

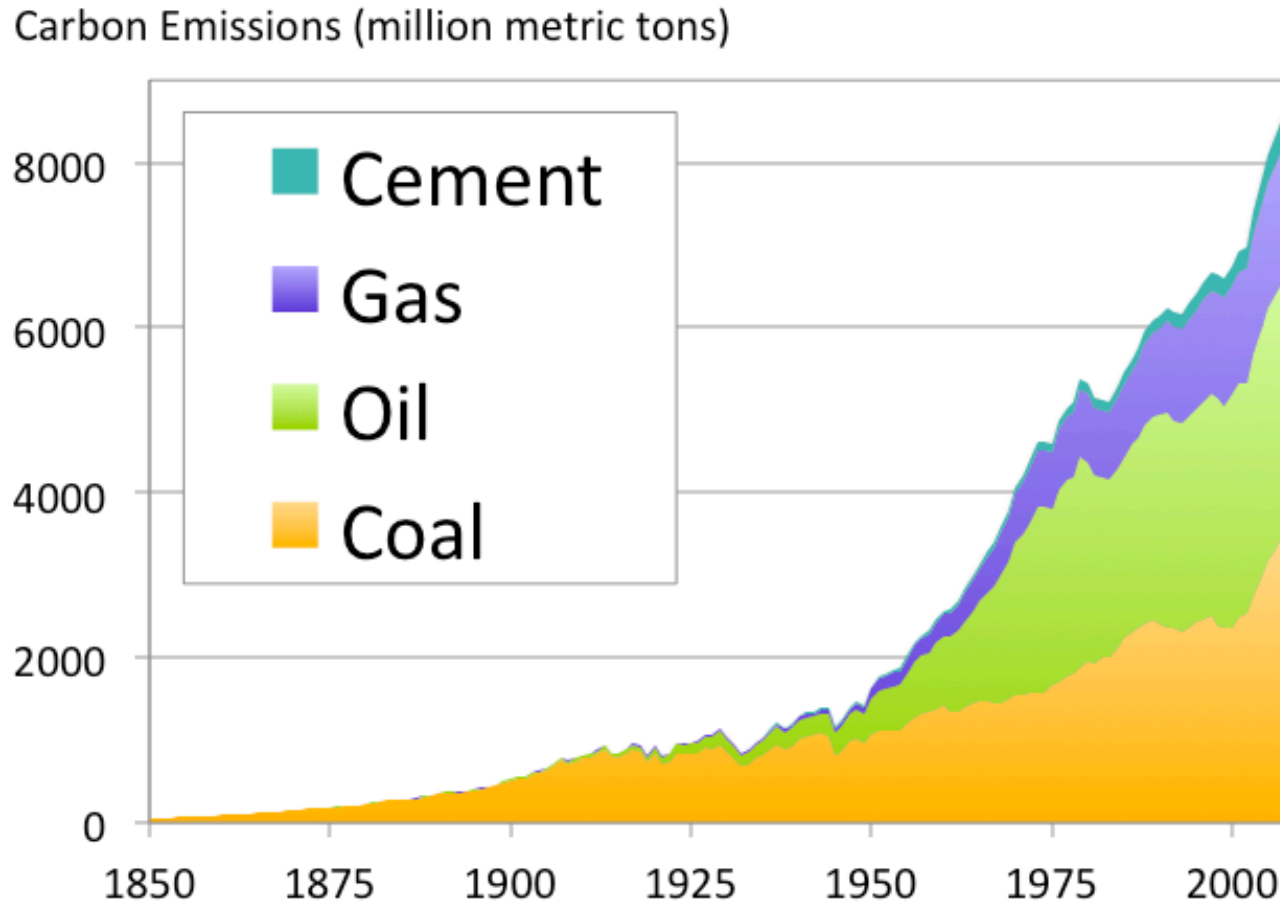


November 14, 2017

# Agenda

- Climate Change
- City of Austin Goals and Plans
- Transportation Focus
- Way Forward

