RE]verse Pitch competition.
    - Modify sustainability education grant programs, such as the Bright Green Future Grant program, to fund procurement reduction, product sharing, and circularity innovation.

Commented [KJA20]: Texas Gas Service would like to work with he City to push this initiative forward.

GOAL 3: By 2030, position Austin as a national and global waste reduction leader by reducing the community-wide per capita disposal rate to be among the top 3 lowest published disposal rates (in pounds per capita) in the US and integrating best practices from C40 cities.

Strategy 1: Promote reuse
Implement consumer awareness campaigns, such as community reuse challenges, promotion and expansion of fix-it clinics and Austin Reuse Directory, and educational campaigns that promote community benefits of reuse and repair. Target campaigns to and prioritize the needs of low-income communities, youth, and communities of color.

Strategy 2: Create Eco-hubs
Create "Eco-hubs" that provide equitably distributed in-person neighborhood centers for (1) borrowing, (2) reuse, and (3) repair services. Distribute Eco-hubs around the city in appropriate locations with community input, prioritizing guidance from low-income communities and communities of color.

Strategy 3: Create a workforce development program for the circular economy
Offer a workforce development program that includes training for repair/reuse skills, job placement, and entrepreneurship in local circular businesses such as those found in the Austin Circular Economy Storymap. Prioritize the needs and strengths of low-income

communities, youth and communities of color.

Strategy 4: Offer incentives for lower-impact products
Offer financial incentives, such as point-of-sale rebates and/or a sales tax holiday, to encourage consumers to choose lower-impact products, repair services and rentals. Develop incentives in collaboration with low-income communities and communities of color.

Commented [KJA21]: What will be considered "lower-impact products"

Strategy 5: Analyze the bulk pick-up collection program
Review and modify policies and programs for collection of bulky items for customers served by Austin Resource Recovery and private waste haulers that result in most items being resold, repaired or recycled. Identify and assist private sector partners, including those currently engaged in the informal recycling economy, to provide these services.

NATURAL SYSTEMS

Natural systems are all around us. They are the plants, soils, hydrology, geology, weather patterns and animals that are interlinked to ensure the overall health of our ecosystem. Our natural systems also perform the important job of removing carbon from the atmosphere, known as carbon sequestration. While natural systems may not have the largest impact on our city's total emissions, they are one of the few ways to achieve negative emissions.

The health of our natural systems is critically important because they provide a variety of additional benefits to our communities beyond carbon sequestration. These include health and wellness, quality of life, ecological health and resilience. Additionally, natural systems are an important entryway into climate motivation, because people can relate to and care about them easily.

In Austin, the preservation of our natural lands has been mostly contained to the west side of town, while East Austin has taken on much of the burden of the city's growth and development. This has left some communities — particularly low-income communities and communities of color — feeling sacrificed and neglected, while our city's health inequities continue to grow. This highlights the need to focus on providing environmental benefits to underserved areas in the Eastern Crescent by protecting and expanding the area's ecoregions, farmland and tree canopy cover.

Regenerative farming practices are key to keeping our natural systems healthy. Currently, most of the agricultural lands in our city are concentrated in East Austin within or near low-income communities and communities of color. The people who work these lands are often exploited, and the conventional practices used on some farms can be detrimental to ecological, climate and community health. This points to the need to support farm workers and farmland both financially and through regenerative land practices.

While our city boasts a high tree canopy cover at 36% and ample park spaces, these benefits have not been distributed equally. East Austin has less tree canopy coverage, which means we must use a community-centered approach to planting and preserving more trees in this area. While parkland is distributed relatively evenly across the city, these spaces have not been treated with the same level of care. We must ensure that our parks are well-maintained, particularly in East Austin. Since increasing parkland and greenspace is known to have a gentrifying effect, special care should be taken in order to help mitigate displacement.

This plan calls for a new approach to public lands that focuses on community value. Protecting and preserving our natural spaces — particularly in East Austin — is an investment in the health, livelihood and culture of our community. If all the recommendations outlined in this section are implemented, the natural systems in and around Austin could sequester about 4% of the city's total carbon emissions.

GRAPHIC & PHOTO IDEAS:

INFOGRAPHIC - Infographic of strategies: Protect existing healthy lands, Restore unhealthy or underutilized lands, Enhance soil health, Ensure water availability, Build Community Capacity.

GRAPHIC - Forest Carbon Cycle

PHOTOS - Natural Systems Pics (Bruce pics)

GOAL 1: Protect at least 40,000 acres of carbon pools on natural lands through legal protection and restoration management with a focus on resilience.

Strategy 1: Protect natural lands
Identify additional woodland, grassland and wetland/riparian systems for protection that prioritize benefits for low-income communities and communities of color. Legally protect lands with City or County jurisdiction through purchasing, conservation easements, etc.

How we'll get there:

- Create and update a matrix for land protection and purchasing decisions across departments that prioritizes multi-benefits like access, sequestration, biodiversity, connectivity, air quality, etc. Focus new land acquisitions in local ecoregions that currently have less protected land, like Blackland Prairie. Prioritization for land conservation acquisitions should also consider the protection of natural ecological patterns and connections, such as waterways and the large floodplains found in eastern ecoregions.
- Make space for community-based decisions when prioritizing land acquisition. Expand the community nomination program, like the Parks and Recreation Department's Community Activated Parks program, and create a participation process to identify land that should be protected.
- Identify and pursue innovative financial methods to purchase and/or protect lands, such as:
    - Sales tax revenue (See example from San Antonio[5])

- Use of development or drainage fees
- Leveraging bonds, especially when linked to multi-benefits and resilience for low-income communities and communities of color.
- Consider credits and offset programs that include natural lands, sustainable working lands and the potential for stormwater credit trading[1].
- Consider using economic development dollars for land protection and promotion of ecotourism activities
- Work with developers to encourage new communities that are being built on greenfield sites to be designed as “conservation developments” [12].

Strategy 2: Manage natural lands for resilience
Build resilience and prevent catastrophic loss in natural lands through specific and thoughtful management practices. These should focus on natural systems resilience to climate-driven threats such as heat, drought, flood and wildfire — especially in areas where lands have been historically neglected.

How we’ll get there:

- Create, update and implement restoration and management guides for protected lands under City/County jurisdiction. Consider restoration or mimicry of natural processes, increasing native species and structural diversity, improving soil health, and facilitating plant community shifts to more resilient states.
- Leverage the wisdom of indigenous folks and other people of color who have been practicing strategies for restoring and protecting land locally for a long time and compensate them appropriately.
- Encourage resilience of grasslands and woodlands on private property by creating land management guides and landowner education, assistance, and incentive programs for private landowners. Develop these programs in partnership with community members, community groups, and connect landowners with existing assistance programs.

Strategy 3: Provide community access to natural lands
Ensure that natural lands are accessible to the community in both proximity and perception. Address the accessibility of trails and spaces for all ages and abilities, provide programming and signage that is inclusive and welcoming and ensure both physical and perceived safety for users.

How we’ll get there:

- Provide paid stewardship opportunities for community members from nearby communities to act as ambassadors in natural spaces.

- Implement programming that provides guided, safe experiences for people who may not be comfortable in natural spaces by themselves, specifically exploration programs focused on youth.
- Thoughtfully consider ways to make natural lands more welcoming to people who do not often experience nature and support them in understanding they are meant to be there. Establish signage in natural areas that acknowledges histories that may not be visible or well known and provide signage in multiple languages.
- Conservation should not mean the exclusion of people, where lands may be sensitive to human activity and it is advisable not to have full public access, seek out creative solutions to provide unconventional access without degradation.

Strategy 4: Protect water sources
Undertake regional work around protecting source water quantity and quality for the Austin area and beyond — especially in the face of climate-driven threats like heat, drought, flood and wildfire.

How we'll get there:

- The City should work with the County and regional organizations, such as the Capital Area Council of Governments, to form urban-rural partnerships with upstream organizations run by low-income communities and communities of color working on these issues.
- Improve groundwater recharge through expansion of green infrastructure and riparian restoration programs and incentives on public and private lands in Austin and upstream.
- Prioritize City projects and programs that provide multi-benefits related to preventing erosion and improving water quality and sequestration rates — especially when they benefit low-income communities and communities of color.

GOAL 2: Protect 10-30% of farmland in the 5-county region through legal protections and/or regenerative agriculture programs — the equivalent of 500,000 acres.

Strategy 1: Protect working lands
Identify lands with prime farmland soils and farmlands of unique and local significance[8] in the 5-county region and protect them from development. This can be done through land conservation bonds, agricultural land trusts[6], Natural Resource Conservation Service and Trust for Public Lands programs, Travis County Conservation Easements and other similar methods.

How we'll get there:

- Counties and/or County extension offices in the 5-county region should jointly fund a staff position to work across the entire region. This position could focus on the conservation easement program, provide technical expertise and advice for farmers and landowners and create or manage regenerative agriculture education and certification programs.
- Work with developers to encourage new communities that are being built on prime farmland soils to be designed as “agrihoods” [(14)].

Strategy 2: Reform agricultural tax appraisals
Address issues with local and federal agricultural tax appraisals and exemptions that contribute to desertification and soil loss.

How we’ll get there:
- Work with Travis County to reevaluate and update the requirements for the Agricultural Tax Exemption to encourage regenerative practices and/or make more ecologically desirable exemptions, like the wildlife exemption, more appealing and easier to obtain.
- Host a summit of tax appraisers within the 5-county area to start creating buy-in beyond Travis County.
- Provide a City incentive to landowners who receive the tax exemption to use regenerative agriculture or similar practices that promote carbon sequestration, limit compaction, prevent erosion, conserve water and reduce nutrient runoff.

Strategy 3: Support farmers through financial assistance
Support farmers in the 5-county region who want to implement carbon-related soil programs or regenerative agricultural practices by providing direct financial assistance, specifically for farmers of color.

How we’ll get there:
- Explore partnerships and/or incentives for installing solar panels on farms between crops, and pay farmers for allowing renewable energy equipment on their land.
- Provide City funded micro-grants to help cover startup costs for regenerative agriculture or conservation irrigation equipment for small-scale and local farmers.
- Create a down payment support program for small-scale and local farmers and consider potential requirements for loan forgiveness.
- Study the effects of, and consider tying, City-provided financial assistance to requirements for importing and selling products locally, ensuring fair labor requirements and carrying liability insurance[(4)].

Strategy 4: Provide farmers with resources
Support farmers who want to start regenerative agricultural practices by providing access to land and other necessary resources, specifically prioritizing farmers of color.[10]

How we'll get there:

- Facilitate the creation of a merchants association for small-scale and local farmers that can help find, access and pool resources, collaborate on distribution networks and advocate for the industry. Explore local organizations already working on this and see if there are ways to support them first. Ensure inclusive participation and representation through deliberate outreach to and empowerment of farmers of color. [9]
- Create a program that facilitates and/or mediates partnerships between private and public landowners who may not be actively working their lands and farmers using regenerative agriculture practices.
- Make City and County lands available for the use of agricultural incubators that provide communal resources like equipment, storage facilities and distribution for small-scale regenerative and sustainable farming operations.
- Explore leasing public lands to for-profit farms in exchange for using sustainable practices and contributing to the public good in some way, such as through workforce development or increasing the supply and donation of local food.

Strategy 5: Expand composting
Expand the use of compost generated by the local curbside compost program.

How we'll get there:

- Improve the quality of City compost to acceptable standards for use in agricultural lands. Consider ways to utilize more local waste streams and set criteria for what is an "acceptable standard" in partnership with local farmers to ensure the compost meets their needs.
- The City could provide free compost to farmers participating in carbon-related soil programs or regenerative agricultural practices.
- Create educational materials and demonstration projects to raise awareness about the value and environmental benefits of using compost at home and on private projects.
- Work with City departments that operate with a heavy capital improvement planning workload to require the use of local compost on project sites.

Strategy 6: Workforce development for farmers

Encourage a fundamental change in the next generation of farmers through agriculture-specific jobs creation programs like Urban Roots, and working lands-specific youth programs like Future Farmers.

How we'll get there:

- Utilize the regional position recommended in strategy 1 and the merchants association recommended in strategy 4 to connect participants to the industry and create a pipeline to real jobs in regenerative agriculture [(15)].
- Integrate sustainable agriculture into secondary and high school programs, including a track for the Austin Independent School District's Career Technical Education program and Austin Community College's Sustainable Agriculture program.

INSERT INFOGRAPHIC - What is Regenerative Agriculture?

GOAL 3: Move towards achieving 50% tree canopy cover citywide by 2050, with a focus on increasing canopy cover in areas where coverage is lower than average.

Strategy 1: Canopy cover on City lands

Adopt a "No Net Loss" policy for all public lands and create canopy cover percentage goals or target ranges using the 50% citywide goal as an average target. These percentages would be specific for each public land type, such as active use, corridor, cultural/historical, mixed use, natural area, passive use, special use, etc.

Strategy 2: Tree protections and landscape regulations

Promote no net loss of tree canopy on private developments by increasing tree protections and landscape regulation and/or working with developers and homeowner's associations to create incentives.

How we'll get there:

- Maintain existing levels of tree protections and landscape regulations for private development, and expand them to all of the city's extraterritorial jurisdiction.
- Require new developments to document tree canopy cover in the City's geographic information system database for subdivisions and site plans.
- Ensure that developers or property managers are required to ensure the health of new trees that are planted. They should meet requirements that help ensure the long-term health of trees saved or preserved by meeting certain landscape standards for up to five years after construction.

- Create a way to enforce tree canopy and health requirements on private developments. An example is the Watershed Protection Department's impervious cover requirement that is tied to the Drainage Utility Fund.
- Require decompaction and other healthy soils practices, such as high organic content, for any areas with permeable surfaces in new subdivisions and site plans.
- Address barriers to additional tree plantings in subdivisions, developed lots, City rights-of-way, parkland dedications, detention pond basins, etc.
- Require or incentivize new developments to participate in reforestation projects if there are Critical Water Quality Zones and/or floodplains in a subdivision or site plan and/or if the overall canopy cover for a project is expected to be less than 50%.

Strategy 3: Community tree planting
Increase City funding for community tree planting programs, especially when these programs are focused on working with low-income communities and communities of color. Prioritize programs that allow communities to have real decision-making power and input on where new tree plantings will provide the most benefit.

How we'll get there:
- Provide additional funding and grants for community-led, neighborhood-scale tree planting, tree care, water quality and soil health programs.
- Continue investing in and growing City-led reforestation projects within drainage easements, floodplains and stream buffers — especially those focused in Eastern Crescent neighborhoods.

Strategy 4: Promote tree health and resilience on private and non-City public lands
Create a tree, water and soil management and resilience guide for various types of private property. Provide City technical and financial assistance for tree planting and care for residents and small businesses in low-income communities and communities of color to ensure long-term health and tree canopy benefits in Austin neighborhoods.

How we'll get there:
- Provide a City "Tree Concierge" service and partner with community members to provide easily accessible information about keeping trees healthy.
- Add tree maintenance and care to the City's Minor Home Repair Grants Program
- Provide City-funded grants to homeowner's associations, neighborhood groups, residents and small businesses in low-income communities and communities of color to help cover expenses related to tree care.

- Create partnerships with workforce development groups to require or encourage hiring from Austin-based green jobs training programs to perform the work that comes out of these recommendations.

GOAL 4: Include all City-owned lands under a landscape management plan that results in neutral or negative carbon emissions and maximizes community co-benefits.

Strategy 1: Prioritize carbon neutrality for public lands
Prioritize carbon neutrality and community benefits in land acquisition and management practices for public lands.

How we'll get there:
- Complete the City land ownership and management plan database.
- Prioritize new parkland acquisitions based on multi-benefits, especially for low-income communities and communities of color.
- Create a tool to assess the multi-benefits and lifecycle carbon costs of different land management practices.
- Update or create land management programs for public lands that focus on carbon-negative or low-carbon practices like healthy soils, no-mow, etc.
- Utilize the Sustainable SITES certification for Parks and Recreation projects when feasible or align with the City's *Green Building Policy.*
- Create partnerships with other public entities to encourage them to implement similar land management values and practices. Examples of these entities are the Austin Independent School District, the University of Texas, the State Capitol, and theTexas Department of Transportation.

Strategy 2: Reclaim public space
Identify and reclaim mono-use, underused and unconventional public spaces to increase community access and ecological function. Examples could include utility easements, right-of-way areas and cemeteries. Engage communities in identifying, re-imagining and leading implementation on activating these spaces. Use mitigation funds to support this work.

How we'll get there:
- Fund and expand the community nomination process for identifying projects, like the existing Community Activated Parks program.
- Focus on transitioning non-functional and impervious cover to accessible, functional ecosystems.

- Retrofit conventionally landscaped areas to provide ecosystem benefits and reach a target ecological functional threshold.
- Increase the funding and implementation of green infrastructure throughout the City, including mapping and tracking in a single location.
- Include programming and signage in public spaces to clarify the intent and benefits of new natural areas to increase community understanding.

Strategy 3: Promote community stewardship
Promote community stewardship and management of public lands through Neighborhood Stewardship Councils/Ambassadors. These could be existing or new neighborhood associations, nonprofit organizations and community groups that coordinate community volunteers to provide higher levels of care and maintenance for public lands in their neighborhoods. These programs should focus on increasing the health, biodiversity and resilience of public lands as well as fostering stewardship and showcasing the importance of ecosystem services and community co-benefits.

How we'll get there:
- The City should provide paid training and opportunities for community members or groups to serve as Stewardship Ambassadors. These Ambassadors could provide quality assurance at neighborhood parks and community gardens, conduct training and education for community members and act as primary contacts for coordination of volunteers and City resources.
- Reach out to indigenous communities who could use this opportunity to reclaim some ownership over the use and maintenance of lands.
- Ensure that the purview of the Stewardship Councils/Ambassadors includes real oversight and decision-making power to increase accountability and promote relationship building between the City and community.
- Facilitate parks as spaces of celebration for neighborhoods by reviewing and potentially loosening restrictions on vendors with clear limitations to ensure priority for vendors that are local and serve local.
- Community fears around parks and green spaces are real and valid. The City should focus on partnerships, outreach and stewardship that results in mutual values and understanding and a long-term culture shift in the relationships between communities, nature and City government.

Strategy 4: Require carbon farming
Implement a policy that requires all food forests and community gardens on public lands to use low-carbon and carbon-farming practices. Carbon farming sequesters atmospheric carbon into the soil, crop roots, wood and leaves. This agricultural practice can aid in plant growth, reduce fertilizer use, improve water retention and more.

How we'll get there:
In order to reduce any burden this imposes on community members, the City should provide basic oversight, technical assistance, startup resources and ongoing maintenance at these gardens. This could be done through City staff or by funding outside groups, community-based organizations or Stewardship Councils/Ambassadors.

NEXT STEPS

I. Implementation

This plan will only be as successful as the implementation, funding and follow-through from the City and community. In developing the plan, we realized that “how” projects, policies and programs are implemented is critically important to determining whether benefits will flow to low-income communities and communities of color. We will continue to build authentic, inclusive relationships with community members and involve them in the decision-making process when designing projects and programs that address climate change. Seeing our implementation plan through a racial equity lens is critical to ensuring that low-income communities and communities of color are prioritized. Our ongoing partnership with the City of Austin’s Equity Office will be key to ensuring our focus remains on equity as we carry out the plan’s goals and strategies.

To bring this plan to life, implementation leaders will be identified to form key partnerships between the City of Austin and private businesses or nonprofits. Then, implementation teams will be formed around a strategy or group of strategies. These teams will be a collaboration of City, private sector and community groups. It is essential that low-income communities and communities of color are included to learn from their lived experience and design solutions in a way that works for them. Each team will develop a plan to execute the strategy that will include:

- FA focus on racial equity
- Focus on affordability
- Focus on real emission reductions
- MA model or mechanism for change
- Defined tasks
- Owners and stakeholdersactors
- SA schedule
- Budget and funding sources
- Metrics and performance measurement

II. Measurement and Reporting

In collaboration with City departments and community organizations, the Office of Sustainability will create an annual report summarizing the implementation status of Climate Plan strategies. The report will also include the quantitative measurement of the 2030 goals and Community Carbon Footprint.

Commented [KJA22]: What will be the governance of this reporting? Third party auditing would give the results more credibility and public support.

AUSTIN CLIMATE EQUITY PLAN

SECOND DRAFT - August 21, 2020

LAND ACKNOWLEDGEMENT

DRAFT - 8/21/20

We wish to recognize and respect Indigenous Peoples as traditional stewards of this land and the enduring relationship that exists between Indigenous Peoples and their traditional territories. To recognize the land is an expression of gratitude and appreciation to those whose territory we reside on, and a way of honoring the Indigenous Peoples who have been living and working on the land from time immemorial. Land acknowledgements do not exist in a past tense, or historical context: colonialism is a current ongoing process, and we need to build our mindfulness of our present participation.

We acknowledge, with respect, that the land we are on is the traditional and ancestral homelands of the Tonkawa, the Apache, the Alabama-Coushatta Tribe of Texas, the Kickapoo Tribe of Texas, the Ysleta del sur Pueblo, the Lipan Apache Tribe, the Texas Band of Yaqui Indians, the Coahuitlecan and all other tribes not explicitly stated. Additionally, Texas is and has been home to the Caddo, Comanche, Kiowa, Wichita, Chickasaw, and Waco nations.

It is important to understand the long existing history that has brought us to reside on the land, and to seek to understand our place within that history. The state of Texas was founded on violence carried out by three colonial powers of Anglo, Mexican and numerous native tribes, bands and nations. Multiple genocides were committed on the native peoples of central Texas. Natives were hunted, detained, converted and colonized in successive waves. Climate change is inextricably linked to humanity's long history of inequality and injustice perpetuated by legacies of colonialism and slavery, based on the exploitation of people, land and nature. Today, the ongoing displacement of Black, Indigenous, and communities of color on Austin's East Side is connected to legacies of extraction of labor, theft of land, transformation of landscapes, and loss of cultures. In pursuit of resources globally, countries destroyed many of the ecosystems and human interactions necessary for preventing climate change. Therefore, we need to build mindfulness of how our present participation builds respect for The Land and her Indigenous Peoples.

LETTER FROM THE STEERING COMMITTEE

TBD

EXECUTIVE SUMMARY

We know that climate change does not affect everyone equally and that low-income communities and communities of color disproportionately bear the brunt of the impacts. The effects of extreme weather, air pollution, water pollution and exploitation of natural resources amplify the inequities and injustices that these communities are experiencing. This is why we cannot solve climate change without addressing equity, and we cannot talk about climate change solutions without talking about racial and environmental justice and centering communities of color in our response.

We are currently experiencing the COVID-19 global pandemic, the deepest economic downturn in recent U.S. history and worldwide protests, marking the largest civil rights movement in history, against police brutality in support of Black lives. Climate hazards that threaten the Austin community include flooding, extreme heat, wildfire and drought. All of these issues have serious health and quality of life implications, particularly for low-income communities and communities of color. In this global moment of change, it is clear that the systemic solutions needed to combat racism, promote health and safety for all and stop the exploitation of the environment are inextricably linked and needed more than ever. The time for real change is now.

We know that human activities have already caused approximately 1.8 degrees Fahrenheit (1°Celsius) of average global warming above pre-industrial levels. Recent climate science tells us that a target of 2.7 degrees Fahrenheit (1.5°Celsius) is necessary to avoid the worst impacts of climate change and preserve a livable climate. In response, the United Nations has called for urgent and impactful action, which would require profound structural transformation for societies, economies, infrastructure and governance institutions while bringing co-benefits for humans and the planet.

In 2014, when the Austin City Council adopted the goal of net-zero community-wide emissions by 2050, it was considered bold and aggressive. Austin's first Community Climate Plan, adopted by City Council in 2015, was a robust set of strategies and actions to get us moving in the right direction. Over the past five years, much action has been taken by the community, but the focus was not on equity and social justice. Now is the time to adjust our focus.

Because the climate crisis can only be addressed fully when we also address racial inequality, we set out to create a plan that would include everyone in the Austin community to make our city cleaner, healthier, more affordable and accessible for all. The Austin Climate Equity Plan's Steering Committee has challenged us to accelerate our climate goals, endorsing the new goal of **equitably reaching net-zero community-wide greenhouse gas emissions by 2040, utilizing a steep decline path, followed by negative emissions.** In addition, the Steering Committee helped create an Equity Tool (see Appendix D) that was used to create the plan's goals and strategies. This helped us center communities of color by 1) identifying opportunities for engagement, incentives, targeted communications, 2) activities that support anti-

displacement, 3) focus on a just transition of our economy (training and jobs for people of color) and 4) prioritizing health benefits especially for low-income communities and communities of color.

There are five sections in this plan to address community-wide emissions: Sustainable Buildings, Transportation and Land Use, Transportation ~~Electrification~~Decarbonization, Food and Product Consumption and Natural Systems. Collectively, the plan offers 18 goals to be met by 2030, and help get us on the pathway for net-zero emissions by 2040. This includes 75 strategies to be implemented by 2025. These new goals and strategies ~~,~~ paired with essential community plans l ke the Austin Energy Resource, Generation and Climate Protection Plan to 2030, Project Connect, Austin Resource Recovery Zero Waste Plan, Austin Strategic Mobility Plan and Water Forward ~~,~~ can get us on the pathway to a safe climate and a more equitable Austin.

