Austin Community Climate Plan

UTC | February 11, 2015

CITY OF AUSTIN TRANSPORTATION DEPARTMENT

Agenda

1. Why Develop a Community Climate Plan?
2. Our Approach and the Plan Development Process
3. Climate Plan Summary and Transportation Strategies
4. Next Steps

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Why Develop a Community Climate Plan?

Council Resolutions

The 2007 Climate Protection Plan included five key goals:

1. Municipal operations – all City of Austin facilities, fleets, and operations will be carbon neutral by 2020.
2. Utility generation mix - reach 35% renewables by 2020.
3. Homes and buildings - reach 800 megawatts (MW) of energy efficiency savings by 2020.
4. **Community planning - develop an inventory of community-wide emissions and set a target and strategies for reductions**
5. Carbon Neutral Programs and Assistance – provide tools for Austinites to mitigate their own emissions.

On April 10, 2014, Austin City Council passed Resolution 20140410-024

- Established a new long-term goal of reaching net zero community-wide greenhouse gas emissions by 2050, or earlier if feasible
- Directed the inclusion of the community to drive the plan development, including Technical Advisory Groups for the major emissions sectors (Energy, Transportation, Waste)
- Stated the plan should consider current efforts/initiatives that relate to this goal, and develop new actions that will be needed to accomplish the goal
- Plan due to Council in March 2015

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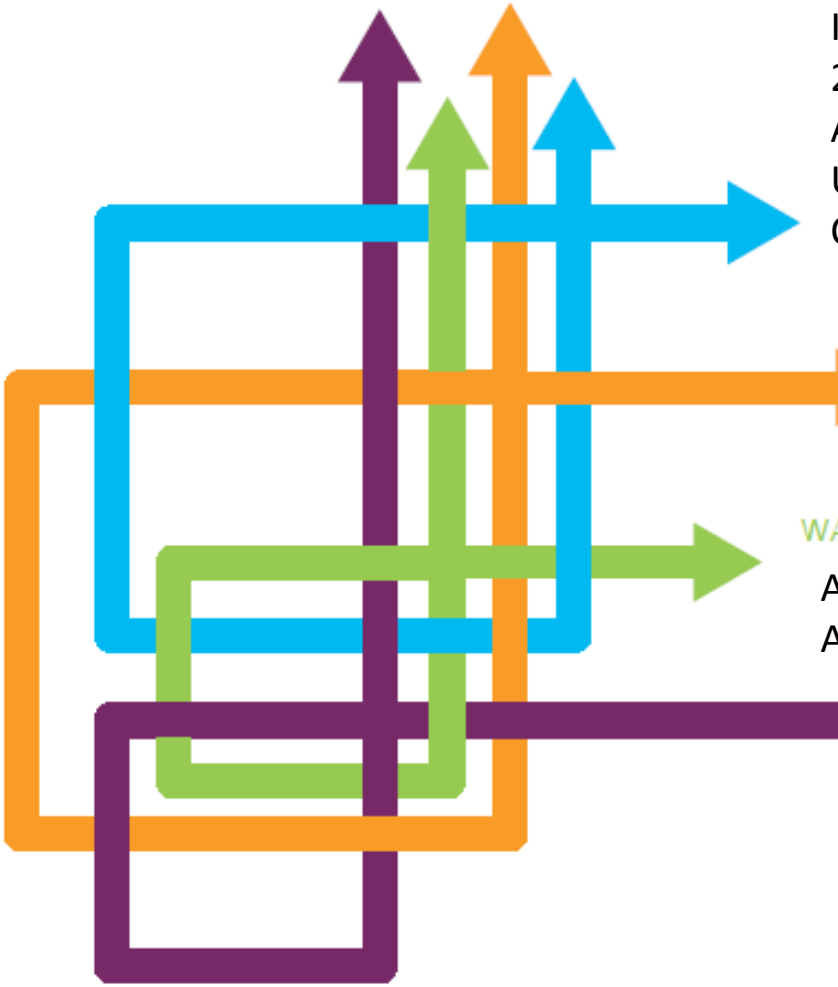
Why Develop a Community Climate Plan?

