Item 3c
2016/10/24

net-zero

Austin COMMUNITY CLIMATE PLAN 2015

Design Commission

October 24, 2016

OFFICE OF SUSTAINABILITY
CITY OF AUSTIN

AUSTIN ENERGY

AUSTIN TRANSPORTATION DEPARTMENT

AUSTIN RESOURCE RECOVERY
A CITY OF AUSTIN SERVICE

Agenda

1. Climate Resolutions Background
2. Community Greenhouse Gas Sources
3. Phase 1 Strategies and Actions
4. City Operations Key Performance Indicators
5. Discussion

2007 Climate Protection Resolution

"make Austin the leading city in the nation in the effort to reduce the negative impacts of global warming"

Electric Utility

Austin Energy a leading utility for greenhouse gas reductions

Austin Energy Resource, Generation & Climate Protection Plan

Municipal Operations

Tracking municipal emissions, Carbon neutral facilities, fleets & operations by 2020

Dept. Carbon Reporting
Carbon Neutral Fleet Plan
Municipal Energy Use

Homes & Buildings

Energy efficient building codes & retrofits, leading green building programs

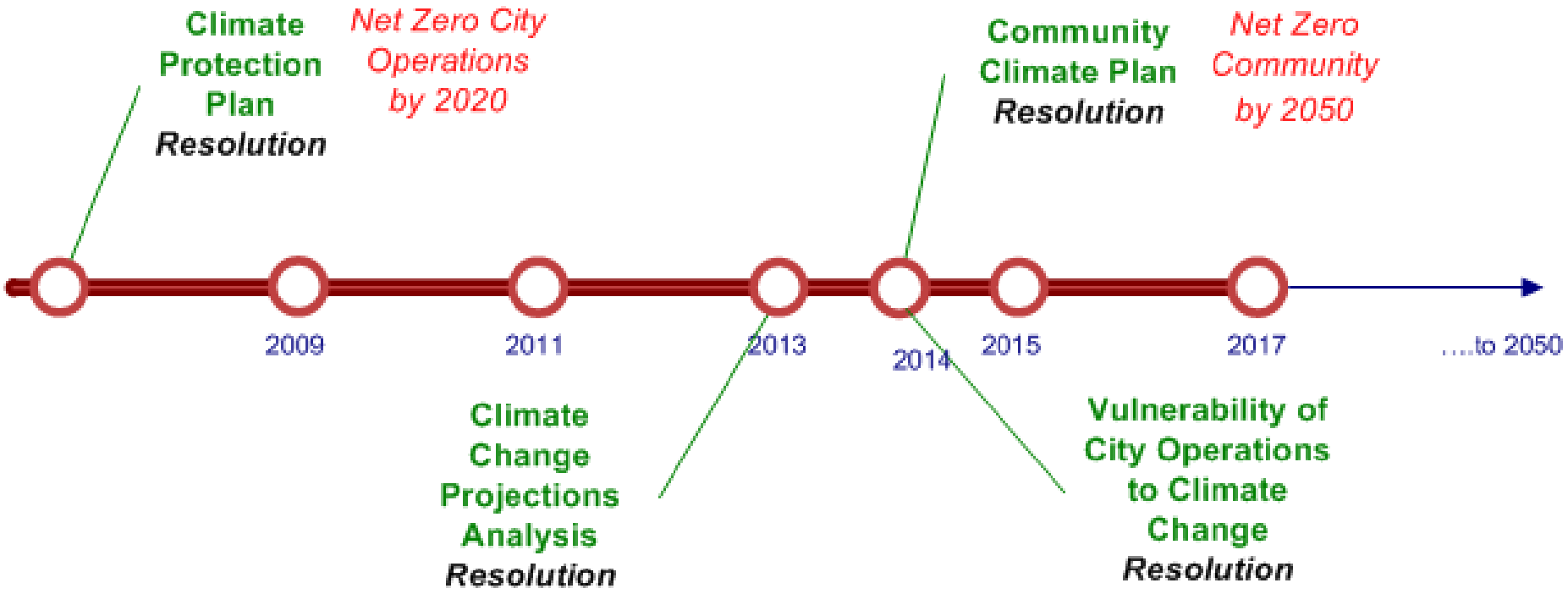
City of Austin Energy Code
Net Zero Energy Homes
ECAD Ordinance
AE Green Building

