



Austin

COMMUNITY
2015
CLIMATE PLAN

Open Space, Environment, and Sustainability Committee

May 26, 2016



AUSTIN TRANSPORTATION DEPARTMENT





Agenda

1. Plan Refresher
2. 2013 Community Inventory
3. Phase 1 Progress Update and Implementation Plan
4. Next Steps



Council Resolution 20140410-024

Net-zero community-wide greenhouse gas emissions by 2050

- Achieve as soon as feasible
- Create action plan for each major emissions sector
- Propose interim targets starting with 2020

WHEREAS, the City of Austin has made significant progress on the goals set out in the 2007 ACPP, either meeting its goals ahead of time or being on schedule to meet its goals by 2020; and

WHEREAS, the 2007 ACPP and the current AE Resource, Generation, and Climate Protection Plan to 2020 are now reaching a point where an update is needed to ensure the City of Austin and Austin Energy continue as leaders in climate protection efforts; **NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:** The City Council establishes a goal of reaching net zero community-wide greenhouse gas emissions by 2050 and prefers to achieve this goal as soon as it is feasible. The City Council also recognizes that emissions reductions accomplished sooner are more important and valuable for our city's climate protection efforts.

BE IT FURTHER RESOLVED:

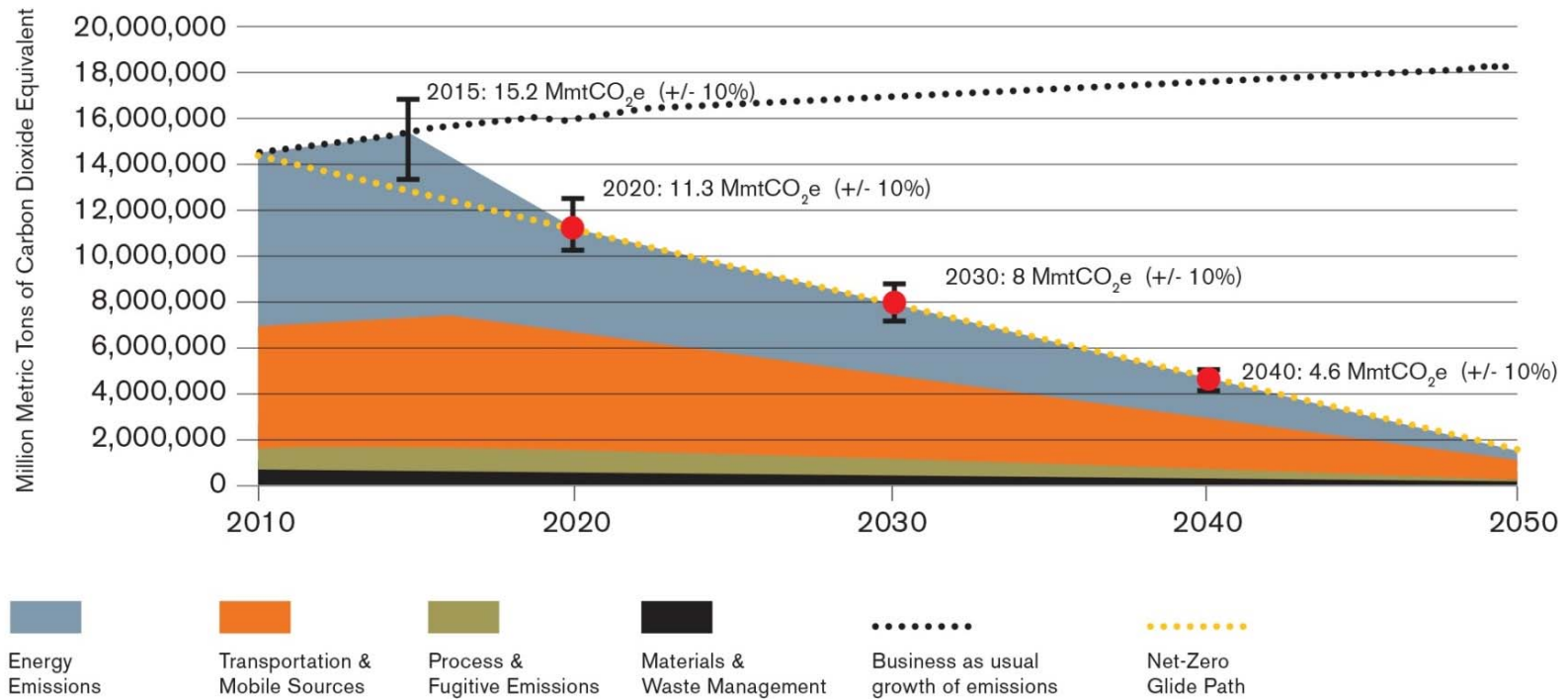
The City Manager is directed to review the goals and objectives within the 2007 Austin Climate Protection Plan and work with stakeholders to create an action plan for each major sector (energy, transportation, and waste/industrial) responsible for the community-wide greenhouse gas emissions in Austin in order to meet the new long-term goal. The action plans should include secondary goals and measures for sector-specific factors such as renewable energy, building energy use reductions, vehicle miles traveled, waste diversion rates, and more. The plans should determine what is achievable for each sector and how the other sectors could make up for any shortfalls in reaching the interim community-wide goals.

