

Net-zero community-wide GHG emissions by 2050

Electricity and Natural Gas Technical Advisory Group

July 16, 2014

Council Resolution

- Council established goal: Net zero community wide greenhouse gas emissions by 2050
 - Prefers to achieve as soon as feasible
 - Emission reductions accomplished sooner are more important

- Review goals & objectives in 2007 Climate resolution

- Recommend:
 - Measurable interim targets starting with 2020, periodically to 2050
 - How and when annual progress reports will occur
 - How often to conduct comprehensive updates to the climate plan

Action Plans

- **Work with stakeholders to create action plans in the following sectors :**
 - Electricity and Natural Gas
 - Transportation
 - Waste
 - Industrial

- **Sector plans should include**
 - GHG emissions reductions resulting from existing plans
 - Short & long term actions
 - Secondary goals & measures for sector specific factors (VMT, renewables, etc.)
 - Feasibility & how other sectors could make up for shortfalls

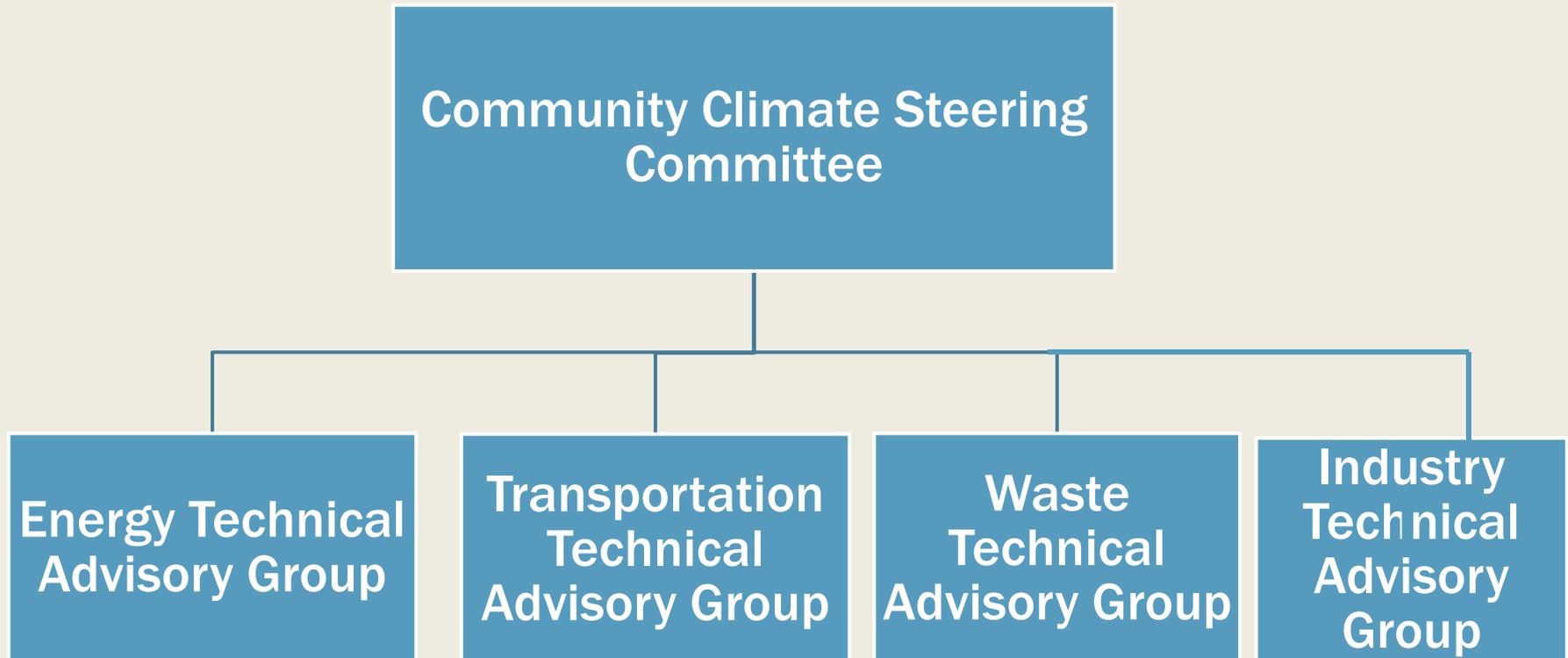
- **Take into account**
 - Population and business growth
 - Available and emerging technology
 - Potential costs and benefits
 - Climate preparedness and resilience
 - Barriers where the City does not exert direct control over community emissions