Community Planning & Programs

Tracking community emissions, setting reduction goals, programs for households & businesses

Community Climate Plan
Carbon Offsets
Austin Green Business Leaders
Bright Green Future Grants
Regional/Intl Collaboration

City Council Climate Resolutions

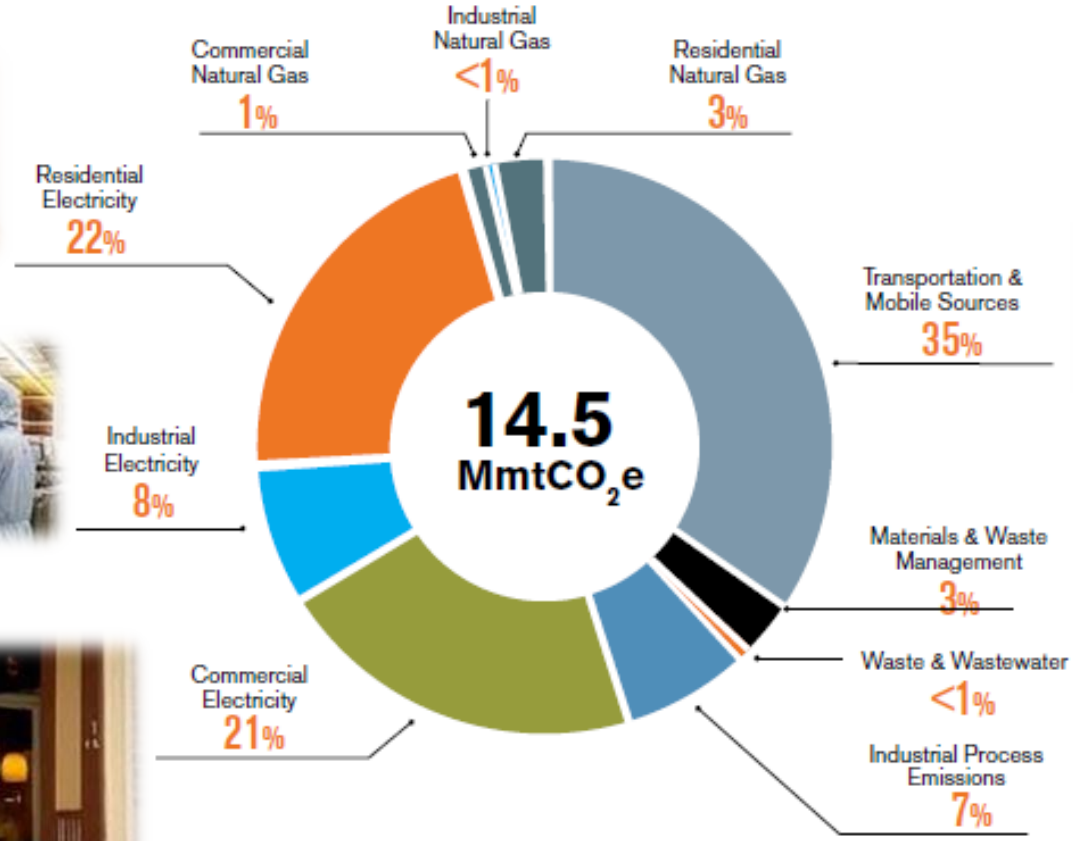


Council Resolution 20140410-024

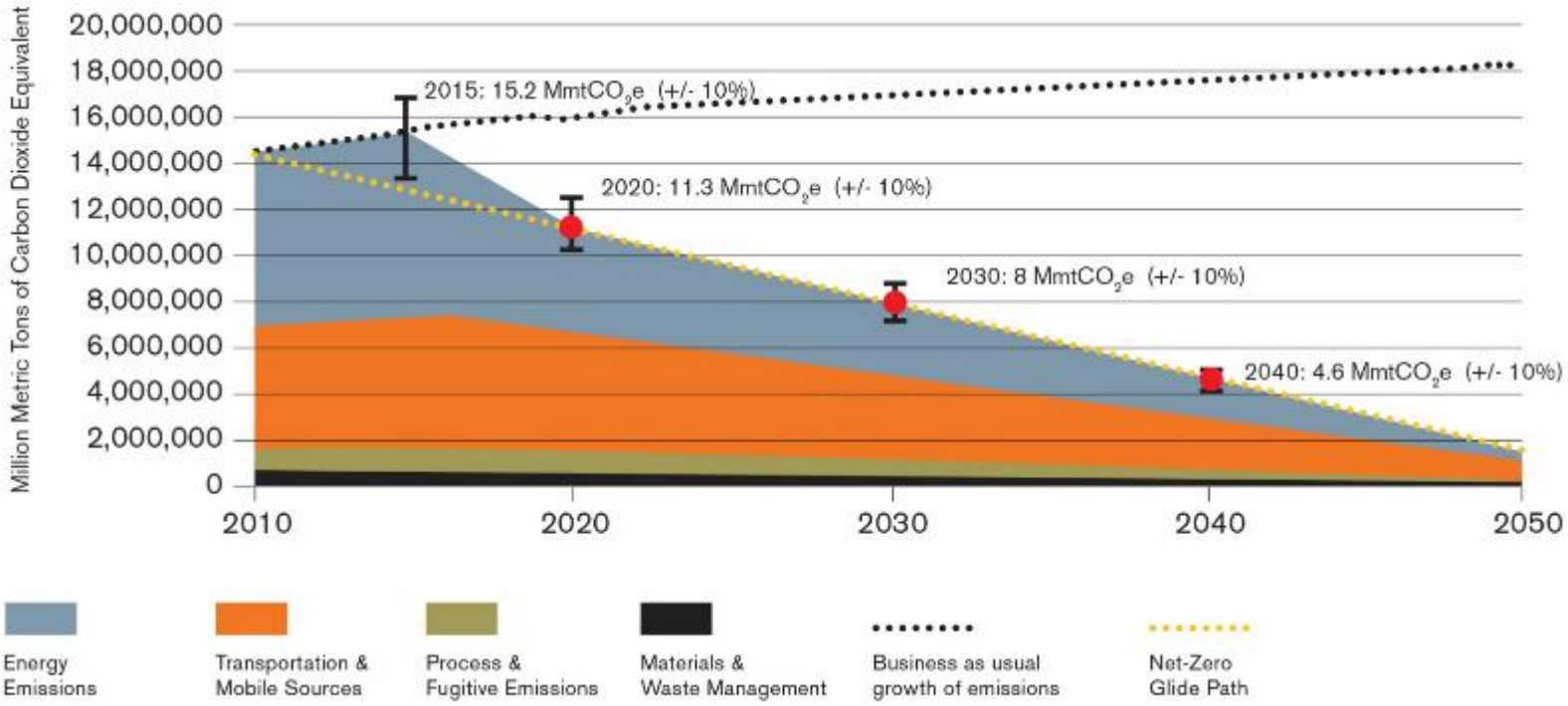
Net-zero community-wide greenhouse gas emissions by 2050