BE IT FURTHER RESOLVED:

The sector action plans should include greenhouse gas reductions that will be achieved by implementing existing City plans and also include new actions



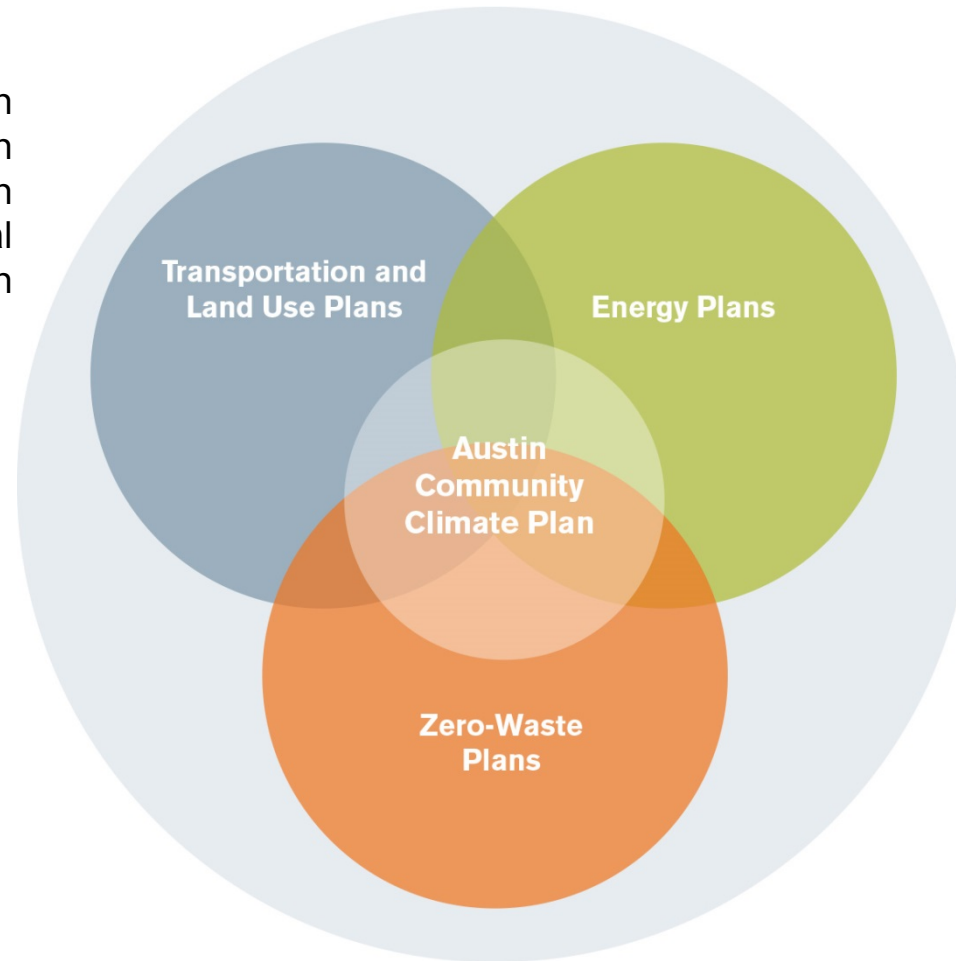
What does net-zero in 2050 mean?