Stakeholder Process

Resolution listed:

- Public Input Sessions
- Reviewed by Relevant Boards and Commissions
- Consideration of results of 2014 Generation Plan Task Force
- Formation of Technical Advisory Groups to work with city staff to develop action plans

Organization



TAG Purpose: Create and distill the strategies, actions, and sub-measures for each sector

General Schedule

1. Framework – May - September 2014

- a) Interim targets
- b) Framework for meeting targets (actions)
- c) Progress update to City Council

2. Final Plan – October 2014 - March 2015

- a) Focused actions and reduction calculations
- b) Combine emission reductions and climate resiliency into one comprehensive plan document
- c) Presented for Community review and council adoption

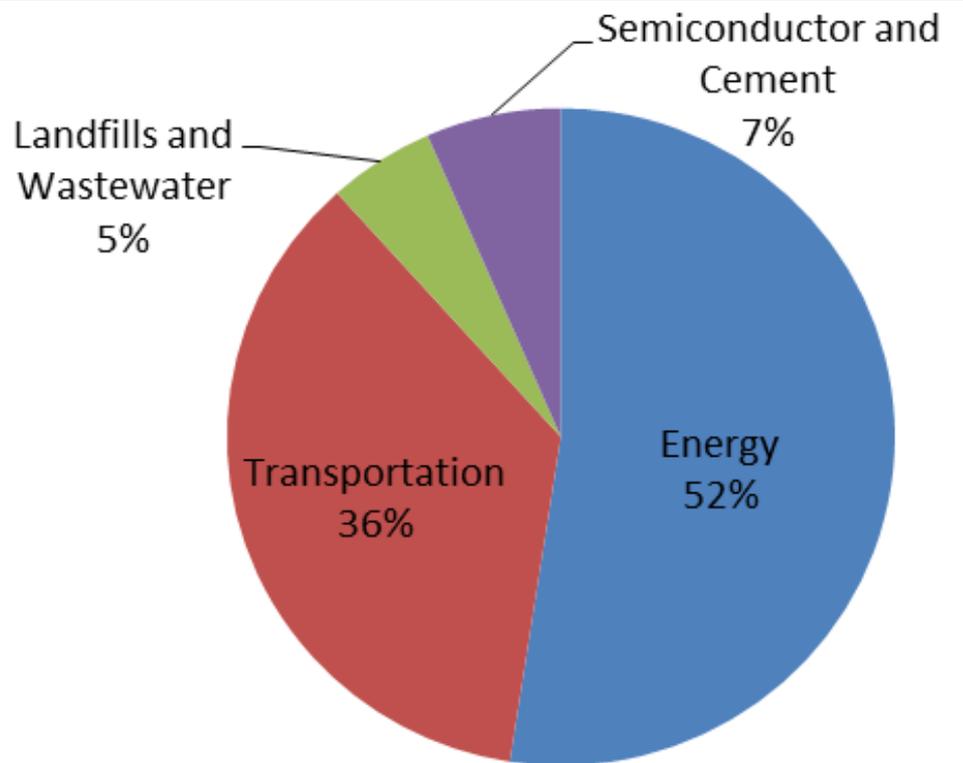
Resolution
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3. Implementation Plan