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

2010 Estimated Travis County Greenhouse Gas Inventory

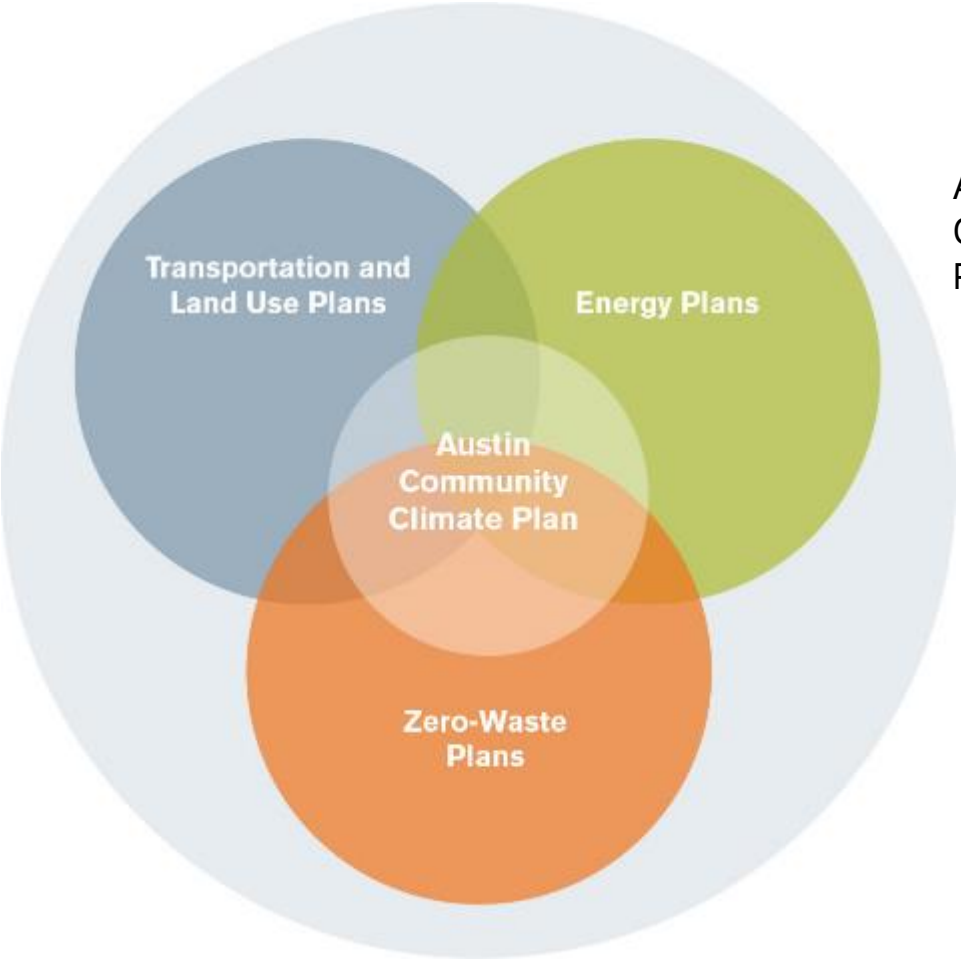


What does net-zero in 2050 mean?



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

Direct Benefits to the Community

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

Electricity and Natural Gas

Actions for Implementation within One Year

Buildings and Integrated Efficiency

Promote Behavior Change

Resource Technologies

Transportation and Land Use

Actions for Implementation within One Year

Demand Management

- Trip Reduction
- First and Last Mile

Vehicles and Fuel Efficiency

Materials and Waste Management

Actions for Implementation within One Year

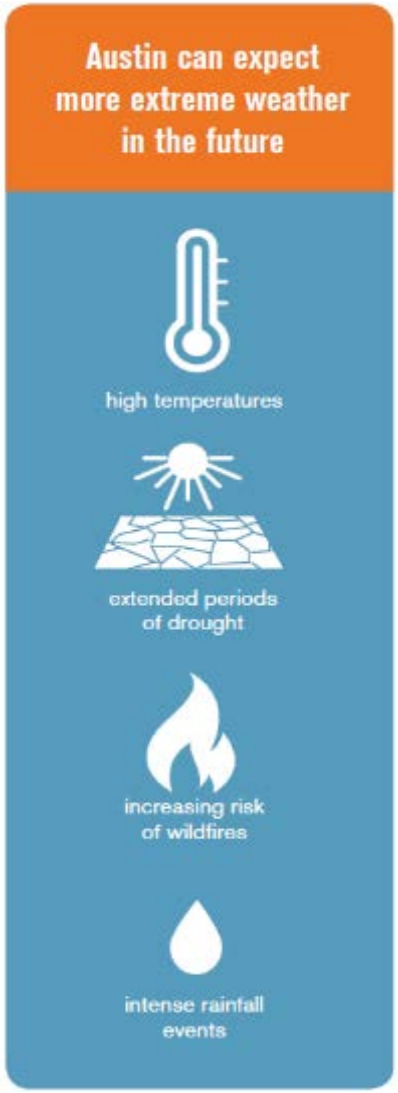
Methane Management

Procurement

Recycling and Organics Diversion

Additional Recommendations

- 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.