Austin Community Climate Plan



TRANSPORTATION & LAND USE PLANS

Imagine Austin
2014 Austin Strategic Mobility Plan
Austin Bicycle Master Plan
Urban Trails Master Plan
CAMPO 2035 Regional Transportation Plan

BUILDING ENERGY PLANS

Austin Energy Generation Plan
City of Austin Building Codes

WASTE PLANS

Austin Resource Recovery Master Plan
ARR Zero Waste Plan

PREPARING FOR CLIMATE CHANGE-RELATED PLANS

City of Austin Hazard Mitigation Plan
Watershed Protection Ordinance
Office of Sustainability Climate Resilience Efforts

Source:
Adapted from Seattle's Climate Action Plan

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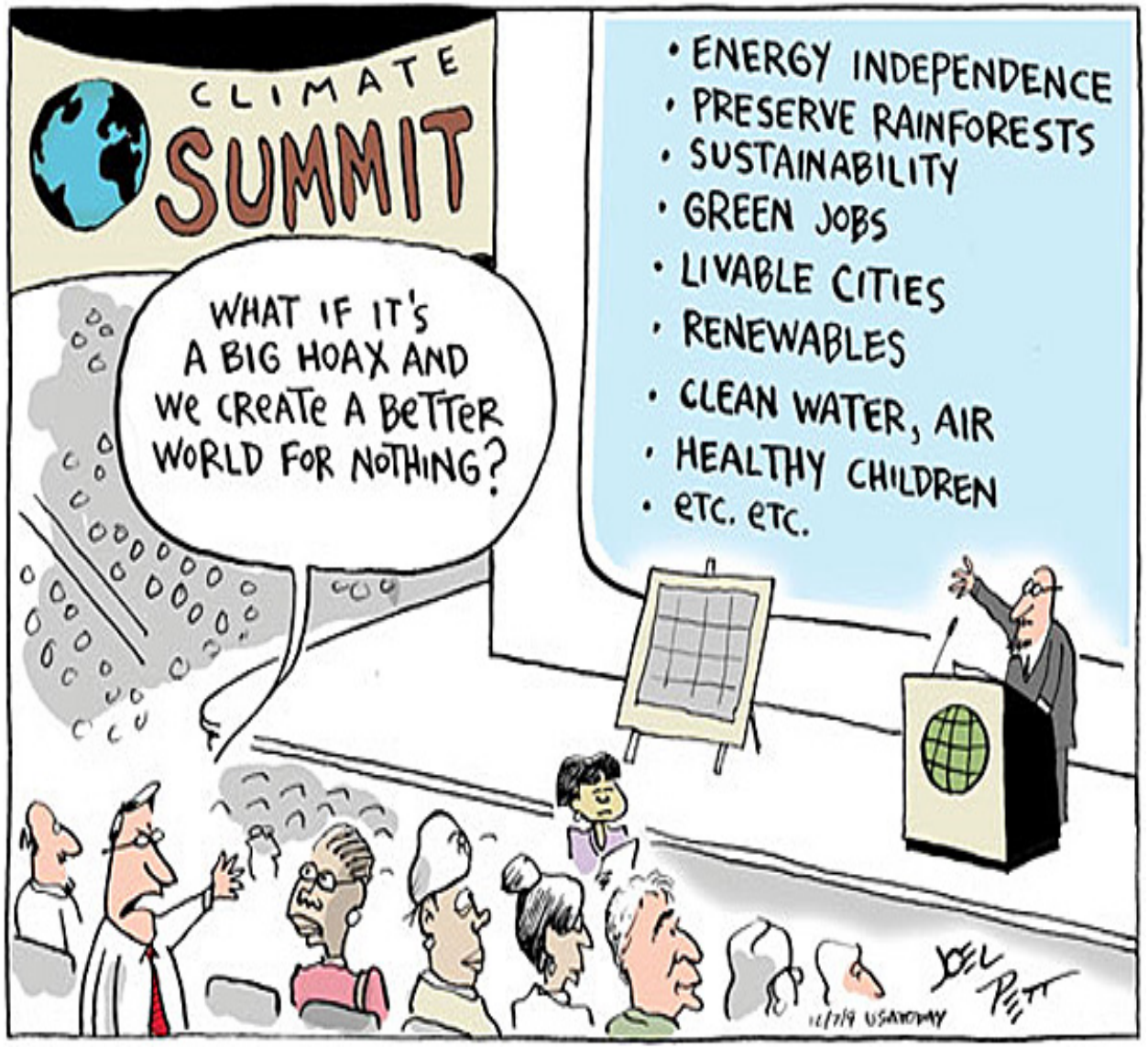
Our Approach



Source: Matt Embrey in *Sunday Funnies*, December 13, 2009.

