

# City of Phoenix

## Climate Action Plan and Ongoing Sustainability Efforts



September 10, 2009

## Commitment to Sustainability

- Sustainability Summary: 80 Programs
  - Air quality and climate change
  - Energy conservation and renewable sources
  - Water conservation and protection
  - Land-use and smart growth
  - Parks and open space
  - Pollution prevention & recycling

See: [Phoenix.gov/sustainability](http://Phoenix.gov/sustainability)



## Sustainability Program

- 1969: Development of rubberized asphalt
- 1986: Water Conservation Program
- 1990: Recycling Program
- 1991: Alternative Fuel Program
- 1997: Brownfields Program



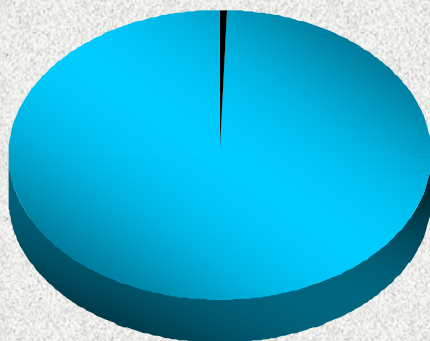
## Climate Action Plan

- Identify GHG Sources
- Forecast Growth
- Identify GHG Reduction Measures
- Adopt Goal for City Operations
- Measure Progress



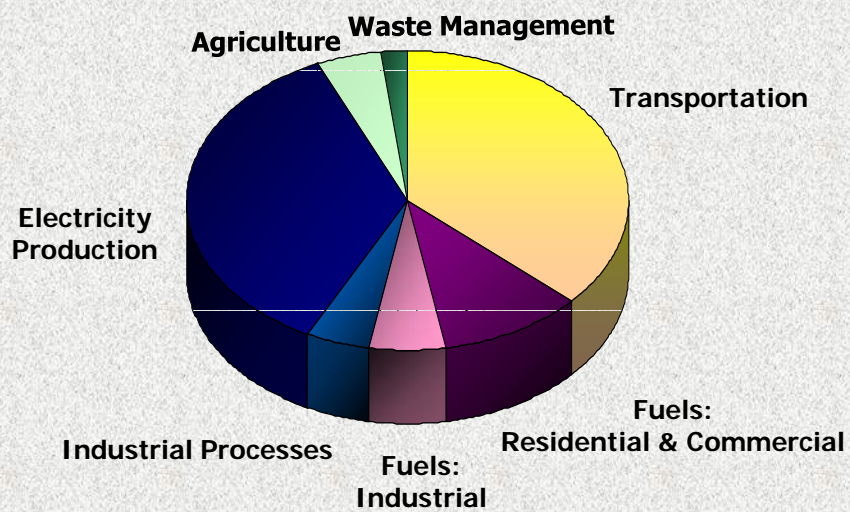
## Greenhouse Gas Emissions State-wide vs City Operations