Key Performance Indicators

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10 Organizational Key Performance Indicators

PERFORMANCE KEY

TARGET MET	▶ Stated performance goal achieved or exceeded.
IN PROGRESS	▶ Performance goals and strategies under development.
TARGET NOT MET	▶ Stated performance goal not achieved.

TARGET MET	Carbon Footprint (Municipal Operations)
TARGET MET	Water Use
TARGET MET	Vehicles & Equipment
TARGET MET	City Right of Way
TARGET MET	Green Infrastructure & Stormwater Management
TARGET MET	Workforce Wellness
IN PROGRESS	Sustainable Purchasing
TARGET NOT MET	Energy Use
TARGET NOT MET	Green Building
TARGET NOT MET	Zero Waste

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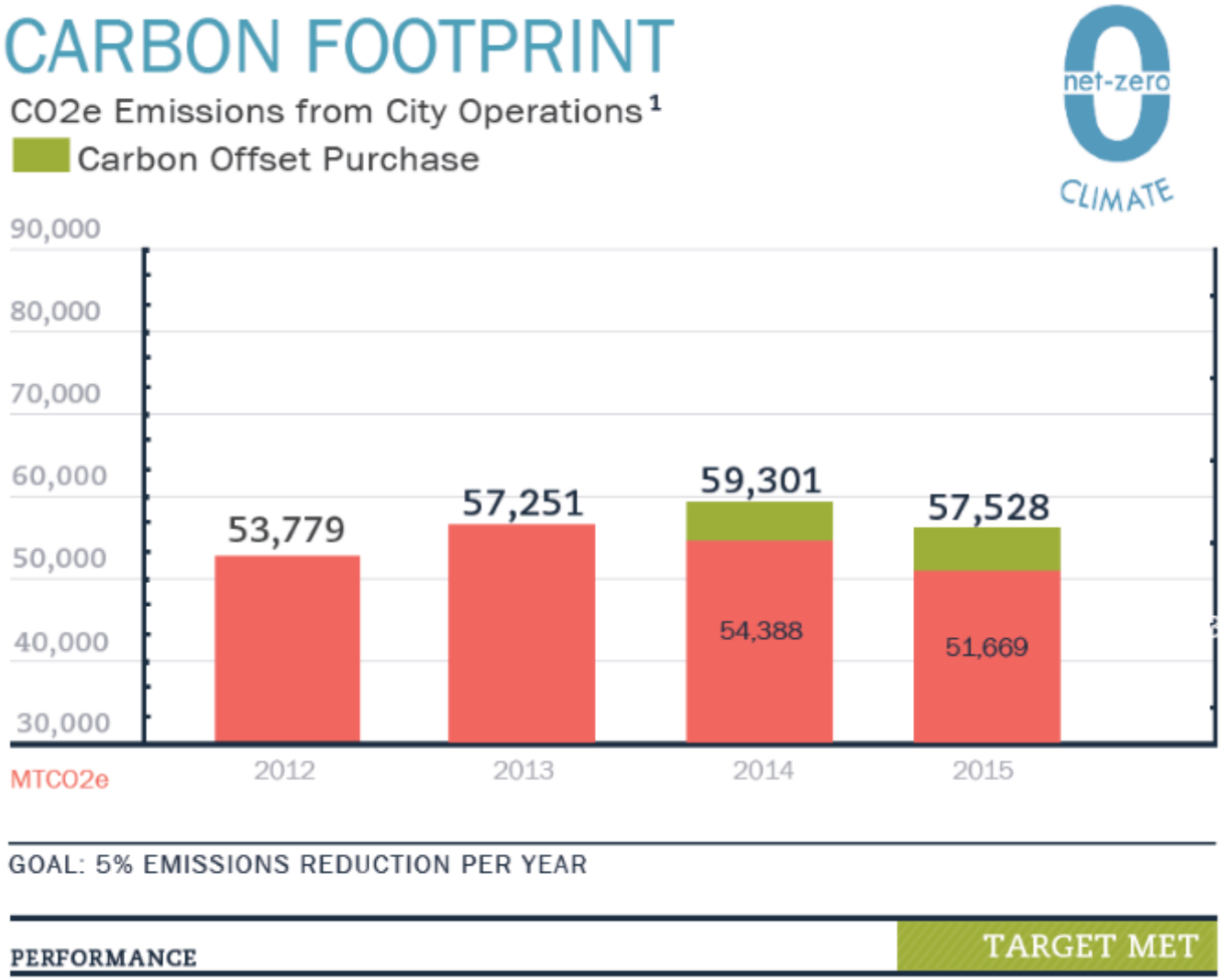
Organizational Key Performance Indicator