Coordinating to Reach Common Goals

Imagine Austin
Austin Bicycle Master Plan
Urban Trails Master Plan
CAMPO 2035 Regional
Transportation Plan



Austin Energy Resource,
Generation, and Climate
Protection Plan

Austin Resource Recovery Master Plan



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



Phased Approach

Phase 1: mostly
2015-2020
(58 Actions)

Phase 2: mostly
2020-2030
(60 Actions)

Phase 3: mostly
2030-2050
(17 Actions)

Electricity and
Natural Gas
(55% of total
emissions)



Transportation
and Land Use
(35% of total
emissions)



Materials and
Waste Management
(3% of total
emissions)





Recommendations adopted in Resolution 20150604-048

- Develop implementation plan for Phase 1 actions and public outreach plan by summer of 2016.
- Determine feasibility of carbon impact statement for major City Council decisions.
- Determine feasibility of local carbon fee or trading and investment program.
- Continue climate research and resilience planning efforts.

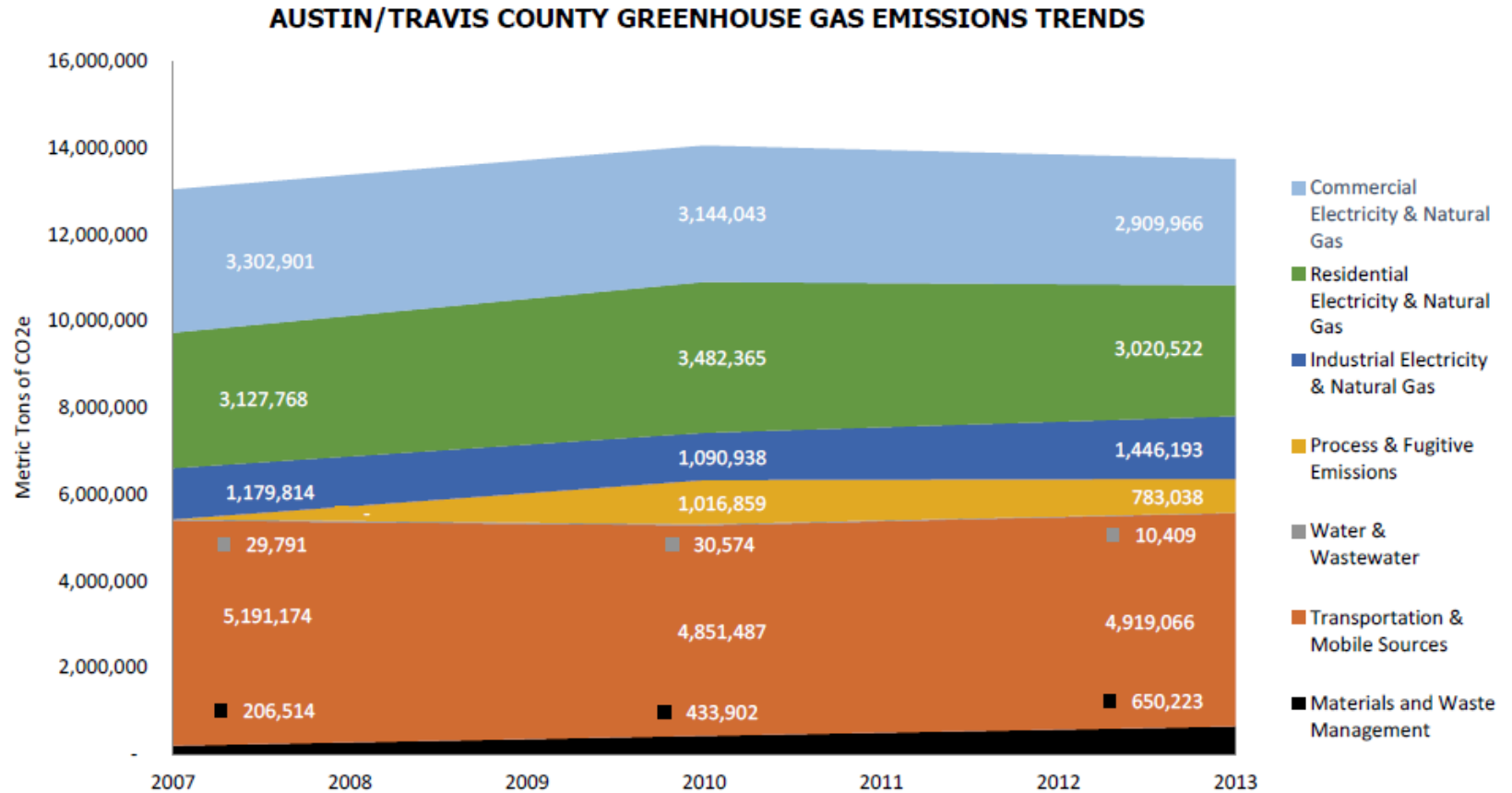


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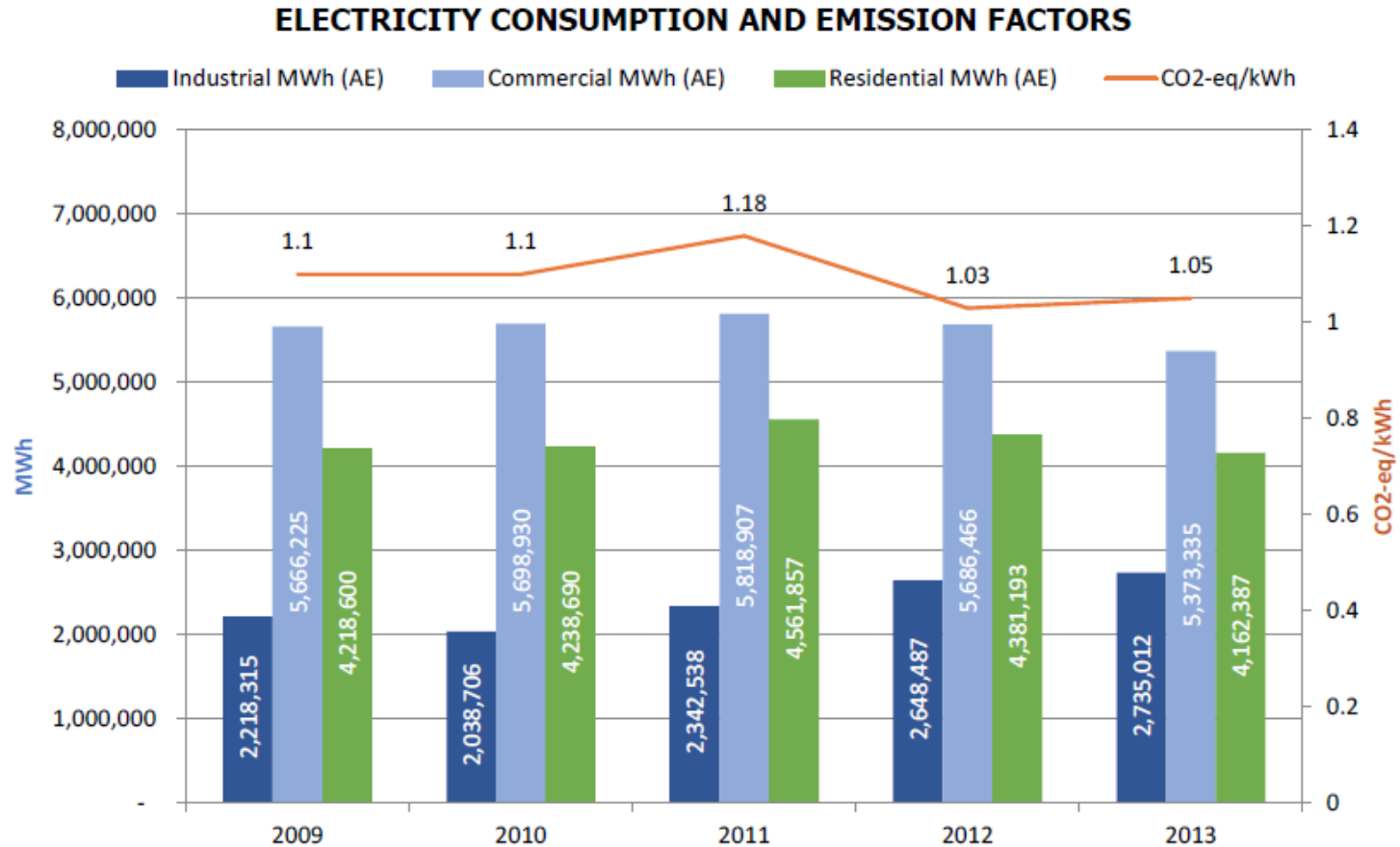