Implementation is the key to success of this plan. The City of Austin is well-positioned to provide leadership in creating effective partnerships with private businesses, the community, and nonprofit leaders to drive change and fully implement this plan. At the same time, there are many opportunities for external partners and organizations to provide leadership. We must ensure that the City government and everyone in our community does their part to reduce emissions in a way that eliminates disparities defined by race. Adoption of this plan must be followed with creative funding proposals, inclusive engagement and focused implementation to meet our carbon goals, while benefiting those in our community who need assistance most.

New Climate Equity Goals for Austin

Sustainable Buildings by 2030

- Decarbonize buildings and reduce energy burden by achieving net-zero carbon for all new buildings and 25% of existing buildings~~, and reduce greenhouse gas emissions from the natural gas sector by 50% in Austin.~~.
- Reduce community-wide greenhouse gas emissions from refrigerant leakage by 25%.
- Reduce embodied carbon footprint of building materials used in local construction by 40%.
- Equitably achieve a community-wide water demand of 152,000 acre-feet per year.

Transportation and Land Use by 2030

- 80% of new non-residential development located within the city's growth centers and corridors.
- 70% of new housing units located within the city's growth centers and corridors, while preserving 10,000 and producing 1,000 deeply affordable housing units.
- Public transit makes up 5% of distance traveled for all trips in Austin.
- People-powered transportation makes up 4% of distance traveled for all trips in Austin.

Transportation ~~Electrification~~ Decarbonization by 2030

- 40% of total vehicle miles traveled in Austin are ~~electrified~~decarbonized, and electric vehicle (EV) ownership is culturally, geographically and economically diverse.
- Austin has a compelling and equitably distributed mix of level 1, 2 and DC fast charging stations to support more EVs on the road.
- The Austin-Round Rock-San Marcos area is a leader in transportation ~~electrification~~ decarbonization by adopting policies and technologies that support the growth of this emerging industry.

Food and Product Consumption by 2030

- Ensure all Austinites, with a focus on the food insecure, can access a food system that is community-driven, prioritizes regenerative agriculture, supports dietary and health agency, prefers plant-based over animal-based foods and minimizes food waste.
- Reduce greenhouse gas emissions from institutional, commercial and government purchasing by at least 50%.
- Aggressively pursue waste reduction, organics composting and recycling to achieve a new overall zero waste goal pending adoption of a new Austin

Resource Recovery Zero Waste Plan by June 2021.

Natural Systems by 2030

- Legally protect an additional 20,000 acres of carbon pools on natural lands and manage all new and existing natural areas (approx. 70,000 acres total) with a focus on resilience.
- Protect 500,000 acres of farmland in the five-county region through legal protections and/or regenerative agriculture programs.
- Achieve 50% citywide tree canopy cover by 2050, with a focus on equitably increasing canopy cover.
- Include all City-owned lands under a management plan that results in neutral or negative carbon emissions and maximizes community benefits.

TABLE OF CONTENTS

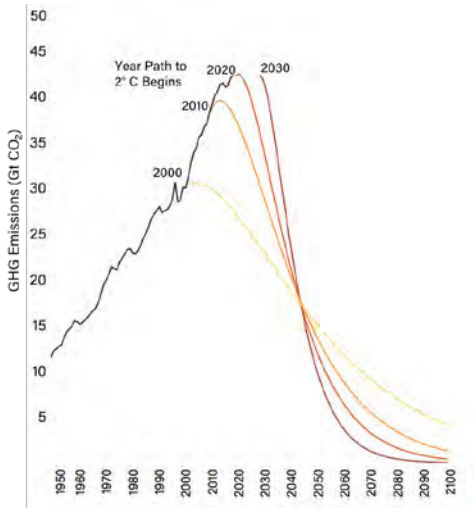
THE CLIMATE CHALLENGE

I. Global Climate Goals, Actions and Urgency

It is estimated that human activities have already caused approximately 1.8 degrees Fahrenheit (°F) (1.0 degree Celsius [°C]) of global warming above pre-industrial levels. While the Paris Climate Agreement established the target of limiting global warming to 3.6°F (2.0°C) with a goal of limiting warming to 2.7°F (1.5°C), the Intergovernmental Panel on Climate Change (IPCC) warns that the lower target is necessary to avoid catastrophic climate change. The report demonstrates that there would be considerable differences in the severity of impacts with just a half degree difference, and that at 2.7°F (1.5°C) the adaptation needs would be more manageable and a wider range of solutions would be viable. With warming of 3.6°F (2.0°C), climate effects that societies cannot adapt to, including ecosystem collapse, are very likely. (UN Intergovernmental Panel on Climate Change Special Report, 2018)

Title: Global Greenhouse Gas Emission Paths to Limit Warming to 3.6°F (2°C)
Caption: The longer we wait to reduce greenhouse gas emissions, the more immediate and drastic the reductions must be to stay below 3.6°F (2°C). (Center for International Climate Research)

If global warming continues to increase at the current rate, it is likely that we will reach global warming of 2.7°F (1.5°C) between 2030 and 2052. (UN Intergovernmental Panel on Climate Change Special Report, 2018) The United Nations Environment Program's 2019 Emissions Gap

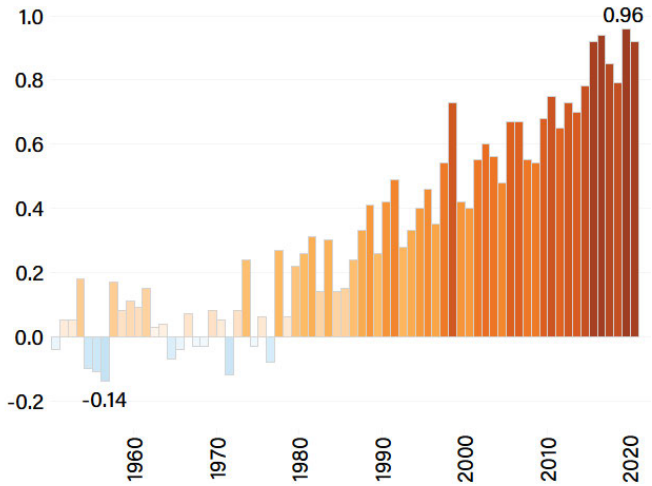


Report (UN Environment Programme, 2019) says that if we rely only on the current commitments outlined in the Paris Agreement, we can expect a rise in global warming of over 5.4°F (3.0°C) this century. The report calls for nations to take urgent and impactful actions if we are to meet a 2.7°F (1.5°C) target (or even the 3.6°F [2.0°C] target). This will require profound structural transformation for societies, economies, infrastructure and governance institutions, and will bring co-benefits for humans and the planet. The 2.7°F (1.5°C) target is still possible, but each day that we delay makes the path to achieving it increasingly more difficult and costly.

INSERT GRAPHIC: 2010 Lost Decade on Climate Change, MIT Technology Review

Title: Global Land and Water Temperature Anomaly, 1950 to Present (°C)

Caption: This chart compares each year's average temperature to the average temperature of the 20th century. The last 30 years have all been hotter than the 20th century average and the difference is increasing steadily.



Though the United States pulled out of the Paris Agreement in 2017, and despite environmental rollbacks such as the repeal of the Clean Power Plan, U.S. mayors are rising to the challenge. Mayors representing 466 cities (including Austin) and 71 million Americans stepped up to state their continued commitment to much of the Paris Agreement and its actions (Climate Mayors, 2017). On a global scale, cities account for two-thirds of the world's energy consumption and 70% of carbon emissions (C40 Cities, 2012, *Why Cities?*). As major contributors to climate change, cities have the power and opportunity to produce major solutions, regardless of national leadership. Additionally, cities often have established relationships with local businesses, residents and institutions. This allows for quick, decisive and more context-sensitive decisions, action and solutions. Research shows that more than half of the emissions reductions needed to

uphold the Paris Agreement can be delivered through “city action” where municipal governments have control. (C40 Cities, 2012, *Deadline 2020*)

QUOTE:

"For centuries, cities have helped foster some of mankind’s greatest ideas. It is no stretch of the imagination to believe that cities will now take the lead in addressing climate change.” -C40 Cities Climate Leadership Group

Climate change exacerbates existing vulnerabilities, and thus has a disproportionate negative effect on developing countries. In countries where access to necessary resources — such as food, water and medical services — is lacking, where governments are unstable and where violence drives displacement, people will suffer greater harm from physical climate stressors. These global populations will continue to experience greater physical, emotional and economic hardship and loss of life from acute and chronic climate change shocks and stressors, including floods, tropical storms, droughts, melting glaciers and the spread of vector-borne diseases. Thus, addressing climate change is inherently necessary — at the local and global level — to build a more equitable world.

II. Austin City Council Directives

2007 - Original Climate Protection Plan, Resolution 20070215-023
In February 2007, the Austin City Council adopted the first resolution in Austin’s history that was focused on climate change. The resolution directed the City Manager to make City of Austin facilities, fleets and operations carbon neutral by 2020, make Austin Energy the leading utility in the nation for greenhouse gas reduction through renewable energy and energy efficiency, implement the most energy efficient building codes in the nation, establish an interdepartmental City Climate Action Team, and work with community members, businesses and regional entities on reducing emissions.

2014 - Net-zero by 2050, Resolution 20140410-024
In April 2014, the Austin City Council adopted the goal of net-zero community-wide greenhouse gas emissions with the preference to achieve it as soon as feasible. The resolution also directed the City Manager to review the goals from the 2007 plan, and create a stakeholder process to develop a new community-wide plan focused on energy, transportation and waste/industrial emissions sources.

2015 - Adopt the 2015 Austin Community Climate Plan, Resolution 20150604-048
In June 2015, the Austin City Council adopted the 2015 Austin Community Climate Plan, supporting the trajectory to net-zero greenhouse gas emissions by 2050 with interim targets. The resolution also directed the City Manager to identify and prioritize resources to implement the plan as well as create the Joint Sustainability Committee to oversee its implementation.

2019 - Climate Resilience, Resolution 20190509-019
In May 2019, the Austin City Council recommended creating a comprehensive, community-wide climate resilience plan that is fair, just and equitable. The Council recognized that we are already experiencing the adverse consequences of climate change, and communicated the urgency for creating a blueprint to prepare for and respond to the shocks and stressors of catastrophic climate events. They also expressed support for the general tenets of the Green New Deal.

2019 - Transportation Electrification Plan, Resolution 20190509-020
In May 2019, the Austin City Council declared transportation electrification to be included in the revision of the Austin Community Climate Plan. The resolution directs the City Manager to analyze electric vehicle adoption scenarios and associated emission reductions, establish interim targets and identify partnerships.

2019 - Climate Emergency, Resolution 20190808-078
In August 2019, the Austin City Council declared a climate emergency and called for immediate emergency mobilization to restore a safe climate. The resolution directs the City Manager to reconsider accountability structures, increase external engagement and accelerate activity towards the City's net-zero goal.

2020 – Renewable Natural Gas, Resolution 20200220-047
In February 2020, the Austin City Council adopted the first resolution in Austin's history that was focused on Renewable Natural Gas. The resolution directs Texas Gas Service to develop a feasibility assessment of renewable natural gas in support of the 2020 update to the Austin Community Climate Plan.

III. Climate and Our Community

The impacts of extreme weather from flooding, heat, wildfire and drought have already had adverse consequences on the Austin community. Due to climate change, these impacts will increase in severity and frequency, and will continue to threaten the health and safety of residents *(COA Office of Sustainability Climate Resilience Action Plan for City of Austin Assets and Operations, 2018)*. The legacy of redlining in Austin continues to this day, with the Austin-Round Rock metro area ranking as the #1 large metro with the highest level of overall economic segregation according to a report from the Martin Prosperity Institute (Florida and Mellander, 2015). This legacy is important to acknowledge as planning efforts aim to address disparities in climate preparedness and physical infrastructure. Along with the potential for physical damage and major costs related to infrastructure, climate threats have serious quality of life implications —

especially in the areas of health and housing, and particularly for low-income communities and communities of color.

The Climate Equity Plan focuses on climate change mitigation, and while this plan alone cannot provide all of the actions necessary to fully solve these issues, it does have a role to play in identifying how climate actions are connected to health and housing.

While lifestyle and preventative healthcare play an important part in health outcomes, socioeconomic factors are primary predictors of health disparities. These factors, known as social determinants of health, include racial discrimination and lack of access to housing, food and economic opportunities. Physical determinants of health consider the built environment, and may include access to green spaces, exposure to industrial sites, and exposure to air and water pollution (HP, 2020). Acknowledging social determinants of health alongside physical determinants of health allows this plan to have a more nuanced, historical perspective and leads to more holistic recommendations for solutions.

Callout:
The COVID-19 pandemic has provided a current illustration of health disparities in Austin. Cases of COVID-19, hospitalization and mortality rates are disproportionately affecting Latinx and Black communities (APH, 2020). While there are many factors associated with these disparities, it's clear that the repercussions are rooted in historical neglect.

INSERT HEALTH AND CLIMATE CHART HERE

Title: Health and Housing Concerns Addressed in Climate Equity Plan

	ISSUE	CLIMATE CONNECTION	PLAN RESPONSE
HEALTH	CLEAN AIR AND WATER	Climate change will impact the ability of trees and natural areas to deliver these ecosystem services.	More robust tree canopy and natural areas combined with resilient management
	AIR POLLUTION	Cars are one of Austin's main contributors to air pollution and GHG emissions.	More transit, improved human powered transportation networks, and more electric vehicles
	HEALTHY FOOD CHOICES	Food choices can impact upstream GHG emissions and may negatively impact health.	100% equitable access to pro health, pro climate food
	LOCAL AND FRESH FOOD CHOICES	Climate change may affect agricultural productivity and food costs.	Protect farmland, promote regenerative farming practices, and provide farmer assistance.
	SAFETY	Car centric design decreases pedestrian and bicycle safety, which can limit the use and adoption of these modes.	Prioritization of bicycle, sidewalk and urban trail networks and infrastructure with a focus on safe crossings and accessibility.
	OUTDOOR SPACE FOR RECREATION	Climate change can affect the availability of healthy green spaces.	More accessible, high quality green spaces that are managed for resilience and carbon neutrality.
	INDOOR AIR POLLUTANTS	On site fossil fuel use, toxic materials and extreme heat can worsen indoor air quality.	Carbon materials, cleaner running appliances and higher building can help promote better indoor air quality.
HOUSING & AFFFORDABILITY	AFFORDABLE HOUSING	Increasing the number and intensity of climate hazards will amplify and compound affordable housing crises.	Recommendations promote additional affordable housing that is safe, healthy and efficient.
	HOMELESSNESS	People experiencing homelessness are more vulnerable to extreme weather and climate hazards.	Promotes Environmental Justice and safe, healthy, and efficient housing for everyone.
	DISPLACEMENT	Suburbanization of poverty increases sprawl, leading to more car dependency and increased transportation costs and emissions.	Robust city wide planning with investment in affordable housing and displacement mitigation in context of climate change.
	GENTRIFICATION	Many climate mitigation solutions lead to investment in communities that can stimulate or exacerbate gentrification.	Community based decision making and co-creation of solutions to ensure new investment respects community needs and values.
	TRANSPORTATION COSTS	Cars are one of Austin's main contributors to GHG emissions and a major strain on household spending.	Supports alternatives to car ownership and promotes "complete communities" with services, amenities, and jobs nearby housing.
	UTILITY COSTS	Increased extreme heat means increased use of water and energy and increased utility costs.	Highly efficient buildings have much lower utility usage and cost.
	FOOD COSTS	Climate change may affect agricultural productivity causing food shortages and increases food costs.	Support local food production, address food insecurity along with pro health, pro climate food policies.

Housing and climate are inherently and inextricably linked — how we live affects the climate and the climate affects how we live. This is particularly important to address in a city that has ranked as one of the top ten of the most rapidly gentrifying cities in the United States (Pan, 2017). Affordability, homelessness, displacement and gentrification are not just climate issues, and the solutions that address them must be holistic and widespread beyond this plan. However, the impacts that housing and climate have on each other must be recognized. An increase in extreme weather and climate hazards puts additional burden on people who are already facing the crises of housing affordability and homelessness. People who are displaced due to increased housing costs are forced further away from jobs and services, increasing their car dependency. Additionally, the displacement of communities breaks social ties and disrupts the connective tissue that is critical to the community's ability to respond to and recover from disaster events.

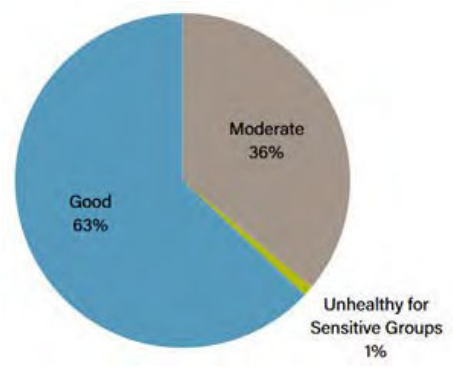
A Commitment to Clean Air

Greenhouse gases are considered air pollutants, but they're typically not what we mean when we talk about polluted or dirty air that can hurt our lungs and have long-term health impacts like cancer and asthma. The direct health impacts caused by dirty air are attributed to criteria air pollutants, such as ground-level ozone (O_3) and fine particulate matter ($PM_{2.5}$), which are prevalent air pollutants in Central Texas (ACT, 2020). In addition, unlike particulate matter (PM), ground-level ozone is also a greenhouse gas (U.S. EIA, 2020). The World Health Organization estimates that 4.2 million people per year die from diseases linked to air pollution (WHO, Air Pollution). These include stroke, heart disease, lung cancer and chronic respiratory disease. Even though air quality in Central Texas is typically "good" based on the U.S. Environmental Protection Agency's (EPA's) air quality standards; however, local air pollution "hot spots" can still be harmful. Sensitive populations to consider include children, older adults, outdoor workers and those with lung or heart disease (EPA, 2014). Additionally, there is strong evidence that indicates that Black and Latinx communities in particular have higher rates of particle exposure, making prioritizing clean air a racial equity issue (EPA, 2019).

INSERT AIR QUALITY GRAPHICS HERE

Title: 2019 Austin-Area Air Quality Index by percentage

Caption: Air quality in our region was good for 63% of days in 2019. It was moderate for 36% of days, and unhealthy for sensitive groups 1% of days. (Air Central Texas)



The City of Austin is committed to clean air, and has signed on to the commitments of the 2019-2023 Austin-Round Rock-Georgetown MSA Regional Air Quality Plan, as well as joining cities worldwide as a signatory of the C40 Clean Air Cities Declaration. To support these commitments, some examples of linked impacts between climate and air quality in this plan include:

- Reducing the reliance on people driving alone in gas-powered vehicles lowers greenhouse gas emissions and the pollutants that cause smog.
- Energy efficiency and shifting to clean energy sources also decreases greenhouse gas emissions as well as particulate matter and the pollutants that cause smog.
- More trees and natural spaces can help pull carbon out of the atmosphere and filter particulate matter, mitigating harmful climate and air quality impacts.
- Reducing consumption of goods reduces air and water pollution associated with manufacturing and water pollution from improper disposal of products.

IV. Environmental Justice

Climate change is often referred to as the “great equalizer”, but we know that climate change does not affect everyone equally and that low-income communities and communities of color disproportionately bear the brunt of the impacts. The effects of extreme weather — an increasing number and severity of natural disasters, worsening levels of air pollution, depleting water supplies, diminishing crop yields and the general exhaustion of natural resources — exacerbate the inequities and injustices that these communities are experiencing. This is why we will not solve climate change without addressing equity and why we cannot talk about climate change solutions without talking about racial and environmental justice.

The environmental justice movement seeks to remedy the impacts of climate change, institutional racism and systemic inequality on people and communities. It aims to address the fact that people of color disproportionately live and work in areas that are the most affected by climate change. Environmental justice advocates have demonstrated that this link is more than coincidental and that low-income communities and communities of color are routinely targeted for the placement of facilities that cause environmental and health injustices, like landfills and industrial facilities. The importance of acknowledging the history of environmental injustices and creating equitable environmental and climate policies has recently reached mainstream politics. However, the topic of environmental justice is not new.

- 1982 Warren County PCB Landfill protests in North Carolina involved a hazardous waste landfill sited in a predominantly Black community. A review found that Black people made up the majority of the population in three out of four communities where hazardous waste sites were located by the EPA, and all four had poverty levels of at least 26%. (US Department of Energy, 2020)
- United Church of Christ reported (United Church of Christ, 1987) that racial makeup of communities was the single most influential factor in predicting the location of hazardous waste facilities in the US. A report released two decades later showed communities of color continued to be disproportionately impacted and did not enjoy equal protection under environmental laws (Bullard, 2007).
- NAACP's Just Energy Policies: Reducing Pollution and Creating Jobs report illustrated that over the past few decades, Black people are more likely to live near power plants than any other demographic group in the U.S. As a result, Black people are more likely to suffer health problems attributed to facility pollution (NAACP, 2020).
- Racial disparities in pollutant exposure are clear in Texas. Examples include the placement of the only Houston landfill in the historically Black neighborhood of Sunnyside, toxic creosote contamination from railroad operations in the historically Black neighborhoods of Fifth Ward and Kashmere Gardens that has led to health problems, including cancer, and the nineteen industrial facilities that are located within the neighborhood of Manchester, a predominantly Latinx neighborhood in Houston (Dulberg 2019; Erin, 2019; UCS, 2016).
- With 2005's Hurricane Katrina, Black women made up 80% of people unable to evacuate New Orleans due to a lack of means (Butterbaugh, 2005), leading to long-term mental health effects on these women in the form of chronic stress, depression, anxiety and post-traumatic stress disorder (Fussell, 2014).
- The 2014 Flint Water Crisis highlighted systematic neglect of infrastructure, leading to life-threatening consequences in a predominantly Black community in

Michigan. Nationally, Black children are three times more likely than white children to have elevated blood lead levels (Bernard, 2003).

- Dakota Access Pipeline Protests at Standing Rock highlighted continued struggles for Indigenous communities to protect their lands from capitalist intent. As stated in a letter to the Obama administration in 2016, “The destruction of sacred sites during the construction of the oil pipeline through North Dakota adds yet another injury to the Lakota, Dakota and other Indigenous Peoples who bear the impacts of fossil fuel extraction and transportation” (Milman, 2016).

The legacy of these historical inequities has led to higher rates of chronic disease, such as respiratory and cardiovascular disease, in low-income communities and communities of color. Lack of access to social services, affordable healthcare and healthy foods are compounding effects that become most visible during climate disasters and health crises, such as the recent COVID-19 pandemic.

The disparate impacts highlighted during the COVID-19 crisis have many parallels to what we see during climate disasters. For example, communities of color are more likely to work in low-wage jobs deemed “essential” — like food production and distribution, construction and healthcare. These jobs expose them to harm without providing benefits like health coverage and paid sick time. These realities make it harder for communities of color to “bounce back” after a climate-related event or a global pandemic. We must ensure that lessons learned from the recent crisis help us be more prepared for future climate action.

GROUNDING CLIMATE ACTION IN EQUITY

I. Understanding Our History

Historically, the City of Austin has supported policies and created structures that perpetuate racial and economic inequities. It is the responsibility of the City government to drive systemic change to eliminate these inequities. By examining our city's history, we can understand how systemic inequality causes some communities to carry more of the burden of climate change than others.

History of Racism in Austin City Planning

Austin has a long history of systemic racism and racial injustice that continues today. Since the city was founded, Black communities and other communities of color have

been excluded, marginalized and discriminated against as a result of City policies and practices.

One of the most damaging chapters of Austin's history is the 1928 Master Plan, which divided the city along racial lines using a practice called redlining. Redlining forcibly displaced and sectioned off primarily Black and Hispanic/Latinx residents into specific, undesirable areas and was achieved by a combination of cutting off or denying services and white supremacist violence inflicted up any person of color who tried to live elsewhere in the city. Redlined districts were then used by financial institutions to decide which neighborhoods they would or would not invest in, making it harder for communities in these areas to get loans. Additionally, deed restrictions and City ordinances often prohibited people of color from buying or renting homes outside of East Austin.

Under the 1957 Industrial Development Plan, property in East Austin was zoned as "industrial," including existing single-family residential areas. This allowed residential homes and schools to be built on industrial-zoned land alongside hazardous and polluting facilities. These burdens were not shared equally among all Austin residents, as this same zoning was not allowed in the western parts of the city.

Local Environmental Justice and Community Organizing

Community-based organizations such as PODER (People Organized in Defense of Earth and her Resources), the National Association for the Advancement of Colored People (NAACP), and other Eastside community groups have examined the impact of the City of Austin's historical land use and planning policies and how they have harmed residents in East Austin. The siting of infrastructure like the Tank Farm fuel storage facility, BFI Recycling Plant and City of Austin's Holly Power Plant alarmed communities of color, exposed people of color to toxic pollution, and threatened the natural environment and vibrant culture in East Austin neighborhoods. Community members and activists have since worked to re-define environmental issues as social and economic justice issues, and collectively aim to frame these concerns as basic human rights issues.

Gentrification and Inequality: Austin's Changing Demographics

A steady growth in jobs within the technology, transportation and warehousing sectors has made Austin a desirable migration destination. This has resulted in population growth and an influx of higher wage earners that have put a strain on housing availability and affordability. 2010 census data shows a major shift in the demographics of East Austin and surrounding communities. In particular, the African-American share of the Austin population declined over two decades from approximately 12% in 1990 to 7.7% in 2010 (U.S. Census Bureau [USCB], 1990, 2010). While Austin has received much recognition as one of the "best places to live in the U.S.", it is also consistently noted as a city with severe racial disparities persisting from legacies of lack of access to opportunity for people of color.