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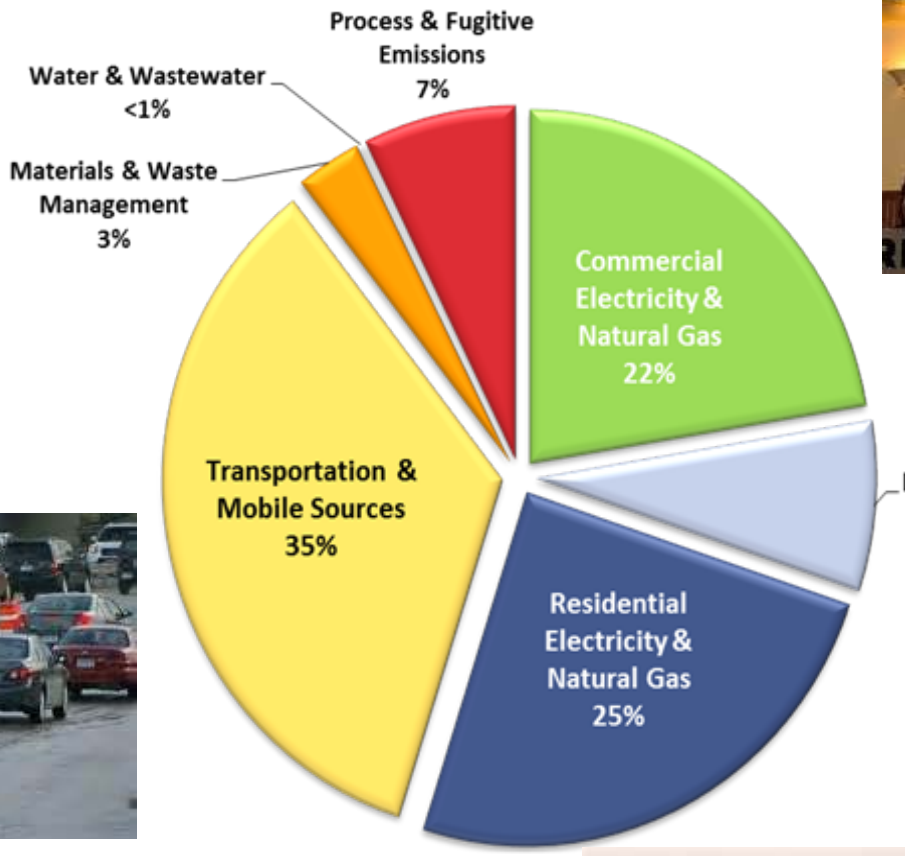
Our Approach

2010 Travis County GHG Emissions
14 Million Metric Tons CO2e



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Our Approach

What does net-zero in 2050 mean?

Image: Scientific American

90% reduction in direct emissions

Electricity and Natural Gas

- Renewable and efficient electricity

Transportation

- Major reduction in vehicle miles traveled, increase in renewably fueled vehicles, and switch to active and public transportation

Materials Management

- Landfills capture and destroy all methane
- Major diversion and reuse of materials, especially organics

