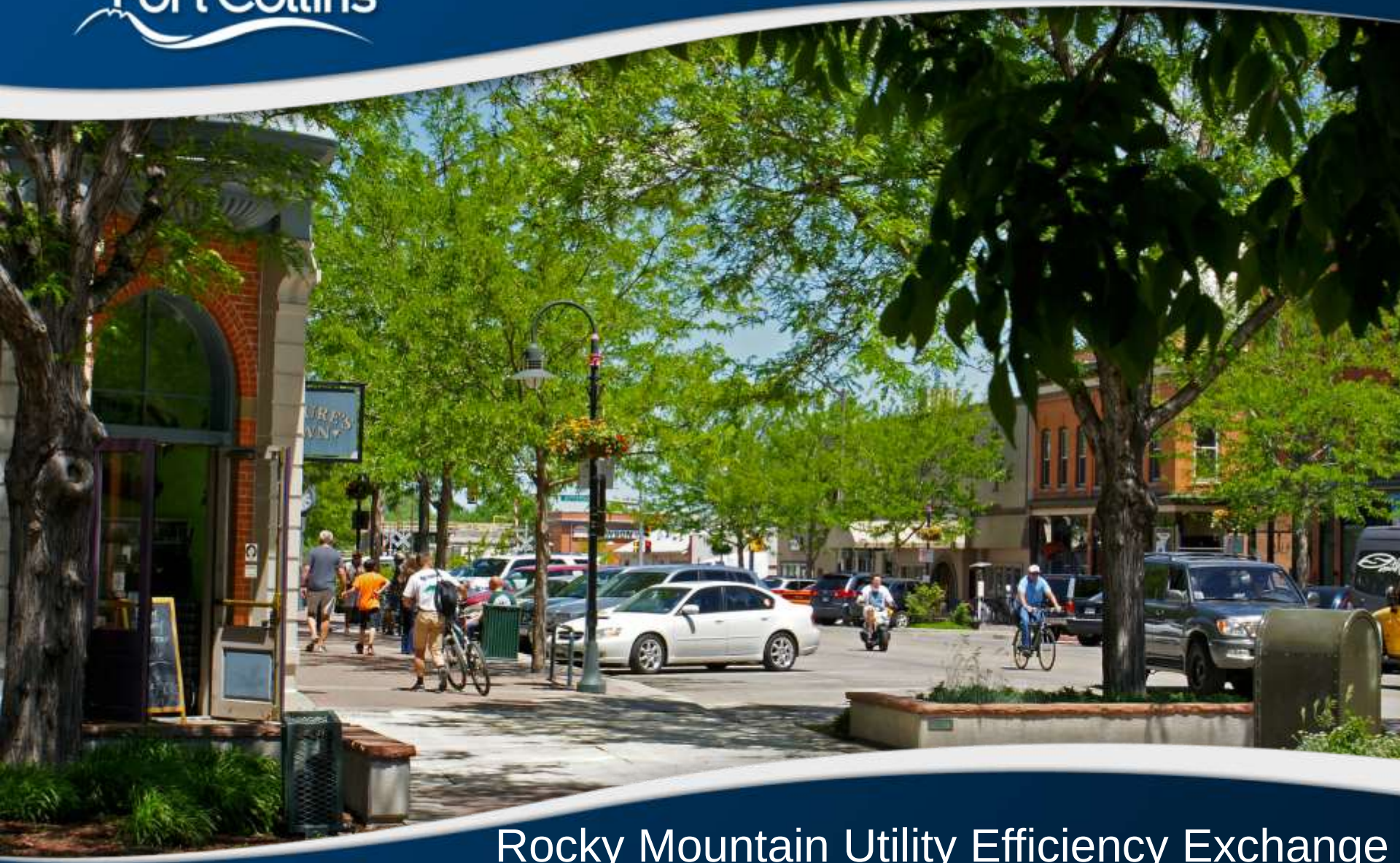
Fort Collins Climate Plan



Rocky Mountain Utility Efficiency Exchange

October 1, 2015

How did we get here?