Low-income communities and communities of color are particularly at risk of being displaced by wealthy white people due to historic and current racism manifesting as inequities in housing, health care, education, criminal justice, jobs and other quality-of-life outcomes that stem from decades of harmful City practices and policies. For example, based on 2015 American Community Survey Data, while 52% of white Austin residents were homeowners, only 27% of African-American and 32% of Hispanic/Latinx residents were (USCB, 2015). According to 2017 data, the difference between the median income of white households and Black/African-American households was over $40,000 (USCB, 2017). Community members have repeatedly called for the City to recognize and acknowledge this systemic racism.

II. Today's Injustices and Climate Impacts

Climate change affects everyone, but across the world and right here in Austin, the impacts are not felt equally among all communities. Due to systemic racism, Black, Indigenous and people of color (BIPOC) are particularly vulnerable. Other marginalized groups include, but are not limited to:

- Low-income communities
- Youth
- LGBTQIA+ communities
- Immigrant, migrant, and/or refugee communities
- People with disabilities
- People experiencing homelessness
- People with criminal records
- Seniors
- Women

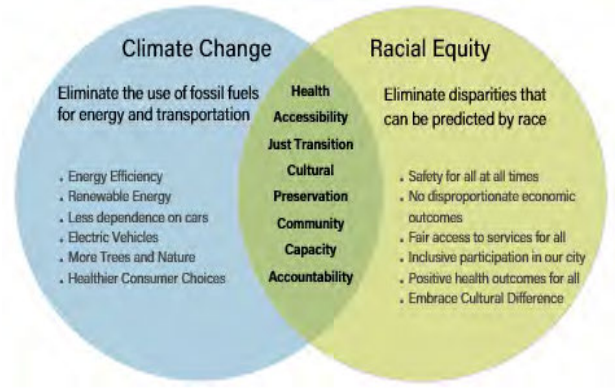
These marginalized groups often experience heightened risk and increased sensitivity to climate change and have fewer resources to help them cope with, adapt to and recover from climate disasters. In the coming decades, we expect the changes in Austin's climate to negatively impact all residents — especially those living in heat-prone and flood-prone areas of the city, and for those who work outside. In particular, marginalized communities face:

- Increased exposure to heat-related illnesses, respiratory illnesses and vector borne diseases
- Displacement and reduced mobility due to flooding, extreme weather and extreme heat-related impacts
- More exposure to emissions and environmental pollution
- Less participation in local government
- Fewer financial resources to respond to environmental and economic stresses

III. Shared Vision: An Equity-Centered Approach

Austin's Climate Equity Plan is part of a bigger shift toward normalizing and institutionalizing equity within the City government. The City's Equity Office is working across departments to identify opportunities to increase equity in City services, programs and policies. This plan is a roadmap intended to guide the City's consideration of equity in its climate policies and programs to achieve more environmentally and economically just outcomes for the greater Austin community.

INSERT GRAPHIC - Climate Change / Racial Equity Venn Diagram
Title: The Values at the Intersection of Solving Climate Change and Racial Equity



Racial equity is the condition when race no longer predicts a person's quality of life outcomes in our community. We recognize that racial injustice is wrong and solving climate change is impossible without racial equity. In Austin, this means our plan will only succeed if we center racial equity in the plan's goals and strategies. We realize that City of Austin infrastructure, policies and investment have historically and systemically neglected and even harmed low-income communities and communities of color. The City acknowledges these injustices and the need to right these wrongs by creating a culture of equity within its institutions. We recognize that:

- Low-income communities and communities of color are the most impacted by extreme weather, and climate change will worsen existing harms and challenges.
- Low-income communities and communities of color must be prioritized to receive the disproportionate benefits of the transition to a pollution-free society.

- If we design and implement programs for low-income communities and communities of color, we will positively impact all residents in the Austin area.

IV. Advancing Equity through our Goals and Strategies

If we're not proactively addressing equity, we're perpetuating injustice. To ensure our climate plan will increase racial equity, we followed a specific six-step process adapted from the Government Alliance on Race and Equity.

INSERT GRAPHIC - OUR EQUITY TOOL 6 Step Process
Title: Equity Tool Process
Caption: Climate Equity Tool based on the Government Alliance for Race and Equity

We also created an Equity Tool that includes screening questions organized around the following themes:

1) **Health** - Strategy improves mental and physical health outcomes for low-income communities and communities of color. It upholds the fundamental human right to clean, healthy and adequate air quality, water, land, food, education, transportation, safety and housing.
2) **Affordability** - Strategy lowers and stabilizes costs related to basic living needs (housing, food, utilities, healthcare, transportation, etc.) for low-income communities and communities of color.
3) **Accessibility** - Strategy increases access to jobs, housing, transportation, funding, education, healthy foods and a clean environment for low-income communities and communities of color. It removes barriers through City

infrastructure, policy and investments.

4) **Just Transition** - Strategy ensures economic justice so that low-income communities and communities of color are prioritized in the benefits of the strategy and are protected from any potential negative consequences.
5) **Community Capacity** - Strategy elevates the voices of low-income communities and communities of color by developing and strengthening the skills, abilities and resources that a community needs to survive, adapt and thrive.
6) **Cultural Preservation -** Strategy deliberately and respectfully honors cultural relevance and history to preserve the cultural heritage of the past and present to benefit all generations.
7) **Accountability** - Strategy ensures that low-income communities and communities of color can hold governments and institutions accountable for equitable implementation.

Our Advisory Groups used the Equity Tool to identify potential burdens or harms to low-income communities and communities of color. The tool allowed our Advisory Groups to build their goals and strategies in a way that reduces and eliminates these burdens and works to improve quality of life for these communities.

V. Community Climate Ambassador Program

An important part of creating and ultimately implementing this plan has been reaching out to groups that have historically been left out of the climate conversation. In building the plan, we created a Community Climate Ambassador Program to engage people of color in conversations around energy, transportation, food and access to nature. The primary role of our ambassadors was to gather and share information about climate issues with their community and social circles.

Ambassador Recruitment and Process

As part of this new model of engagement, we put out a citywide call for applicants who could engage with under-represented communities about climate-related issues. Twelve ambassadors were selected and were offered modest financial compensation to facilitate discussions around challenges, barriers and opportunities facing these groups. Each ambassador hosted a minimum of three gatherings to produce at least five interview reports. This allowed us to elevate the voices of people in our community who have been under-represented in previous plans.

This approach was designed to use City resources to build relationships and trust with communities of color. This does not mean that other parts of our community will be left

out or ignored, merely that additional resources were devoted up-front to ensure equitable outreach. The ambassador interviews were conducted without City staff present because we recognize that the presence of government officials can impair authentic, open conversations. To read more about the selection process and demographic data, please view Appendix B.

INSERT PHOTO - COMMUNITY CLIMATE AMBASSADORS

Findings from Ambassador-led Discussions

In many planning processes, citizens are not invited into the process early enough. We wanted to start by listening first to understand our community's needs. Our ambassadors submitted over 50 reports and held meetings to hear community concerns, priorities and values. The major takeaways from ambassador-led discussions were:

Healthy Environment: Concerns about pollution, cleanliness and green space.

- Center health and wellness in climate planning; conduct holistic planning
- Protect natural resources (water, land, air) from pollution
- Invest and promote clean energy, water conservation and sustainable materials
- Focus on local, affordable and healthy food
- Acknowledge disproportionate impacts of extreme weather on low-income communities and communities of color
- Protect, develop and maintain clean, pollution-free green spaces
- Conserve resources, reuse and recycle

Affordability: Affordable housing, living, food, gentrification and displacement concerns.

- Compensate and fund organizations and businesses focused on climate justice and led by people of color
- Prioritize and target incentives for low-income communities and communities of color
- Make green solutions or programs less expensive so everyone can participate
- Consider how gentrification and displacement affects affordability of services
- Seek solutions that address household affordability in Austin, including displacement and homelessness

Economic Opportunity and Empowerment: The need for better education, stronger partnerships and workforce development.

- Help BIPOC-owned businesses include participation efforts targeted toward these groups
- Fund local renewable energy businesses
- Ensure low-income communities and communities of color have the same access to economic opportunity, education and healthcare

Accessibility: Accessible and culturally relevant education and awareness.

- Lack of awareness and education materials prevents us from meeting sustainability goals
- Consider financial barriers to participation
- Consider the inequities of how people are excluded in economic opportunity because of disabilities, income, education and healthcare.
- Consider inequitable access to transportation options for communities who live in areas outside of Austin, such as Pflugerville, Round Rock, Cedar Park, Buda and Kyle.

Cultural Preservation: Loss of community history and/or culture.

- Acknowledge that Austin is not a diverse city that respects, honors, and acknowledge the history of BIPOC
- Preserve, uplift and support the culture and history of BIPOC
- Invest in cleaning and upgrades in areas while mitigating or preventing displacement

Community Capacity: Community resiliency, safety and better education.

- Sustainability connects with a sense of place where people work, play, go to church and spend money in one community
- Improve education materials for community members so people understand why climate change issues are important, especially for parents who would like to teach children to understand these issues
- Emphasize intersectionality of climate issues
- Actively address safety concerns and community priorities and communicate with the community through meaningful connections to these concerns (safety, police)
- Build community resilience to long-term climate change impacts by focusing on social and economic stressors for people living in Austin
- Prepare for long-term climate change impacts; concerns that the infrastructure won't be able to keep up with the growth

Accountability: **City government responsibilities for assistance and support**

- Include representative leaders and decision-makers from BIPOC communities that are impacted
- Ensure equitable distribution of responsibilities in climate action
- Equitably design programs for low-income communities
- Address community-based concerns around systemic racism

Community concerns and feedback informed the plan's goals and strategies, and are referenced in applicable sections throughout the plan. While the Climate Equity Plan will not be able to solve all of Austin's equity challenges, the goal of the Climate Ambassadors program was to bring to light community members' concerns and find opportunities to begin the process of recovery and healing. You can find all submitted ambassador reports in Appendix B.

Callout:
"Doing the work of a community climate ambassador was very rewarding and very interesting. Learning the history and future plans for Austin was worth the research and time while working this project." -Kiounis Williams, Community Climate Ambassador

Callout: Quote about workshop

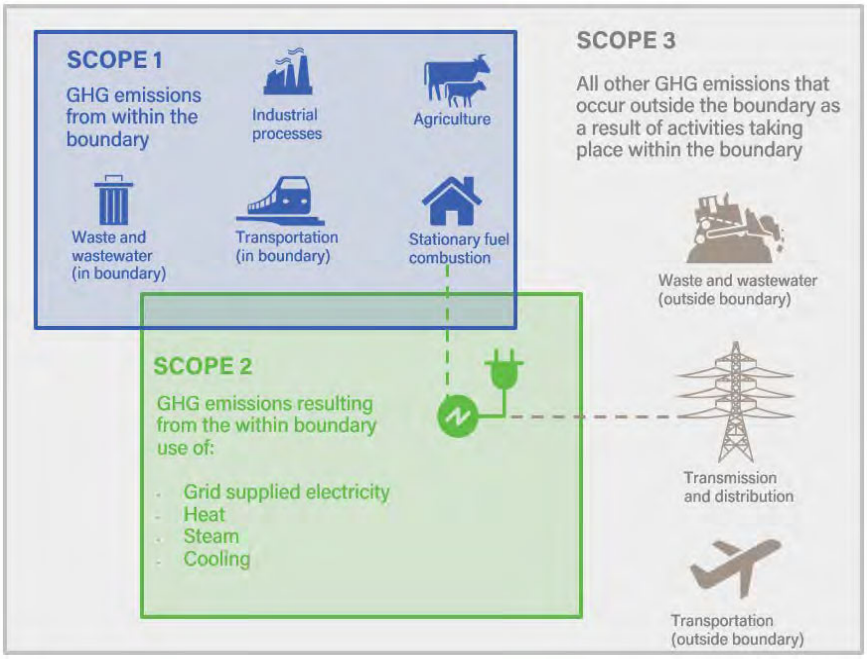
"[Susanna] Almanza helped [my] soul. All the people that do not look like [me] need to hear what she presented to know where we are now. It empowered me." - Dianna Dean, Community Climate Ambassador

AUSTIN'S CARBON FOOTPRINT AND CLIMATE GOALS

I. Carbon Accounting Framework

Citywide emissions are measured using an accounting framework called the Global Protocol for Community Scale Greenhouse Gas Emissions Inventories, or GPC. The GPC was developed by a group of international non-governmental organizations and is widely used by cities and communities throughout the world. The international popularity of the GPC allows for global comparisons and insights into greenhouse gas emissions accounting. This protocol categorizes emissions into three scopes depending on where emissions occur geographically.

INSERT GRAPHIC - Scope 1, 2, 3, Boundaries of greenhouse gas Accounting
Title: Scopes of Greenhouse Gas Emissions Accounting
Caption: N/A



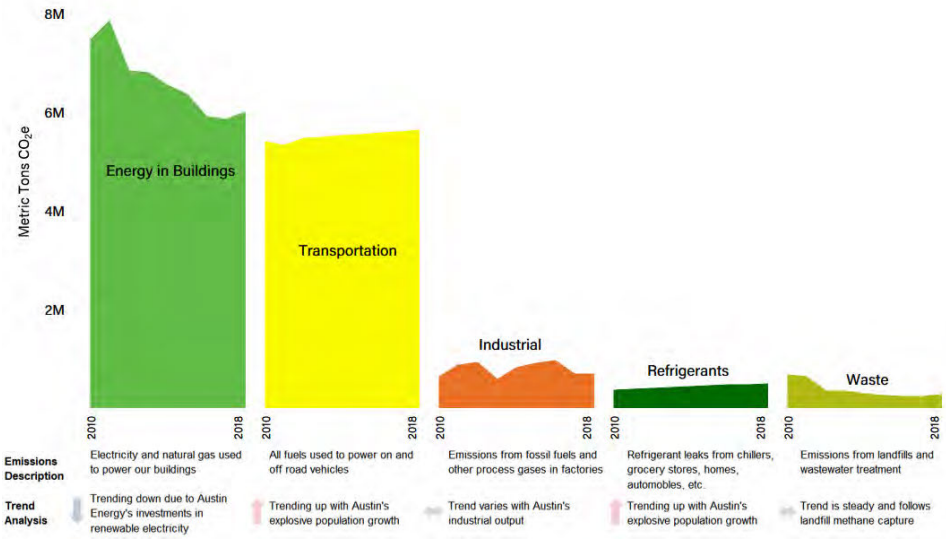
Only Scope 1 (emissions released within the City) and Scope 2 (emissions from electricity consumed within the City) emissions are currently included in Austin's Community Greenhouse Gas Inventory. Scope 3 emissions occur outside of Austin because of activities inside Austin, and are therefore difficult to calculate accurately and reliably. For this reason, they are not included in Austin's current emissions inventory. They were, however, considered by the Natural Systems, Food and Product Consumption and Sustainable Buildings Advisory Groups during the climate planning process and they will continue to gain focus as we minimize our Scope 1 and 2 emissions. Scope 3 emissions will be incorporated into our Greenhouse Gas Inventory when an acceptable accounting protocol is established.

II. Emissions and Trajectory for Austin

The Austin Community Greenhouse Gas Inventory is broken into five sectors shown below.

INSERT FIGURE: Austin's greenhouse gas Emission Trends by Sector from 2010 - 2018 (needs new font and colors)

Title: Austin's Greenhouse Gas Emission Trends by Sector from 2010 - 2018
Caption: None



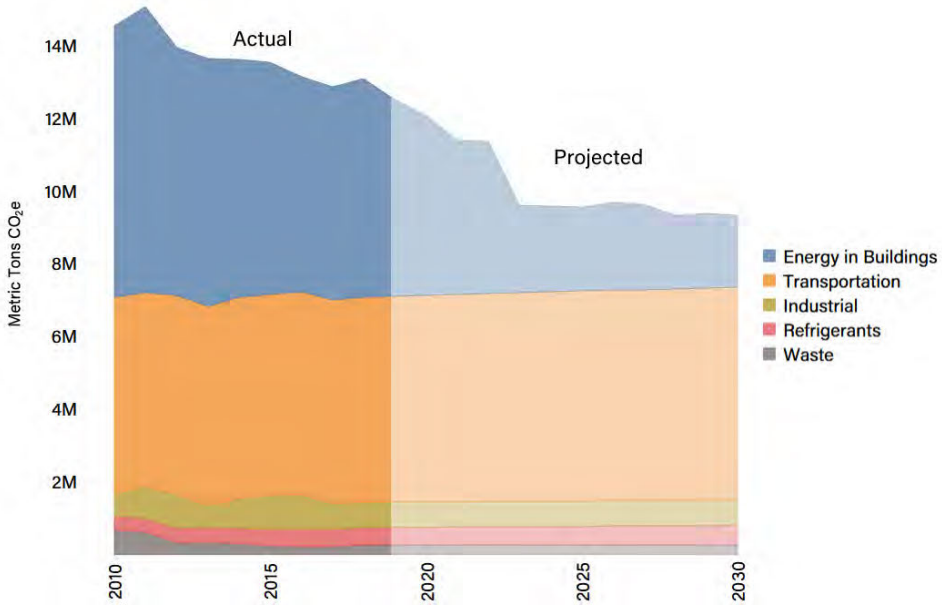
The majority of Austin's current emissions come from on-road transportation and energy used in buildings. In the last eight years, the greenhouse gas emissions from energy in buildings has fallen nearly 20%, despite a corresponding 20% growth in Austin's population in the same time period. This reduction is predominantly due to Austin Energy's increasing electricity generation via renewable sources and Texas Gas Service Company's emission reductions through pipeline replacement and end-use energy efficiency programs. Austin Energy has laid out additional plans for significant decarbonization of its power supply in its Resource, Generation, and Climate Protection Plan to 2030 (2030 Resource Generation Plan) and Texas Gas Service Company has proposed additional emission reduction strategies utilizing Renewable Natural Gas. However, these reductions have been partially offset by rising emissions from on-road transportation.

Vehicle miles travelled (VMT) and vehicle fuel efficiency are the two main factors that affect on-road transportation emissions. In Austin, VMT has been steadily increasing for decades, mirroring population growth as more residents are driving further. Meanwhile, vehicle fuel efficiency has been increasing each year since 2005, meaning vehicles can travel further on less fuel due to technology improvements. However, since VMT is increasing at a higher rate than fuel efficiency is improving, there has been an overall net increase in transportation emissions over the last eight years.

Extrapolating current trends shows a continuation of Austin's current predicament — falling emissions in electricity generation offset by rising emissions from on-road vehicles. The graph below shows past and projected community greenhouse gas emissions for Austin, assuming there is no action beyond Austin Energy's 2030 Resource Generation Plan.

INSERT FIGURE: Austin's Past and Projected Community Emissions (needs to be resized)

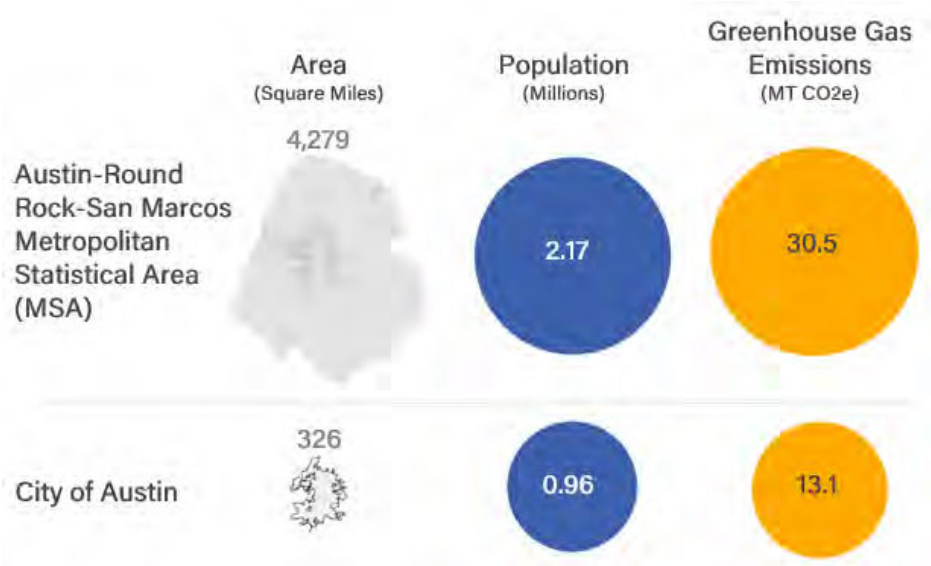
Title: Austin's Past and Projected Community Emissions
Caption: In 2011, Austin's greenhouse gas emissions peaked and have since decreased by 13%. Despite this improvement, more action than ever is needed to continue this trend.



Another important consideration when estimating Austin's greenhouse gas emissions is the interconnectedness of our region. The Austin city boundary is a logical but arbitrary geographic boundary for our emissions. For instance, transportation is often a regional phenomenon that is more effectively assessed across multiple connected counties or a metropolitan statistical area (MSA) rather than within a city boundary. Austin is part of the Austin-Round Rock-San Marcos MSA, which encompasses five counties: Travis, Williamson, Bastrop, Hays and Caldwell. To provide perspective on Austin's emissions, we estimated the greenhouse gas emissions of the Austin-Round Rock-San Marcos MSA in the graph below.

INSERT FIGURE: Austin's greenhouse gas Emissions vs. MSA Emissions

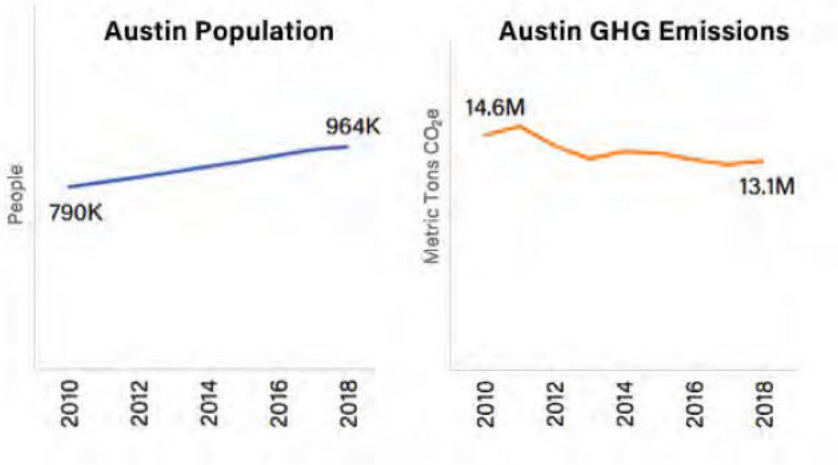
Title: City of Austin vs. Austin-Round Rock-San Marcos MSA Comparison (2018)
Caption: Austin makes up only 8% of the land area in the MSA but includes almost half the population and greenhouse gas emissions.



As shown, the emissions for the MSA are more than double those of just the city of Austin alone. An important note is that the Austin-Round Rock-San Marcos emissions estimate is not an official GPC inventory, but it was derived using similar methods. Another important consideration. Despite rapid population growth in the last decade, the City of Austin has reduced overall GHG emissions. This decoupling of population and GHG emissions must continue if Austin is to achieve its climate goals as the region continues to grow.

INSERT FIGURE: Austin Community Emissions vs. Population

Title: Austin Population and Emission Trends
Caption: Austin's population has increased while greenhouse gas emissions have decreased.



III. Austin's Climate Goals

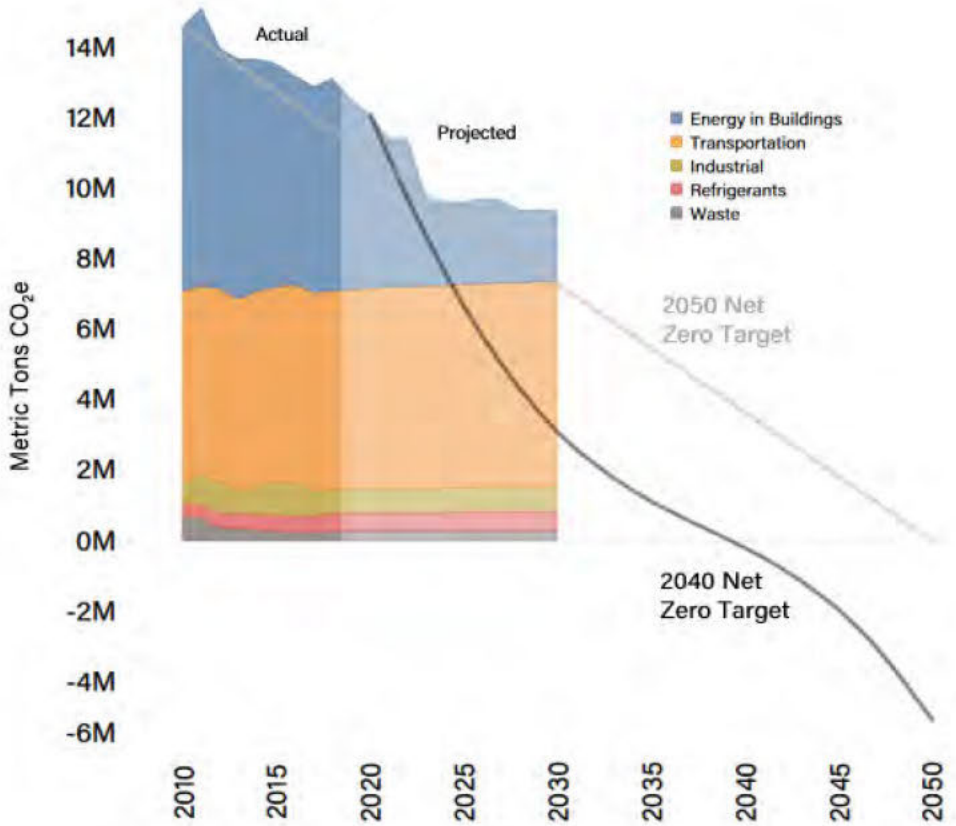
The Austin Climate Protection Plan was adopted in 2007 and laid the groundwork for a community level effort to address greenhouse gas emissions. This vision was focused in 2015 when the Austin Community Climate Plan set a net-zero target for community-wide greenhouse gas emissions by 2050. Since the goal was adopted, progress has been made. However, Austin is growing rapidly, and along with population and economic growth comes increases in construction activity and regional travel. The need for particularly aggressive action is more urgent than ever. Additionally, there have been advances in renewable energy and sustainable technology that continue to decrease costs and improve feasibility. Given this, a new goal is being established for **net-zero community-wide greenhouse gas emissions by 2040, utilizing a steep decline path, followed by negative emissions.**

Commented [KJA1]: We suggest maintaining the 2050 goal established by the City of Austin.