Community-wide Emissions Trends



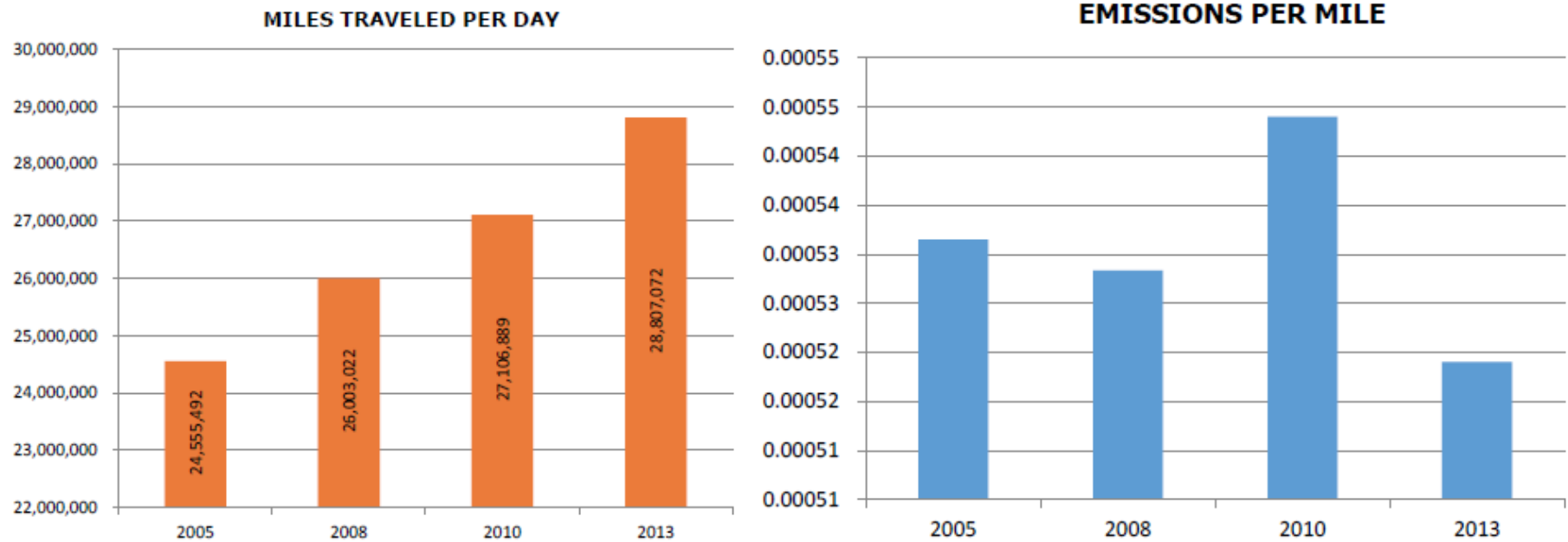


Electricity Emissions





Transportation Emissions





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Implementation Plan Purpose

- Transparency and accountability to stakeholders
- Clarify the roles and responsibilities of various City departments
- Create a well-defined set of requirements for Phase 1 actions to be successful by identifying:
 - Actions needing additional funding or resources
 - Actions that are likely not going to achieve anticipated emissions reductions
 - Actions that come at too high of a cost



Scope and Data Collection

58 Phase 1 actions to be implemented between 2015 and 2020

- Already underway
- Low barriers to implementation
- Likely reduce emissions quickly
- Critical in meeting the first interim emissions reduction target set for 2020