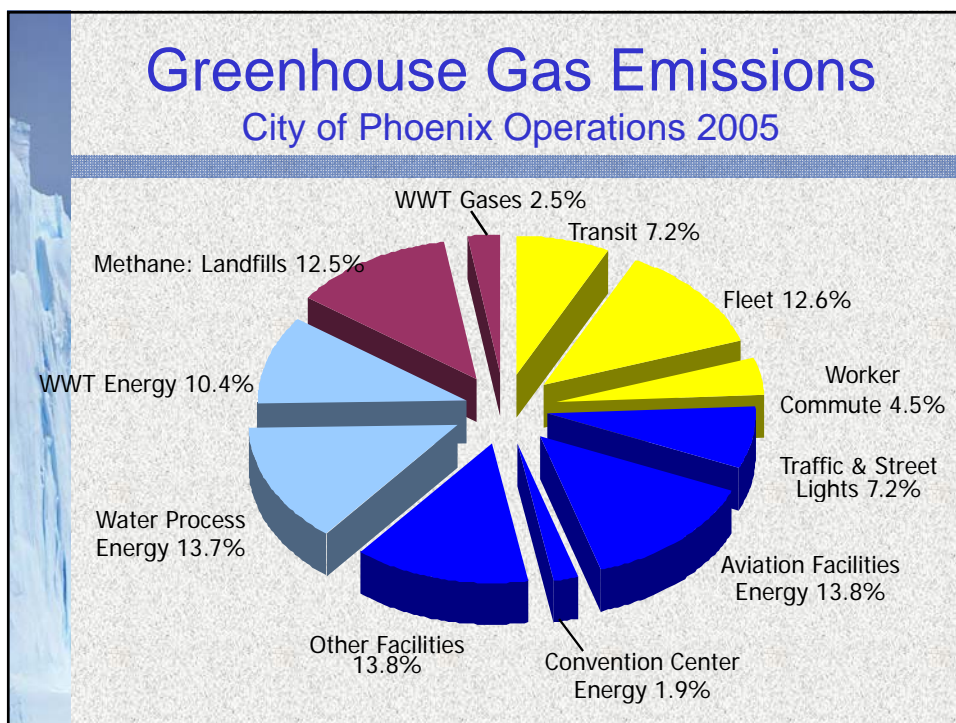
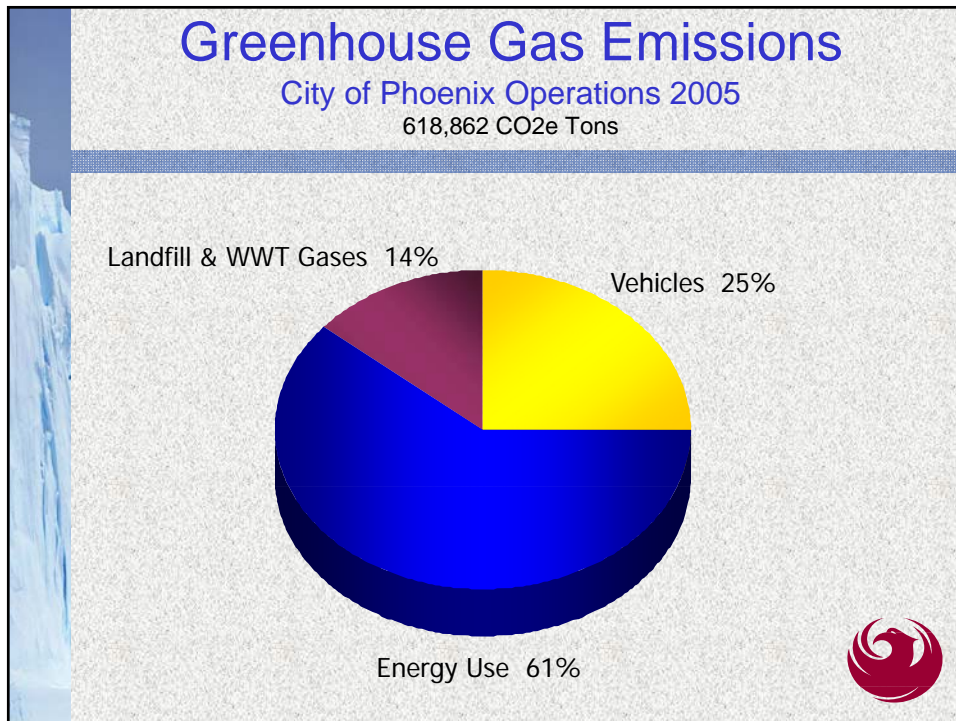
AZ All GHG Emissions:  
82,300,000 CO<sub>2</sub>e Tons