INSERT GRAPHIC - 2010-2030 Emissions and 2050 v. 2040 Goals

Title: Previous 2050 Net-zero Target vs. New 2040 Net-zero Target

Caption: The new 2040 net-zero target has a steeper decline than the 2050 'Straight Line' Target.



Beyond moving up the net-zero target year from 2050 to 2040, the new target has a more aggressive emissions reduction schedule than a linear or "straight line" target. This steep decline curve was deliberately chosen based on two influential reports: C40 Cities' Deadline 20/20 Report (C40, 2016) and two recent reports from the United Nations: The Intergovernmental Panel on Climate Change's (IPCC) Global Warming of 1.5ºC Report (IPCC, 2018) and the UN Environment Programme's Emissions Gap Report (UN, 2019).

The Deadline 20/20 report presented a pathway for global cities to meet the commitments made in the Paris Agreement. It sorted cities into one of four typologies based on current greenhouse gas emission levels, gross domestic product (GDP) and population. These typologies characterize the emissions reduction timelines necessary

for meeting global targets to limit global warming to 2.7°F (1.5°C). Because Austin has a high GDP per capita and a high current emissions rate, it was sorted into the typology with the most rapid decline in emissions. According to C40 Cities' logic, since Austin is a wealthy city with high greenhouse gas emissions per capita, it should be able and duty bound to reduce emissions quickly compared to other global cities.

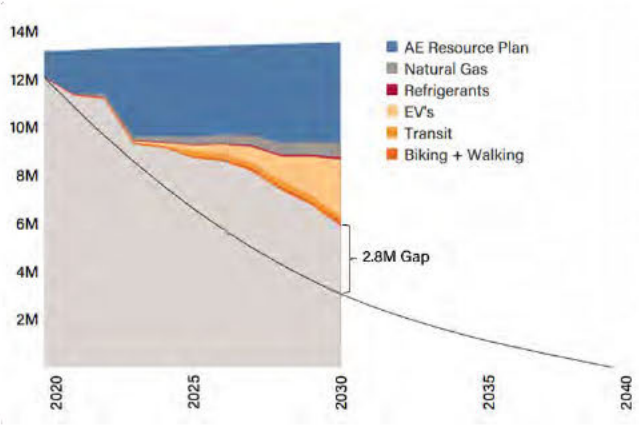
The UN Environmental Programme Gap Report painted a dire picture for limiting global emissions to 2.7°F (1.5°C) or even 3.6°F (2.0°C). This report examined global emission rates to show that reductions since 2016 have not been remotely close to meeting the goals outlined in the Paris Climate Agreement. It serves as a sobering reminder of the monumental transition that still needs to take place to avert the worst impacts of global climate change. This was in addition to the IPCC's 2018 Global Warming of 1.5ºC Report, which emphasized the importance of carbon dioxide (CO_2) removal from the atmosphere to limit global warming to 2.7°F (1.5°C).

In light of this information, we have adopted a target trajectory that follows a steep decline advised for cities like Austin in the Deadline 20/20 report, but with a steeper reduction curve which emphasizes the urgency of massive global emissions cuts and ultimately negative emissions outlined in the UN reports.

IV. Quantitative Analysis of this Plan and Meeting our 2030 Targets

The goals from all sections were modeled against our Austin Community Greenhouse Gas Inventory. The 2030 emissions reduction target is shown below:

INSERT GRAPHIC - Top Down Strategy focused inventory graph to target
Title: Greenhouse Gas Emissions Reduction from Baseline Projections vs. 2040 Net-zero Target
Caption: Current projections show that if all the strategies in the Climate Equity Plan are adopted, greenhouse gas emissions will still remain above the 2040 net-zero target line.



Buildings

Measure	Current	Goal
Natural Gas Emissions	-	-50%
Refrigerant Leaks	-	-25%

Transportation

Measure	Current	Goal
Electric Vehicle Miles Traveled	1%	40%
Transit % of Distance Travelled	0.3%	5%
Walking + Biking % of Distance Travelled	0.8%	4%

Commented [KJA2]: Adjust this graph according to proposed changes. Also adjust the grey baseline color – it could be confused to represent natural gas.

The graph uses a "business as usual" baseline, which assumes current electricity demand being met by the Electric Reliability Council of Texas (ERCOT). The largest reduction from this baseline will come from Austin Energy's 2030 Resource Generation Plan. This will create a projected 34% annual reduction in greenhouse gas emissions by 2030 because the carbon intensity of Austin Energy's electricity generation is lower than the overall ERCOT grid. ~~Other notable decreases come from our building electrification goals and the reduction of refrigerant leakage in our community.~~

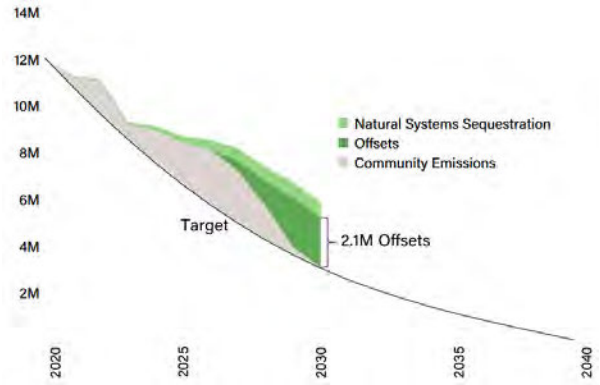
In the transportation sector, the most impactful strategy will be our ambitious electric vehicle adoption targets. The goal of 40% of all vehicle miles travelled by EVs in 2030 will require a transformation of the auto industry and exponential growth in EV sales in the next decade. EV adoption works well with Austin Energy's decarbonization of electricity because the emissions reductions from driving EVs increases as Austin Energy decarbonizes their electric generation. Increasing transit and people-powered transportation also provide substantial reductions in carbon emissions that have many co-benefits from their adoption.

However, even if we reach all of the goals in our individual strategies we don't project that we will meet our 2030 emissions target. Additional solutions to reduce and offset emissions will be needed. The graph below shows the remaining projected gap to our 2030 emissions target and possible solutions to meeting the target utilizing natural systems sequestration and offsets.

INSERT GRAPHIC - Remaining gap to target with possible solutions - Natural Systems / Offsets

Title: Possible Paths to Meet 2040 Net-zero Target Line

Caption: Purchasing offsets or accounting for natural systems carbon sequestration could bridge the gap from our current projections to the 2040 net-zero target.



Carbon sequestration — using vegetation and soils to store carbon that would otherwise contribute to climate change — is one way to help meet this emissions gap. The carbon sequestration performed by natural systems across the globe is enormous. However, its vastness makes it difficult to calculate and track from year to year. For this reason, it has not traditionally been accounted for in the greenhouse gas emissions inventory methodologies. Natural systems sequestration and co-benefits are becoming increasingly important in burgeoning global carbon offset markets. As offset markets mature and natural systems accounting becomes more standardized, we hope that these two sectors can provide the flexibility to meet our emissions targets over the next decade.

2030 GOALS AND STRATEGIES

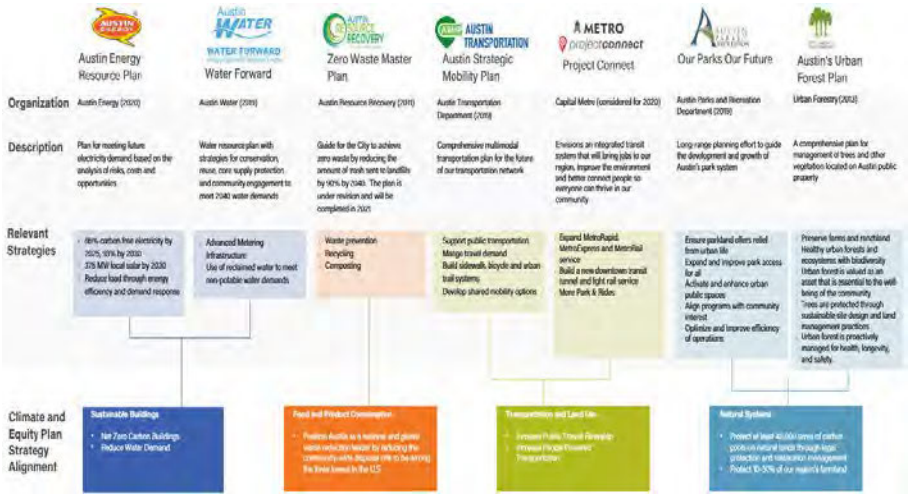
Climate Action is a Shared Responsibility

While climate action requires shared responsibility, it must be acknowledged that we all have common, but differentiated responsibilities. This concept is a principle of the 1992 United Nations Framework Convention on Climate Change, which noted that wealthier, industrialized nations have a particular responsibility to mitigate emissions, and more resources to do so (UN, 1992). When this concept is applied on a microscale to the Austin community, it is important to acknowledge the barriers to action for many community members, and the critical role of large institutions that have the resources to lead by example.

The City has taken a climate leadership role with the climate policies referenced in Section II. Austin City Council Directives, as well as the many coordinated plans and strategies highlighted below, are outlined in more detail in Appendix E.

INSERT GRAPHIC - How other plans fit into this plan.
Title: Other Plans that Complement the Climate Equity Plan
Caption: N/A

While the City can create policies, incentives and regulations to push this work forward, the flexibility of the private sector can create market disruption and acceleration through



innovative technology and business models. Consumers have the ability to shift market demand to favor more sustainable practices and products, but the private and public sector must collaborate to ensure these remain accessible and affordable to all income levels. In this way, our collaboration is key to the transformative change we need, and only together can we turn our visions into reality.

Title: Climate Action Shared Responsibility
Caption: N/A

Collaborative Plan Development

To honor this shared responsibility vision, City staff, local experts and Austin residents came together over 10 months to recommend 18 goals and 75 strategies, aimed at curbing emissions and achieving equity through climate action. In all, nearly 200 Austin residents participated in the process. A Steering Committee provided direction and accountability. Five Advisory Groups crafted the goals and strategies, which were informed by input from the Community Climate Ambassadors program, community workshops and individuals. To ensure that equity was considered properly, it was important for these groups to explore the historical and structural disparities that exist in Austin and recognize that race is the primary determinant of social equity.

The Advisory Groups were divided by topics, including: **Sustainable Buildings, Transportation and Land Use, Transportation ~~Electrification~~Decarbonization, Food and Product Consumption and Natural Systems.** Throughout the process, the Advisory Group members, along with staff participants, were required to attend an equity training, host community workshops on their topic, invite topic experts to present and have facilitated discussions to craft their goals and strategies.

OVERARCHING STRATEGIES

Throughout the creation of the Climate Equity Plan, a few issues arose across Advisory Groups that didn't fit in one category, but were seen as essential to the plan's success. Climate change and equity are massive challenges, and to meaningfully reduce our emissions while creating benefits for those who need it most, we need to think creatively. The following overarching strategies touch all areas of this plan.

Strategy 1: Green Jobs and Entrepreneurship
Create Green Jobs and Entrepreneurship opportunities that advance the goals of this plan, create economic opportunity, and build agency and decision-making power in low-income communities and communities of color.

How we'll get there:

- Ensure an adequately educated workforce to perform installation and maintenance of green technologies and solutions through a skill-up training program specifically focused on low-income communities and communities of color. This may include green infrastructure, solar installation, renewable natural gas and hydrogen processing, water reuse or innovative mechanical systems, EV charging station installation, design and repair to reduce waste, urban agriculture, beautification and placemaking, etc.
- Ensure permanent career pathways that pay a living wage rather than temporary jobs. Include considerations for people who were formerly incarcerated and childcare services to ensure accessibility for working parents.
- Develop new workforce skills and job readiness in order to provide a ladder of opportunities and entry into a skilled workforce pipeline.
- Recruit from local communities of color to ensure diverse and equitable participation in all levels of green jobs sectors.
- Invest in local green business development and target support and guidance to small businesses owned by women and people of color.
- Develop initiatives and programs to support and grow a network of entrepreneurs and executives of color.
- Build upon the recent Austin Civilian Conservation Corps initiative to foster partnerships with nonprofit organizations to recruit and train economically disadvantaged community members.

Strategy 2: Regional Collaboration
Create a Texas Climate Collaborative linking elected officials, ~~and~~ City staff and utility staff who are working to implement recently adopted climate plans in San Antonio, Houston, Dallas and Austin. Bring in neighboring cities such as Round Rock, Cedar Park, Buda, Pflugerville, San Marcos and Kyle, and the five county governments: Travis, Williamson, Hays, Bastrop and Caldwell. The group should focus on lessons learned from specific implementation and also big picture issues like aggregating demand for new technology and statewide policy changes. Leverage existing networks, such as C40 Cities, Climate Mayors, Urban Sustainability Directors Network or the SPEER City Efficiency Leadership Council.

Strategy 3: Carbon Dioxide Removal
To fully address the historical carbon pollution emitted in Austin that still remains in the atmosphere, we would need to remove 288 million tons of carbon dioxide (CO_2) from the atmosphere and safely store it away for at least 100 years. Supporting carbon offset projects will only go so far, especially those focused on avoiding emissions rather than reducing the greenhouse gases already accumulated in the atmosphere. Sequestration and removing CO_2 from the atmosphere will become increasingly necessary to avoid catastrophic climate change.

To begin addressing this enormous task, we will start exploring how Austin can support and implement negative emissions via Carbon Dioxide Removal (CDR) strategies. This will be done by exploring and creating guidelines for CDR strategies such as geologic sequestration and using CO_2 captured from the atmosphere in industrial processes. Options include biochar, bioenergy with carbon capture and storage, synthetic limestone, industrial products like bicarbonate, methane energy, carbon negative building materials and gaseous CO_2. Equity and permanence should be considered in this process.

SUSTAINABLE BUILDINGS

Buildings in Austin are responsible for about 50% of our emissions. Currently, the majority of those emissions come from electricity consumption in buildings. Since our electricity is becoming increasingly cleaner through Austin Energy's transition to renewables, additional strides can be made by reducing emissions associated with the natural gas sector, addressing refrigerants and more sustainably managing construction materials. Additionally, energy efficiency incentives and easy access to utility data continue to be powerful tools in reducing energy burden — the percentage of household income that goes toward energy costs — making them key to achieving equity (Drebhol and Ross, 2016).

A key area of addressing climate change is how we manage refrigerants. Globally, and especially in warm climates like Austin, refrigerants have played a critical role in modern life by enabling the comforts of air conditioning and refrigeration. Unfortunately, they are a significant part of our carbon footprint and have between 1,000 and 9,000 times the global warming potential of CO_2. According to Project Drawdown, refrigerant management is the single most important strategy we can use to successfully reverse global warming, and this is an area that Austin has yet to address (Hawken, 2017).

Globally, when operational and embodied carbon from building materials and construction are taken into account, buildings are responsible for nearly 40% of global emissions. While operational emissions have been the largest area of focus in climate planning, embodied carbon accounts for about 11% of global emissions from buildings. As operational carbon decreases, the impact of embodied carbon will become larger (Abergel et al., 2019). For perspective, the embodied carbon in a home can be equivalent to up to 15 years of operating the home, and for commercial buildings it can be upwards of 30 years. (NTHP, 2016; Milne, 2013; Siegel and Strain, 2020) Using lower carbon materials can often come at lower or no additional cost, making this an important and accessible strategy — particularly when evaluated through a lifecycle lens (Giesekam et. al., 2016).

Improving our buildings isn't just about reducing emissions. Since Americans spend nearly 90% of their time indoors, it's important to consider the public health impacts of our interior surroundings (EPA, 1989). The materials we use to paint, furnish and clean our homes ~~and the appliances we use, such as natural gas stoves~~, can all have a negative impact on indoor air quality (ala.org; epa.gov; Lin et al, 2013; Nicole, 2014; Tianchao et al., 2012). Additionally, because of efforts to seal building envelopes for

energy savings, indoor air is often two to five times more polluted than outdoor air (EPA, 1987). The COVID-19 pandemic has made us very aware that ensuring safe and healthy indoor air quality in buildings is an important part of public health. As we advocate for selecting low-carbon materials ~~and more efficient appliances~~, we should also consider their impacts to human health.

It's also important to consider reducing energy and water costs in our community. In Austin and across the nation, income disparities are largely tied to race, illustrating the need to address racial equity by focusing on lowering energy costs. In Texas, low-income customers spend an average of 10% of their income on energy, compared to 3% for non low-income households (TEPRI, 2019). We also want to ensure that we expand building improvement jobs to low-income communities and communities of color to strengthen opportunities for our local workforce.

Community Feedback

In ambassador-led conversations, participants referred to buildings as the homes, cultural spaces and centers that make up neighborhoods and communities. Concerns noted the loss of culture as a consequence of the changes in neighborhood demographics. Specifically, the loss of Black-owned businesses, neglect of community spaces previously frequented and celebrated by the Black community and the ongoing threat of continued loss were discussed.

Participants noted that sustainable buildings present an opportunity to reduce utility costs and create a healthier environment through clean, renewable energy. However, these spaces should remain inclusive and accessible to all, and particular attention should be placed on ensuring that communities of color see themselves represented in them. Climate and buildings discussions can often veer into technical detail, but on a fundamental level, buildings are the spaces that people live, learn and congregate in, and they should represent community needs and perspectives.

Callout: What is embodied carbon?

The embodied carbon of a building represents all of the emissions associated with its lifecycle, including extraction, manufacturing, transport, construction and maintenance, demolition and disposal or reuse of materials.

GOAL 1: By 2030, decarbonize buildings and reduce energy burden by achieving net-zero carbon* for 100% of new and 25% of existing buildings~~, and reduce greenhouse gas emissions from the natural gas sector by 50% in Austin~~.

*A net zero carbon building must achieve a carbon-dioxide equivalent balance of zero for the past year.

Carbon Balance = Total Carbon Emitted – Total Carbon Avoided

Carbon Avoided includes on-site renewable energy generated and exported to the grid, off-site renewable energy procurement, and the purchase of carbon offsets. Renewable energy generated and used on site reduces the amount of energy delivered.

~~*****A net-zero carbon building is highly efficient and fully powered by on- or off-site renewable energy. For the purposes of this goal, net-zero carbon implies operational carbon, which refers to the greenhouse gases emitted as a result of operations during the in-use phase of a building, such as lighting and heating.~~

~~***Callout: Austin Energy Resource, Generation and Climate Protection Plan to 2030***~~

~~The 2030 Austin Energy Resource Generation Plan commits Austin Energy to provide affordable, dependable and safe electricity service to residents and businesses while pursuing the City's climate change and sustainability goals, including the Austin Climate Emergency Resolution. Austin Energy will maintain an energy supply portfolio sufficient to meet customer demand while eliminating emissions from its electric generation facilities as rapidly as feasible within the limitations set by the Austin City Council. Austin Energy commits to providing access to the benefits of this 2030 Plan for low-income communities and communities of color. The plan calls for:~~

- ~~93% carbon free generation by 2030, 100% by 2035~~
- ~~1,200 megawatts (MW) of conservation, including 225 MW of peak capacity~~
- ~~1% of retail sales per year in energy efficiency savings, at least 25,000 customer participants annually, 25% limited income~~
- ~~375 MW of local solar, 200 MW of customer sited solar~~
    - ~~Expand shared solar~~
    - ~~Provide moderate and limited income customers preferential access to community solar~~
- ~~40 MW of local thermal storage~~
- ~~Commitment to equity evaluation for programs~~

~~***Callout:** If all of the goals and strategies outlined in the Generation Plan were implemented, we could reduce our current community-wide greenhouse gas emissions by 29% percent, or 3.7 million metric tons by 2030."*~~

Strategy 1: Ensure benefits flow to low-income communities and communities of color

Pursue a comprehensive energy poverty mitigation strategy by partnering with trusted community organizations and affordable housing developers in equitable outreach and program development. This will ensure that the benefits of repair, energy conservation and renewable energy incentives and programs flow to low-income communities and communities of color.

How we'll get there:

- Create partnerships and work with any future Community Climate Ambassador cohorts to gain feedback and insights on improving program accessibility.
- Ensure a City cross-departmental approach that also emphasizes partnerships with green infrastructure stakeholders to ensure trees and greenery are utilized and placed strategically to shade buildings and help further conservation.

Strategy 2: Enhance understanding of energy consumption

Enhance resident and building owner understanding of energy savings opportunities, benefits and climate impacts of energy consumption. This will be done through direct outreach, culturally relevant communications, expanding benchmarking requirements for all existing buildings and better access to energy and water data.

How we'll get there:

- Expand information access for utility consumption through billing systems, mobile and web applications and reporting requirements. Create streamlined processes for building owners to access whole-building utility data to support energy and water reduction goals.
- Focus on opportunities to partner with affordable housing and multifamily properties and better expand information access to low-income customers.
- Create workforce development and training opportunities for students of color in schools and universities.

Strategy 3: Decarbonize buildings

Achieve goal milestones for net-zero carbon buildings by adopting new building and energy codes and amendments. Engage owners and operators of existing buildings to decarbonize through incentives and education for contractors and residents. Collaborate with local ~~natural gas~~ utilities to implement equitable emission reduction strategies.

How we'll get there:

- Austin Energy Resource, Generation and Climate Protection Plan to 2030

- Develop and implement renewable natural gas, expanded energy efficiency programs and natural gas green tariffs.
- For new construction and major renovations, code amendments ~~will~~may enable the adoption of ~~the highest level of~~ energy efficiency measures and ~~,~~ ~~electrification~~ programs, use of low-emission ~~of~~ water and space heating solutions, peak-load shifting, microgrids and distributed generation.
- In addition to decarbonizing the grid, on-site renewable energy and reducing energy~~lectricity~~ demand will be important for existing buildings. ~~Strategies could include electrification for gas-to-electric equipment replacement and other natural gas-related emissions reduction measures.~~
- ~~Equitable natural gas emission reduction strategies may include system leak reduction, renewable natural gas, energy efficiency and new technologies.~~
- Ensure all new programs are created with equity principles and community input, and collaborate with affordable housing developers and public-serving entities to prioritize net-zero carbon buildings in low-income communities and communities of color.

Strategy 4: Ensure equitable workforce development for emerging technologies
Prioritize investment in local emissions reduction and create equitable workforce development and training opportunities for emerging technologies by partnering with local unions, education and advocacy organizations that serve low-income communities and communities of color. Increasing these opportunities can have a positive economic impact on families, aid in relationship building and support community capacity to drive decision-making in future projects and programs.

How we'll get there:

- Develop workforce opportunities by partnering with local universities and schools, such as Huston-Tillotson University, Austin Community College, and the Career and Technical Education Program at Austin Independent School District, as well as local unions and advocacy organizations.
- Pursue partnerships and support from local clean technology companies that can help create internship, apprenticeship, training and employment opportunities for individuals.
- Consider scholarships to help with training for low-income communities.

GOAL 2: By 2030, reduce community-wide greenhouse gas emissions from refrigerant leakage by 25%.

Strategy 1: Capture and destroy old refrigerants

Develop a refrigerant destruction program that places a price on older high ozone-depleting substances and global warming potential (GWP) refrigerants. The program could be run by the City or a contractor and would increase the capture of old refrigerants and safely destroy harmful gases.

How we'll get there:

- Examine the feasibility of designing and deploying the program.
- Explore similar programs in other cities and determine potential funding opportunities.

Strategy 2: Improve building codes to encourage cleaner refrigerants

Closely follow developments in revised building codes that allow the use of low and no GWP refrigerants — such as California's state building code changes and U.S. Green Building Council® policies — and move forward with code amendments and other local action as soon as feasible.

How we'll get there:

- In the meantime, partner with organizations that are innovators in low to no GWP refrigerants and highlight successes in marketing efforts.
- Leverage any market trends to stimulate voluntary action.

Strategy 3: Create incentives for leak detection and repair

Partner with grocery stores, convenience stores, restaurants, restaurant supply companies, refrigerated warehouses and HVAC tune-up and repair companies to create an incentive for designing and tracking refrigerant leak detection, prevention and repair.

How we'll get there:

- Ensure incentives are able to engage a diversity of sectors and business sizes in participation.
- Prioritize outreach and program development to support local, small businesses owned by people of color.

Strategy 4: Awareness and training for HVAC service providers

Create an awareness, education and training campaign for local HVAC service providers, building owners, operators, inspectors and maintenance leads on the importance of refrigerant management and strategies for leak detection, prevention and repair.

How we'll get there:

- Ensure training and education is provided in multiple languages and is accessible to workers of color in this industry.
- Approach stakeholders with empathy and emphasize the importance and benefits of this work.