Industry

- Chemical replacements, new processes, and offsets

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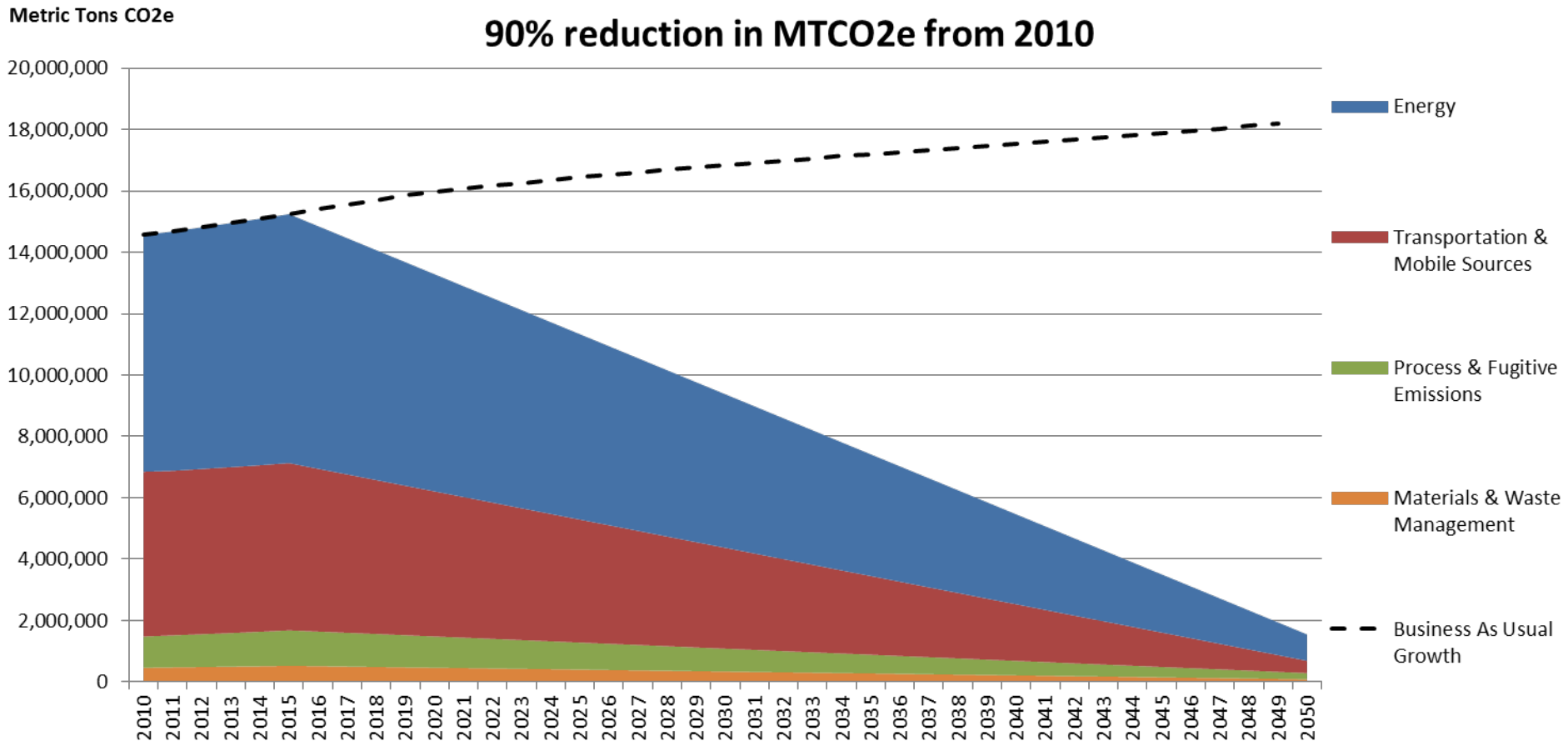
Our Approach

What does net-zero in 2050 mean?



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Plan Development Process

- June 2014, the Office of Sustainability formed a Community Climate Steering Committee and four Technical Advisory Groups (TAGs):
  - Electricity and Natural Gas
  - Transportation
  - Materials Management
  - Industrial Process

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Plan Development Process

Steering Committee

Name	Organization
Roger Duncan	Energy Institute, University of Texas
Mike Blackhurst	UT School of Engineering Professor
Joep Meijer	Climate Buddies
Al Armendariz	Sierra Club Senior Campaign Representative
David Cortez	Austin Interfaith Network
Kaiba White	Public Citizen
Pam Reed	Texas Climate & Carbon Exchange
Vanessa Sarria	Community Advancement Network, Executive Director
Mitch Jacobsen	ATI Clean Energy Incubator, Co-Director
Francois Levy	American Institute of Architects
Tim Mohin	AMD Director of Corporate Responsibility
Jere Locke	Texas Drought Project
Kevin Tuerff	EnviroMedia, President
Todd Hemingson	Capital Metro VP of Strategic Planning & Development
Jim Marston	EDF, VP of Energy
Tamala Barksdale	Enviromedia and AISD board member
Jeremy Martin	Greater Austin Chamber of Commerce, Senior VP Government Relations

