

**Climate Wise  
Fall Fair  
November 5, 2008**

***Draft*  
2008 Fort Collins  
Climate Action Plan**



# The Challenge

Widespread consensus exists that human emissions of greenhouse gases are impacting the Earth's climate systems, causing the potential for unprecedented large-scale adverse health, social, and ecological effects.

Communities can and should play an important role in mitigating this issue.



# The Benefits of Taking Action

Action on the part of a few communities not only reduces the impact to our planet but it also sets a standard for others to follow which will ultimately change the impact our whole society has and help prevent ecological disaster.

Fort Collins could also realize a significant ancillary economic and social benefit by undertaking responsible steps to reduce our impact and thus climate change.



# Community Goals

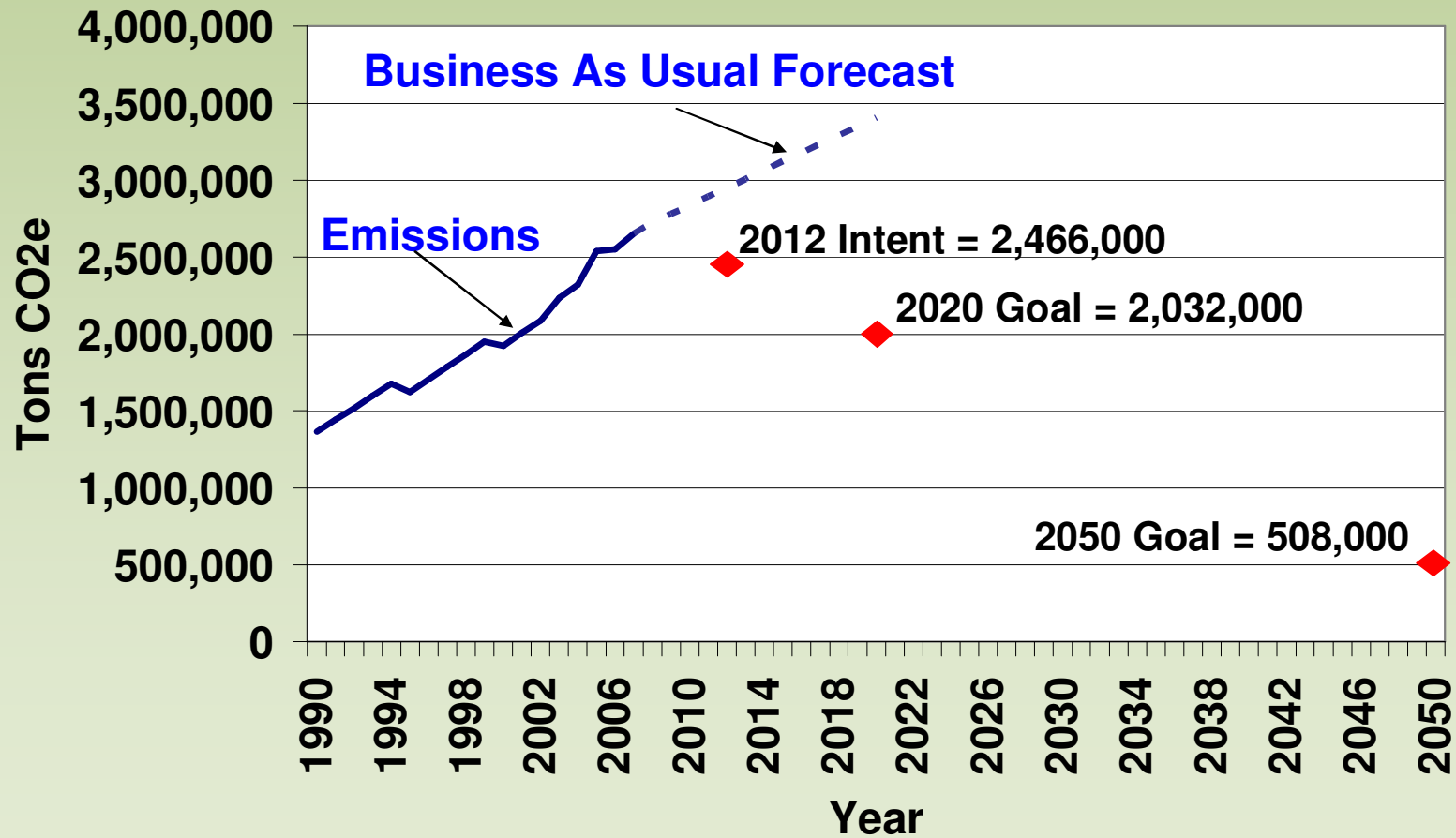
... as recommended by the Task Force and adopted by Council (May 2008)

- 20% reduction below 2005 levels, by 2020
- 80% reduction below 2005 levels, by 2050
- “intent to reduce current community-wide emissions by the end of 2012 to a level not to exceed 2.466 million tons.”