MTCO2e = Metric tons of carbon dioxide equivalent

SCOPE

Electricity, natural gas, and vehicle fuel use (Does not include direct emissions from AE generation, the City landfill, or wastewater treatment)

KEY TAKEAWAYS

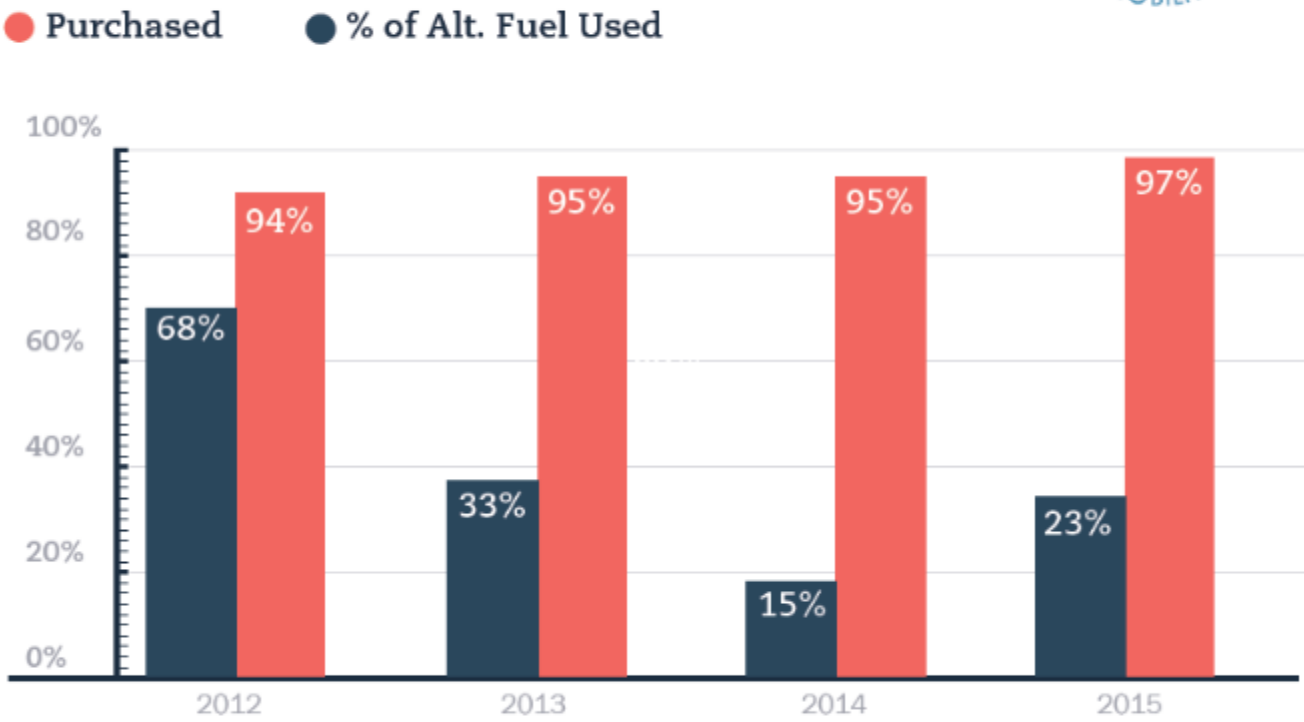
2012 GreenChoice adoption created a major reduction; fleet reductions proving to be more challenging

