

Under 2 MOU Appendix – City of Austin, Texas

Profile:

Austin is the capital of the state of Texas and the 11th-most populous city in the United States. Austin is also the fastest growing of the largest 50 U.S. cities. As of 2014, Austin had a population of 912,791 (U.S. Census Bureau estimate). The city is the cultural and economic center of the Austin-Round Rock metropolitan area, which had an estimated population of 1,943,299 in 2014. The greater Austin metropolitan statistical area had a Gross Domestic Product of \$86 billion in 2010.

Targets:

In April 2014, Austin City Council passed Resolution 20140410-024 which established the goal of net-zero community-wide greenhouse gas emissions by 2050, or earlier if feasible. The Austin Community Climate Plan that was developed in response to this resolution sets a calendar year baseline of 2010 and includes interim targets of 22% reduction by 2020, 45% by 2030, 68% by 2040, and 90% by 2050. These targets include an allowance for up to 10% of carbon offsets.

The City of Austin completed the most recent community-wide greenhouse gas inventory in 2010 following the U.S. Community Greenhouse Gas Protocol developed by the International Council for Local Environmental Initiatives (ICLEI). The City also annually reports emissions to the Carbon Disclosure Project. The total greenhouse gas inventory for Travis County (in which Austin is located) in 2010 was 14.5 million metric tons of carbon dioxide equivalent (mtCO_{2e}). This includes:

1. Electricity use, including emissions from power plants: 7.4 million mtCO_{2e}
2. Use of natural gas in air and water heating equipment: 0.6 million mtCO_{2e}
3. On-road and off-road passenger and freight motor vehicle travel: 5 million mtCO_{2e}
4. Emissions from landfills: 0.5 million mtCO_{2e}
5. Emissions from industrial facilities required to report to the EPA National Greenhouse Gas Reporting Program: 1 million mtCO_{2e}

Mitigation:

The Austin Community Climate Plan was adopted by Austin City Council on June 4, 2015 ([http://austintexas.gov/sites/default/files/files/Sustainability/FINAL - OOS_AustinClimatePlan_061015.pdf](http://austintexas.gov/sites/default/files/files/Sustainability/FINAL_-_OOS_AustinClimatePlan_061015.pdf)). The plan identifies actions and strategies in support of the following:

Electricity Generation and Usage:

- The City of Austin owns the municipal electric utility, Austin Energy. Austin Energy is expected to reach 35% of the total electricity generation mix with renewables no later than 2020. A new Generation Plan adopted by Council in 2014 sets a goal of 55% renewables by 2025, 75% carbon-free energy by 2025, and will divest Austin of ownership of coal generation facilities. The three major strategies for greenhouse gas emissions reduction in this sector are to decrease energy usage in new and existing buildings, lower the greenhouse gas intensity of electricity generation, and promote behavior change among community residents.

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Transportation and Mobile Sources:

- The comprehensive plan for Austin, known as Imagine Austin, supports 1) a more compact and connected city that provides housing and businesses with activity centers, 2) an integrated, expanded, and affordable transportation system with a variety of transportation choices, while reducing sprawl, congestion, and travel times, and 3) safe bicycle and pedestrian facilities with well-designed routes that provide connectivity throughout Austin. The major strategies to reduce greenhouse gas emissions in this sector include land use policy and planning, infrastructure and service improvements, transportation demand management, increasing use of alternative vehicles and fuel efficiency, economic and pricing systems, and technology solutions.

Materials and Waste Management:

- The Austin Resource Recovery Master Plan sets the goal of reaching 90% diversion of disposed materials from landfills (and incinerators, which Austin does not use) by 2040. The four landfills in the Austin area have already taken steps to capture and destroy all fugitive methane. Greenhouse gas emissions reduction strategies in this area are focused on landfill gas management and increasing rates for recycling, organics diversion, and purchasing, as well as materials reduction and reuse.

Industrial Process Emissions:

- CO₂ and CO₂e are inherent in manufacturing processes for semiconductor and lime production, which are the largest industrial activities in Austin. Examples of reduction actions that can be taken by these industries include: fuel switching to less carbon intensive fuels, emission capture and destruction, chemical substitutions and reduction of use, energy conservation and efficiency, and the generation or purchase of renewable energy.

Adaptation:

In 2013, the Austin City Council directed the City Manager to analyze climate change projections for Austin and determine how departmental planning efforts integrate future impacts of climate change. The Water Utility, Drainage Utility, Electric Utility, Transportation and Public Works departments, Public Health Department, and Emergency Response departments have identified vulnerabilities, risk thresholds, and potential threats for each of their service areas.

In addition, ATMOS Research, led by Dr. Katharine Hayhoe from Texas Tech University, was hired by the City of Austin to develop climate change projections for Austin through 2100. City staff used this information to identify potential future environmental, economic, and social impacts to operations, asset management, and long-term planning efforts. The full report documenting the details from this analysis, as well as recommendations for next steps can be found here:

[http://austintexas.gov/sites/default/files/files/Sustainability/Climate/Toward a Climate Resilient Austin.pdf](http://austintexas.gov/sites/default/files/files/Sustainability/Climate/Toward_a_Climate_Resilient_Austin.pdf)

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To become more resilient in the face of climate change, the City of Austin must manage the risk of impacts to both new and existing capital investments. This may involve infrastructure design and material decisions that ensure adequate service despite climate change projections. It will also mean ensuring high levels of service to residents and the ability to effectively protect human life during extreme weather events.