Strategy 5: Reduce the volume of refrigerants
Emphasize the link between design and refrigerant use by reducing and preventing the use of refrigerants to the extent possible, particularly those with high GWP.

How we'll get there:
- Ensure codes and incentives that favor passive design, reduction and efficiency are expanded and prioritized.
- Educate stakeholders on best practices for and highlight examples in culturally inclusive marketing and communications.

Quote:
"[We should] implement special programs for Black, Indigenous and people of color-owned businesses that may want to renovate to make their buildings more sustainable." - Community Climate Ambassador

Photo:
HEB at Mueller Austin Energy Green Building case study (photo from AEGB)
Caption: *Innovative propane refrigeration system with zero ozone depletion potential and very low global warming potential allows for 95% less refrigerant than conventional systems. (AEGB 4-Star Rating and LEED® Gold Certification)*

GOAL 3: By 2030, reduce the embodied carbon footprint of building materials used in local construction by 40% from a 2020 baseline.*

**Target cannot exceed 500 kg CO_2e/m2 (~100 lbs CO_2e/sf).*

Strategy 1: Lead by example through design and construction standards
In partnership with other cities and states, develop City of Austin design and construction specifications and purchasing agreements to result in healthy, low-carbon buildings.

How we'll get there:
- As an example, encourage lower-carbon building materials, whole-building lifecycle analysis, healthy building certifications and building reuse and

deconstruction in City-funded projects. Purchasing policies should be structured to promote building product transparency and preferred outcomes.
- Ensure healthy building strategies and certifications are prioritized in community centers, libraries and other community facilities serving low-income communities and communities of color first.
- Employ circular design strategies to ensure building and building material longevity, such as designing for a building's deconstruction and potential future uses.

Strategy 2: Incentivize lower-carbon materials
Enhance and integrate lower-carbon building materials and deconstruction practices into City incentive programs, like the expedited permitting process and Austin Energy's Green Building program, to transition voluntary design guidance into planning and development agreements over time.

How we'll get there:
- Develop an embodied carbon baseline to effectively measure success.
- Consider feasibility and cost to determine the most effective pathways to stimulate voluntary action.
- Invest in culturally relevant marketing to highlight success cases and drive participation.

Strategy 3: Educate stakeholders on materials best practices
Create a performance framework and educational programming for industry professionals and the general public, with a focus on low-income communities and communities of color, to reduce the lifecycle and negative health impacts of building materials and construction practices.

How we'll get there:
- Provide resources that address and help mitigate the health impact of materials from the point of extraction to operation, including availability of environmental and health product declarations.

Callout:
Environmental Product Declarations can help ensure the health of people exposed to material extraction, manufacturing and lifecycle processes. Health Product Declarations focus on the transparency and reporting of harmful ingredients used in building products. Both declarations work to protect communities at different potential points of exposure and empower decision makers to select better products

that are proven to push the industry to cleaner and more transparent processes and products.

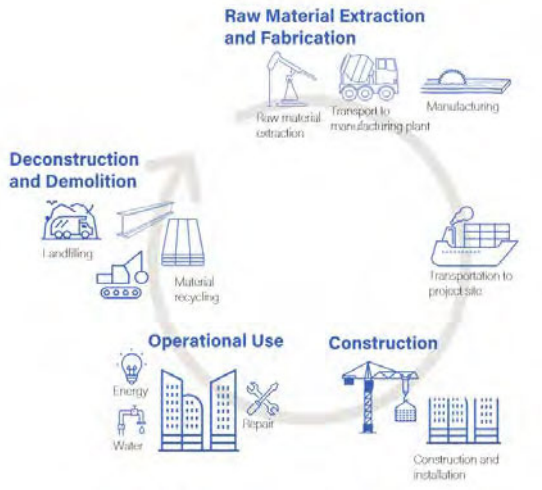
Strategy 4: Stimulate decarbonization with local producers
Prioritize partnerships within local materials markets to decarbonize high-impact materials, specifically: glass, steel, aluminum, concrete, drywall, insulation and carpet.

How we'll get there:

- Leverage and align with existing local and national efforts to create equitable outcomes in materials decarbonization and look for opportunities for coworking and collaboration among businesses.
- Encourage the growth of local businesses that can create building materials from current waste streams, including construction, manufacturing and municipal.

INSERT GRAPHIC - Building LCA steps

Title: The Lifecycle of a Building



Quote:
"What needs to be preserved? Schools, park areas, recreational facilities, Black businesses, and of course the churches… new people moving in and tearing down older homes and buildings are destroying a lot of Austin history." - Community Climate Ambassador

GOAL 4: By 2030, equitably achieve a community-wide water demand of 152,000 acre-feet per year.

Strategy 1: Engage residents in water efficiency technological transitions and conservation programs

Enhance community engagement strategies and create partnerships with community organizations to advance equity through Austin Water's Water Forward strategies, including Advanced Metering Infrastructure (AMI), incentives and ordinances.

How we'll get there:

- Collect, analyze and respond to demographic data on incentive program participation.
- Gather input on program experience, including low-income residents' experience with AMI.
- Develop and implement targeted outreach efforts to enhance program participation, collect input and better engage residents in decision-making processes.

Strategy 2: Evaluate water conservation, customer assistance, and workforce development program participation criteria

Evaluate program criteria to identify opportunities to address structural barriers that prevent program participation. Collaborate with City departments and/or community organizations to explore strategies to expand enrollment in the Customer Assistance Program and increase participation in other programs serving low-income customers.

How we'll get there:

- Undertake equity assessments of program design, including extending eligibility to multi-family properties, modifying existing repair programs, streamlining application processes and increasing outreach to qualified customers not currently enrolled in these programs.
- Create partnerships across City departments and/or with community organizations to enhance workforce development opportunities in water and green jobs.

Strategy 3: Reduce emissions at the water-energy nexus

Assess how the reduction of water demand is associated with energy consumption in residential and commercial buildings and Austin Water facilities. Identify and pursue synergistic water conservation and energy management optimization efforts through programs and partnerships.

How we'll get there:

- Complete an evaluation of energy usage across Austin Water facilities and develop a plan to reduce usage spikes and decrease demand.
- Develop methodologies to quantify how customer reduction in water demand also reduces the City's energy usage and related emissions.

Callout: *One acre-foot equals about 326,000 gallons, or enough water to cover an acre of land, about the size of a football field, one foot deep. To read more about the city's water goals and programs, go to austintexas.gov/waterforward.*

TRANSPORTATION AND LAND USE

Transportation will soon become the largest contributor to our community's greenhouse gas emissions, and therefore the most critical factor to reaching our climate plan goals. Where our residents live, work and play and how they move around our city greatly impacts our community-wide emissions. Coordinated transportation and land use strategies can improve access to different types of transportation, create more affordable housing, support diverse communities and reduce greenhouse gas emissions. The vision of this section is to cultivate a person-centered network of complete communities that meets the needs of low-income communities and communities of color of all ages and abilities.

Transportation and land use are broad topics that have a major impact on both the quality of life of members in our community and on our greenhouse gas emissions. Recent Council-approved and -endorsed plans — such as Imagine Austin, Austin Strategic Mobility Plan, Capital Metro's Project Connect, the People's Plan and the Austin Strategic Housing Blueprint — include strategies that attempt to provide a more sustainable growth pattern, reduce our dependence on cars and increase the number of affordable housing units.

While these plans provide direction on how the Central Texas region might grow, the equity and climate discussion is somewhat new to this topic. Low-income communities, communities of color and people with disabilities have felt the brunt of publicly supported racist and ableist policies and dwindling resources. As a result, they are often forced to make difficult decisions under the weight of this oppression. In addition, the influx of people moving to Austin over the last 30 years has dramatically increased property values in Central Texas, which has displaced low-income communities, communities of color and people with disabilities.

Community Feedback

Transportation and land use was a recurring theme in the Community Climate Ambassadors feedback. For some, public transit is a lifeline to jobs, healthy food, health care centers, daycare and other essential services. Population growth has made housing and services more expensive, displacing communities of color and rapidly changing the local culture. The Ambassadors stressed the need to enact policies that make transportation and housing safe and affordable.

Callout: *"If all the Transportation and Land Use goals and strategies were put in place, including Capital Metro's Project Connect, we could reduce our current community-wide greenhouse gas emissions by 3%, or 400,000 metric tons by 2030."*

GOAL 1: By 2030, 80% of new non-residential development is located within the growth centers and corridors

Strategy 1: Plan for complete communities
Adopt Complete Communities plans that reverse historic and racist impacts on areas experiencing displacement and that preserve neighborhoods in communities of color. Some examples include neighborhood, village, corridor and station area plans. Complete Communities is a planning concept that aims to meet the basic needs of all residents in a community through integrated land use planning, transportation planning and community design.

How we'll get there:

- Align future development with regional planning efforts like the Imagine Austin Growth Concept Map, CAMPO 2045 Plan and other regional planning efforts in surrounding cities like Bastrop and Manor.
- Prioritize concrete input from community members utilizing public transit about their needs.

Strategy 2: Work with employers on location and amenities
Work with medium and large employers to locate their places of business along activity centers and corridors.

How we'll get there:

- Work with local corporations to fund anti-displacement measures, including supporting under-represented businesses and advancing workforce development programs.
- Work with local corporations to include community amenities, such as parks, transit stops, healthy food locations, child care options, health centers, community centers and facilities for seniors in future development projects.

Strategy 3*:* Create mobility hubs
Create community mobility hubs, including park-and-rides, that offer a variety of first- and last-mile mobility options adjacent to transit stops to offer a complete trip experience.

How we'll get there:

- Improve the physical access to and through the transit stop/station area so it is accessible to all.
- Identify necessary resources to carry out and maintain placemaking and beautification opportunities. Hire low-income individuals, people of color, people with disabilities, artists, creators and makers to design and create beautification projects.

INSERT GRAPHIC - Community art picture from AIPP

Strategy 4: Phase out free parking

Phase out the practice of providing free parking spaces to employees at City of Austin facilities and other large employers located within 1/2 mile of the Austin Strategic Mobility Plan's transit priority network. Instead, offer a parking cash-out, carpool and vanpool options, flex schedules, or other commuter benefits program and support for teleworking.

How we'll get there:

- Focus parking reduction strategies on large employers to lessen the potential negative impacts on communities of color — particularly those who have been displaced to parts of the city where transit service is less frequent or unavailable. Providing free or subsidized parking for higher-income, predominantly white employees who have other options incentivizes them to drive. This reduces funding and support for other modes like public transit that are disproportionately used by low-income communities and communities of color.
- Conduct an inclusive engagement process to provide affordable parking and other multimodal access options for essential services. These could include transit stops, healthy food locations, health centers, community centers, multi-family residences, facilities for seniors and construction sites.

GOAL 2: By 2030, 70% of new housing units are located within the city's growth centers and corridors while preserving 10,000 and constructing 1,000 deeply affordable housing units.

Strategy 1: Offer immediate affordable housing assistance

Engage directly with communities that are vulnerable to displacement and connect them with services. Proactively monitor affordable housing properties at risk of losing their affordability status to extend the period of affordability.

How we'll get there:

- Increase fair housing enforcement and education.
- Incorporate robust tenant protections for all rental properties receiving City support, including streamlining the application process for affordable units.
- Support tenant organizing and engagement and provide legal and other assistance to tenants facing eviction or displacement.
- Provide tenant relocation assistance and emergency rental assistance.

Strategy 2: Fund affordable housing

Increase funding for the City's current Housing Trust Fund and support capacity building for community development corporations.

How we'll get there:

- The City may purchase properties in gentrifying areas to preserve or develop new affordable housing units.
- Recalibrate, streamline and expand density bonus programs to serve renters at or below 60% Median Family Income (MFI). Support the creation of deeply affordable units within the growth centers and corridors at 20% and 30% MFI and below.
- Implement a preference policy to prioritize new City-subsidized affordable units for income-qualified households that are appropriately sized to the unit and/or have ties to the City.
- Make the application process for deeply affordable housing easier, more transparent and more efficient.

Strategy 3: Enhance community engagement for affordable housing

Include low-income communities, communities of color and people with disabilities who are directly affected by systemic inequalities in the City's Housing Investment Review Committee activities. Enhance direct outreach of Housing and Planning Department-subsidized affordable units in gentrifying areas with culturally relevant communication strategies.

GOAL 3: By 2030, public transit makes up 5% (up from 0.3% in 2018) of distance traveled for all trips in Austin.

Strategy 1: Expand and improve public transportation
Work with major transit and transportation agencies in Austin, such as Capital Metro, CARTS and the Texas Department of Transportation, to expand and improve public transportation services.

How we'll get there:

- Hire residents from communities negatively impacted by racist municipal policies to review past decisions and make recommendations to improve the lives of low-income communities, communities of color and people with disabilities.
- Conduct a community needs assessment to identify gaps in services based on greatest mobility needs, and ensure projects are integrated and coordinated across City departments and other institutions.
- Expand paratransit, defined as flexibly scheduled and routed services available to any community member in the coverage area regardless of distance from bus routes, including those with professional medical and psychiatric diagnoses, guidance and documentation.
- Ensure that transit improvement projects do not accelerate displacement and gentrification.

Strategy 2: Promote free transportation options
Create comprehensive, user-friendly resources connecting community members with free transportation options.

How we'll get there:

- Expand free transit options, including through Capital Metro, to provide increased transportation access for low-income communities, communities of color and people with disabilities.
- In partnership with community-based organizations, promote awareness of existing free transportation resources in a culturally competent way.

Strategy 3: Transit stations and stops
Partner with Capital Metro and community organizers to engage low-income communities, communities of color and people with disabilities to improve transit stops, stations and access to these facilities.

How we'll get there:

- Enforce the Americans with Disabilities Act (ADA) and Public Rights-of-Way Accessibility Guidelines regulations to ensure that transit and public spaces in and around transit stops are accessible to all and connect to critical services like

healthy food locations, health centers, community centers, multi-family residences and facilities for seniors.

GOAL 4: By 2030, people-powered transportation (bicycling, walking, wheelchairs, strollers, etc.) makes up 4% of distance traveled for all trips in Austin.

Strategy 1: Prioritize bicycle networks
Prioritize planning and construction of bicycle networks in low-income communities and communities of color through a meaningful community engagement process.

How we'll get there:

- Utilize historic investment pattern analysis to ensure historically underserved areas are prioritized when it comes to receiving new bicycle infrastructure.
- Properly maintain roads by keeping pavement, physical barriers, markings, signage and signal detection in good condition and free of debris and other impediments.
- Make intersections safer for bicycles, pedestrians and communities with impaired mobility.
- Support locally initiated community events that are car-free and expand Healthy Streets programs through enhanced community engagement.

Strategy 2: Bicycle education and training
Provide access to free or reduced-priced bicycles and basic bicycle training for communities of color and train police officers on bicycle laws and racial profiling to improve comfort and safety of people of color riding bicycles.

How we'll get there:

- Invest in community-based alternatives to police while providing more legal protections for bicycle riders.
- Hire low-income communities, communities of color and people with disabilities to manage and provide bicycle training.

Strategy 3: Sidewalks, urban trails and crossings
Update the City's Sidewalk Plan and Urban Trails Plan with an emphasis on equity and meaningful community engagement.

How we'll get there:

- Build all high- and very-high priority sidewalk and trail segments and address ADA barriers and gaps in the sidewalk and trail systems according to the Sidewalk Plan/ADA Transition Plan and Public Rights-Of-Way Accessibility Guidelines regulations. These guidelines ensure that sidewalks, pedestrian street crossings, pedestrian signals and other facilities for pedestrians are readily accessible to and usable by pedestrians with disabilities.
- For new sidewalk and trail construction, improve access to transit stops, healthy food locations, health centers, community centers, multi-family residences and facilities for seniors. Prioritize historically underserved areas and zip codes with higher rates of chronic illness and/or disability status using lived experience and ground-truthed City data.
- Prioritize low-cost pedestrian crossing improvements for communities of color in areas with poor quality or a lack of pedestrian infrastructure.

INSERT PHOTO - Beginning Cycling Class Pictures

Quote:
"I'm concerned that the low-income and marginalized communities in Austin are being pushed out and reducing the vibrancy and diversity of our city." – Austin community member

TRANSPORTATION ~~ELECTRIFICATION~~DECARBONIZATION

In Austin, our transportation system will soon become the largest emitter of greenhouse gases and already is the primary source of local air pollution. As of 2018, our community-wide emissions were down by 7.2%, while our transportation emissions have increased by 13.5% since 2010. The vast majority of these transportation-related emissions are caused by private cars and trucks. This means that in order to meet our emissions reduction targets, we will need to have fewer people driving alone, and the remaining vehicles on the road need to ~~be electrified and powered by renewable energy.~~low to zero emission vehicles.

The good news is that there have been multiple~~two~~ technical breakthroughs that could help rapidly accelerate ~~the transition to electric vehicles (Evs)~~transportation decarbonization. First, electric vehicles (EV~~v~~s) now have a longer range and are more affordable. Second, the electricity used to charge EVs is getting cleaner through Austin Energy's transition to renewable energy. EVs also offer the additional benefits of lower ownership costs for customers, improved local air quality and potential grid services for Austin Energy. In addition, natural gas vehicles (NGVs) present a clear emission advantage for medium and heavy-duty fleets. The cleanest heavy-duty truck engine in the world runs on natural gas. The Ultra-Low NOx natural gas engine is 90 percent cleaner than the EPA's current NOx standard. It is certified by both the EPA and the California Air Resources Board to a 0.02 gram per brake horsepower hour(g/bhp-hr.) standard, making it zero emission equivalent (ZEE) or cleaner when considering power generation on a life-cycle basis. When renewable natural gas is used to fuel it, unsurpassed CO2 and GHG emissions reductions are achieved, helping to clean our cities and improve the environment.

There has been a lot of progress made to electrify transportation in Austin. There are now more than 10,000 EVs in the greater Austin area, and public entities like Capital Metro and the City of Austin are committed to transitioning their fleets to electric. Austin Energy also manages the Plug-In EVerywhere network, which consists of over 1,000 level 2 charging ports and 30 DC fast charging stations throughout the city.

Despite the progress made in EV adoption, EVs have only been widely accessible for homeowners and people who are primarily high-income and white. In order to make EV ownership truly accessible, we need to make adjustments to our strategies on pricing,

information and where charging stations are located. We want EV ownership to be racially, geographically and economically diverse, which means we need to build out the charging network in underserved areas and structure our incentives to be accessible for all. NGV's have been accessible to the general public for quite some time, and conversion of gasoline and diesel vehicles is affordable with the added benefit of re-using materials while reducing emissions for the remaining useful life of the vehicle. In addition, NGV's play an important role in reducing emission in heavy duty fleet vehicles, reducing one traditional diesel-burning heavy-duty truck with one, new ultra-low-NOx natural gas heavy-duty vehicle is the emissions equivalent of removing 119 traditional combustion engine cars from our roadways.

Callout: *In May 2019, The Austin City Council passed Resolution 20190509-020 directing the City Manager to include an analysis of transportation electrification into the revision of the Austin Community Climate Plan. Specific requests were made to analyze scenarios, goals and a plan to address charging infrastructure, vehicle adoption, partnerships and grid integration.*

Community Feedback

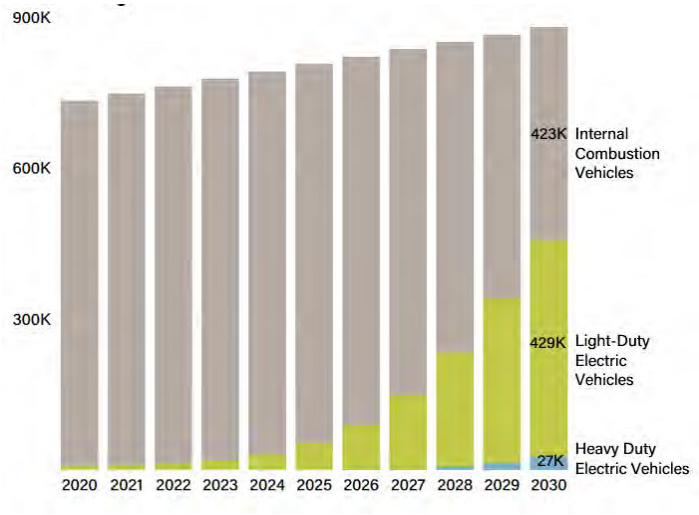
Community Climate Ambassadors found that residents are concerned with air pollution, which comes from cars and trucks on the road. Overall, the focus of their feedback on transportation was to get people out of cars and into fast, cheap and reliable public transportation. Currently, there is interest in low-cost cars, but the perception and reality is that new electric vehicles are expensive and not accessible.

Callout: If all of the goals and strategies outlined in the transportation ~~electrification~~ decarbonization portion of this plan were implemented, we could reduce our current community-wide greenhouse gas emissions by 18%, or 2.3 million metric tons by 2030.

Goal 1: By 2030, 40% of total vehicle miles traveled in the City of Austin are ~~electrified and electric~~low to zero emission vehicles and vehicle ownership is diverse culturally, geographically and economically. This translates to approximately 460,000 electric vehicles on the road.

Title: Austin On-road Vehicle Target
Caption: To reach our EV target, light duty electric vehicles must drastically increase over the next decade (Vehicle Data Source: Texas Transportation Institute).

Commented [KJA3]: We can provide you feedback from the Aus in businesses who have converted their fleets to NGVs.



Strategy 1: Conduct an EV Community Needs Assessment
Complete an Electric Vehicle Community Needs Assessment to identify the intersections of mobility challenges, transportation electrification and racial and economic justice. The assessment will inform an EV adoption growth plan that will be supported by enhanced communications efforts and incentives.

How we'll get there:

- Work with local community partners, grassroots organizations and connection points like the Austin Energy Customer Assistance Program and the City's affordable housing programs.
- Hire local residents in the communities we aim to serve to help conduct the needs assessment.
- Host community input sessions to build ongoing inclusive relationships that will inform focused outreach to low-income communities and communities of color.

Strategy 2: Create equitable incentives for buying and leasing EVs
Collaborate with community partners to create inclusive and easily accessible incentives for buying or leasing electric vehicles. This strategy would supplement existing state and federal programs, prioritize low-income communities and communities of color and focus on geographic areas with limited or no access to transit.

Strategy 3: Reduce tolls for Evs in the Eastern Crescent

Partner with highway and regional mobility authorities to offer a reduced or eliminated toll rate for low-income communities and communities of color who drive EVs on toll roads from the Eastern Crescent to central Austin.

Strategy 4: Launch an e-bike and electric car sharing program
Create an electric bike and car sharing program centered on low-income communities and communities of color to support functional, low-cost zero-emissions mobility.

How we'll get there:

- Be intentional and equity-focused when considering where to install car sharing locations, what types of vehicles to include and how to accept payment.
- Create an income threshold to ensure that low-income residents can access the program and plan specific actions to address displacement.

Strategy 5: ~~Electrify~~ Decarbonize public sector fleet vehicles
Encourage vehicle fleets from public sector agencies in the Austin-Round Rock-San Marcos MSA such as cities, counties, Capital Metro and school districts to commit to buying ~~100% electric~~low to zero emission vehicles when they are available, cost-competitive and meet operational needs.

How we'll get there:

- Partner with Austin-area public fleets to participate in the Climate Mayors Electric Vehicle Purchasing Collaborative to lower the up-front costs of new EVs.
- ~~Consider early retirement of older fleet vehicles where new EV alternatives are economical, and offer retired vehicles for sale locally.~~
- Partner with natural gas utilities to provide rebates and incentives for heavy and medium duty NGVs.
- Prioritize fleets that operate in the Eastern Crescent. Work on commitments from AISD and Travis County first, then replicate at surrounding cities, counties and school districts.

Strategy 6: Decarbonize~~Electrify~~ private sector fleet vehicles
By 2030, transition 100% of the gig, rideshare, public health and delivery vehicle fleets to ~~electric~~low or zero emission vehicles. Starting with private fleets in the Eastern Crescent, establish pilots, technical support, regulation, incentives and education to support rapid ~~electrification~~decarbonization.

How we'll get there:

- Study how the transition to electrified delivery is already happening to determine which policies, incentives and infrastructure are needed to accelerate the transition.
- Partner with natural gas utilities to provides rebates and incentives for heavy and medium duty NGVs.
- Prioritize working with local rideshare cooperatives and nonprofits serving low-income communities and communities of color.

Graphic/photo needs and ideas:
A Council Member with their used Nissan Leaf, TNC driver using a Chevy Bolt, City of Austin fleet EV.

GOAL 2: By 2030, Austin has a compelling and equitably distributed mix of level 1, 2, and DC fast charging infrastructure to accommodate 40% of total vehicle miles traveled in the city. This translates to 226 megawatts of electrical load and could mean more than 37,000 charging ports.

Strategy 1: Create a network with more low-cost, accessible charging stations
Continue to incentivize the installation of EV charging infrastructure by the City, businesses, auto manufacturers and third-party charging companies to create a compelling (convenient, reliable and low-cost) network accessible to all.

How we'll get there:

- Prioritize underserved areas, such as existing multifamily properties, parks, community centers, libraries, geographically under-represented areas and low-income communities while mitigating displacement. Work with diverse and representative community partners to continuously improve plans.
- Fill in gaps by installing EV charging on publicly owned land in underrepresented areas, and address maintenance and ongoing support for charging stations.

Strategy 2: Incentivize internet-connected smart charging
By 2030, the City will have a network of intelligent charging that supports grid reliability and resilience, maximized efficiency, reduced emissions, accessibility for all and lower costs for all residents. Incentivize internet-connected charging infrastructure with the ability to manage the start and end time and charge rate across a 24-hour time period while still meeting the driver's needs.