Transportation TAG

Cathy Stephens	CAMPO, Planning and Enviro. Program Manager
Jon White	Travis County, Director of Natural Resources & Environmental Quality Division
Bonnie Lister	TXDOT, Transportation Planner
Dennis Perkinson	Texas A&M / TTI Program Manager
Rob Borowski	CapMetro, Sustainability Officer
Billy Fields	Texas State University, Resilient Communities
Tom Wald	Bike / Ped Community
Glenn Gabdois	Movability Austin, Executive Director
Brandi Clark Burton	Austin EcoNetwork
City Staff	Karla Taylor (ATD), Pharr Andrews (ATD), Cari Buetow (ATD), Karl Popham (AE), Cameron Freberg (AE), Jenell Moffett (OoS), Lewis Leff (OoS), Zach Baumer (OoS)

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Plan Development Process

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Plan Development Process

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Plan Development Process

Electricity and Natural Gas
Behavior Change and Education
Generation Technologies
Buildings and Integrated Efficiency

Industrial Process
Fuel Switching
Process Optimization
Capture and Destruction
Local Offsets

Materials Management
Organics Diversion
Purchasing
Methane Management
Recycling
Reduction Reuse

Transportation
Infrastructure and Service
Land Use
Demand Management
Policy and Planning
Vehicles and Fuel Efficiency
Economic and Pricing Systems

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Plan Development Process

Quantitative and qualitative analysis of proposed actions

18 actions in Phase 1

- New action or currently in an adopted city plan
- Already in development or needs research to implement soon
- Fewer barriers or limiting factors in the way
- Large impact for avoided emissions
- Additional benefits identified
- **Will be considered for implementation upon plan adoption or part of the implementation planning effort over the next year**

30 actions in Phase 2

- Mostly actions in 2020-2050 timeframe (more conceptual)
- Has larger barriers related to policy, funding, technology
- Small/indirect/no impact on emissions
- Few additional benefits

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Transportation TAG: Strategies & Actions

Infrastructure and Service

1. Continue planning efforts to complete:
   - Connected network of proven high-capacity transit (intra- and inter-city)
   - Support projects identified in the Austin Strategic Mobility Plan and Project Connect

2. Increase mobility and safety:
   - Synchronizing/retiming traffic signals along arterials
   - Adjusting speed limits
   - Adding more volume-count stations
   - Installing more roundabouts
   - Using enhanced bicycle signal detection technologies
   - Installing Pedestrian Hybrid Beacons

3. Expand/extend transit service to suburban areas while:
   - Providing more service interconnections
   - Exploring additional transit centers/park-and-rides
   - Transit vehicle amenities (**New)**

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Transportation TAG: Strategies & Actions

Land Use

1. Prioritize mixed use development integrated with transit and the creation of compact, walkable and bikeable places

2. Promote growth within designated activity centers as identified in Imagine Austin with a focus on density, mixed use development, transit corridors, and infill (**New)**

3. Create pedestrian- and bicycle-friendly districts
   - Connect urban centers and transit stops
   - Develop clearly marked, dedicated, and separated urban trails and bike lanes
   - Implement wayfinding systems(**New**)

4. Ensure that affordable housing and residential neighborhoods are within a quarter mile of existing or funded new transit options. (**New**)

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Transportation TAG: Strategies & Actions

Transportation Demand Management

1. Work with large employers and academic institutions to implement and improve trip reduction programs. (**New**)

2. Seek opportunities to prioritize public transit within the network and seek financing to extend public transit service hours and frequency.

3. Increase bicycle and pedestrian mode share safety and performance
   - Through engineering, enforcement, education, and evaluation
   - Use web-based tools/mobile applications/other educational materials
   - Increase the scope and impact of bike promotional events

4. Develop programs that help commuters make first and last mile transit connections. (**New)**

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Transportation TAG: Strategies & Actions

Transportation Demand Management

5. Work with major event promoters to establish innovative transportation plans.

6. Perform education and outreach to fleet owners:
   - Conducting business evaluation of fleet usage
   - Operation and right-sizing analysis
   - Identify incentives to replace older, higher-emission vehicles. (**New**)

7. Provide amenities and incentives for programs that support:
   - Active transportation such as showers,
   - Tree shading and community gardens
   - Neighborhood bike ambassadors
   - Mobile bike repair and bike cages.