Office of Sustainability and ACC plan to purchase offsets this year to stay on track for carbon neutral by 2020 goal

Organizational Key Performance Indicator

VEHICLES & EQUIPMENT

% Alternative Fuel or Hybrid Fleet Vehicles Purchased / % of Alternative Fuel Used



GOAL: 95% OF ALL NEW VEHICLE PURCHASES ARE ALTERNATIVE FUELED OR HYBRID

PERFORMANCE — TARGET MET

SCOPE

Includes the entire 5,000+ unit vehicle fleet

KEY TAKEAWAYS

Meeting purchase goals

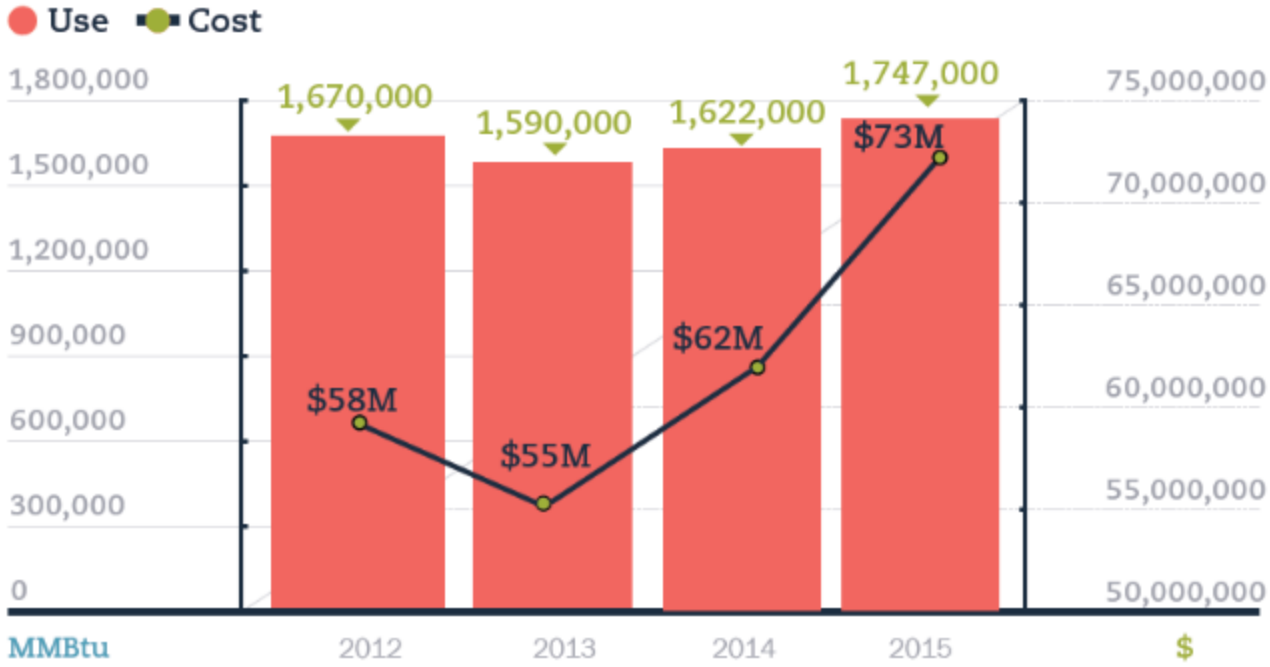
Need to increase overall fleet fuel efficiency and use of alternative fuels for all capable vehicles