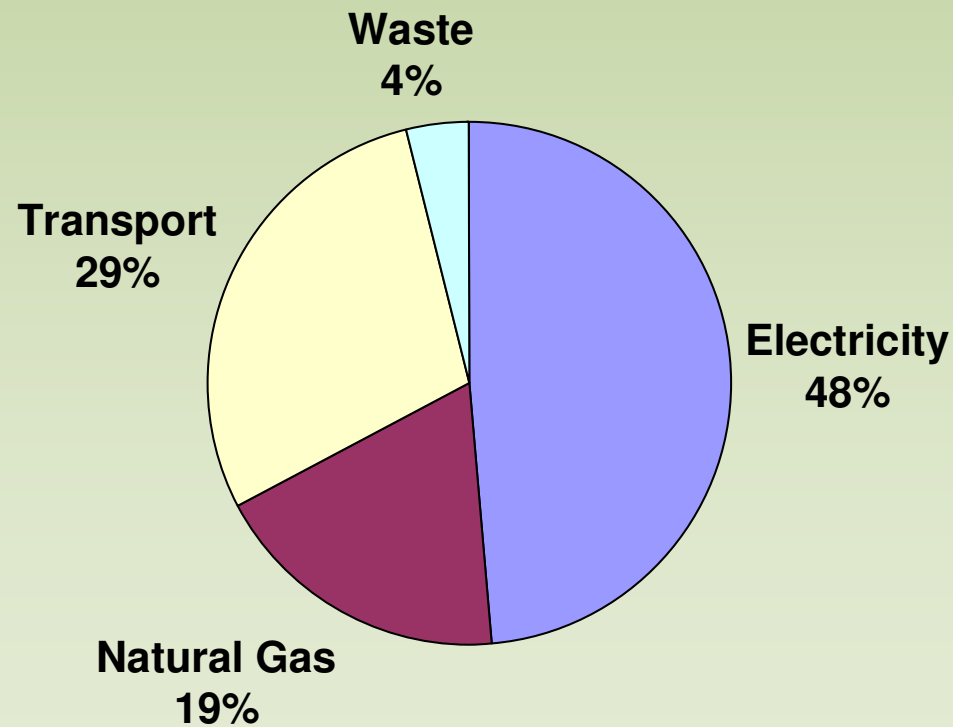
# Community Goals

## Fort Collins Greenhouse Gas Goals



# Our Emissions

**Fort Collins Communitywide  
2007 Greenhouse Gas Emissions  
2.65 Million Tons**



## Climate Task Force - a brief history...

- ✓ Convened by the City Manager on May 24, 2007 at the direction of the Council to recommend an updated Fort Collins climate plan and future direction. Although many good programs were in place it had become obvious that the community would not meet the 1999 commitment to reduce carbon emissions by 2.4 million tons by 2010. The Task Force was chartered to tell Council what would be required to get us back on schedule.
- ✓ The Task Force met for a year to consider alternatives on how best to meet that original goal.
- ✓ The Task Force sought public input, evaluated, filtered ideas, and considered cost-effectiveness.

# Climate Task Force

- ✓ Completed recommendations in June 2008 ([fcgov.com/ctf](http://fcgov.com/ctf))
- ✓ Recommended 16 short-term strategies designed to get us back on track and several long-term strategies