1998

1st Volun-tary Wind Program

1999

Local Action Plan

2000

Climate Wise formed

2003

Energy Policy

2008

Climate Action Plan

2009

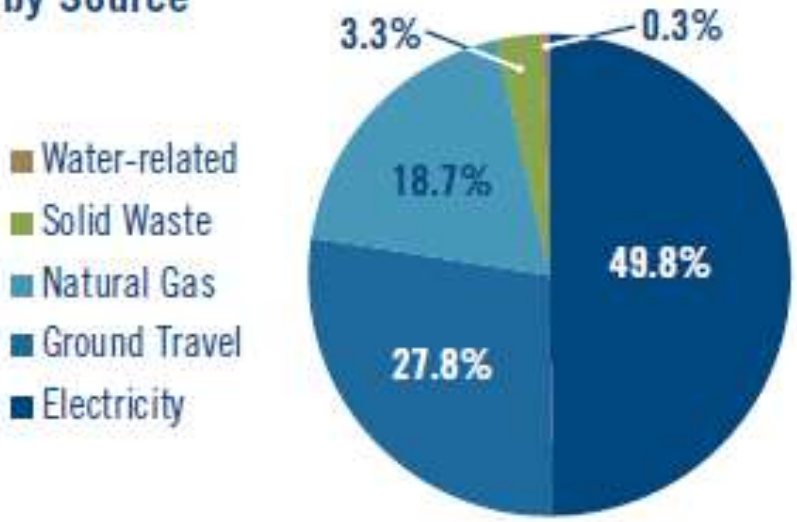
Energy Policy

2015

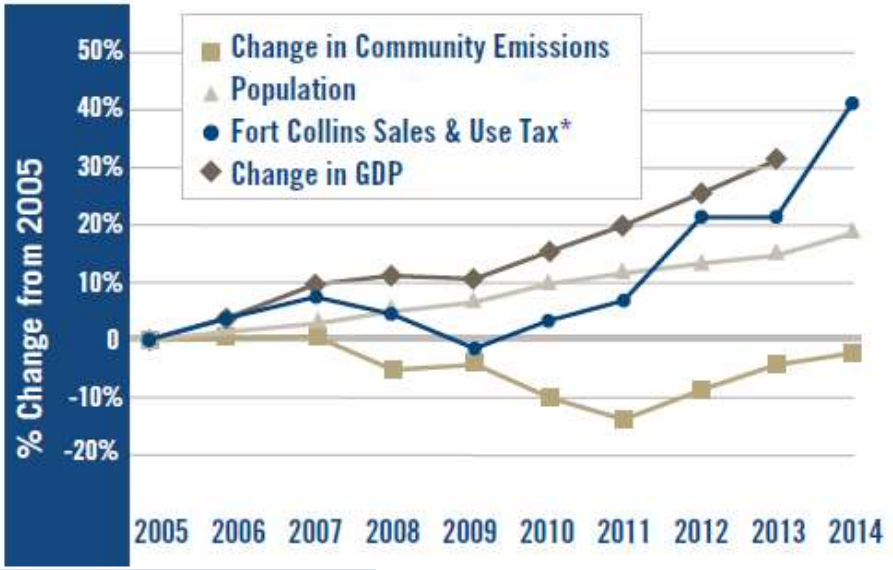
Climate Action Plan Framework And Energy Policy

CAP Data and Metrics

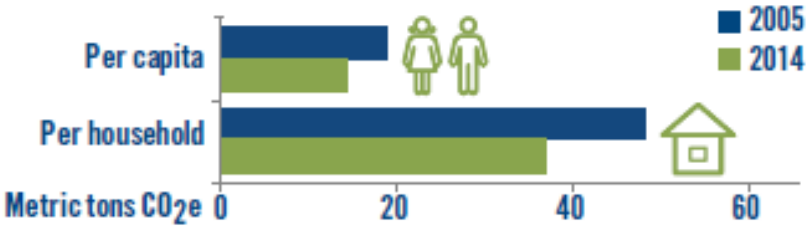
2014 Community GHG Emission Inventory Percent Emissions by Source



Fort Collins Greenhouse Gas Emissions, Sales & Use Tax, GDP, and Population



Fort Collins Community Greenhouse Gas Indicators



City of Fort Collins

Energy Policy Metrics

2014 ENERGY POLICY UPDATE

City of Fort Collins Utilities

Our Goals

This report provides an update of 2014 activities and results related to the City of Fort Collins Energy Policy, adopted in 2009.