# Our activities produce heat-trapping gases



Source: K. Hayhoe for 2014 U.S. National Climate Assessment

... that are building up in the atmosphere



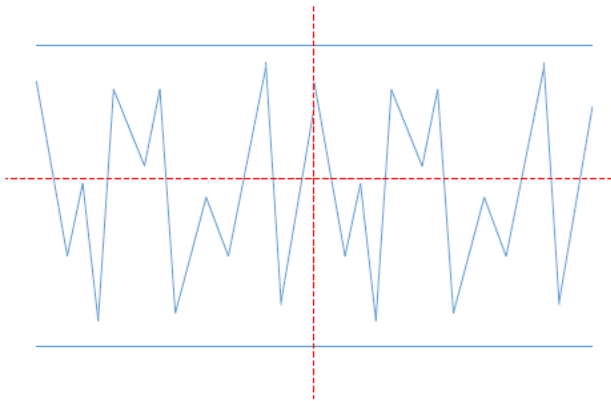
**THE NATURAL  
GREENHOUSE EFFECT**



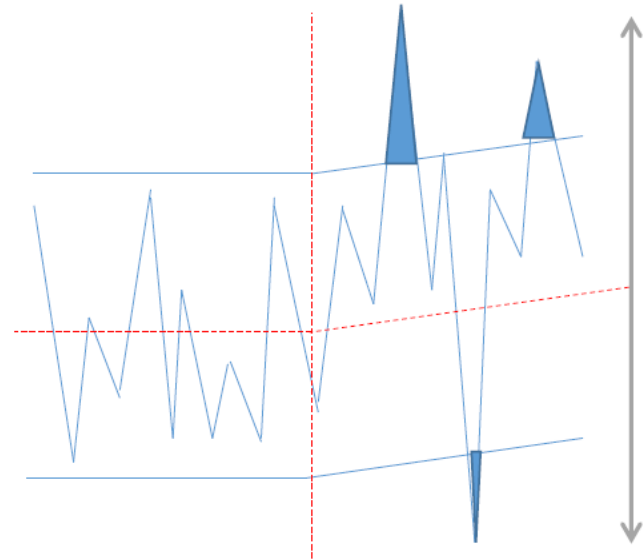
**THE ARTIFICIAL HUMAN  
GREENHOUSE EFFECT**