How we'll get there:

- Ensure charging stations are internet connected as this is essential to ensure the availability, reliability, and timely repairs for charging stations.
- Use internet connectivity to advance real-time pricing information to customers and intelligent charging for longer charge sessions.

Strategy 3: Adopt new energy and building codes
Adopt new energy and building codes that address future EV charging needs and enable a more equitable approach by simplifying the charging network and lowering barriers to entry for installing EV charging.

How we'll get there:

- Consider: streamlining the permitting and electrical plan review process, upsizing the electrical requirements for future EV growth, requiring EV chargers at commercial and multifamily properties~~. and requiring single family homes to be EV charger ready.~~
- Create mechanisms to address the additional costs that drive displacement, such as offsetting costs in underserved areas.

Strategy 4: Expand outreach to underserved groups
Expand outreach to community groups, professional organizations, unions and property managers with culturally competent information on EV charging incentives and installation. Collaborate with and learn from existing community and City partnerships.

How we'll get there:

- Focus on clarifying the EV charging process, raise awareness about available incentives and increase community involvement.
- Engage EV industry groups in this strategy to expand the impact beyond our local area.

Graphic/photo needs and ideas:
Map of existing charging infrastructure, photo of DC fast charger, photo of charging stations at a multi-family property, or picture of someone arriving at work and plugging in.

Goal 3: The Austin-Round Rock-San Marcos MSA is a global leader in transportation ~~electrification~~ decarbonization by adopting policies and technologies that maximize the economic and health benefits for all while evolving with and defining the growth of this emerging industry.

Strategy 1: Create a regional coalition to support EVs
The City will take the lead in creating a regional coalition to support EV adoption within the five-county MSA. The coalition will consist of an inclusive group of government, business and community stakeholders.

How we'll get there:

- Policies will include strategies that utilize EVs to provide ancillary services for the grid, support community resilience, maximize air quality benefits and support clean and green economic growth.
- Potentially tie in to bulk purchasing power to support more rapid adoption.

Strategy 2: Pilot and adopt new technology
Austin will continue to pilot and be an early adopter of emerging technologies for transportation ~~electrification~~, and ensure that low-income communities and communities of color can access the benefits first.

How we'll get there:

- Pursue grant funding opportunities to test new technologies and take successful pilots into more widespread applications.
- Increase engagement with governmental agencies, research institutions, utilities etc.

Strategy 3: Prioritize a just transition
Austin will be a leader in the just transition to an electrified regional transportation system by collaborating with community and workforce leadership groups like labor unions, grassroots organizations and businesses. We will ensure that low-income communities and communities of color are positioned to benefit from the switch to ~~electric~~ low to zero emission transportation.

How we'll get there:

- Facilitate training and support for our local workforce, focusing on contractors, electricians, first responders, mechanics, gig workers, rideshare drivers, delivery drivers and battery recyclers.

- Focus job training on underserved groups like women, people of color, people with disabilities and small businesses.

Strategy 4: Expand the EV-related business ecosystem
Create a robust electric transportation economic cluster in Central Texas by supporting economic development for new and existing local companies focused on the EV supply chain, including battery technology, vehicle manufacturing and software.

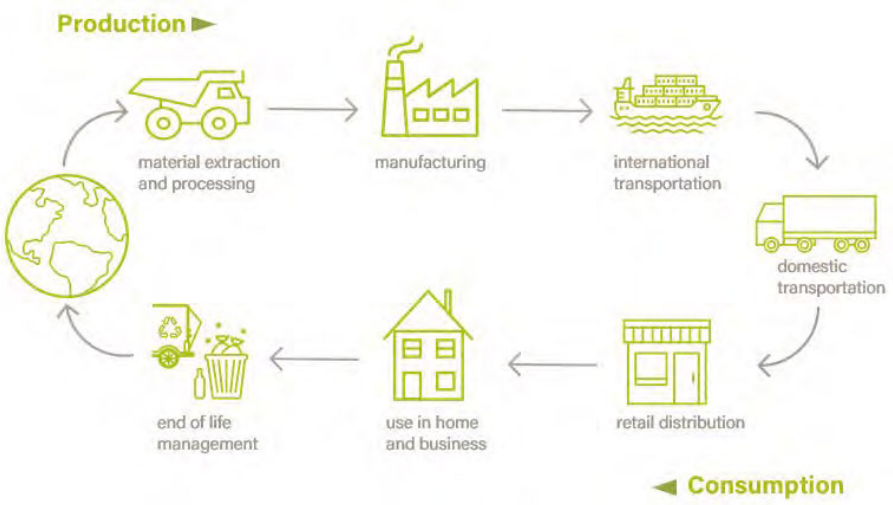
How we'll get there:
- Focus on policies that enable diverse local business ownership, access to capital and investment.
- Prioritize high paying jobs for low-income communities and communities of color.

Quote
"Three years of electric car ownership has convinced me that we are entering an exciting new era." - Nhat Ho, local EV driver

FOOD AND PRODUCT CONSUMPTION

In modern American society, the way we consume and dispose of products and food has had negative consequences for both people and our planet. Each year, Austinites throw away 58,000 tons of recyclables that end up in the landfill rather than being put back into reuse. That's enough to fill the UT Tower 29 times annually! (Austin Resource Recovery, Waste Characterization Study)

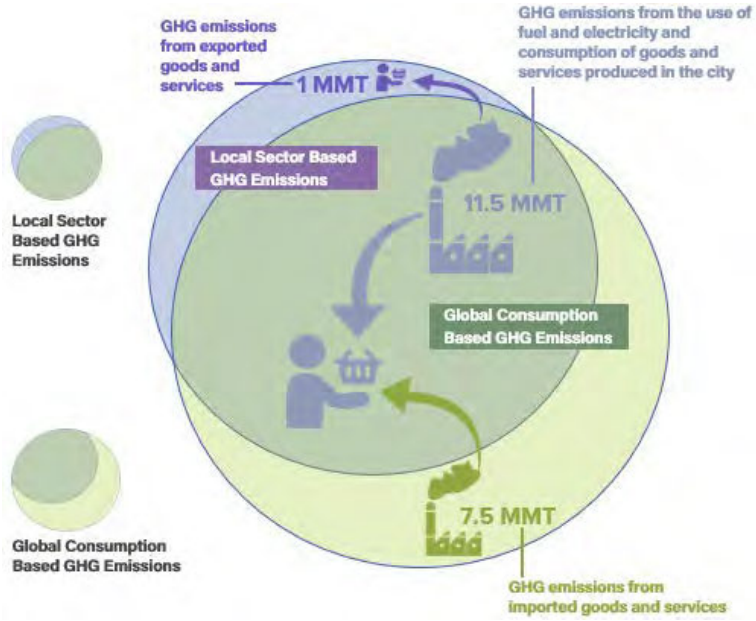
Title: Typical Product Lifecycle
Caption: N/A



To fully account for the entire emissions lifecycle of the food and products we consume (shown above), we need to shift the focus upstream. This means accounting for the raw material extraction, consumption and eventual disposal or reuse of a product — regardless of where the activities occur. When viewed through this lens, the emissions produced outside of Austin for the food and products we consume inside Austin can be many times greater than locally created emissions, as shown below.

Title: Local Sector-based vs Global Consumption-based Greenhouse Gas Emissions Comparison
Caption: Currently, the Austin Community Greenhouse Gas Inventory — illustrated by the blue and dark green circles — accounts for emissions that are created primarily

from activities occurring within Austin. This plan starts to consider the global emissions impact of all the food and products consumed locally — represented by the light and dark green circles. This larger estimation of our carbon footprint magnifies our emissions contribution by about 1.5 times the current level.



While overconsumption is the primary concern for non-food products, levels of food access and consumption vary. In Travis County, 15% of our population is food insecure, and less than 1% of our food supply is produced locally (2018 State of Food System Report). At the same time, few residents are eating recommended amounts of fruits and vegetables, while overconsuming meat, fat and sugar, leading to elevated rates of disease and emissions.

While many people lack access to sufficient food, our community also wastes far too much. This food waste often ends up in landfills where it creates powerful climate change-causing methane gas as it decomposes, which accounts for about 2% of our community's emissions.

Community Feedback

Through the community conversations hosted by the Community Climate Ambassadors and online feedback from SpeakUp Austin, we heard that a sustainable Austin is one that is more connected and mindful of our impact. This supports the vision in this section to focus on shifting from a more linear "take-make-waste" society, where products frequently have short lifespans, to a more circular and equitably economy using life-honoring processes that improve quality of life and restore planetary health. We can do this through sharing and renting products instead of owning them, promoting and shopping at local circular businesses and improving agency and opportunity to choose culturally relevant foods that are good for people and the planet. And, all of this can be done while enhancing workforce development opportunities for low-income communities and communities of color.

Quote/callout: A sustainable Austin looks like:

- "...respecting something bigger than myself and acknowledging we are all pieces of a puzzle." – *Austin community member*
- "...food being grown locally in neighborhoods. It looks like most people adopting a majority plant-based diet. I imagine more locally sourced food markets and more up-cycling stores, less plastic bags and single use items in restaurants [and] stores." – *Austin community member*
- "Being able to recognize when you can use your resources without having to buy new stuff. Not joining the whole culture of buying new things constantly… it is joyful to have this knowledge in reusing and recognizing when you don't have to buy new." – *Austin community member*

When considering new strategies around food and product consumption, extra caution should be taken to ensure that we do not perpetuate historical inequities that benefit white and more affluent Austinites. Our programs and activities must be accessible to — and preferably initiated, led and evaluated by — people of color and those with limited economic power.

Callout: What are pro-climate, pro-health foods?

A pro-climate, pro-health diet is one that maximizes health benefits while minimizing greenhouse gas emissions. Eating more fruits, vegetables and whole grains, and less meat and dairy, reduces the risk of chronic diseases, such as type 2 diabetes, heart disease and certain types of cancer, while also protecting against climate change. Think beans, not beef to reduce climate impacts and improve health.

GOAL 1: By 2030, ensure 100% of Austinites, with a focus on the food insecure, can access a pro-climate, pro-health food system that is community-driven, prioritizes regenerative agriculture, supports dietary and health agency, prefers plant-based over animal-based foods and minimizes food waste.

Strategy 1: Support institutional food purchasing
Apply a purchasing framework, support supply-chain infrastructure and build a regional food system network to bolster institutional and corporate food procurement of pro-climate, pro-health options.

How we'll get there:

- Develop a counterpart to the Good Food Purchasing Program for non-public sector organizations that purchase large quantities of food, such as hospitals and corporations offering in-house employee dining options.
- Offer a certification program to recognize institutional and corporate pro-climate, pro-health menus.
- Support a regional food system network to facilitate and coordinate large-scale pro-health, pro-climate food purchasing and distribution from regenerative agricultural producers.

Strategy 2: Promote and fund community-driven food retail programs
Implement community-driven programs to incentivize and promote more affordable and culturally relevant pro-climate, pro-health choices in prepared and retail food options with a focus on minimizing displacement.

How we'll get there:

- Offer economic incentives for local food establishments that offer an increasing minimum percentage of plant-based menu choices.
- Join or develop a program similar to Zero Foodprint to generate funding to support local food organizations and producers who contribute to a pro-climate, pro-health food system.
- Create a subsidized community-supported agriculture model for local regenerative food producers who employ low-income communities and communities of color.

Caption: The City of Austin, Foodshed Investors and Sustainable Food Center partnered with local restaurants to provide affordable pro-climate, pro-health foods for customers and much-needed income for restaurants during the pandemic.

Strategy 3: Incentivize pro-health, pro-climate food choices
Develop a variety of community-driven programs and tools to equitably engage and empower the full spectrum of Austin's communities to make affordable and culturally relevant pro-climate, pro-health food choices.

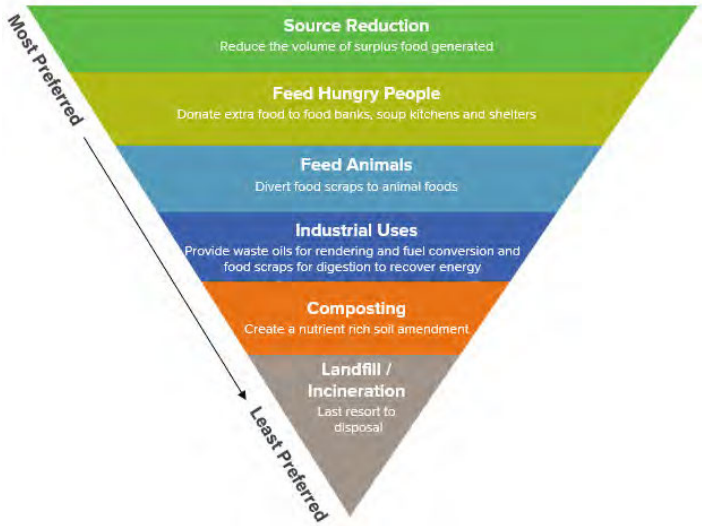
How we'll get there:

- Promote tools, such a menu labeling scheme or a digital application, that provide lifecycle analysis of food items, enhance product transparency and empower consumer choice of pro-climate, pro-health foods.
- Support school education on the benefits of pro-climate, pro-health foods.
- Enhance incentives to make pro-climate, pro-health food choices more affordable, for example, at farmers markets.

Strategy 4: Conduct a food waste root cause analysis

Conduct a food waste root cause analysis and implement changes informed by the analysis to increase participation in food reduction practices by 50%. These practices should support the U.S. EPA Food Recovery Hierarchy's highest and best use model shown below and include single-family, multifamily and commercial properties.

Title: U.S. EPA Food Recovery Hierarchy
Caption: N/A



GOAL 2: By 2030, reduce greenhouse gas emissions from institutional, commercial and government purchasing by at least 50%.

Strategy 1: Measure institutional lifecycle emissions
Develop a methodology to measure lifecycle greenhouse gas emissions and other environmental and social impacts from non-residential purchasing and identify a baseline for tracking goal progress.

Strategy 2: Strengthen the City's sustainable purchasing program
Strengthen the City of Austin's Sustainable Procurement Program to serve as a model for others locally and nationally.

How we'll get there:

- Adopt or develop sustainability guidelines for products with the greatest potential

for improved environmental and equity outcomes based on criteria such as:
    - Locally produced and sourced
    - Labor standards
    - Market influence
    - Lifecycle greenhouse gas emissions reduction
    - Reduced toxicity
    - Product circularity such as increased recyclability, reusability, durability and repairability
    - Increased recycled and reused content
    - Energy and water reduction
- Provide resources for the City of Austin's vendor pool to educate them on how the City plans to meet its sustainability goals through contracting.
- Identify intersections between City sustainability initiatives and the City's procurement process, including opportunities for shared workflows and reporting.
- Engage with departmental purchasing staff on sustainable purchasing initiatives and consumption reduction strategies.

Strategy 3: Strengthen non-City institutional purchasing programs
Recruit at least 50% of local large institutional purchasers (2,500+ employees) and at least 2,500 local organizations of all sizes to collaboratively adopt or modify a set of environmental and social sustainability procurement standards and/or guidelines, such as those provided by joining the Sustainable Purchasing Leadership Council. Prioritize participation of historically underutilized businesses and organizations that employ and are led by people of color.

Strategy 4: Expand the City's Circular Economy Program
Expand the City of Austin's Circular Economy Program to:
- Support City departments in reducing consumption, for example, by:
    - Reducing barriers to internal reuse of products and materials.
    - Creating a system for sharing infrequently used items among departments.
    - Educating departments about circular procurement models such as product-as-a service, leasing and product take-back options.
- Use available City-owned space and/or leverage partnerships to create rent-subsidized incubation spaces, grants, loans and technical assistance for qualifying circular organizations.
- Engage Austin youth in real-life problem-solving opportunities that:
    - Offer hands-on student internships and apprenticeships with local circular businesses and organizations.
    - Expand opportunities for teachers and students to participate in City entrepreneurship development projects, like the [RE]verse Pitch

competition.
    - Modify sustainability education grant programs, such as the Bright Green Future Grant program, to fund procurement reduction, product sharing and circularity innovation.

GOAL 3: Aggressively pursue waste reduction, organics composting and recycling to achieve a new overall zero waste goal pending adoption of a new Austin Resource Recovery Zero Waste Plan. The new community-wide per capita disposal rate goal will be added as an amendment to the Climate Equity Plan by June 2021.

Strategy 1: Promote reuse
Implement consumer awareness campaigns, such as community reuse challenges, promotion and expansion of Fix-It clinics and the Austin Reuse Directory, and educational campaigns that promote the community benefits of reuse and repair.

How we'll get there:
- Target campaigns to, and prioritize the needs of, low-income communities, youth and communities of color.
- Distribute campaigns across multiple platforms and in many languages.

Strategy 2: Create Eco-hubs
Create "Eco-hubs" that provide equitably distributed in-person neighborhood centers for borrowing, reuse and repair services.

How we'll get there:
- Distribute Eco-hubs around the city in appropriate locations with community input, prioritizing guidance from low-income communities and communities of color. Co-locate Eco-hubs with existing community centers, such as libraries, recreation centers and culturally relevant retailers.
- Collect and publish demographic data on Eco-hub users to ensure equitable accessibility and use.

Strategy 3: Create a workforce development program for the circular economy
Offer a workforce development program that includes training for repair and reuse skills, job placement and entrepreneurship in local circular businesses, such as those found in the Austin Circular Economy Storymap. Prioritize the needs and strengths of low-income communities, youth and communities of color.

How we'll get there:

- Coordinate training opportunities with revamped bulk pick-up programming and promote skills that preserve cultural traditions and craftsmanship.
- Collect and publish demographic data on program participants to ensure equitable accessibility and use.

Strategy 4: Offer incentives for products that have lower negative environmental and social impact

Offer financial incentives, such as point-of-sale rebates and/or a sales tax holiday, to encourage consumers to choose products, repair services and rentals with lower negative environmental and social impact.

How we'll get there:

- Develop incentives in collaboration with low-income communities and communities of color.
- Collect and publish demographic data on incentive recipients to ensure equitable accessibility and use.

Strategy 5: Retool the bulk pick-up collection program

Review and modify policies and programs for collection of bulky items that result in viable items being resold, repaired or recycled.

How we'll get there:

- Create supportive programs to help with reuse. For example, replicating MoveOutATX in other neighborhoods and assisting private sector partners, including those currently engaged in the informal recycling economy.
- Evaluate policy and program opportunities for additional bulk collection and reuse opportunities.
- Consider the interests of undocumented individuals who may participate in existing informal recycling and reuse activities and may not want to be part of formal City programs.

Quote:

"A fair city is one where our excesses are reused to help amplify the lives of our most vulnerable." - Austin community member

Strategy 6: Capture biomethane from food waste and process into renewable natural gas

NATURAL SYSTEMS

Natural systems are all around us. They consist of the plants, animals, soils, hydrology, geology and weather patterns that are linked to form functioning natural communities. Natural systems perform many services that are critical to human health and well-being, including removing CO_2 from the atmosphere known as carbon sequestration. While natural systems may not have the largest impact on our city's total emissions, they are one of the few ways to achieve negative emissions.

Our natural systems are critically important because they provide a variety of additional benefits to our communities beyond carbon sequestration. These are known as "ecosystem services" and include health and wellness, ecological health and climate resilience. However, due to the changes in climate we're already experiencing, many of our natural systems and the services they provide have already started to degrade. With further changes to the climate, this loss of benefits and services will continue and the chance to significantly restore and recover our natural systems will be limited.

DIAGRAM - Benefits of Green Infrastructure

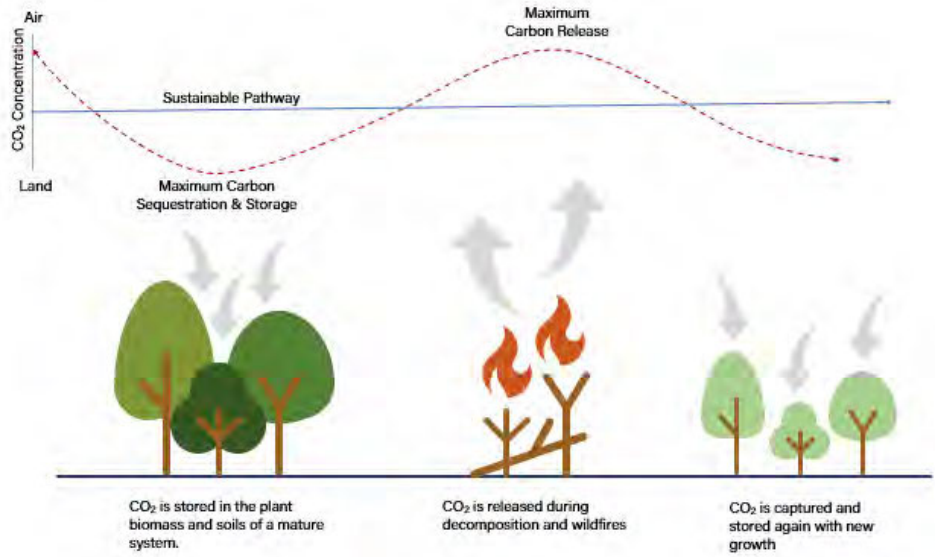
Title: Community Benefits of Natural Systems

Caption: N/A

GRAPHIC - Forest Carbon Cycle

Title: The Natural Carbon Cycle

Caption: Natural systems are naturally carbon neutral, but asking them to also sequester human-made emissions goes above and beyond their natural ability. Additionally, interferences such as deforestation, soil disturbance, wildfires or large die-offs due to climate change can make natural systems release more carbon than they absorb, turning carbon sinks into carbon sources.

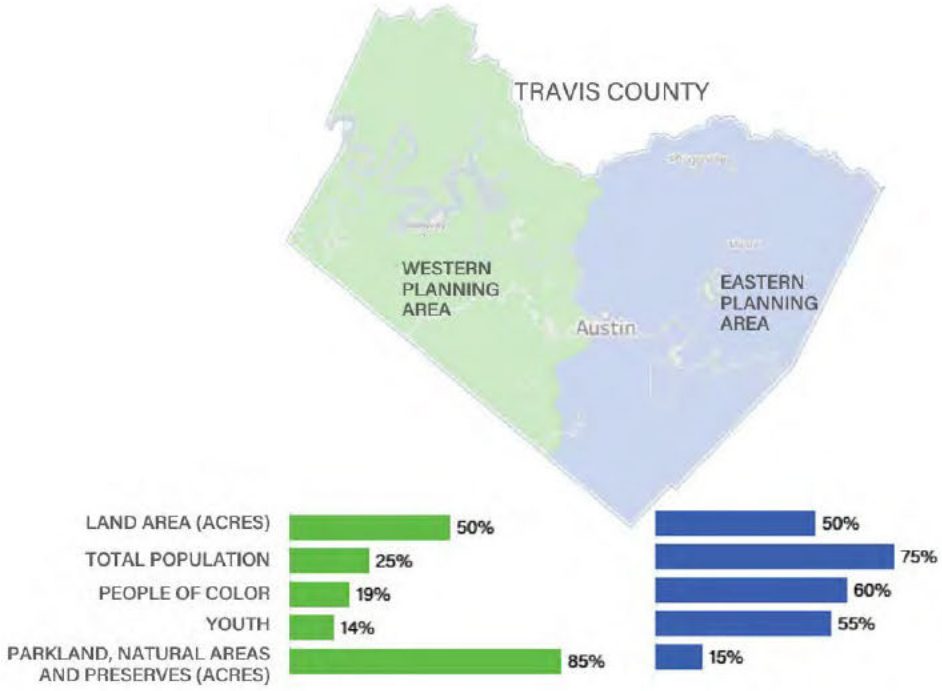


Most of Austin's protected natural areas are located in the west, while East Austin has taken on much of the burden of the city's growth and development. This has left communities — particularly low-income communities and communities of color — feeling sacrificed and neglected, and contributes to our city's growing health inequities. This highlights the need to focus on providing environmental benefits and services to neighborhoods in the Eastern Crescent by protecting and expanding — both in quantity and quality — the area's natural systems, sustainable agricultural lands and tree canopy cover.

INFOGRAPHIC - Distribution of green amenities per the Travis County Greenprint for Growth

Title: Distribution of Green Spaces in Travis County

Caption: The western half of Travis county contains 25% of the population, but 85% of parkland, natural areas and preserves. This data was originally presented in the Travis County Greenprint for Growth document published in 2006, and we are still working to rectify these inequities.



The majority of the agricultural lands in Austin are concentrated within or near low-income communities and communities of color, and conventional practices used on some farms can be detrimental to environmental, climate and community health. Additionally, prime farmlands are also prime development parcels. The people who work these lands are often and easily exploited, pointing to the need to support the preservation of land, farmers and farm workers. Regenerative agricultural practices are key to ensuring that agricultural lands provide a suite of vital ecosystem services — contributing to, rather than degrading, our natural systems.

Our city's existing total tree canopy cover is approximately 36%, but East Austin sees significantly lower rates of tree canopy coverage than other parts of the city — highlighting the need for planting and preserving trees in this area. While parkland is distributed relatively evenly across the city, the vast majority of protected natural areas and access to nature are located in the western areas of Austin, Travis County and Hays County. We must ensure equity in the function, quality and management of our parks. Further, given that some types of parkland and higher levels of maintenance can have gentrifying effects on nearby communities, special care should be taken in order to help mitigate displacement. Currently, the City is prioritizing parkland acquisition and

development projects in underserved areas with low-income communities, youth and communities of color. It is pairing these indicators with data on existing conditions to ensure parks are functional throughout the City.