## **Fort Collins Climate Task Force Recommendations**

**June 2008**

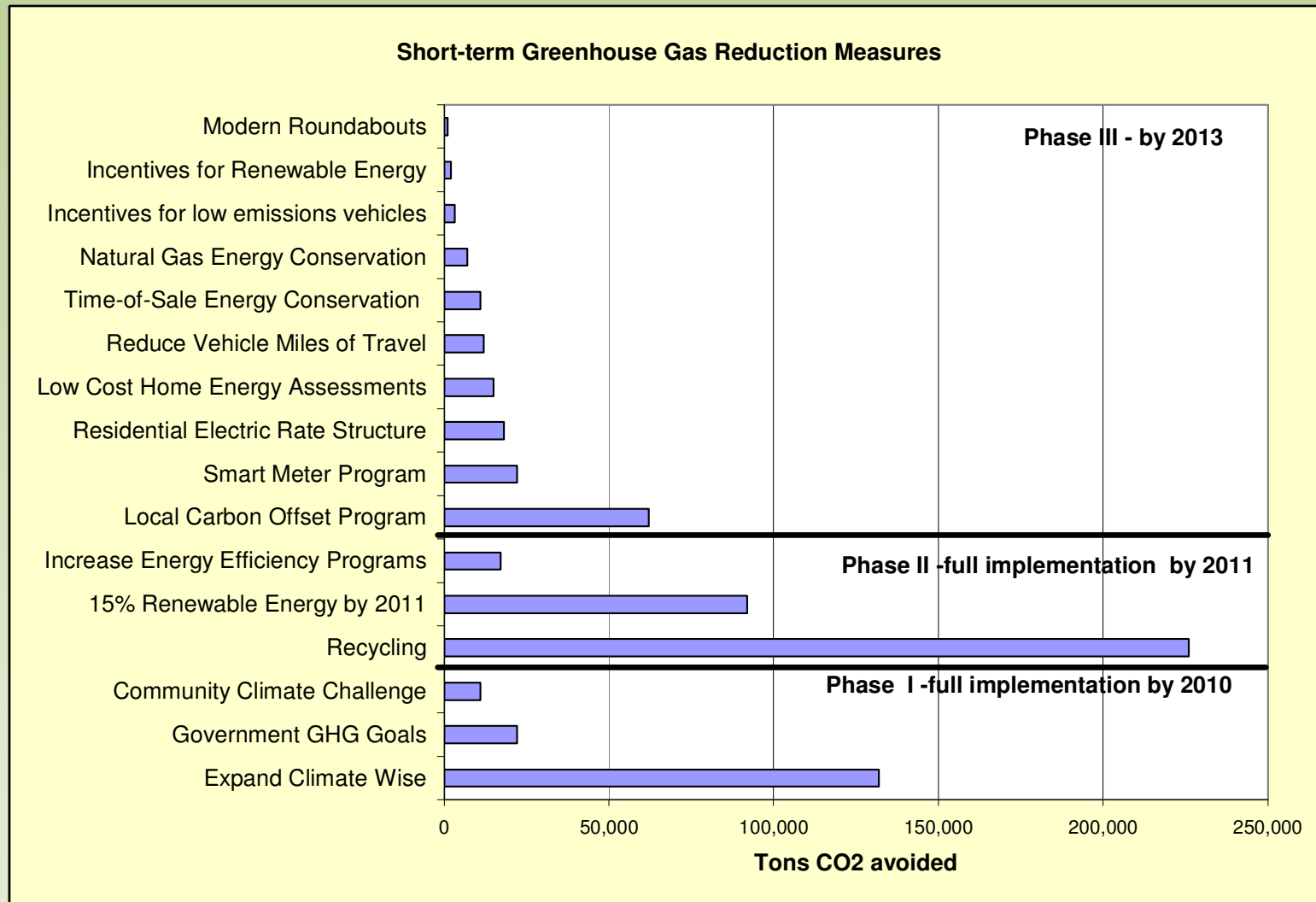


# Climate Task Force Recommendations

- ✓ Focus on LOCAL action
- ✓ Provides a range of approaches (education, incentives, regulation)
- ✓ Engages all stakeholders (citizens, businesses, schools, other organizations)
- ✓ Addresses all sources of emissions



# Climate Task Force Recommendations





# CTF Vision

- Fort Collins will be a carbon neutral, environmentally sustainable, economically healthy community that offers its citizens a high quality of life. We will build on our culture of 'heroic pragmatism' to lead by example and do our part to thwart the known global environmental threat of climate change. We are inspired to action now so that as future generations look back on this period, they too can be inspired and know that we did everything in our power to create a future world that is thriving, vibrant, sustainable, and full of possibility.
-

# draft Climate Action Plan

- ✓ Largely based on Climate Task Force Recommendations
- ✓ Builds on existing successes
- ✓ Contains cost-effective strategies
- ✓ Supports the local economy
- ✓ Brings multiple other benefits
- ✓ Flexible implementation