The primary goals of the Energy Policy are to sustain high-system reliability and to contribute to the community's climate protection goals and economic health. The Energy Policy 2050 vision is to ensure highly reliable, competitive, carbon-neutral electricity supplies, managed in a sustainable, innovative, responsible and efficient manner for the Fort Collins community.

The Energy Policy Annual Update reviews progress made to date in the primary goal areas of the policy: reliability, climate protection, economic health and the City's collaboration with Platte River Power Authority. The Energy Policy and most recent annual updates are available at fcgov.com/utilities/what-we-do.

Did you know?

The Energy Policy will be revised in 2015 to reflect all primary energy use within the community and the new Climate Action Plan framework.

Annual Results

We can lead in **ENERGY EFFICIENCY** and have **LOW RATES** and **HIGH RELIABILITY.**

Customers continued to receive **HIGHLY RELIABLE ELECTRIC SERVICE,** as measured by an average system availability index of

99.9951%

The Point?
We have very reliable electric service. On average, customers had 0.4 outages (e.g., most customers zero, some customers one) for a total duration of 68 minutes.

Customer electricity **savings from efficiency programs** totaled

OVER 32,600 MEGAWATT-HOURS (MWh)

or 2.2% of the community's annual usage.
This is equivalent to the annual electric use of over 3,600 typical Fort Collins homes.

x100

What Does this Mean?
Customers are taking advantage of efficiency programs at a record pace.

Efficiency programs saved electricity with a lifecycle cost-of-conserved energy of 2.2 cents per kilowatt-hour (kWh), compared to an average wholesale electricity cost of 5.4 cents per kWh.

IT'S CHEAPER TO SAVE ELECTRICITY WITH EFFICIENCY $$

than it is to buy it **WHOLESALE.**

PV

Photovoltaic (PV) capacity additions totaled 958 kilowatts (620 kW residential and 338 kW commercial).

880% more PV installed in 2014 than 2013!

Fort Collins Solar Power Purchase Program will add nearly **4 megawatts** of locally installed solar by December 2015. The Fort Collins Community Solar project started in late 2014 and will add over **800 kilowatts** and a gateway feature to the city.

So What You're Saying Is?
Solar is growing rapidly and in new ways!

RENEWABLE ENERGY

comprised 6.2% of total electricity in 2014.

And is growing with more solar and wind energy

Platte River added 60 megawatts of wind energy during 2014 and plans to add up to 30 megawatts of solar in 2015.

60 MEGAWATTS

EFFICIENCY PROGRAMS GENERATED OVER

$27 MILLION

in local economic benefits through reduced utility bills, direct rebates and leveraged investment.

Reducing energy bills is a

WIN WIN

Utilities started the Peak Partners demand response program with

WEB-ENABLED WI-FI THERMOSTATS

CO_2

245k METRIC TONS

Avoided annual carbon emissions of over 245,000 metric tons from Energy Policy related programs.

That's a lot of carbon. See pie chart on back.

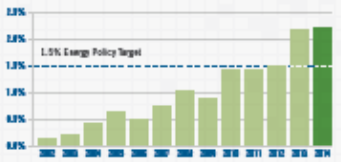
LOW RATES

As of July 2014, Fort Collins' typical residential customer bills were in the lowest 16% of 55 Colorado utilities reporting to the Colorado Association of Municipal Utilities (CAMU).