# Climate Change: Game Changer

**The past = the future**



**vs. Uncertain future**



**Climate projections = increase in shocks/stressors**



HIGHER TEMPERATURES



EXTENDED PERIODS OF DROUGHT



INTENSE RAIN AND FLOODING



INCREASED RISK OF WILDFIRE



# Timeline

**2007 – Original Climate Protection Plan Resolution Adopted by Council**

**2013 – Resolution from Council to study future impacts of Climate Change**

**2014 – Council adopts the Net Zero Community-wide Emissions by 2050 target**

**2015 – Community Climate Plan is completed and adopted by Council**

**2016 – Community Climate Implementation Plan is completed**

**2017 – Community Climate Plan - Cost / Impact analysis and action tracking**



# Austin

COMMUNITY  
2015  
CLIMATE PLAN

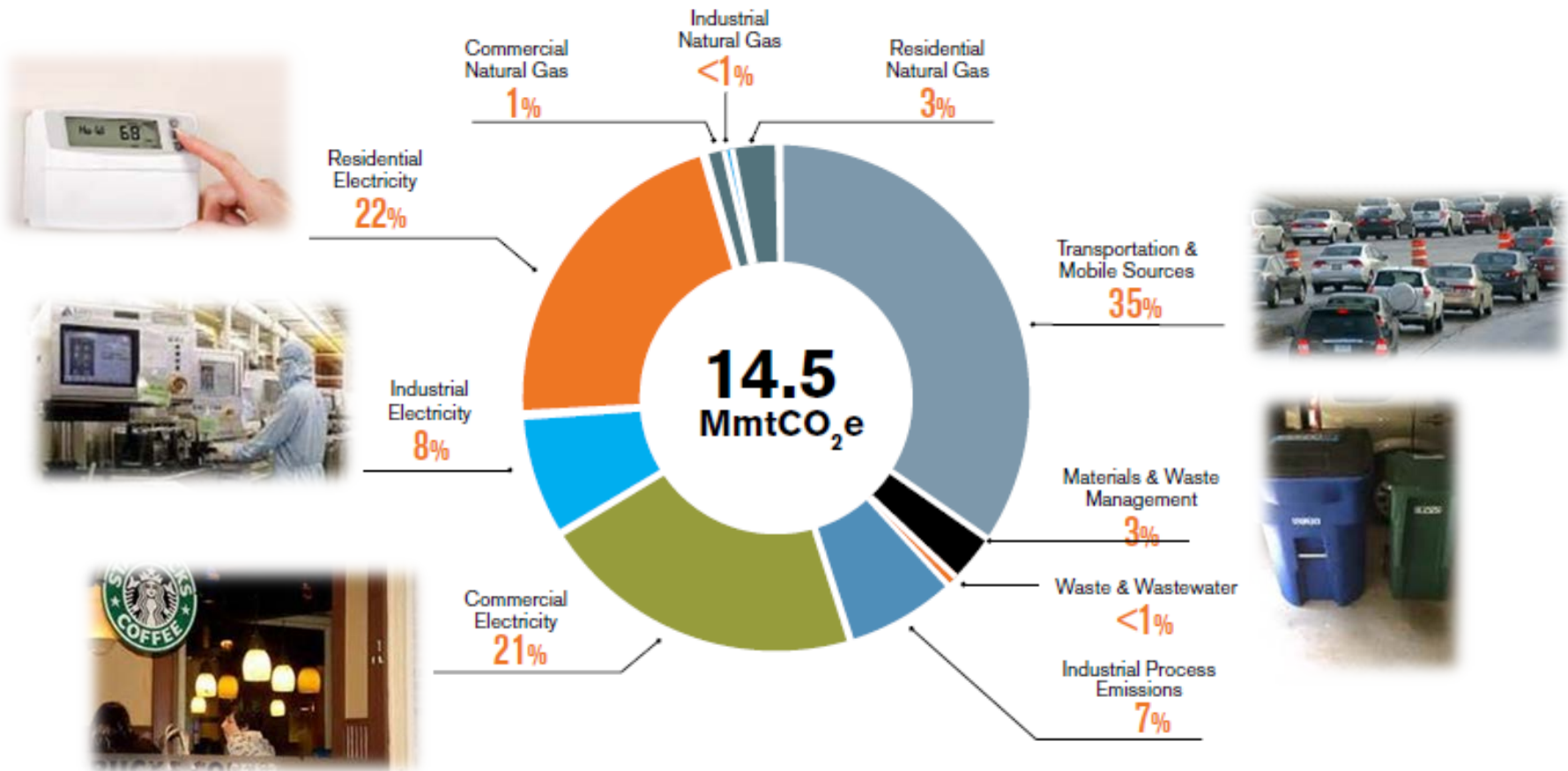


AUSTIN TRANSPORTATION DEPARTMENT



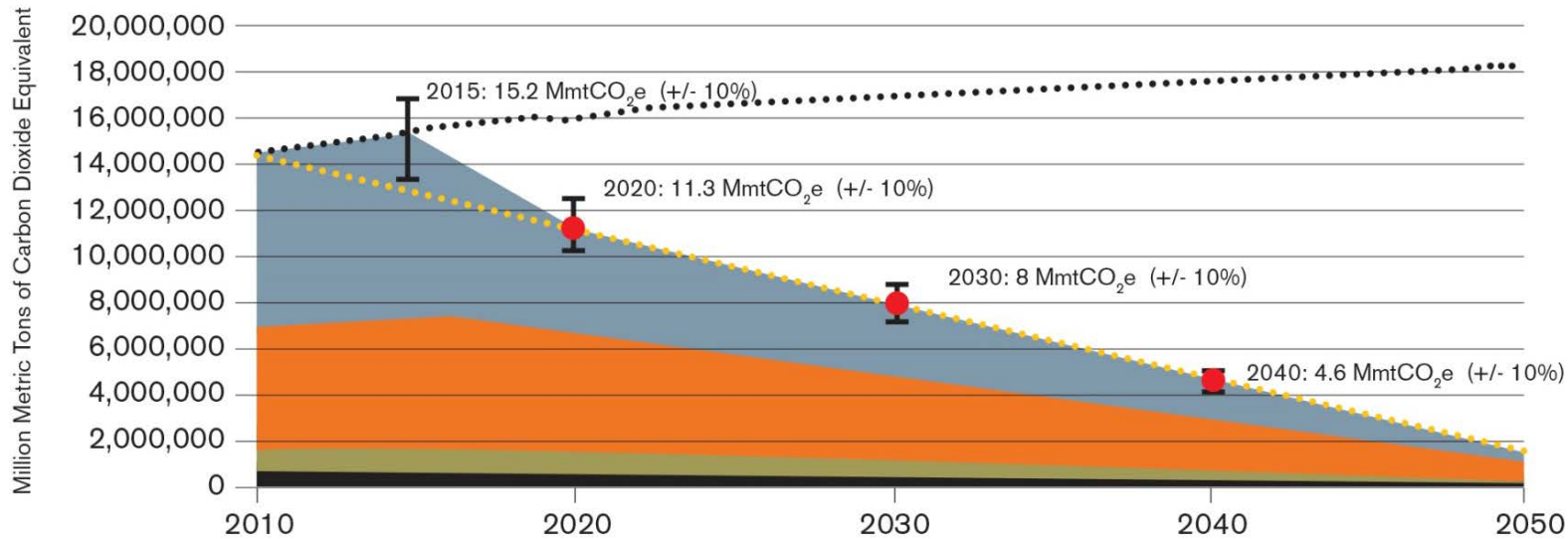


# 2010 Estimated Travis County Greenhouse Gas Inventory





# What does net-zero in 2050 mean?



- Energy Emissions
- Transportation & Mobile Sources
- Process & Fugitive Emissions
- Materials & Waste Management
- Business as usual growth of emissions
- Net-Zero Glide Path