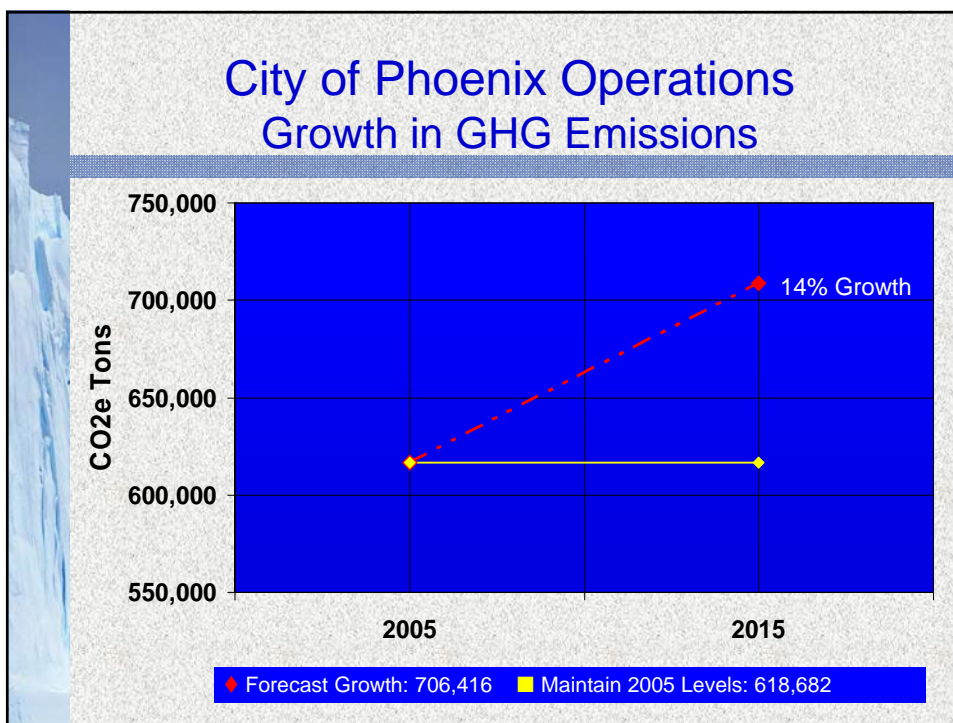
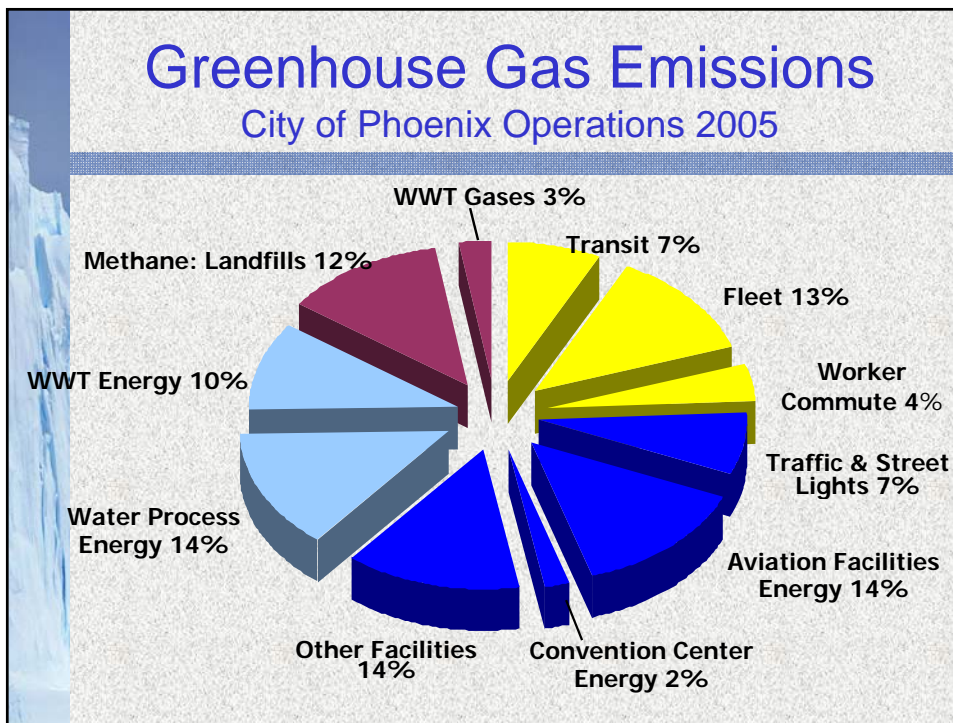