Fleet training video released; Fleet Dept. converting fueling infrastructure; B20 back at stations; OoS light-duty purchase assistance

Organizational Key Performance Indicator

ENERGY

Annual Building Energy Use / Cost at Exisiting Facilities



GOAL: 5% ENERGY REDUCTION USE PER YEAR (SB 898)

PERFORMANCE — TARGET NOT MET

SCOPE

Includes electricity and natural gas used in buildings, plus chilled water

KEY TAKEAWAYS

State mandated goal

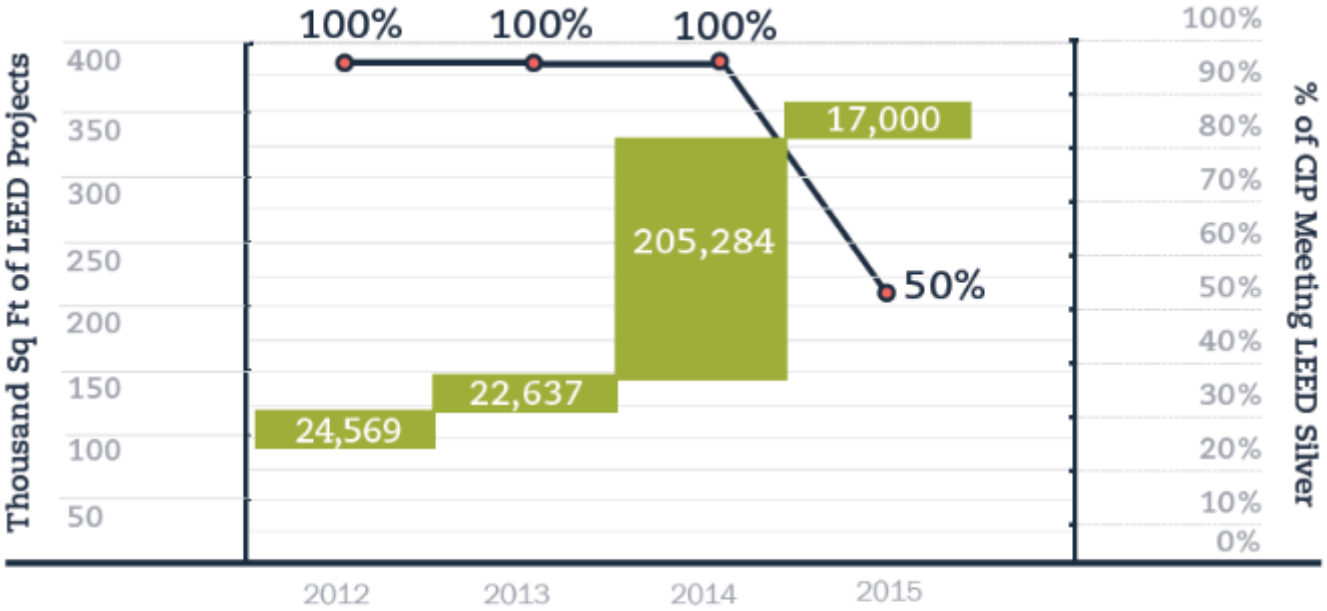
AE rate changes have increased City costs; demand charges a big factor

Opportunities with strategic facilities planning, capital project planning, retrocommissioning, education efforts with facility managers

Organizational Key Performance Indicator

GREEN BUILDING

% New CIP Meeting Minimum LEED Silver Certification / New Square Footage of LEED-Certified City Projects



GOAL: 100% COMPLIANCE WITH LEED SILVER OR BETTER FOR APPLICABLE PROJECTS

PERFORMANCE | TARGET NOT MET

SCOPE

All new municipal buildings over $2M and major renovations over $300K

KEY TAKEAWAYS

Two projects were required in 2015; only one met LEED Silver

Cross-departmental team analyzing the project review process that assesses whether the project needs to meet LEED Silver

Discussion

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