# Builds On Existing Successes

<b>Measure Name</b>	<b>Estimated Tons CO<sub>2</sub>e Reduced in 2012 Above 2007 Levels</b>
<b>Energy Efficiency Programs</b>	<b>40,000</b>
<b>Climate Wise Program</b>	<b>37,000</b>
<b>Single Stream Recycling</b>	<b>14,000</b>
<b>Business and Residential Recycling</b>	<b>7,000</b>
<b>Electronics Waste Ban</b>	<b>6,000</b>
<b>State-mandated Natural Gas Efficiency Programs (HB1037)</b>	<b>5,000</b>
<b>2005 Residential Energy Code</b>	<b>4,000</b>
<b>FortZED Jumpstart</b>	<b>3,000</b>
<b>Others</b>	<b>4,000</b>
<b>TOTAL</b> (After double-counting removed)	<b>104,000</b>

# Incorporates draft Energy Policy Strategies

- ❑ Reduce electric utility related emissions 20% below 2005 levels by 2020
- ❑ Reduce electricity use 1% per year through energy efficiency and conservation programs
- ❑ Develop a SmartGrid road map by the end of 2009
- ❑ By 2020, manage 10% of peak load demand through load management, smart grid, and distributed generation



# Incorporates draft Energy Policy Strategies

1. Comply with the state-mandated Renewable Portfolio Standard (10% renewable energy by 2020)
2. Add enough renewable energy enough to reach 20% reduction by 2020, after accounting for the contributions of other energy programs



# Cost-effective strategies

- **Climate Wise**

  - (Average net savings for reducing carbon \$2+/ton)

- **Reduce electricity use 1% per year** through energy efficiency and conservation programs

  - (Efficiency Programs – lowest cost utility resource)

- **Update building energy codes**

  - (2004 Res. code update estimated to reduce homeowner utility bills by 7-10%)

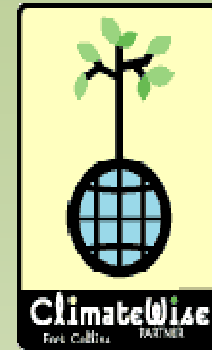
- **Community Climate Challenge**

  - (Municipal building pilot competition reduced energy use 10-15%)

# Supports the local economy

- ❑ **Climate Wise**

Improve business bottom lines, increase employee attraction and retention



- ❑ **Colorado Carbon Fund**

Local purchase of carbon offset return reinvestment funds to Fort Collins for implementing more clean energy projects

- ❑ **Energy efficiency and green building**

New jobs associated with increased demand for building energy audits and upgrades

# Multiple Goals Addressed Through Climate Protection

- ✓ Economic development - job attraction and retention
- ✓ Environmental protection goals - air pollution reduction, reduce filling of landfills, water conservation
- ✓ Cost savings
- ✓ Increase energy price stability
- ✓ Diversify energy sources; decrease reliance on fossil fuels

# Fort Collins: A Vibrant, World Class Community

## SUSTAINABILITY

(includes climate protection)

### Economic Health

(More green jobs)

### Quality Neighborhoods

(Efficient neighborhood design)

### Improve Transportation

(Improved mobility)

### Safe Community

(Roundabouts)

### High-Performing Government

(Energy efficient facilities and fleets)

### Environmental Health

- Climate
- Energy
- Air Quality
- Water Policy
- Waste Reduction
- Natural Areas

### Cultural

(Local food)

# Estimated Carbon Reduction (Oct '08)

Measure name	2012 Estimated Benefit (Tons CO <sub>2</sub> e)	2020 Estimated Benefit (Tons CO <sub>2</sub> e)
<b>EXISTING MEASURES</b>	<b>104,000</b>	
Expand Climate Wise	73,000 – 94,000	143,000
Government Organizations Set GHG Goals	42,000	217,000
Community-wide Climate Challenge	28,000	34,000
Colorado Carbon Fund	5,000	8,000
Push Toward 50% Diversion Goal	73,000 – 137,000	253,000
<b>2008 Energy Policy</b>		
Efficiency Programs	20,000 – 30,000	214,000
SmartGrid, Advanced Metering Infrastructure, Pricing, Conservation	10,000 – 20,000	246,000
Renewable energy (Colorado RPS and voluntary programs)	0	190,000
Natural Gas Energy Conservation	5,000 – 10,000	52,000
Update Residential Building Code	1,000	4,000
Reduce Vehicle Miles of Travel	2,000 – 12,000	14,000
Modern Roundabouts	1,000	2,000
TOTAL (before double-counting removed)	<b>366,000 -486,000</b>	<b>1,481,000</b>
<b>TOTAL (after double-counting removed)</b>	<b>268,000 – 378,000</b>	<b>1,212,000</b>
Needed to meet objectives (More measures needed)	485,000	1,375,000