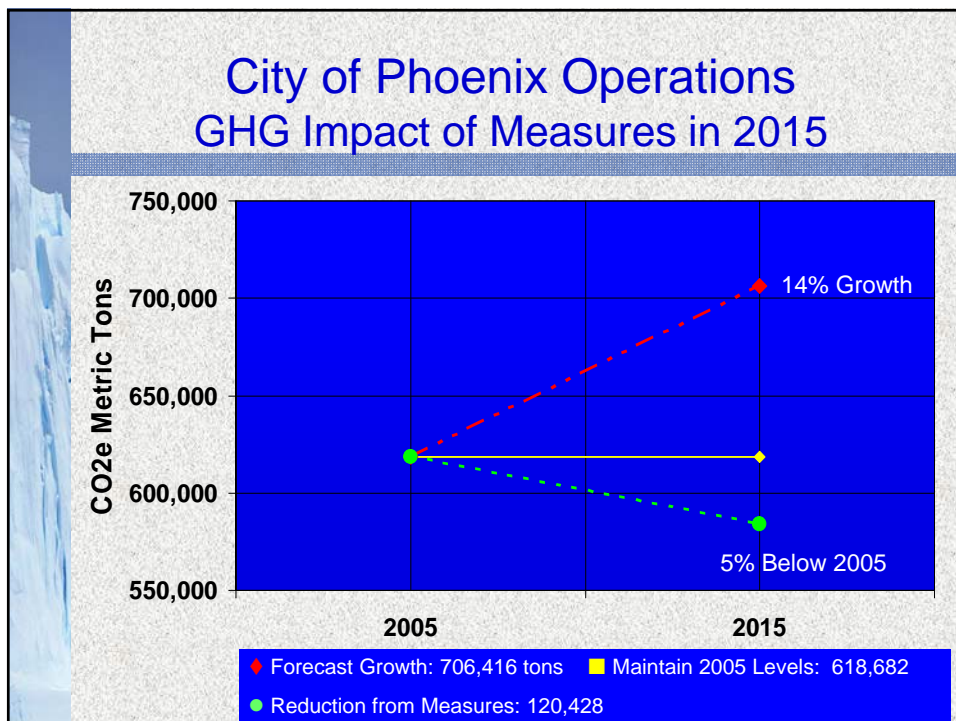
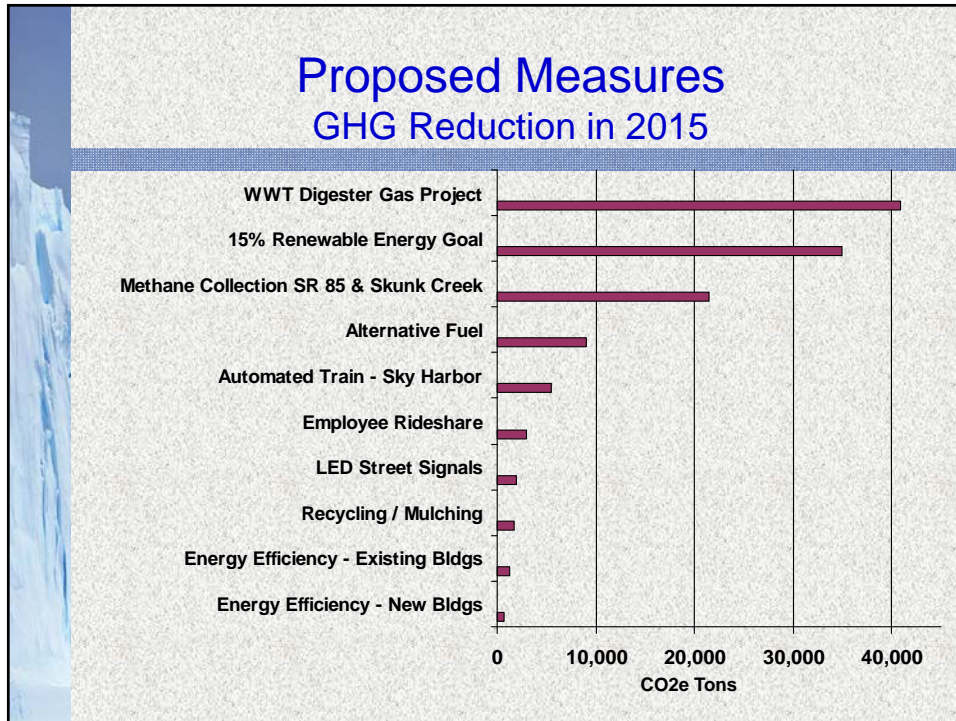
## Arizona Statewide Green House Gas Emissions

Source: AZ Climate Change Action Plan









## Goal Approved by Council

December 17, 2008

Reduce GHG emissions  
from city operations

to

5% below the 2005 levels  
by 2015

Resolution #50759



## Action Plan Highlights

### Renewable Energy: WWT Gas to Energy

- 91<sup>st</sup> Avenue WWT Plant
  - Digester gas contract under negotiation
  - Methane cleaned on site
  - Sold to electrical utility company for power generation
- 23<sup>rd</sup> Avenue WWT and 27<sup>th</sup> Ave Landfill
  - Considering options for joint project
- GHG reduction: 40,916 CO<sub>2</sub>e metric tons