8. Consider incentive programs that reduce single occupancy vehicle trips:
   - Alternative modes of transportation (e.g. carpool/vanpool, bus/train, bike/walk);
   - Incentives & disincentives to discourage single occupancy vehicles
   - Tax credits for cyclists
   - Time-of-use pricing for electric vehicle owners. (**New**)

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Transportation TAG: Strategies & Actions

Policy and Planning

1. Establish intergovernmental agreements between municipalities that include commitments to increase density around Centers. (**New**)

Vehicles and Fuel Efficiency

1. Expand and consider incentives for the purchase of electric/alternative fuel vehicles by individuals and fleet owners, and pursue code options to increase “charger ready” parking. (**New**)

Economic and Pricing Systems

1. Pursue a fair market value for parking through demand-based commodity pricing. (**New**)

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Climate Plan Next Steps

1. Pending Council Adoption:
   - Commit to moving forward with a short list (1-3) of the new Phase 1 actions from each TAG
   - Develop an implementation plan for the remainder of new Phase 1 actions within one year of adoption (prioritization and budget requirements)

2. Determine feasibility of a sustainability impact statement for major city council decisions (CIP and major expenditures)

3. Determine strategy to assess options to evolve utility business models

4. Continue climate resilience planning efforts

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Process Next Steps

- Present to other organizations and B&Cs
- Finalize plan document with feedback
- Present to Council in March

Thoughts, comments, questions?

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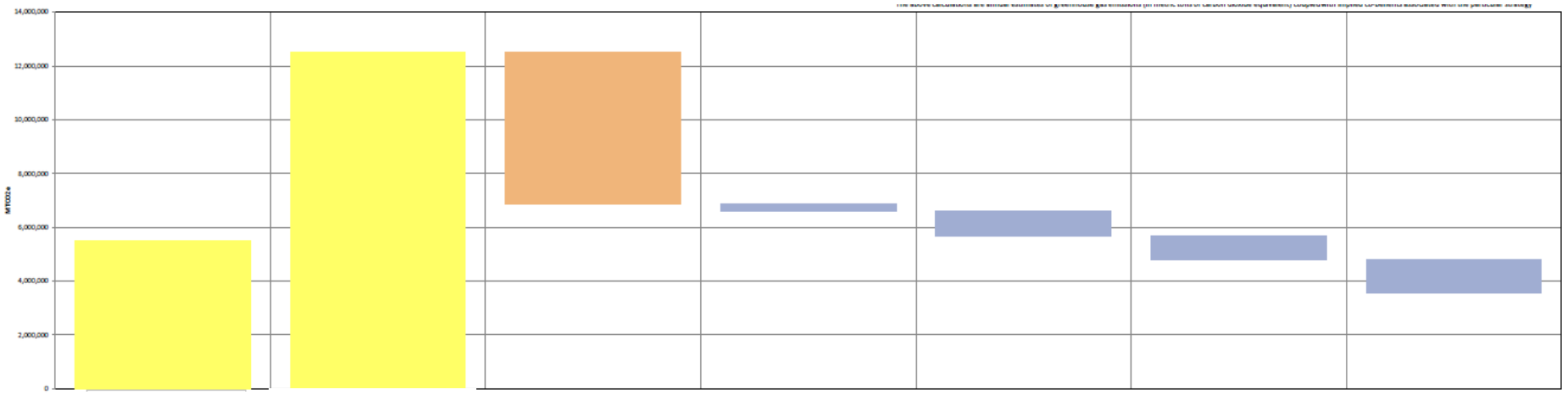
Plan Development Process

Quantitative analysis

- Waterfall chart below shows current sector footprint, BAU growth in emissions, and how the strategies would reduce emissions through reduced VMT/more efficient vehicles



2010 Emissions

2050 BAU Emissions Estimates

CAMPO 2035 Plan Emission Estimates

Policy, Planning, and Land Use

Demand Mgmt., Technology Solutions, and Economic Pricing

Infrastructure and Service

Vehicles and Fuel Efficiencies

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