# Requires Monitoring and Reporting

Year	Annual Progress Report	Milestone Tons Co2	Biennial Review	Budget Recommendations
2009	X			Fall 2009 for 2010/2011
2010	X			
2011	X		Spring 2011 for 2010	Fall 2011 for 2012/2013
2012	X	2,466,000		
2013	X		Spring 2013 for 2012	Fall 2013 for 2014/2015
2014	X			
2015	X		Spring 2015 for 2014	Fall 2015 for 2016/2017
2016	X	2,263,000		
2017	X		Spring 2017 for 2016	Fall 2017 for 2018/2019
2018	X			
2019	X		Spring 2019 for 2018	Fall 2019 for 2020/2021
2020	X	2,032,000		

# How Much Will it Cost?

## For these select strategies....

- Expand Climate Wise
  - Community Climate Challenge
  - Increased residential recycling education
  - Provide larger recycling containers
  - Requiring trash haulers to provide residential yard waste collection for added cost
  - Develop public/private partnerships for glass and paper recycling drop-off sites
  - Prohibit cardboard disposal in the waste stream
- 
- ❑ Estimated \$250,000/yr for City
  - ❑ Estimated \$7.50/yr for households for recycling measures
  - ❑ \$20/ton for voluntary purchase of offsets
  - ❑ Savings from Climate Wise; Climate Challenge

# Next Steps

November	Additional public outreach and board recommendations
November 12	Public Open House, Northside Center
December 2	Council considers adoption of Climate Action Plan
2009 and ongoing	Council consider implementation of specific strategies in the Plan

***Council can determine implementation priorities in context of evolving City budget and policy priorities, carbon markets and technology opportunities.***



# Looking forward to the challenge



## Challenges

- **Targets are aggressive**
- **More funding and outreach will be required**
- **Immature EE infrastructure and slow ramp up**
- **Responsible measurement, verification and reporting**

## Opportunities

- **Energy efficiency and conservation**
- **Manage risk: energy prices, carbon regulation, environmental impact**
- **Plug-in hybrids, smart grid, connecting transportation and electric distribution infrastructures**

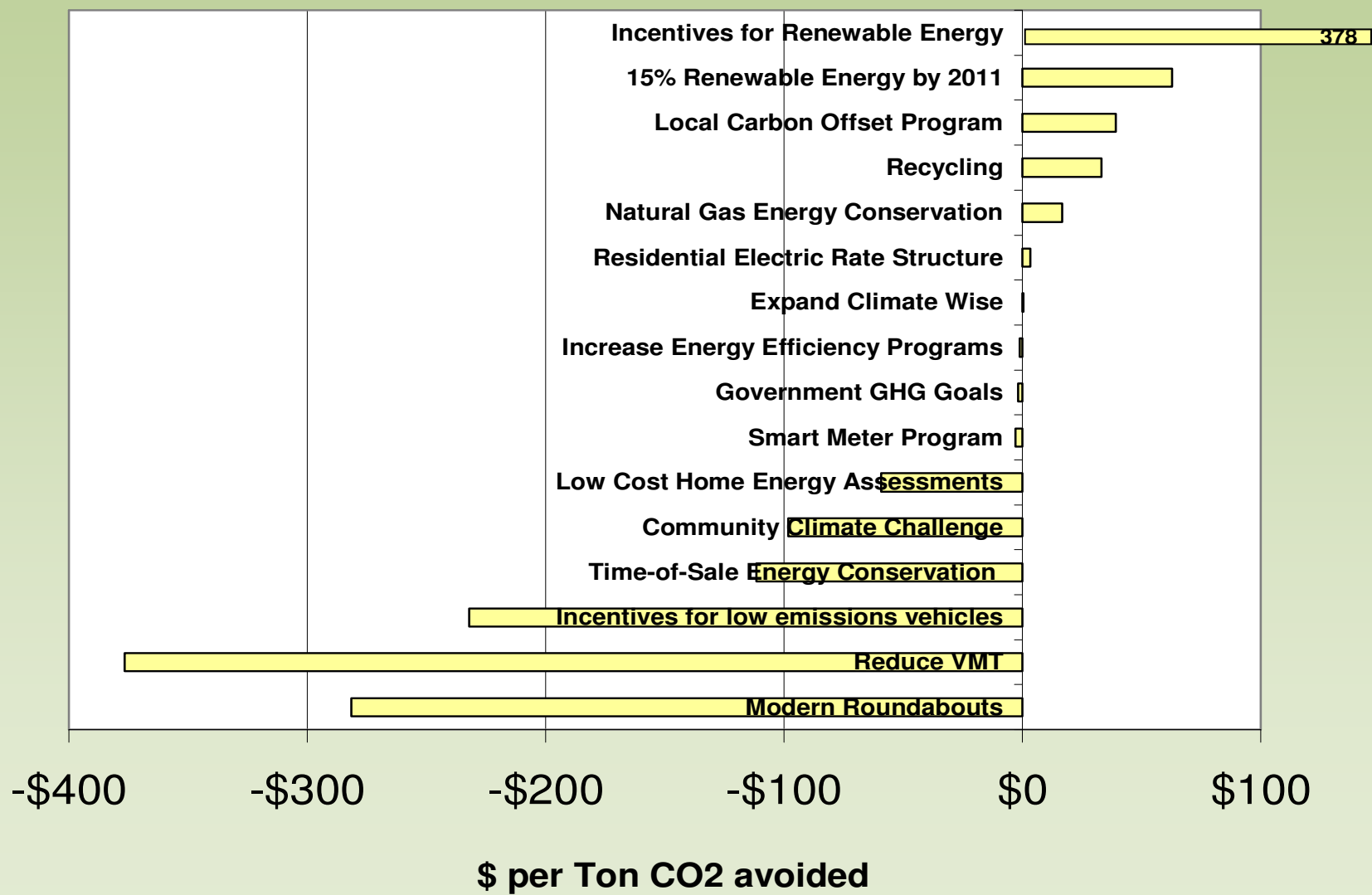
# Your Input?