- a) Specific actions
- b) Costs and schedules
- c) Data tracking

2010 Travis County GHG Inventory

15.2 Million metric tons CO₂e



- **Energy**
 - Power plants in and outside of Travis county that meet our kWh used
 - Natural gas burned for heat

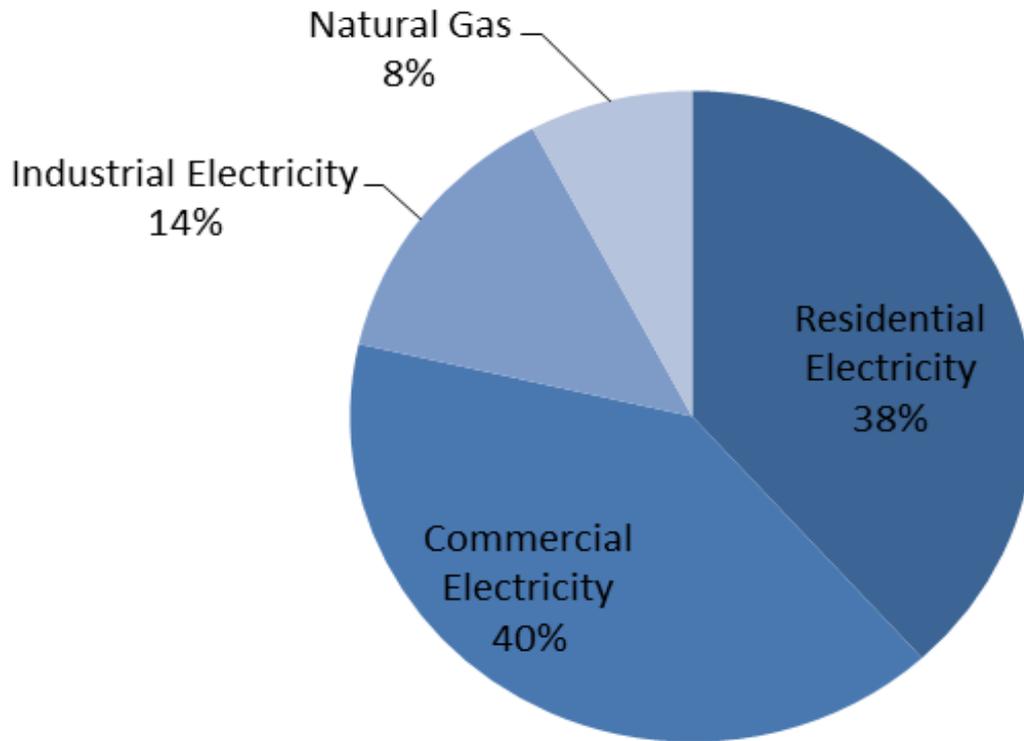
- **Transportation**
 - Trips that occur in Travis county
 - Data based on TTI VMT estimates and scaled to an annual basis

- **Landfills and Wastewater**
 - Wastewater treatment plants and 4 landfills

- **Semiconductor and Cement**
 - 1 cement plant and 4 semiconductor facilities

We follow the 2012 US Community GHG Protocol – ICLEI
This is a direct, source and data based methodology