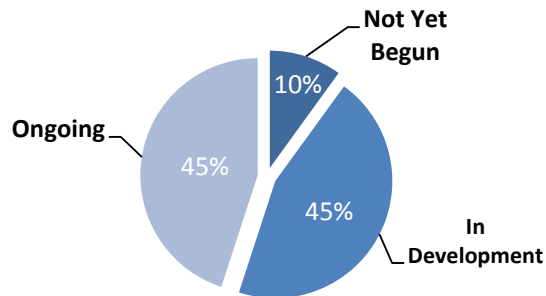
Data Collected from Departments

- Determine whether a current program exists to support actions
- Identify funding shortfalls and develop cost information
- Quantify potential carbon reductions associated with actions
- Categorize implementation status and impact to reach 2020 interim reduction target

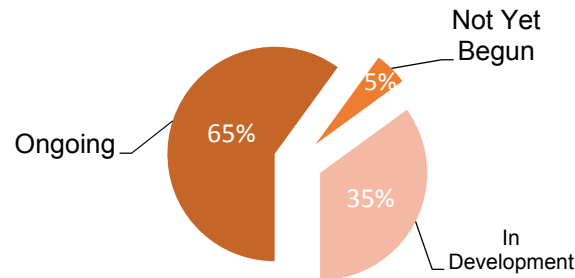


Action Status Summary

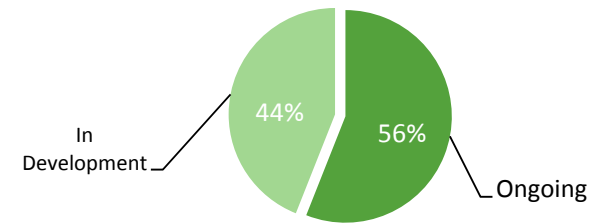
Electricity and Natural Gas
Phase 1 Action Status