- [fcgov.com/climateprotection](http://fcgov.com/climateprotection)
- **Nov 12 - Open House**  
**5-7 pm**  
**Northside Aztlan Center**

**THANK YOU!**



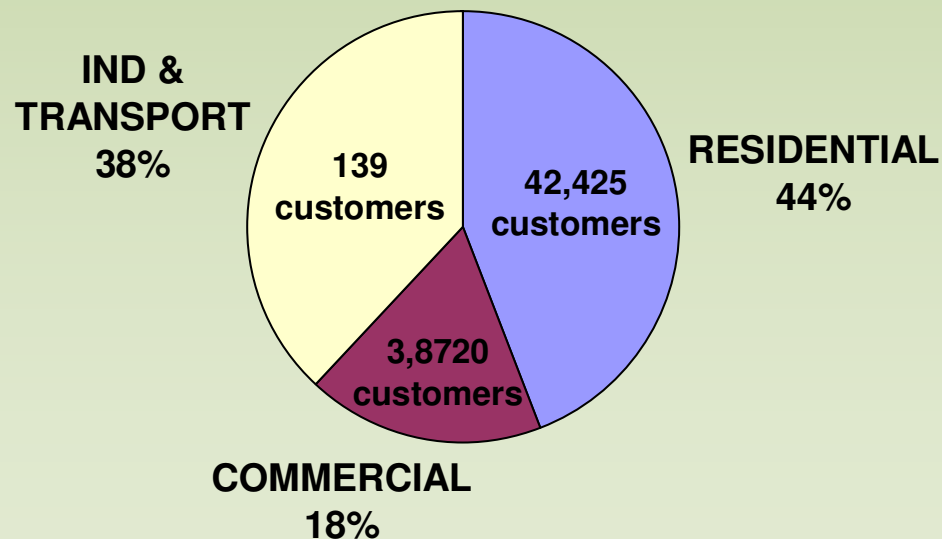