This plan calls for a new approach to public lands management that focuses on community value and benefits. Protecting and restoring our natural spaces — particularly in the Eastern Crescent — is an investment in the health, livelihood and culture of our community.

Community Feedback

Natural systems-related comments and concerns were heard in community conversations through community workshop participants, the Community Climate Ambassadors' work and online survey responses through SpeakUp Austin. Overall, community members expressed that we need to shift Austinites' relationship with the environment, expand and respect our connection with nature, and enhance our understanding of the important things nature does for us as humans.

Concerns noted the overcrowding and maintenance of green spaces, fear around the potential loss of trees (both from development and climate change) and the need for more functional green spaces that address flood protection and wildlife habitat. Additionally, making green spaces more physically accessible and better reflecting the values and cultural needs of communities was a clear desire.

There were many comments that touched on the importance of local food production — both people growing their own food and supporting local farmers — and the recognition that climate change will have a major impact in this area. There was also discussion around other climate impacts, such as the potential for droughts affecting local water quality and availability, and the effects of extreme heat on our water supply, vegetation and agriculture. People expressed wanting to be engaged and part of the solution, but not knowing how. As a result, they recommended more awareness, education and resources for community members.

Callout: *If all the recommendations outlined in this section are implemented, the natural systems in and around Austin could sequester about 5.25% of the city's total carbon emissions, or 682,738 tons of CO2.*

INFOGRAPHIC - Protect existing healthy lands, Restore unhealthy or underutilized lands, Enhance soil health, Ensure water availability, Build Community Capacity.

Title: Natural Systems Principles
Caption: The Natural Systems Advisory Group established five principles that guided the creation of these recommendations. These principles focus on ensuring healthy lands — which sequester more carbon than unhealthy or underperforming lands — and promoting the many other community benefits provided by healthy lands.

PHOTOS (can be distributed throughout the section) - Natural Systems Pics
(Bruce pics or shannon pics)

Quotes (can be distributed throughout the section): *link (scroll to bottom)*

"I'd like for all people in Austin to have access to tree-shade corridors, shaded paths for human-powered transportation and public thriving green spaces." – Austin community member

"People want to do their part and would like to teach others to take better care of the environment, but there is still much to learn." - Irma, Austin community member

GOAL 1: By 2030, legally protect an additional 20,000 acres of carbon pools on natural lands and manage all new and existing natural areas (approximately 70,000 acres total) with a focus on resilience.

Strategy 1: Protect natural lands
Identify additional woodland, grassland and wetland/riparian systems for protection with a focus on new conservation lands in the Travis County Eastern Planning Areas while

prioritizing benefits for low-income communities and communities of color. Legally protect lands through mechanisms such as fee simple acquisition and conservation easements.

How we'll get there:

- Change the discourse from one of competition to one of alliance, cooperation, mutual benefits and shared values for items like conservation, tree protection, parkland provision and affordable housing. As an example, reference the City of Los Angeles' Pathway to Parks and Affordable Development Report.
- Create and update a matrix for land conservation decisions across departments that prioritizes multiple benefits — especially for low-income communities and communities of color — to include recreational access, carbon sequestration, restoration and conservation of biodiversity, habitat connectivity, water quality and air quality.
- Continue to aggressively recruit and incorporate community input in developing the criteria used for land acquisition.
- Identify and pursue innovative financial methods to purchase and/or protect lands such as:
    - Use of sales tax revenue, development fees or bonds, especially when linked to multi-benefits and resilience for low-income communities and communities of color.
    - Consider local carbon credit markets or offset programs that include natural lands, sustainable working lands and the potential for stormwater credit trading. As an example, reference the Seattle Carbon Plus Program.
    - Explore the use of economic development funds for land protection and promotion through ecotourism activities. Considerations may include Hotel Occupancy Tax revenues and Tax Increment Finance districts generated by development or roadway expansion.
    - Enable, encourage and incentivize conservation developments — an approach to housing development design that balances protection of natural resources with the provision of housing, economic development and social benefits for people (Colorado State University, 2018). This may require the City to update codes to allow for this type of development, and work with and define new roles and relationships with private developers.
    - Continue to require parkland dedication or fee in-lieu of dedication for new residential and hotel/motel developments.
    - Expand parkland dedication to include commercial developments. New commercial development directly impacts the City's parks with additional employees, clients, and consumers that use City parks, thereby

establishing an essential nexus between parkland dedication requirements and commercial development.

- Focus acquisition of new conservation lands in the Travis County Eastern Planning Areas in alignment with the Healthy Parks Plan, regional population growth projections, and Travis County acquisition goals for managed natural areas and parkland..

Strategy 2: Manage natural lands for resilience
Prepare natural lands for climate change and avoid catastrophic loss of carbon pools through active, intentional and holistic management.

How we'll get there:

- Create, update and implement restoration and management guides for all protected lands under City and County jurisdiction. Consider restoration or mimicry of natural processes, increasing native species and structural diversity, improving soil health and facilitating plant community shifts to more resilient states.
- Leverage the traditional ecological knowledge of local Indigenous people and other people of color and compensate them appropriately for their time, expertise and contributions. Plans, policies and programs should clearly state how indigenous people will be involved in and benefit from stewardship of lands that have historically been in their care.
- Support local research on increasing the resiliency of Central Texas ecosystems to the stressors and disturbances that models predict will become more common with climate change, such as extended drought, extreme heat and more frequent extreme weather events. Assist in dissemination of that information to local landowners and land managers.
- Encourage resilience of grasslands and woodlands on private property by creating land management guides and landowner education, assistance and incentive programs for private landowners. Develop programs in partnership with community members and community groups, and connect landowners with existing assistance programs.

Strategy 3: Increase community access and positive perceptions of public land
Ensure that natural lands are accessible to and perceived positively by the community. When more people use and feel a connection to natural areas, they provide more community value. In return, communities are more likely to support conservation and stewardship.

How we'll get there:

- Help people to enjoy and be comfortable in nature by:
    - Addressing the accessibility of trails and spaces for all ages and abilities.
    - Ensuring both physical and perceived safety for users.
    - Recruiting members of nearby communities to serve as ambassadors or hosts in natural spaces to create a bridge between these spaces and the surrounding residents. Compensate these community members appropriately for their time and contributions, similar to the Park Ranger Cadet program.
    - Implementing programs, such as exploration programs designed for youth, that provide guided, safe experiences for people who may not be comfortable in natural spaces by themselves.
    - Providing programming and signage that is inclusive, welcoming, in multiple languages and highlights BIPOC histories and experiences on local lands, such as the 2019 Austin Design Week session on Reviving Lost Histories & Ecologies.
- Implement solutions to provide community access to natural lands without causing ecological degradation.
- Ensure all Austinites are within walking distance of a park.

Strategy 4: Protect water sources
Protect quantity and quality of source water for municipal supply and regional environmental flows — especially in the face of climate change-driven threats like heat, drought, flood and wildfire. Ecosystems cannot function properly and sequester carbon if they don't have the adequate water supply needed to survive and thrive.

How we'll get there:
- Recognize that permanently protecting natural lands directly helps ensure the natural function of waterways and water quality.
- Work with regional agencies and organizations, such as the Capital Area Council of Governments, to form partnerships with organizations working on these issues that are run by low-income communities and communities of color.
- Improve groundwater recharge through expanding green infrastructure and riparian restoration programs and incentives on public and private lands in Austin and upstream.
- Prioritize City projects and programs that provide multiple benefits related to improving water quality and sequestration rates — especially when they most directly benefit low-income communities and communities of color.

GOAL 2: By 2030, protect 500,000 acres of farmland in the 5-county region through legal protections and/or regenerative agriculture programs.

Strategy 1: Protect working lands
Identify lands with prime farmland soils and farmlands of unique and local significance as defined by the Sustainable SITES Initiative in the 5-county region and protect them from development. This can be done through land conservation bonds, agricultural land trusts such as the American Farmland Trust, Natural Resource Conservation Service and Trust for Public Lands programs, Travis County Conservation Easements and similar methods.

How we'll get there:

- Counties and/or County extension offices in the 5-county region should jointly fund a staff position to work across the entire region. This position could focus on the conservation easement program, provide technical expertise and advice for farmers and landowners and create or manage regenerative agriculture education and certification programs.
- Work with developers to encourage new communities that are being built on prime farmland soils to be designed as "agrihoods" (Birkby, 2016).

Strategy 2: Reform agricultural tax appraisals
Address issues with local and federal agricultural tax appraisals and exemptions that contribute to desertification and soil loss.

How we'll get there:

- Work with Travis County to reevaluate and update the requirements for the Agricultural Tax Exemption to encourage regenerative practices and/or make more ecologically desirable exemptions, like the wildlife exemption, more appealing and easier to obtain.
- Host a summit of tax appraisers within the 5-county area to start creating buy-in beyond Travis County.
- Provide an additional City incentive to landowners who receive the county tax exemption to use regenerative agriculture or similar practices that promote carbon sequestration, limit compaction, prevent erosion, conserve water and reduce nutrient runoff.
- Promote programs that allow scientists to conduct climate-related or similar research on private lands in exchange for landowner tax breaks, such as the Texas Ecology Laboratory.

Strategy 3: Support farmers through financial assistance
Support farmers in the 5-county region who want to implement carbon-related soil programs or regenerative agricultural practices by providing direct financial assistance, specifically for farmers of color.

How we'll get there:

- Explore partnerships and/or incentives for installing solar panels on farms between crops, and pay farmers for allowing renewable energy equipment on their land.
- Provide City-funded micro-grants to help cover startup costs for regenerative agriculture or conservation irrigation equipment for small-scale and local farmers.
- Create a down payment support program for small-scale and local farmers and consider potential requirements for loan forgiveness. The Michigan Good Food Fund could serve as an example.
- Study and consider tying City-provided financial assistance to requirements for importing and selling products locally, such as ensuring fair labor requirements, carrying liability insurance and other recommendations outlined by the Equitable Food Initiative.

Strategy 4: Provide farmers with resources
Support farmers who want to start regenerative agricultural practices by providing access to land and other necessary resources, specifically prioritizing farmers of color.

How we'll get there:

- Facilitate the creation of a merchants association for small-scale and local farmers that can help find, access and pool resources, collaborate on distribution networks and advocate for the industry. Explore local organizations that are already working on this and see if there are ways to support them first. Ensure inclusive participation and representation through deliberate outreach to farmers of color. Leverage the model and lessons learned from local groups already doing similar work, such as the Sustainable Food Center.
- Create a program that facilitates and/or mediates partnerships between private and public landowners who may not be actively working their lands and farmers using regenerative agriculture practices.
- Make City and County lands available for the use of agricultural incubators that provide communal resources, such as equipment, storage facilities and distribution for small-scale regenerative and sustainable farming operations. The Intervale Center could serve as a case study.

- Explore leasing public lands to for-profit farms in exchange for using sustainable practices and contributing to the public good in some way, such as through workforce development or increasing the supply and donation of local food.

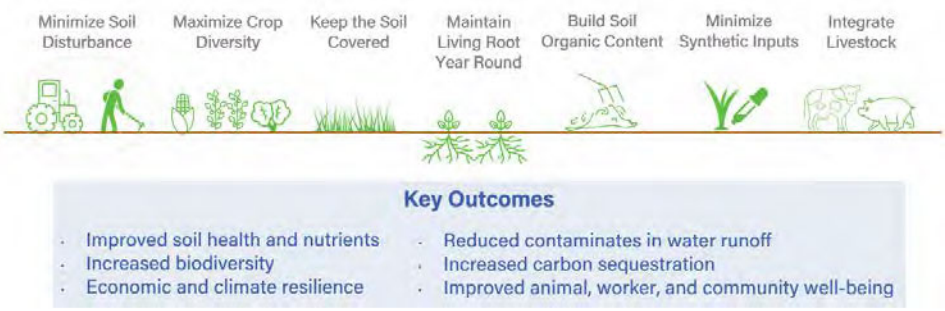
Strategy 5: Expand composting
Expand the use of compost generated by local composting programs.

How we'll get there:
- Explore ways to utilize more local waste streams in local compost.
- Work in partnership with local farmers to understand how locally made compost is being used and what is required for the compost to better meet their needs.
- The City could provide free compost to farmers participating in carbon-related soil programs or regenerative agricultural practices. The Marin Carbon Project could serve as an example.
- Create educational materials and demonstration projects to raise awareness about the value and environmental benefits of using compost at home and on private projects.
- Work with City departments that operate with a heavy capital improvement planning workload to require the use of local compost on project sites.
- Clarify land use and zoning language to identify areas of the city where composting operations are allowed, both as an accessory use and separate from agricultural or urban farmland uses.

Strategy 6: Workforce development for farmers
Encourage a fundamental change in the next generation of farmers by creating and supporting agriculture-specific jobs creation programs and working lands-specific youth programs — especially for aspiring farmers of color.

How we'll get there:
- Utilize the regional position recommended in Strategy 1 and the merchants association recommended in Strategy 4 to connect participants to the industry and create a pipeline to real jobs in regenerative agriculture. Leverage the experience and expertise of local groups that are already doing similar work, such as Farm Share Austin's Farmer Starter Program. The USDA's Center of Community Prosperity may be one opportunity for funding.
- Integrate sustainable agriculture into secondary and high school programs, including a track for the Austin Independent School District's Career and Technical Education program and Austin Community College's Sustainable Agriculture program.

INSERT INFOGRAPHIC - What is Regenerative Agriculture? This is being redone
Title: Principles of Regenerative Agriculture
Caption: Regenerative agriculture is one approach to sustainable farming and agriculture that seeks to improve and work in harmony with natural systems. Many specific practices can fall under the umbrella of regenerative agriculture, often focusing on soil health, biodiversity, water quality and resilience to climate change impacts.



GOAL 3: Achieve at least 50% citywide tree canopy cover by 2050, with a focus on increasing canopy cover equitably.

Strategy 1: Canopy cover on City lands
Adopt a “no net loss” policy for tree canopy on public lands.

How we’ll get there:

- Using the 50% citywide goal as an average, create canopy cover target goals for different public land types, such as active use, corridor, cultural/historical, mixed use, natural area, passive use, special use, etc.
- Require tree canopy replacement for any necessary tree removal on public lands. Allow for on- or off-site canopy mitigation.
- Regularly collect and analyze citywide tree canopy cover data.

Strategy 2: Tree protections and landscape regulations
Promote no net loss of tree canopy on private developments by increasing tree protections and landscape regulation and/or working with developers and homeowner’s associations to create incentives.

How we’ll get there:

- Maintain existing levels of tree protections and landscape regulations for private development, and expand them to all of the city's extraterritorial jurisdiction.
- Require new developments to document tree canopy cover in the City's geographic information system database for subdivisions and site plans.
- Ensure that developers or property managers are required to ensure the health of new trees that are planted. They should meet requirements that help ensure the long-term health of trees saved or preserved by meeting certain landscape standards for up to five years after construction.
- Create a way to enforce tree canopy and health requirements on private developments. An example is the Watershed Protection Department's impervious cover requirement that is tied to the Drainage Utility Fund.
- Require decompaction and other healthy soils practices, such as high organic content, for any areas with permeable surfaces in new subdivisions and site plans. Additionally, review and edit the impervious ground cover requirement as necessary to close any loopholes that might allow additional square footage of development on lots without increasing permeability.
- Address barriers to additional tree plantings in subdivisions, developed lots, City rights-of-way, parkland dedications, detention pond basins, etc.
- Require or incentivize new developments to participate in reforestation projects if there are Critical Water Quality Zones and/or floodplains in a subdivision or site plan and/or if the overall canopy cover for a project is expected to be less than 50%.
- Work with other jurisdictional entities and surrounding communities to harmonize policies around tree protection, promotion, health and resilience. This will help ensure that we aren't unintentionally pushing development outside the city limits in order to avoid tree protections.

Strategy 3: Community tree planting
Increase City funding for community tree planting programs focused on low-income communities and communities of color.

How we'll get there:
- Prioritize programs that allow communities to have real decision-making power and input on where new tree plantings will provide the most benefit.
- Provide additional funding and grants for community-led, neighborhood-scale tree planting, tree care, water quality and soil health programs.
- Grow City-led reforestation projects within drainage easements, floodplains and stream buffers in Eastern Crescent neighborhoods.
- Work with the Austin Transportation Department, Capital Metro, Corridor Planning Office and Forestry Division to build tree canopy along transit routes

and at transit stops to provide residents with increased resilience to extreme heat. Consider ridership numbers, urban space quality, heat levels and expected wait times when prioritizing tree planting at transit stops.

Strategy 4: Promote tree health and resilience on private and non-City public lands

Create a tree, water and soil management and resilience guide for various types of private property. Provide City technical and financial assistance for tree planting and care for residents and small businesses in low-income communities and communities of color to ensure long-term health and tree canopy benefits in Austin neighborhoods.

How we'll get there:

- Provide a City "tree concierge" service and partner with community members to provide easily accessible information about keeping trees healthy.
- Add tree maintenance and care to the City's Minor Home Repair Grants Program.
- Provide City-funded grants to homeowner's associations, neighborhood groups, residents and small businesses in low-income communities and communities of color to help cover expenses related to tree care.
- Foster partnerships with Austin-based green jobs training programs to ensure that tree health and resilience are incorporated into the curriculum. Complete the pipeline by incentivizing and encouraging graduates of local green jobs training programs to complete the work that comes out of recommendations outlined in this strategy.

GOAL 4: By 2030, include all City-owned lands under a management plan that results in neutral or negative carbon emissions and maximizes community co-benefits.

Strategy 1: Prioritize carbon neutrality for public lands

Prioritize carbon neutrality and community benefits in land acquisition and management practices for public lands.

How we'll get there:

- Complete the City land ownership and management plan database.
- Prioritize new parkland acquisitions based on multiple environmental and community benefits, especially for low-income communities and communities of color.

- Evaluate potential land management practices based in part on carbon lifecycle analyses, specifically including landscape water usage.
- Use carbon-negative or low-carbon management practices, such as soil protection, limited mowing, no-mow and conversion of high water use landscapes into native plantings.
- Utilize the Sustainable SITES certification for Parks and Recreation Department projects when feasible or align with the City's Green Building Policy.
- Encourage private residents and other public entities, such as the Austin Independent School District, University of Texas at Austin, State Capitol and Texas Department of Transportation, to implement similar land management practices through education and incentives.

Strategy 2: Reclaim public space
Identify and reclaim mono-use, underused and unconventional public spaces to increase community access and ecological function, such as utility easements, road rights-of-way, stormwater wet ponds and cemeteries.

How we'll get there:
- Engage communities in identifying, re-imagining and leading implementation on activating these spaces by funding and expanding the Community Activated Parks Program.
- Convert non-functional or unnecessary impervious cover to green spaces or natural vegetation that provides open space access and/or ecosystem functions.
- Retrofit conventionally landscaped areas to restore or regenerate ecosystem function.
- Link this action with the City's efforts to relocate residents out of floodplains, which provide opportunities for reclaiming areas as natural or working lands that are currently being used for residential development.
- Support the implementation of green infrastructure throughout the city by prioritizing funding for projects that maximize multi-benefits for both human and ecological health.
- Include programming and signage in public spaces to clarify the intent and benefits of natural areas to improve community understanding.

Strategy 3: Promote community stewardship
Promote community stewardship and management of neighborhood public lands to provide higher levels of care and maintenance.

How we'll get there:
- Establish Neighborhood Stewardship Councils or Ambassadors. These could be created with existing or new neighborhood associations, nonprofit organizations,

community groups and indigenous communities that coordinate volunteers to implement projects that improve the health, biodiversity and resilience of public lands.
    - The City should provide paid training and opportunities for community members or groups to serve as Stewardship Ambassadors. These Ambassadors could provide quality assurance at neighborhood parks and community gardens, conduct training and education for community members and act as primary contacts for coordination of volunteers and City resources. An example is the Austin Water Wildlands Volunteer Land Steward program. These ambassadors should be compensated for their time.
    - Reference the Urban Sustainability Directors Network's Case Studies for Community Driven Environmental and Racial Equity Committees.
- Create and implement simple, transparent and consistent processes for community members to voice and help solve issues related to parks.
- Create a Parks and Recreation Department Grant Assistance Program to eliminate private funding barriers to parks improvement projects in underserved communities. Seek initial annual funding of at least $500,000.
- Create new staff positions to proactively connect with historically underserved communities and help individuals navigate processes and programs such as the Community Activated Parks Program, Community "Park"nerships, Adopt-a-Park, the Neighborhood Partnering Program and others related to natural areas acquisition, stewardship and restoration.
- In collaboration with community groups, develop land stewardship plans to help prioritize and align the natural areas management activities of volunteers, organizations and City staff.
- Facilitate parks as spaces of celebration for neighborhoods by reviewing and potentially loosening restrictions on vendors and prioritizing allowance for local vendors.
- Community fears or concerns around the effects of parks and green spaces on crime and/or gentrification in their neighborhoods are real and valid. The City should focus on partnerships, outreach and stewardship to improve the relationships between communities, nature and the City.
- Continue to strengthen relationships with the Austin Independent School District and support the expansion of land stewardship and education in their curriculum using resources such as the Cities Connecting Children to Nature program.

Strategy 4: Promote carbon farming

Explore the ability of food forests and community gardens on public lands to use low-carbon and carbon farming practices. This agricultural practice can improve carbon

sequestration rates in agricultural systems as well as aid in plant growth, reduce fertilizer use and improve soil water retention.

How we'll get there:

- Support local research on carbon farming practices, especially in partnership with local higher education institutions or organizations that work with individuals from low-income communities and communities of color.
- In order to reduce any burden this imposes on community members, the City should provide basic oversight, technical assistance, startup resources and ongoing maintenance at these gardens. This could be done through City staff or by funding outside groups, community-based organizations or Stewardship Councils/Ambassadors to provide these services.
- Encourage private residents to implement similar food production and carbon farming practices in their own yards through education and incentives.

NEXT STEPS

I. Implementation Planning

This plan will only be as successful as the implementation, funding and follow-through from the City, community partners, and individuals. In developing the plan, we realized that “how” projects, policies and programs are implemented is critically important to determining whether benefits will flow to low-income communities and communities of color. We will continue to build authentic, inclusive relationships with community members and involve them in the decision-making process when designing projects and programs that address climate change. Seeing our implementation plan through a racial equity lens is critical to ensuring that low-income communities and communities of color are prioritized. Our ongoing partnership with the City of Austin’s Equity Office will be key to ensuring our focus remains on equity as we carry out the plan’s goals and strategies.

Implementation success requires creating a system of accountability. The Office of Sustainability is accountable for leading the co-creation of the plan with many partners, and tracking the Plan’s progress. However, they cannot be solely accountable for the Plan’s implementation. The Climate Equity Plan can be thought of as the “big tent” creating an overarching vision that ties back to many other organizational goals and plans. The first step for implementation will be identifying where alignment shows up with other existing Plans and Strategic Goals of City Departments, as well as external organizations including private businesses, nonprofits, neighboring cities and counties, and state and federal government. A review of of all Goals and Strategies will be conducted in order to map these alignments and synergies. Once this review is complete, staff will lead a process of collaboration to determine whether new Climate Equity Plan goals and strategies can be adopted as amendments to other Plans, creating a distributed system of accountability.

Some goals and strategies will likely not find such an alignment, and those remaining will be grouped into one or more subject areas. Next, implementation leaders will be identified to form new partnerships.The Implementation Leader will form Implementation Teams around their assigned group(s) of strategies. These teams are anticipated to be a collaboration among City staff and external partners. It is essential that low-income communities and communities of color are included and centered in implementation in order to learn from their lived experience and design solutions in a way that works for them.

The Implementation teams will be tasked with evaluating and prioritizing the proposed strategies to consider ease of implementation, scale of benefits created, potential ownership and current status. Teams will then determine which specific strategies need new implementation plans. Implementation Plans will include:

- A focus on racial equity
- What data is available, and what is needed
- A model or mechanism for change
- Defined tasks and a schedule
- Owners and actors
- Existing and potential budget and funding sources including grants
- Cost/benefit and savings potential
- Metrics and performance measurement

This process will be undertaken with the goal of completing implantation plans to coincide with the City's fiscal year 2022 budget process.

II. Funding

Funding the strategies in this plan is key to reaching our climate goals. A lesson learned from the 2015 Austin Community Climate Plan implementation is that new dedicated funding sources that aren't dependent on the City's General Fund are needed for full successful implementation. The City will need to engage the private and nonprofit sectors to access creative funding strategies, and ensure that investment is prioritized for low-income communities and communities of color.

For individual strategies, topic-specific implementation teams will prepare cost estimates and any expected cost savings. For strategies funded by the City, budget needs will be projected by year and by capital versus through operating budgets. Once detailed cost estimates exist, funding opportunities can be pursued.

The Steering Committee has identified the potential revenue sources listed below. Each source is new, complex and will require further research, analysis and pursuit.

City Revenue Collection - These options would involve the City using its billing, fee structure and bonding abilities to generate new revenue that would be created explicitly for the purpose of funding initiatives in this plan. Options include:

- Enabling voluntary on-bill contributions
- Equitably expanding existing City fees, such as impact fees, on-bill user fees and permit fees
- Pursuing a green bond election

Economic Agreements - The City has entered into numerous economic development agreements with large businesses in the Austin area and has the authority to create requirements in these agreements in exchange for modified taxes and fees. Options include:

- Ensuring that new requirements for future economic development agreements include commitments that require the beneficiary to reduce their own emissions
- Explore opportunities to future economic development agreements tofund reductions elsewhere in the Austin area, including through strategies identified in this plan.