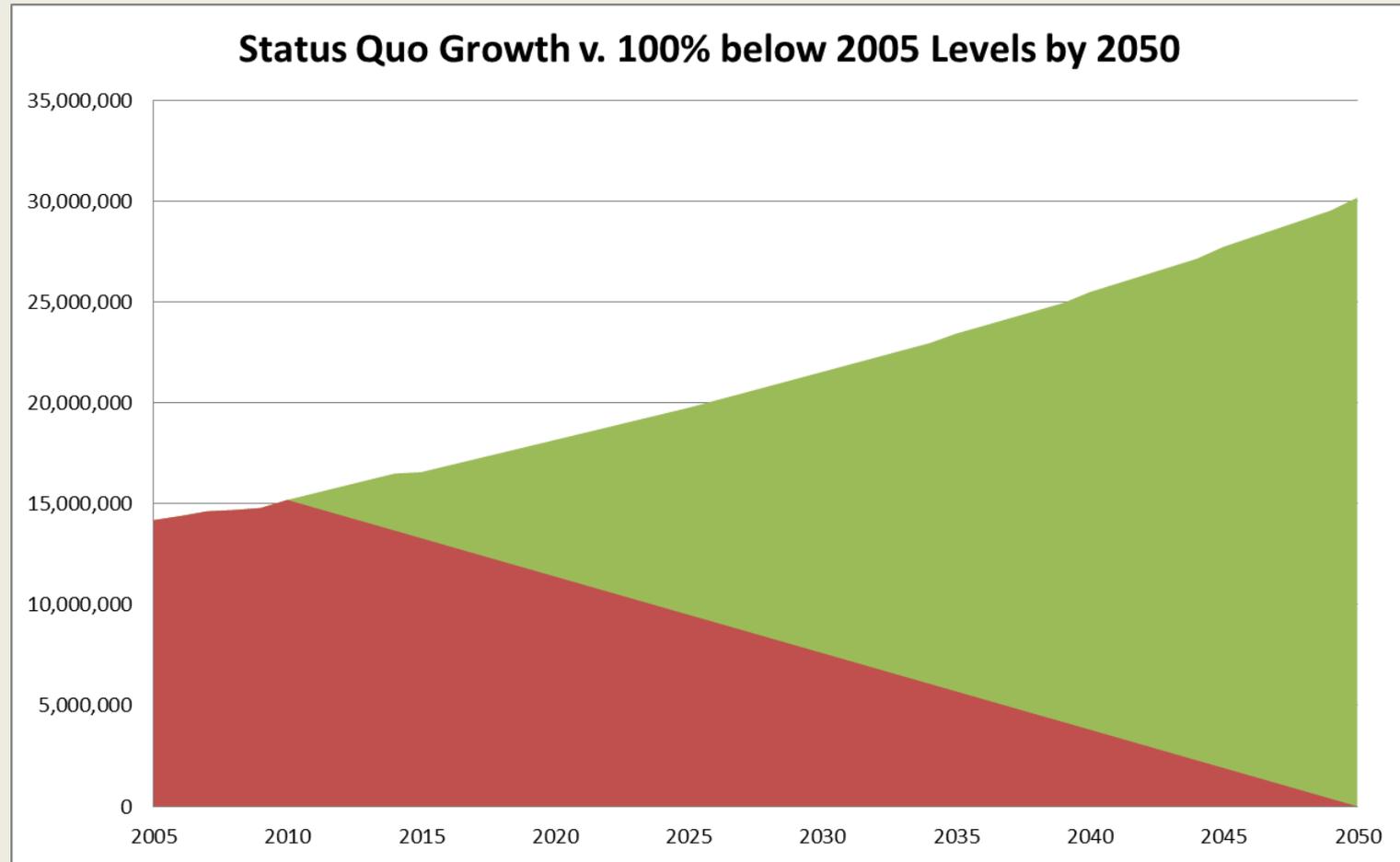
Electricity and Natural Gas – 8 million metric tons CO₂e



■ Power Plants

- Decker
 - Sand Hill
 - UT
 - Fayette
 - Mueller and Domain
- ## ■ Residential = 5.9 Billion kWh
- 5,900 kWh / person / year
 - Includes Bluebonnet and Pedernales

Goal v. Growth



In 35 years, WHAT might be POSSIBLE?

- This is an opportunity to be:
 - Visionary about the long term while also
 - A pragmatic leader in the short term

- Transformation is enhanced or hindered by:
 - Technology Availability (evolutionary, transformational, new)
 - Cost (capital, operating, timing)
 - Human behavior (learning, accepting, modifying, changing)

- It's 2050, what does electricity and natural gas usage look like with a 95% reduction in GHG emissions?

END