# Technical Advisory Group Strategies

## Electricity and Natural Gas

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

## Transportation and Land Use

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

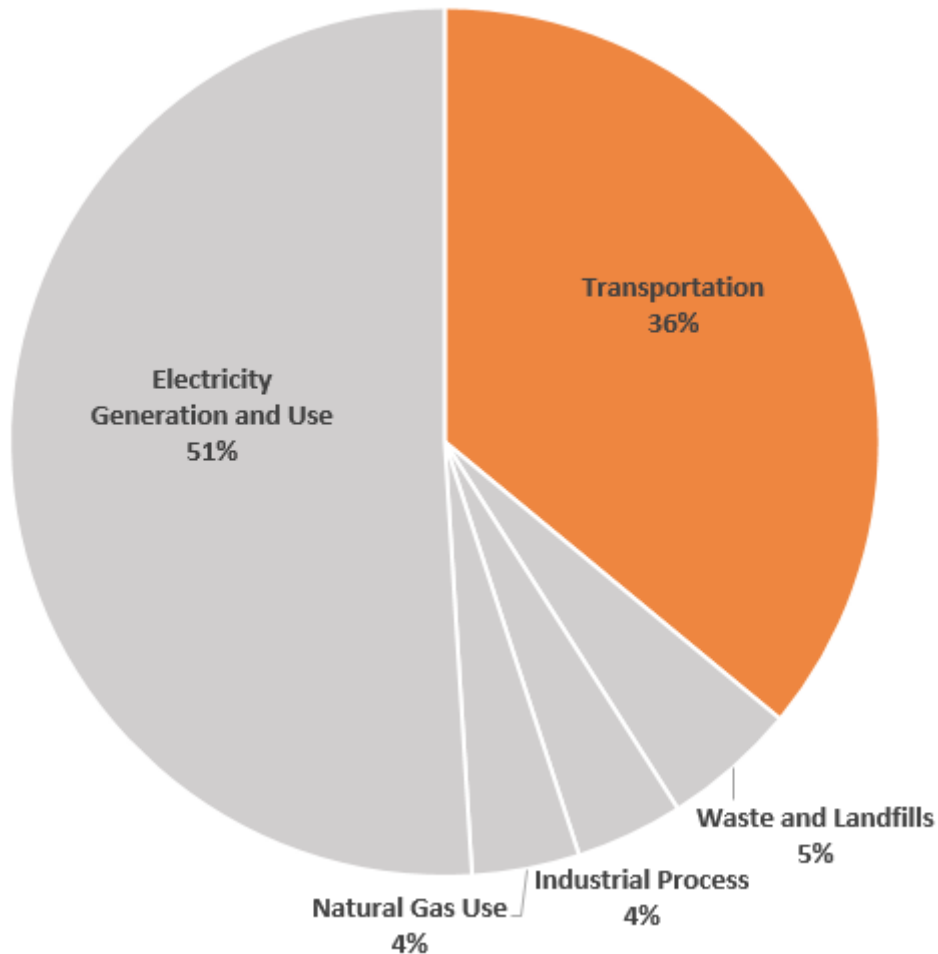
## Materials and Waste Management

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

## Industrial Process

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

# Transportation Strategies



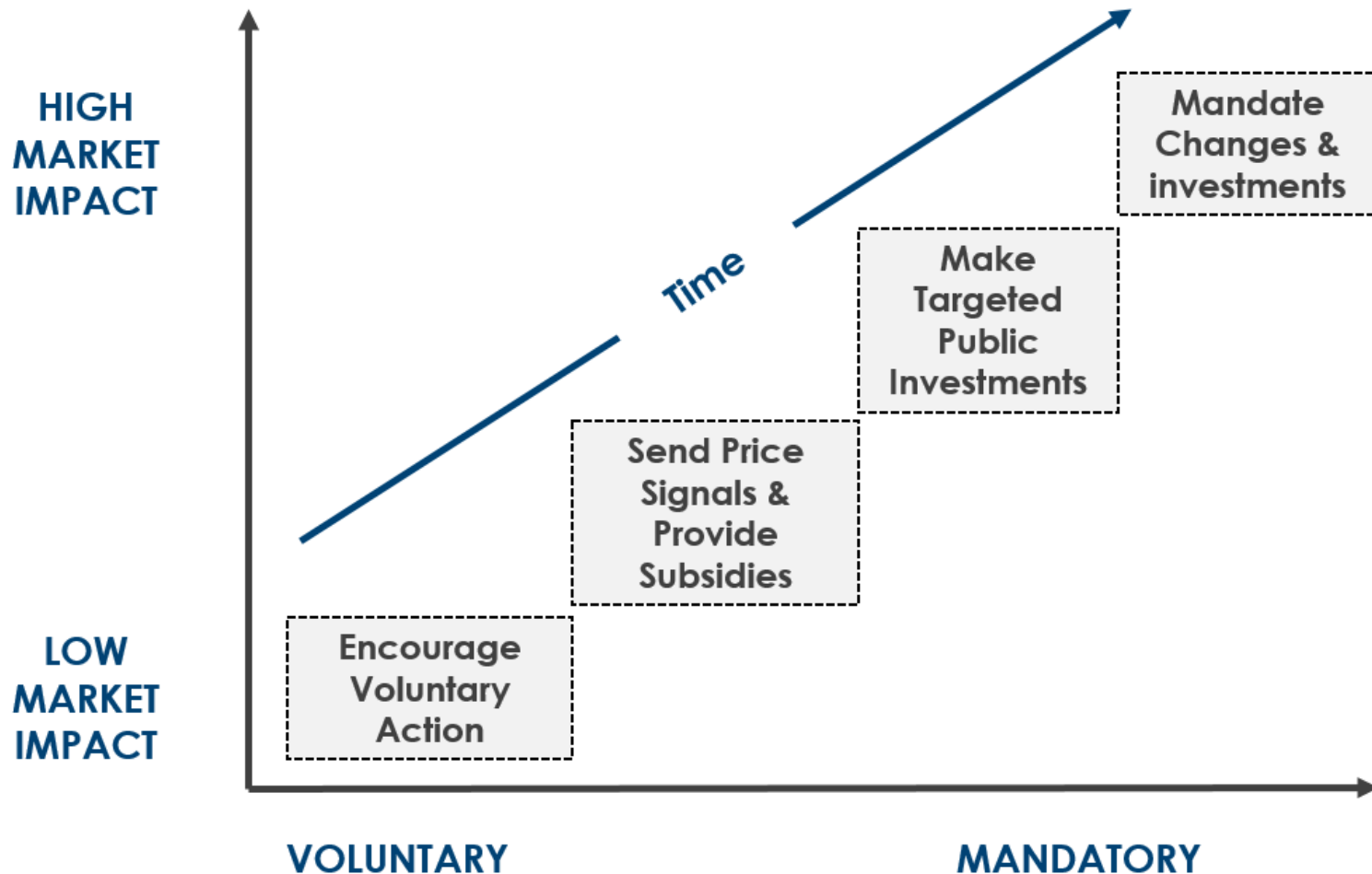
## Mode Shift and Trip Elimination

- Bike Master Plan
- Improve Transit Service + Infra
- Development Code Revision
- Transportation Management Assn.
- Smart Trips
- Parking Strategies

## Tailpipe Emissions Reduction

- Electric Vehicles
- Electric Buses