Ongoing Outside Opportunities - There are numerous philanthropic organizations that fund climate action, and future federal funding may also be available. The key with these two options is to have “shovel ready” projects with tasks, schedule and budget identified before funding solicitations are released.

Statewide Municipal Collaboration - In Texas, major cities like Dallas, Houston and San Antonio have recently adopted climate plans. Building a broader coalition of support among Texas cities can help amplify state and federal funding requests through shared legislative agendas related to climate change.

III. Measurement and Reporting

In collaboration with City departments and other organizations, the Office of Sustainability will create the following reporting mechanisms to keep stakeholders updated on progress:

- An annual report summarizing the implementation status of the Climate Equity Plan’s strategies
- Annual calculation of the Austin Community Greenhouse Gas Inventory
- Progress reports from Implementation Teams to City Boards and Commissions, where appropriate.

Reports will be posted publicly and delivered to the Austin City Council. Update presentations will be provided to relevant boards and commissions, including the Joint Sustainability Committee, Environmental Board, Resource Management Commission, and Quality of Life Commissions.

APPENDICES

...Have been moved. See link>

Baumer, Zach

From: Graham, Larry <Lawrence.Graham@onegas.com>
Sent: Tuesday, August 18, 2020 4:34 PM
To: christopher.shorter@austintexes.gov; Athens, Lucia
Cc: Baumer, Zach; Hawkins, Rondella; Graham, Larry
Subject: Texas Gas Service
Attachments: TGS - Climate Plan Update Request 8.18.20.pdf

Dear Mr. Shorter and Ms. Athens:

Texas Gas Service appreciates the work of the staff of the Office of Sustainability and the many citizens that have participated in the update to the Equity Climate Plan. However, the proposed recommendations are so potentially significant to the business and the customers of Texas Gas Service that we respectfully request additional time to evaluate and comment on the proposed plan and that the City delay the release of the report to the public, currently scheduled for August 21st. Please see the attached letter.

I appreciate your consideration and cooperation.
larry

Larry Graham
Manager- Community Relations
1301 South Mopac Expressway, Suite 400
Austin, TX 78746

[redacted]
lawrence.graham@onegas.com

Baumer, Zach

From: Baumer, Zach
Sent: Wednesday, October 07, 2020 2:37 PM
To: Graham, Larry
Subject: RE: Greetings and a Question

Larry,

Yes, we are aiming to have the final Plan Documents complete by October 16th or early the week of the 19th. It appears that council members will bring a resolution to adopt the plan either on the October 29th or November 12th meeting. I don't know exactly who, or what it will say, or which date.

Thanks,

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin [redacted]
[redacted]

From: Graham, Larry [mailto:Lawrence.Graham@onegas.com]
Sent: Wednesday, October 07, 2020 2:29 PM
To: Baumer, Zach <Zach.Baumer@austintexas.gov>
Subject: Greetings and a Question

Zach- How are you? I must say I feel things are a little strained between me, TGS and many people involved in this process. And I don't feel good about that.

So I wanted to touch base on the process from here on out. My recollection is that your office will issue the final Report and recommendations early next week? And the plan is to go to City Council on November 11th. Do I have this right? If I am wrong or it has changed, please let me know.

Thanks

Larry

Larry Graham
Manager- Community Relations
1301 South Mopac Expressway, Suite 400
Austin, TX 78746

P: [redacted]
lawrence.graham@onegas.com

Baumer, Zach

From: Baumer, Zach
Sent: Tuesday, June 30, 2020 10:04 AM
To: Graham, Larry; Romero, Phoebe
Subject: RE: Comments from Texas Gas Service

Larry, I did have a follow up to the answers below.

If we have a council target of net-zero emissions by 2050 in the City of Austin, and council will be considering moving that target date up to 2040, how does Texas Gas plan to get greenhouse gas emissions associated with their business (operations and customer usage) to zero in this 20-30 year timeline? What would be the policy or technology approaches you would use?
How would you get started in the next few years on this process and what would be the glide path to zero?

If Texas Gas has a reduction goal, a plan, and is taking action, we're all for supporting it.

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin, TX
[redacted]

From: Graham, Larry [mailto:Lawrence.Graham@onegas.com]
Sent: Monday, June 29, 2020 4:02 PM
To: Baumer, Zach <Zach.Baumer@austintexas.gov>; Romero, Phoebe <Phoebe.Romero@austintexas.gov>
Cc: Graham, Larry <Lawrence.Graham@onegas.com>
Subject: Comments from Texas Gas Service

Zach and Phoebe- Here is the official feedback from TGS on the draft recommendations. I am around if you want to talk more.

Thanks

Larry

Larry Graham
Manager- Community Relations
1301 South Mopac Expressway, Suite 400
Austin, TX 78746

P: [redacted] C: [redacted]
lawrence.graham@onegas.com

General Feedback

- We believe natural gas is uniquely positioned to reduce emissions now and as part of the ongoing solution.
- Policy driven electrification will limit technological advancements that could lower emission in a more cost effective and expedient manner. We are concerned that this plan will adversely impact innovation and advancement of emission reduction technology. We recommend encouraging energy efficiency and continued technology development in all sectors that support energy decarbonization while maintaining energy equity.
- There is no clear path to replace the existing natural gas load with a lower emission alternative. Policy driven electrification will not decrease emissions.
- Policy driven electrification will drive customers off the natural gas distribution system prematurely and result in significant cost increases to remaining customers. These increases would likely disproportionately impact small business and low/fixed income customers.

Transportation Feedback

- As transportation is the largest emission source for the City of Austin, the primary focus of the ACCP should be on encouraging all lower emission transportation options.
- Consideration has not been given to the life-cycle emissions of electric vehicles, or the emissions profile of electric generation used to power electric vehicles.

Building Electrification

- TGS recommends additional study on the following:
  - Cost of electrification of existing or new buildings and the impact on the housing market, particularly low- and fixed-income.
  - The potential cost increase of electricity with the increased load generation and the cost increase on natural gas delivery due to reduced customers while maintaining infrastructure.
  - Emissions produced by electric service in the City of Austin factoring in both Austin Energy controlled generation and ERCOT.

Baumer, Zach

From: Kent, Joe A. <Joe.Kent@onegas.com>
Sent: Monday, July 20, 2020 5:03 PM
To: Baumer, Zach
Cc: Graham, Larry
Subject: Austin Community Climate Plan - 1st Draft Feedback
Attachments: 1st Draft Climate Plan - Texas Gas Service Feedback 7-20.docx

Zach,

We have reviewed and provided feedback on the 1st draft of the plan. Attached is the redline document we worked from, which may be easier to follow. We also uploaded our comments into the feedback tracker.

Please let us know if you have any questions.

Thank you!
Joe Kent

Baumer, Zach

From: Baumer, Zach
Sent: Monday, July 27, 2020 1:40 PM
To: Graham, Larry
Subject: RE: Steering Committee and the three committees

yes

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin, TX
[redacted]

From: Graham, Larry [mailto:Lawrence.Graham@onegas.com]
Sent: Monday, July 27, 2020 1:39 PM
To: Baumer, Zach <Zach.Baumer@austintexas.gov>
Subject: RE: Steering Committee and the three committees

Did you already send Carmen an invite to the one this afternoon? (I think you did)

From: Baumer, Zach <Zach.Baumer@austintexas.gov>
Sent: Monday, July 27, 2020 1:17 PM
To: Graham, Larry <Lawrence.Graham@onegas.com>
Subject: [External] RE: Steering Committee and the three committees

---

Larry,

I can invite you to all 3 of them.

However, it is awkward because none of you are really on the steering committee, you're kind of crashing a party.

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin, TX
[redacted]

From: Graham, Larry [mailto:Lawrence.Graham@onegas.com]
Sent: Monday, July 27, 2020 1:13 PM
To: Baumer, Zach <Zach.Baumer@austintexas.gov>
Subject: Steering Committee and the three committees

Zach- Hello. How are you?

So I actually tried to talk Joe out of this request, but he wants TGS people on those three committees. I know that you put Carmen on one of them. I can't remember which one.. Accountability? And the other was having to do with funding and resources and the last one?

So, can we add people to the other two? At least Joe wants Austin people on them..

Thanks

Larry

Larry Graham
Manager- Community Relations
1301 South Mopac Expressway, Suite 400
Austin, TX 78746

P: [redacted] C: [redacted]
lawrence.graham@onegas.com

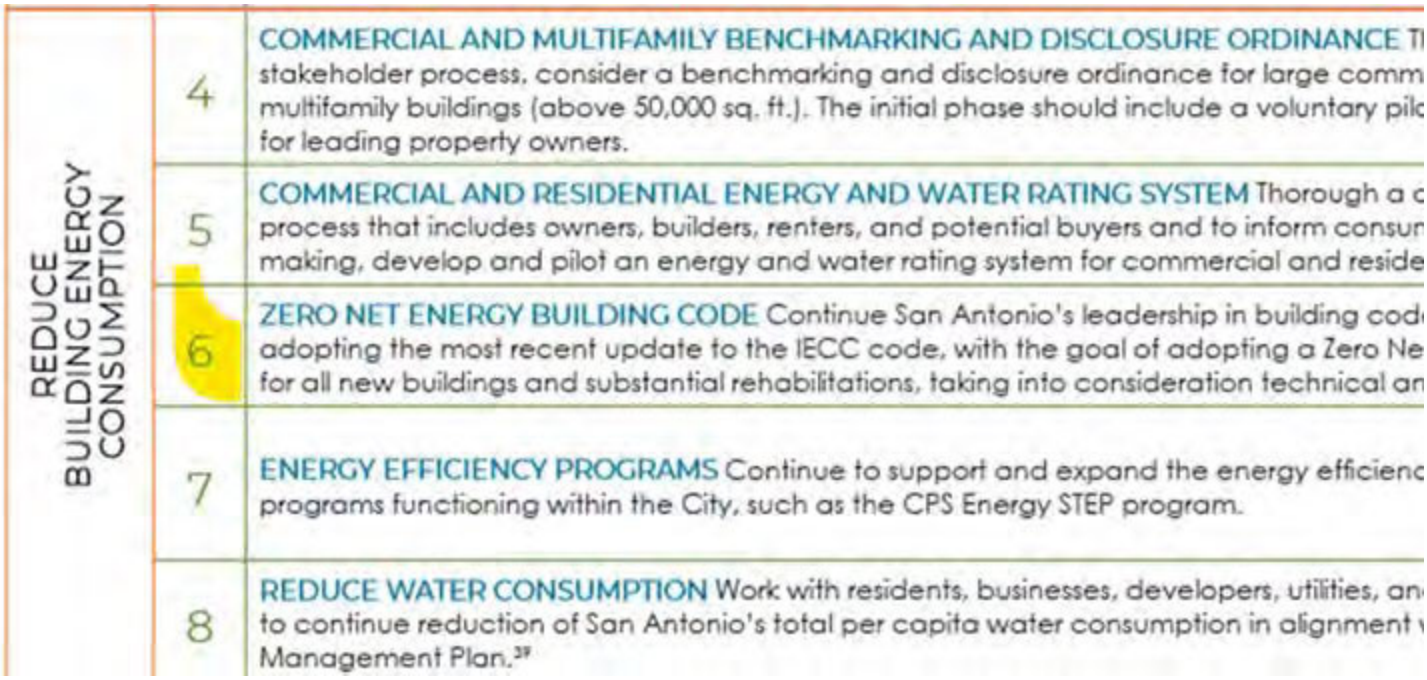
Baumer, Zach

From: Baumer, Zach
Sent: Tuesday, July 21, 2020 3:59 PM
To: Graham, Larry
Subject: FW: plans

Larry,

We did a very quick google search for the Dallas, San Antonio, and Houston Plans. We did a search / find for natural gas and electrification. Here's what we found. We're not alone.

San Antonio



REDUCE BUILDING ENERGY CONSUMPTION	4	COMMERCIAL AND MULTIFAMILY BENCHMARKING AND DISCLOSURE ORDINANCE T stakeholder process, consider a benchmarking and disclosure ordinance for large comm multifamily buildings (above 50,000 sq. ft.). The initial phase should include a voluntary pilo for leading property owners.
	5	COMMERCIAL AND RESIDENTIAL ENERGY AND WATER RATING SYSTEM Thorough a c process that includes owners, builders, renters, and potential buyers and to inform consur making, develop and pilot an energy and water rating system for commercial and reside
	6	ZERO NET ENERGY BUILDING CODE Continue San Antonio's leadership in building cod adopting the most recent update to the IECC code, with the goal of adopting a Zero Ne for all new buildings and substantial rehabilitations, taking into consideration technical an
	7	ENERGY EFFICIENCY PROGRAMS Continue to support and expand the energy efficienc programs functioning within the City, such as the CPS Energy STEP program.
	8	REDUCE WATER CONSUMPTION Work with residents, businesses, developers, utilities, an to continue reduction of San Antonio's total per capita water consumption in alignment Management Plan.[39]

Municipal below

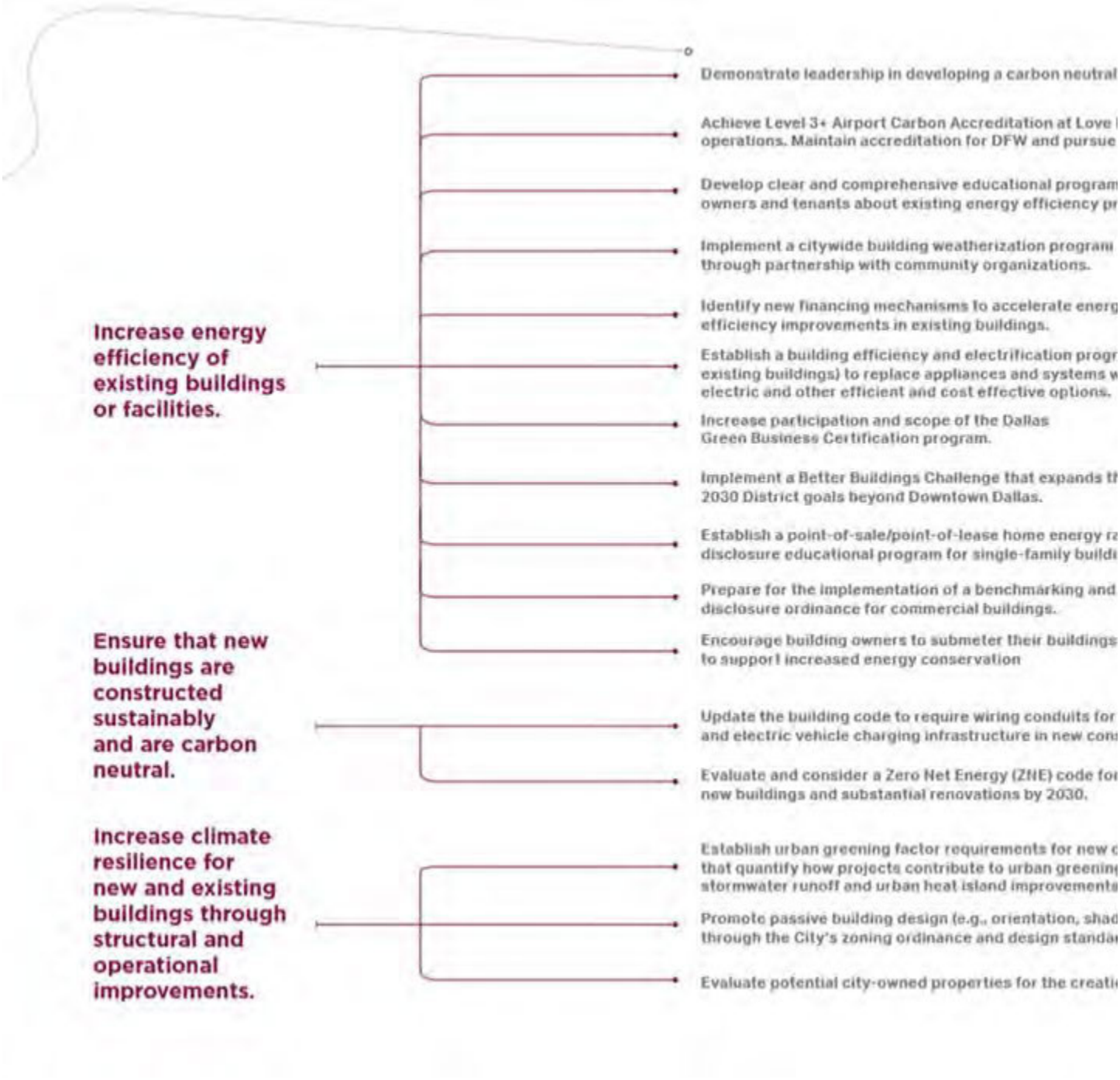
		STRATEGIES
REDUCE BUILDING ENERGY CONSUMPTION	M1	BENCHMARKING AND PUBLIC DISCLOSURE OF BUILDING ENERGY CONSUMPTION Benchm publicly disclose building energy and water use for municipal buildings.
	M2	MUNICIPAL ENERGY POLICY To reduce energy consumption, adopt an Energy Policy Ordinanc City-owned buildings and facilities.
	M3	ZERO NET ENERGY (ZNE) BUILDINGS Achieve ZNE for all municipal buildings by 2040.
	M4	COOL/GREEN ROOFS Install cool or green roofs on municipal government buildings, as appropr

Dallas:

TARGETS

100% NEW CONSTRUCTION WILL BE NET ZERO ENERGY FROM **2030**

EXISTING RESIDENTIAL HOMES REDUCE ENERGY USE **10%** AND **25%** BY 2030 AND 2050, RESPECTIVELY.



Mention of natural gas reduction for air quality in Dallas plan.

Reducing pollutants from fossil fuel powered vehicles is likely to have the most impact on poor air quality in Dallas.

Actions from the ecosystems sector, related to expanding the urban forest or planting more trees can reduce heat, and absorb pollutants, which will also improve air quality, as can actions that remove natural gas from buildings, and actions that move trips to transit, biking and walking, reduce trips altogether and/or use lower carbon fuels. Specific actions to monitor air quality at the neighborhood level, and that prevent the exposure of communities to sources of air pollution, are included in this sector.

Actions that also improve air quality as a co-benefit are listed on p.173-174 but are described in other sector chapters.

Houston:

BUILDING OPTIMIZATION	TARGET
Goal 1: Reduce building energy use and maximize savings.	7 Adopt the 2021 ICC model building code with a minimum 5-year update.
Goal 2: Expand investment in energy efficiency.	8 Double the current number of PACE proje 2025.
Goal 3: Invest in skilled local jobs to optimize building operations.	9 70% of non-residential buildings operated trained building operator by 2030.

	DESCRIPTION OF STRATEGIES	GHG IMPACT	CITY LEADS	KEY STAKEHOLDERS
	BUILDING OPTIMIZATION			
	GOAL 1: REDUCE BUILDING ENERGY USE AND MAXIMIZE SAVINGS.			
B1.1	Update energy code and increase compliance.	High	HPW, ARA, MYR	Private sector, non-profit & advocacy groups
B1.2	Develop programs that improve building energy efficiency.	High	ARA, GSD	BOMA, private sector, non-profit & advocacy groups
B1.3	Reduce water and wastewater energy consumption by 10% through optimization of facility operations and water conservation.	Medium	HPW	Regional water providers, municipal districts, private sector, HOAs, non-p & advocacy groups
	GOAL 2: EXPAND INVESTMENT IN ENERGY EFFICIENCY.			
B2.1	Promote clean energy financing programs.	High	MYR-Economic Development, HPW, ARA	Private sector, non-profit & advocacy groups
B2.2	Expand utility energy financing and incentive programs.	High	ARA, MYR	CenterPoint, electricity providers
	GOAL 3: INVEST IN SKILLED LOCAL JOBS TO OPTIMIZE BUILDING OPERATIONS.			
B3.1	Provide training in the operation, management, and maintenance of relevant building systems.	High	HPW	Private Sector, higher education insti tions, non-profit & advocacy groups

Biogas highlight, also mention landfill gas capture as a strategy

MCCARTY ROAD LANDFILL

McCarty Road Landfill, privately owned and operated by Republic Services, is one of three landfills used by the City and has less than 16 years of estimated capacity remaining. In 2014, the McCarty Road facility had a 79% landfill gas collection efficiency, of which only 3% was flared to the atmosphere as waste and 97% was used to generate pipeline quality renewable natural gas—producing 419,308 metric tonnes of CO_2e (See Appendix III: Inventory I.4.4). This biogas generated at McCarty Road Landfill is carried six miles to the Anheuser-Busch brewery in Houston and supplies more than 55% of the brewery's fuel demand.

Baumer, Zach

From: Baumer, Zach
Sent: Thursday, August 13, 2020 9:18 AM
To: Graham, Larry
Cc: [redacted]@[redacted].com; Romero, Phoebe; Shane Johnson; Katie Coyne; Kaiba White; [redacted]@[redacted].com; Athens, Lucia (Lucia.Athens@austintexas.gov)
Subject: revised goal / strategy language

Larry,

As you know, there's a Sustainable Buildings Advisory Group meeting this afternoon and this is going to be part of the discussion, so I figured I'd send it to you now. We've conferred with the steering committee, with some of the Advisory Group Members, and have the new proposed revised language for the sustainable buildings goals / strategies related to space and water heating in buildings. I feel like we've listened to your concerns about setting an overarching goal and provided clear pathways to meet that goal.

Note that we are not addressing the comments throughout the document on our approach, natural gas vehicles, etc. Texas Gas was invited to participate in the Sustainable Buildings Advisory Group, and that's where your comments and discussion are welcome. In no other place in this plan has any other stakeholder brought up natural gas a solution in this climate plan.

Thank you, talk soon

NEW PROPOSED GOAL and STRATEGY (original 2 strategies combined into 1)

By 2030, decarbonize buildings and reduce energy burden by achieving:

- **Net zero carbon in 100% of new and 25% of existing buildings. ***
- **A 50% reduction in greenhouse gas emissions from the natural gas sector in the Austin Area.**

**Callout: A net zero carbon building is highly efficient and fully powered by on or off-site renewable energy. For the purposes of this goal, net zero carbon implies operational carbon, which refers to the carbon dioxide (CO2) emitted as a result of operations, such as lighting and heating, during the in-use phase of a building.*

Strategy 3: Decarbonize buildings

Achieve goal milestones for net zero carbon buildings by adopting new building and energy codes and amendments. Engage existing buildings to decarbonize through incentives and education of contractors and residents. Collaborate with local natural gas utilities to implement equitable emission reduction strategies.

How we'll get there:

- For new construction and major renovations, code amendments will include enabling the adoption of the highest level of energy efficiency, electrification of water and space heating, peak-load shifting and distributed generation.

- For existing buildings, in addition to decarbonizing the grid, onsite renewable energy and reducing electricity demand, strategies could include electrification for gas-to-electric equipment replacement and other natural gas-related emissions reduction measures.
- Equitable natural gas emission reduction strategies may include, but are not limited to system leak reduction, renewable natural gas, energy efficiency, and new technologies.
- Ensure all new programs are created with equity principles and community input and collaborate with affordable housing developers and public-serving entities to prioritize net zero carbon buildings in communities of color and low-income communities.

ORIGINAL GOAL / STRATEGY TGS Commented on: 1 goal and 2 strategies

GOAL 1: All new buildings will be net zero carbon by 2030, and all existing buildings will be net zero carbon by 2040, while striving to reduce energy burden across the city.

Strategy 3: Electrify buildings
Adopt new codes and local amendments to ensure energy efficiency, demand response, storage and distributed generation. Set a goal of electrifying all new buildings for which it is practical by 2025, and 25% of existing buildings that currently use natural gas by 2030.
How we'll get there:
In addition to new code adoption, encourage electrification for gas-to-electric component replacement through incentives and education of contractors and residents.

Strategy 4: Decarbonize the gas sector
Establish a carbon emission reduction target of X% by 2030 from the use of natural gas in the City of Austin while keeping rates affordable.
How we'll get there:
This target could be met by user efficiency measures, bio-methane, renewable gas credits, carbon offsets and other applicable measures. *(Set this target after the TGS study is complete in June)*

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin, TX
[redacted]

- Dickerson, Charles;
- Reilly, Stuart

[Comparison Result] .pdf
172 KB

FYI. I wanted to make sure you are aware of this draft Council Resolution focused on Texas Gas Service.

CM Alter's office has been in discussions with my team about the language, as it relates to the carbon footprint of natural gas.

Thank you!

Lucia

Athens, Lucia
Tue 7/21/2020 8:22 AM

To:

- Baumer, Zach

1st Draft Climate Plan - Texas Gas Service Feedback 7-20.docx
116 KB

ATT00001.htm
527 bytes

2 attachments (117 KB)Download allSave all to OneDrive - City of Austin
Let's discuss. I have not looked at their comments yet. However I find it slightly odd that people who are not direct participants in the Advisory Groups are being invited to redline their comments. I realize that Larry is in an awkward position, but why wouldn't every business out there get to do this in advance of a public comment process? Let's talk about it.

On Jul 21, 2020, at 8:05 AM, Baumer, Zach <Zach.Baumer@austintexas.gov> wrote:

This also came through yesterday.

Zach Baumer
Climate Program Manager
Office of Sustainability
City of Austin, TX

[redacted]

Reply
Forward

Baumer, Zach
Tue 7/21/2020 8:05 AM

To:

- Athens, Lucia

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Sent: Monday, July 20, 2020 5:03 PM
To: Baumer, Zach <Zach.Baumer@austintexas.gov>
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