# Climate Task Force

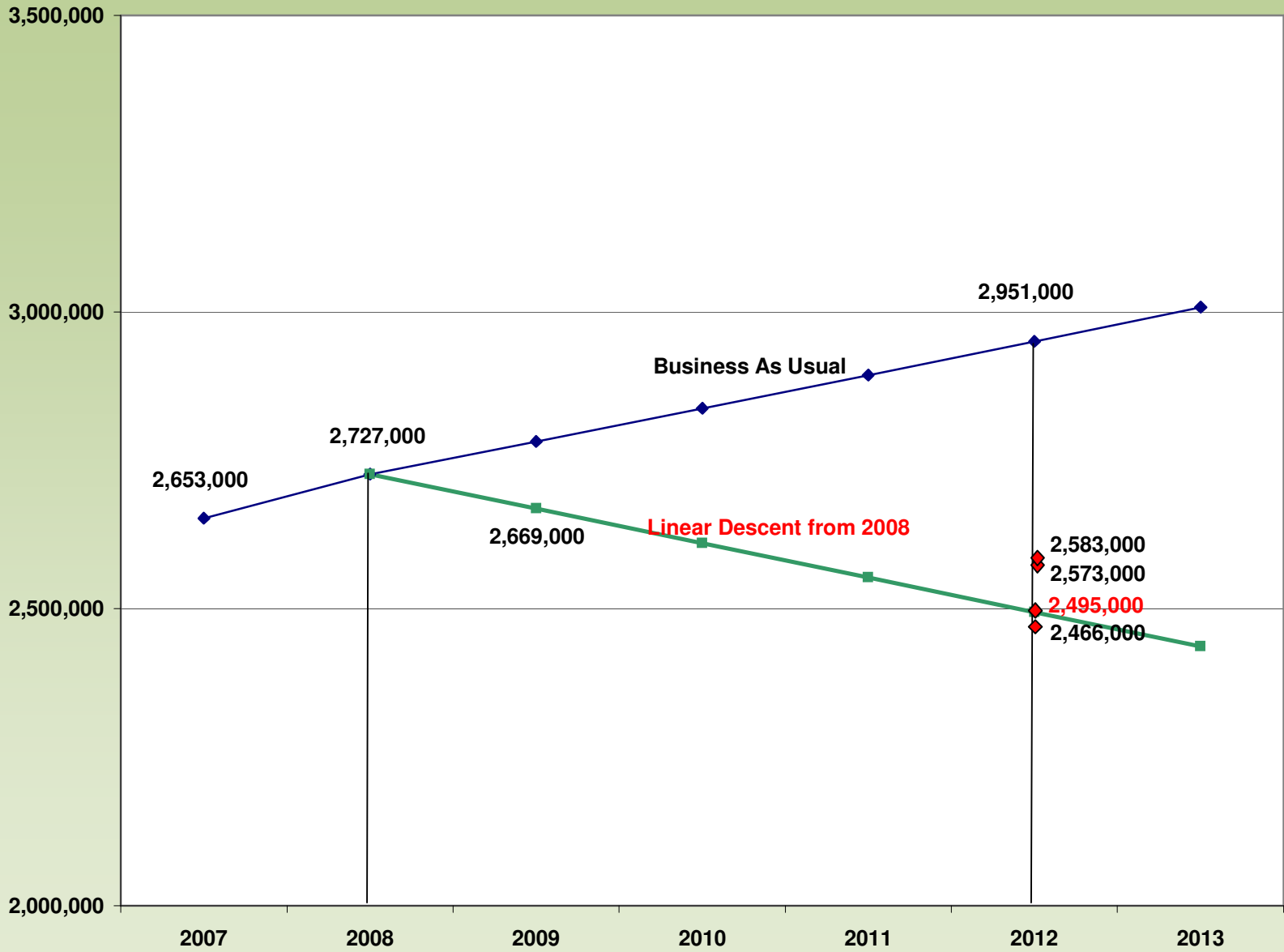


# Natural Gas Franchise Fee

Most Colorado cities have a 3% franchise fee  
Would provide \$555,000+/year new revenue to General Fund  
1.5% fee increase would cost homeowners ~ \$12-18/yr