# City Levers for GHG Reduction



# Direct Benefits to the Community



Reduced energy costs



Improved energy security and reliability



Decreased risk of energy shortages or outages



Greater affordability for all



Reduced pollution



Improved air quality



Improved public health



Thriving local economy



Expanded local jobs creation



Enhanced transit system



Reduced traffic congestion



Safer streets



Improved disaster preparedness



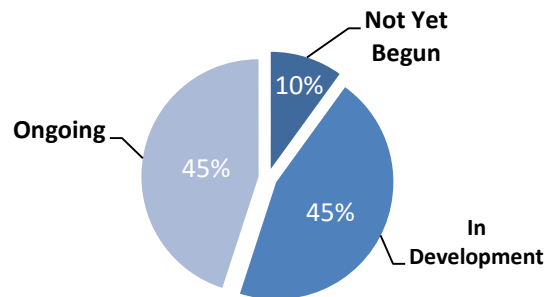
Protected and enhanced ecosystems



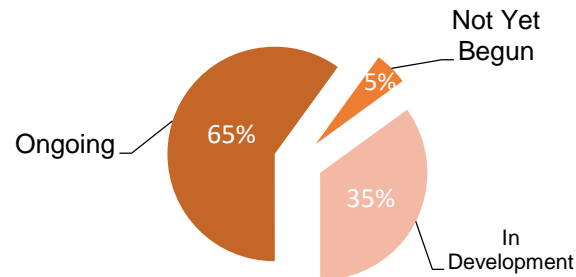
Diminished water consumption by power plants

# Action Status Summary

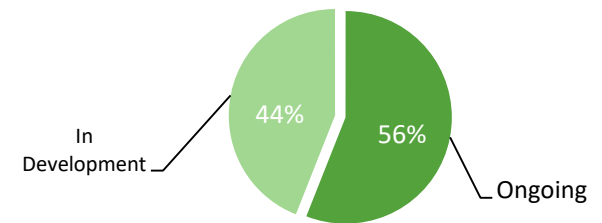
Electricity and Natural Gas  
Phase 1 Action Status