TRACKING PROGRESS

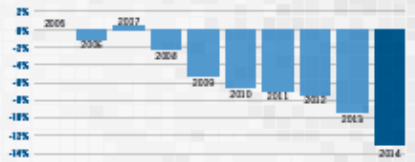
CUSTOMER ANNUAL EFFICIENCY SAVINGS

(% of community electricity use)



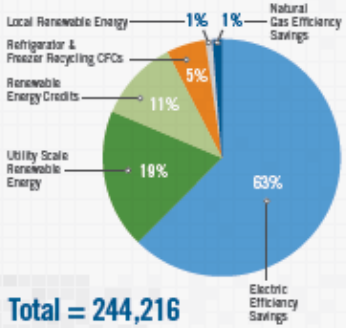
PER CAPITA ELECTRICTY USE

(% reduction from 2005)



GREEN HOUSE GAS EMISSIONS REDUCTIONS

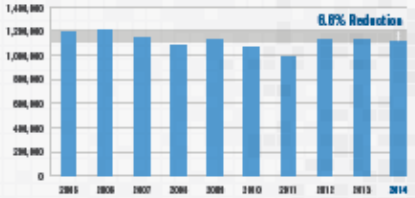
(metric tons)



Total = 244,216

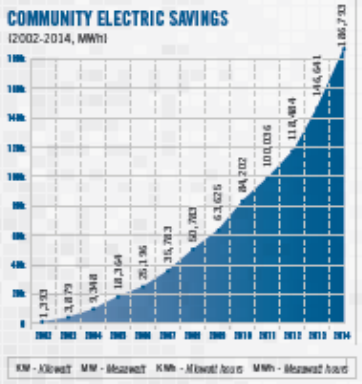
ELECTRICITY CARBON EMISSIONS INVENTORY

(2005 - 2013)



COMMUNITY ELECTRIC SAVINGS

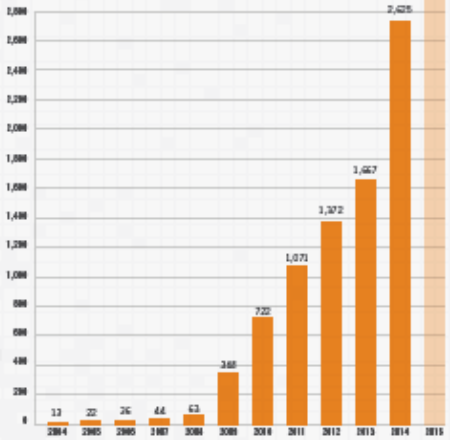
(2002-2014, MWh)