Transportation
Phase 1 Action Status



Materials and Waste
Management Phase 1
Action Status

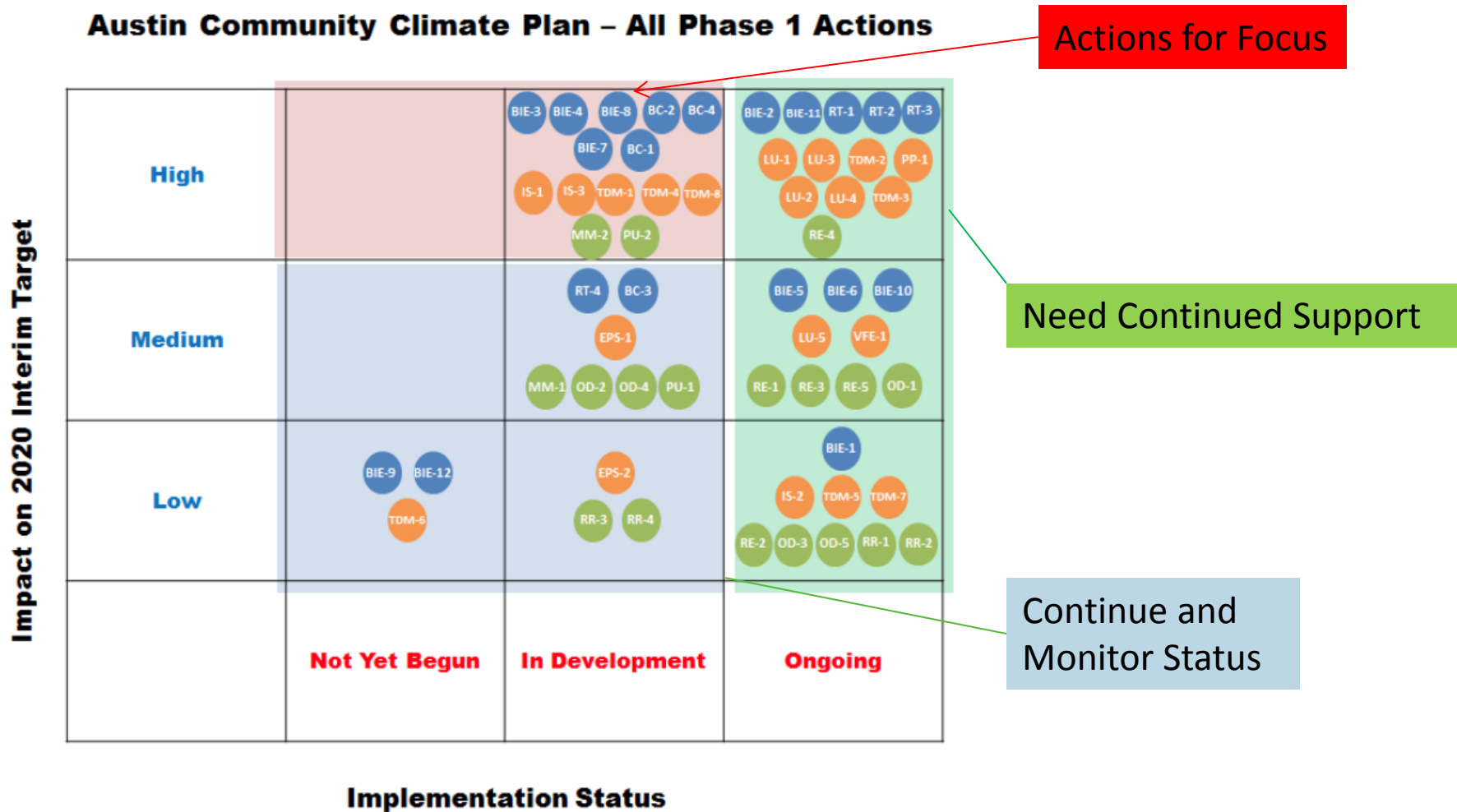


Action	Current Program	Cost	Carbon Impact	Status	Impact to Reaching 2020 Target
Buildings and Integrated Efficiency (BIE)-1: Explore financing mechanisms to enable energy efficiency, demand response, distributed generation and energy storage. Possible financing mechanisms which could enable large amounts 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



Action Status + Impact to Goal

Austin Community Climate Plan – All Phase 1 Actions





Early Activities and Need Continued Support

Austin Energy

- 580 megawatts of combined of utility scale solar
- Community solar, 1-2 megawatt project at the Kingsbery substation in East Austin
- Department of Energy “SHINES” grant - Optimize distributed renewable energy resources
- Ongoing Austin Energy programs related to energy efficiency, demand response, green buildings, local solar, and electric vehicle charging infrastructure

Transportation Department

- 20/20 Mobility – working to reduce peak-hour drive alone commuting.
- Implementation of Bicycle Master Plan
- Traffic Signal Improvements
- Land use regulations that encourage compact and connected development patterns
- Capital Metro is currently developing its Connections 2025 Plan

Austin Resource Recovery

- Implementation of Universal Recycling Ordinance is underway
- Initiated study to determine ways to use methane at City’s closed landfill
- Combined and expanded Household Hazardous Waste and Resource Recovery Center into Reuse and Recycling Drop-Off Center



Actions for Focus

- **Buildings and Integrated Efficiency Actions 3, 7, and 8, and Behavior Change Actions 1, 2, and 4:** Austin Energy currently evaluating behavioral, renewable energy and metering programs that will utilize energy usage data to benefit both customers and emissions reduction targets. This evaluation process will continue through FY17.
- **Transportation Demand Management Actions 1 and 8:** Smart Trips initiative and others like it need to be continued and expanded to achieve greatest emissions reduction.
- **Purchasing Actions 1 and 2:** In order to make significant progress in this area, dedicated staff time is needed to develop and implement a city-wide Sustainable Purchasing Policy.
- **Methane Management Action 2:** City of Austin will continue to encourage landfill operators to increase capture and destruction of landfill gas in Travis County.
- **Recycling Action 4 and Organics Diversion Action 1:** Continued investment in marketing and outreach efforts must be made to realize goals of the Universal Recycling Ordinance, as well as related emissions reductions.



Net Zero Heroes





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Reporting

- **Every Other Month**
 - Joint Sustainability Committee
- **Semi-annually**
 - Open Space, Environment, and Sustainability Council Committee
 - Resource Management Commission
 - Memo to the full City Council
- **Annually**
 - Municipal Carbon Footprint
- **Every 3rd year**
 - Full Travis County Community Carbon Footprint





Next Steps

- Complete full study of Carbon Impact Statement and Carbon Fee program best practices and opportunities
- Develop more complete set of quantitative tools, metrics, and reporting mechanisms to track greenhouse gas reductions
- Identify budget gaps for Phase 1 Action implementation
- Further expand Communications and Outreach activities