## Action Plan Highlights

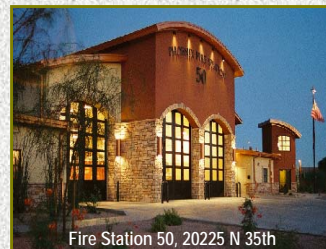
### Renewable Energy Goal

- 2008: City Council approved goal
  - 15% of city's energy will come from renewable sources by 2025
- Includes Solar and Gas to Energy Project
  - Skunk Creek Landfill, etc
- Energy Displaced: 61 million kWh in 2015
- GHG Reduction: 35,000 CO<sub>2</sub>e metric tons

## Action Plan Highlights

### Green Buildings & Energy Conservation

- 68% of U.S. electricity is used for buildings
- June 2005: City new construction standard
  - LEED Standard
  - 14% less energy
  - Low-use water fixtures
- 11 LEED buildings built or registered to date
  - 1 Silver, 1 Gold
  - 2 Certified, 7 Pending
- GHG Reduction: 1,912 CO<sub>2</sub>e metric tons
  - New and existing buildings



## Action Plan Highlights Alternative Fuels

- Current Program
  - More than 3,000 alternative fuel vehicles
  - 12 Million gallons alternative fuel/year (FY 08/09)
  - 16 CNG fueling sites
- Action Plan
  - Biodiesel in fleet and equipment
  - 75 Biodiesel fueling sites
  - Expand ethanol fleet & fuel tanks
  - GHG Reduction: 9,028 CO<sub>2</sub>e metric tons



## Next Steps


- Finalize Action Plan: October 2009
- Add to Phoenix.gov website
- Track Progress of Action Plan Measures
- Update Plan with New Programs
  - Federal Stimulus Grants
  - EPA Solar Grants
  - SR-85 Landfill Solar & Gas to Energy



## New Projects

### Renewable Energy Projects

- **Current: 10 Solar Projects Completed (280 kW)**
- **Proposed Solar Project at SR 85 Landfill**
  - 1,200 acres available
  - Estimated output 150-200 MW
  - 20-30 years
- **\$15.2 Million Energy Efficiency & Conservation Block Grant (DOE)**
  - Energy Audits & Solar Projects – 1.2 MW



## Phoenix.gov/Sustainability



Phone Directory Mayor / City Council Departments E-Services En Español

OFFICIAL WEB SITE OF THE City of Phoenix

Residents Public Safety City Government  
 Businesses Transportation Employment  
 Visitors & Newcomers Culture & Recreation Environment & Sustainability

### Environment and Sustainability

Home > Environment & Sustainability

**Air Quality**  
**Water Quality**  
**Land Stewardship**  
**Pollution Prevention (P2)**  
**Environmental Awareness**  
**Additional Resources**

**Related Links**

- Office of Environmental Programs
- Environmental Quality Commission
- Keep Our City Clean
- Recycling Information
- Household Hazardous Waste
- Phoenix General Plan
- Geographical and Weather Info
- Storm Water Contamination
- Carpool and Vanpool
- Public Transportation

The city of Phoenix has long been recognized as an environmental leader. The mayor, City Council, management and staff are all committed to protecting the environment and providing a sustainable future for the city residents.

In this section you will find information on the city's wide range of environmental programs. The Sustainability Summary provides an overview of more than 80 city programs that have helped us thrive in our unique and beautiful desert environment. The links here also will provide information on air quality, buying environmentally preferred products, reducing litter and the city's Environmental Quality Commission.

Phoenix's sustainability motto, "Living Like it Matters!" reaffirms the sustainability creed that guides its current programs and future plans.

#### More Information About Phoenix's Environmental Sustainability

- Read the City's Sustainability Program Summary
- City Solar and Renewable Energy Projects
- Protect the Environment at Home
- Find Environmental Contact Information
- View Phoenix's Environmental Awards
- Learn How to Buy Green Products
- Discover the Urban Forest Resource Program

**Sustainability Program**  
 Find out what the city is doing to demonstrate its commitment to environmental stewardship.

**Water Conservation**  
 Get information about how to use water wisely in our desert environment.



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