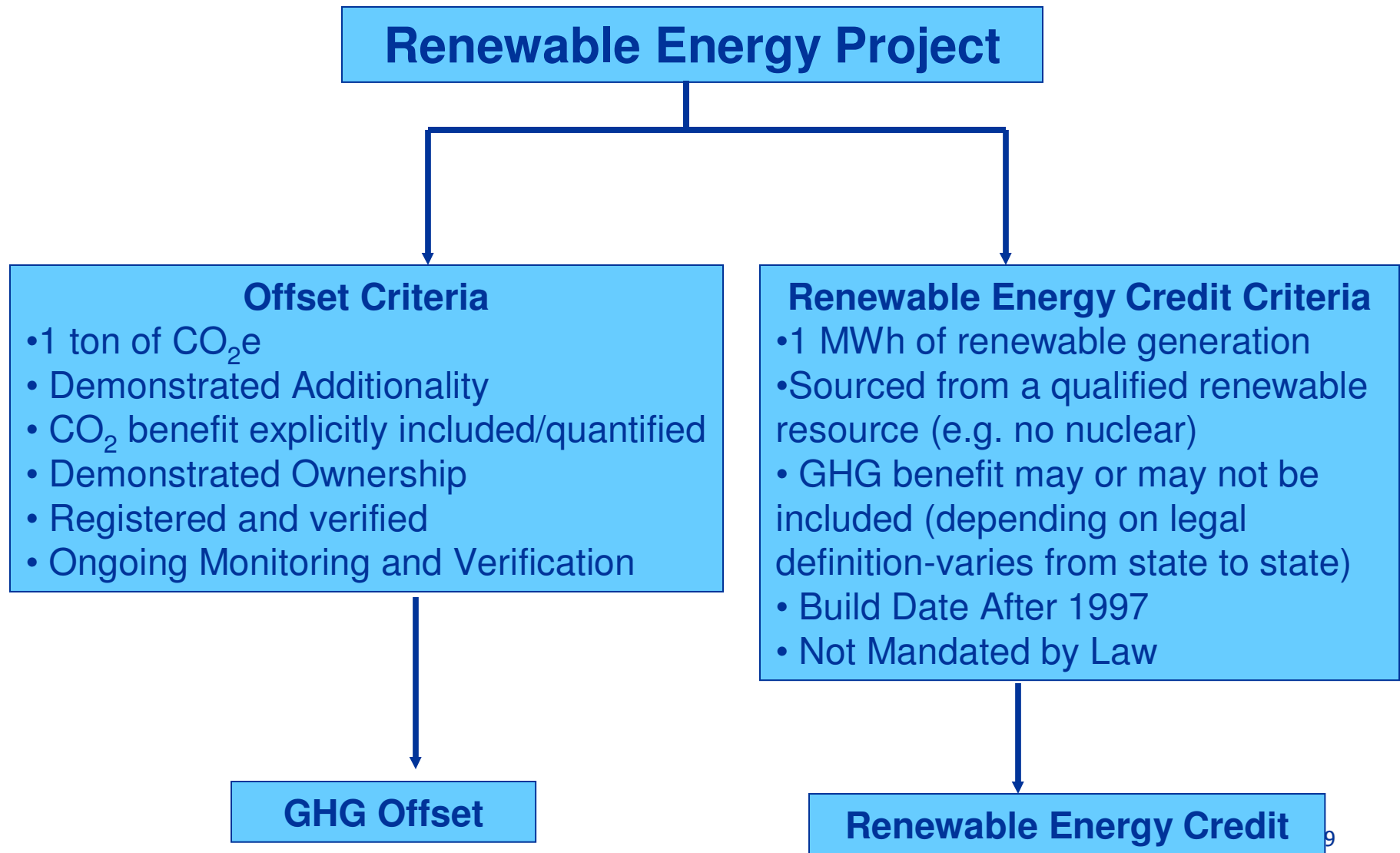
**Fort Collins 2007 Natural Gas Customers  
(Percent of therms used)**





◆ Series1  
■ Series2

# Offsets and RECs



Source: Susan Innis PPT on Project C

# To get from here to there...

<b>Year</b>	<b>Future Projection (Business As Usual) Tons CO2</b>	<b>Goal Tons CO2</b>	<b>Reduction Needed Tons CO2</b>
<b>2012</b>	<b>2,951,000</b>	<b>2,466,000</b>	<b>485,000 tons/yr in 2012</b>
<b>2020</b>	<b>3,407,000</b>	<b>2,032,000</b>	<b>1,375,000 tons/yr in 2020</b>
<b>2050</b>	<b>Not calculated</b>	<b>508,000</b>	<b>1,524,000/year below 2020 goal level</b>

# Qualitative Measures important too

For example.....

- ❑ Regular updates on building energy codes
- ❑ Continued support for “above code” green building initiatives
- ❑ Require Green Building as a Prerequisite for Public Financing
- ❑ Promote Net Zero Ready Homes
- ❑ Promote LEED for Neighborhoods



# Climate Task Force Recommendations

**NEW Short-Term Greenhouse Gas Reduction  
Strategies**  
527,000 Tons CO<sub>2</sub>e (2012)