Transportation  
Phase 1 Action Status



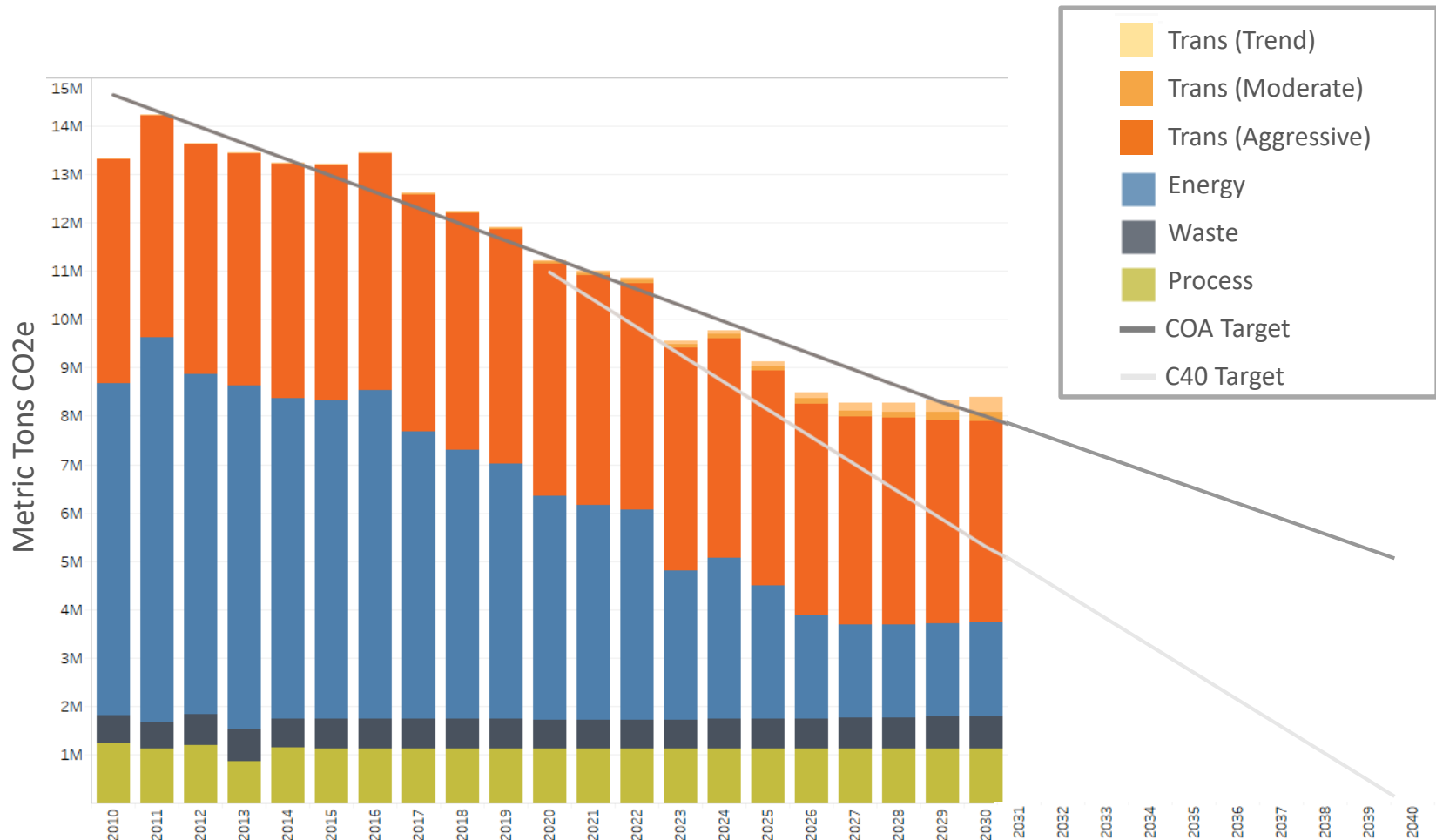
Materials and Waste  
Management Phase 1  
Action Status



Action	Current Program	Cost	Carbon Impact	Status	Impact to Reaching 2020 Target
<b>Buildings and Integrated Efficiency (BIE)-1:</b> Explore financing mechanisms to enable energy efficiency, demand response, distributed generation and energy storage. Possible financing mechanisms which could enable large amounts of private sector retrofits include Property Assessed Clean Energy (PACE) and Warehouse for Energy Efficiency Loans (WHEEL), and privately financed on-bill repayment.	Austin Energy continuously tracks and evaluates ways to provide demand-side management benefits to customers. Austin Energy was part of the initial team on PACE and actively supports, advertises, and educates prospective customers. PACE has their first customer as of February 2016.  WHEEL was not approved in the Texas Legislature. On Bill repayment has many challenges and costs.	Austin Energy staff continue to monitor financing mechanisms available as part of Customer Energy Solutions programs. No additional cost.	PACE has their first customer as of February 2016. Austin Energy will begin to document savings as this program progresses.	ONGOING	LOW



# GHG Emissions Trend with Projected Reductions



# Takeaways

- Currently adopted Austin Energy electricity generation plans put us within reach of the 2030 COA GHG emissions target
- There is a large potential for emissions reduction in the transportation sector, and we have to get started now to scale past 2030.
- Reaching emissions reduction goals beyond 2030 is an enormous challenge and opportunity for our City.

**Questions?**  
**Zach.Baumer@austintexas.gov**