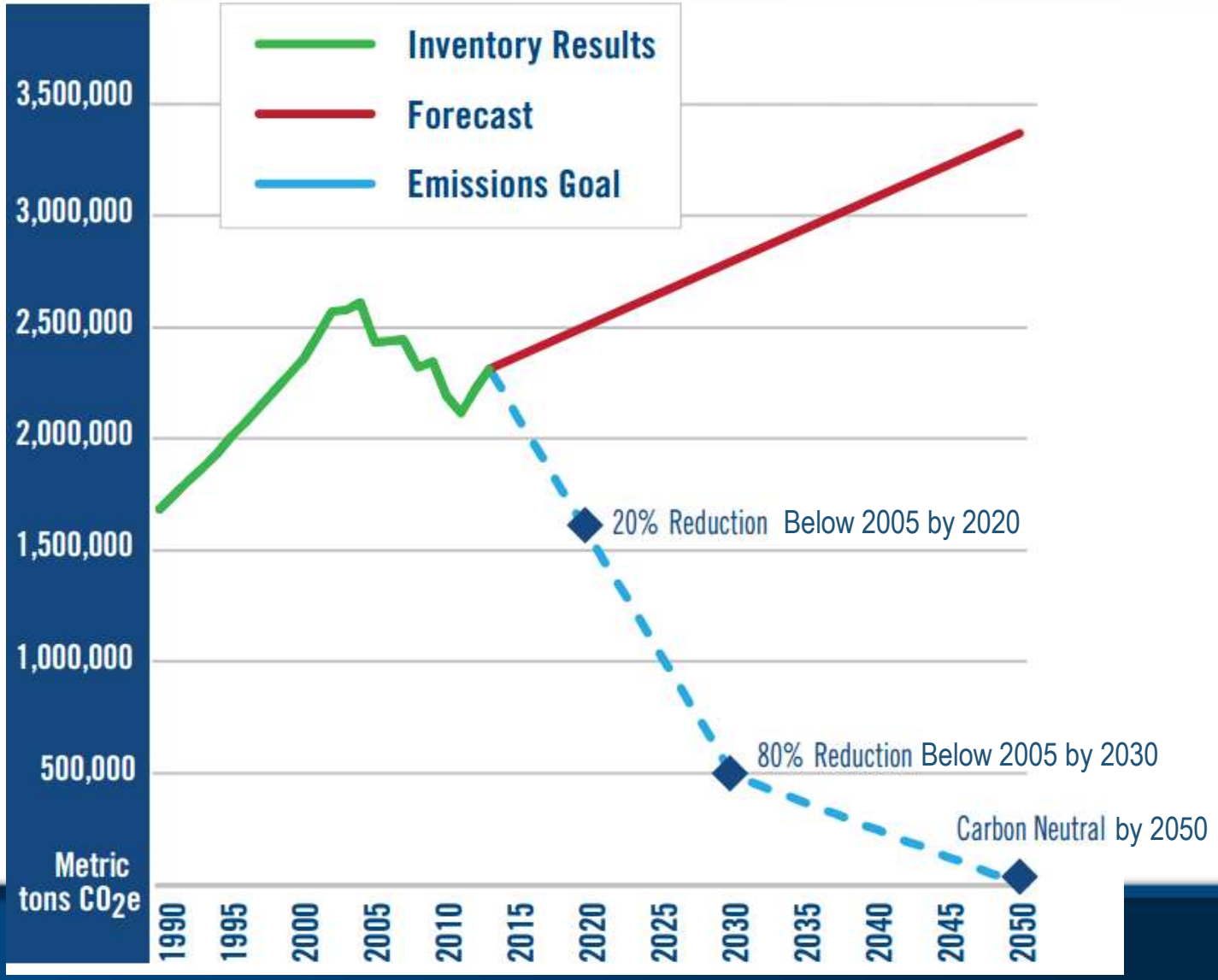
KW - Kilowatt MW - Megawatt KWh - Kilowatt hours MWh - Megawatt hours

PV-COMMUNITY CAPACITY

(DC Kilowatts)



Fort Collins CAP Goals



What do the goals mean?

Annual reductions in buildings' energy use reaches 3% percent per year by 2030.

Existing homes and businesses will use 36% less energy than today.

New construction will use ~30% less energy than under today's code.

Carbon intensity of utility-scale electricity will be 80% lower in 2030 than 2005 level.

50% of new construction in the year 2030 will have enough solar PV to achieve net zero energy use.

By 2030, 22% of existing homes and 50% of existing businesses will have installed solar.

What do the goals mean?

Reduce vehicles miles travelled by 29%.
Expansion of transit network.
One in two new passenger cars purchased will be electric by 2030.
The remaining new vehicles purchased will be 40% more efficient than the average new stock by 2030.

Increase waste diversion to 75% by 2020.

Increase waste diversion to 90% by 2025; achieve per capita waste generation levels of 2.8 pounds/person/day.

Achieve zero waste by 2030.

Can we get there?

FIGURE 7. ESTIMATED PERECENT OF TOTAL EMISSIONS REDUCTIONS FROM CAP FRAMEWORK STRATEGIES BELOW ADJUSTED BUSINES AS USUAL FORECAST

	2020	2030	2050
Buildings: Boosting Efficiency, Comfort and Health			
Build in Efficiency From the Start	3%	2%	3%
Make Existing Homes More Efficient	20%	15%	21%
Increase Energy Efficiency in the Institutional, Commercial, and Industrial Sectors	27%	18%	21%
`Advanced Mobility: Making Transport Faster, More Convenient and Cleaner			
Shift Land Use Patterns to Shorten Trips and Reduce the Need to Drive	7%	4%	5%
Drive Adoption of Multimodal Transport	3%	3%	3%
Accelerate Adoption of Fuel Efficient and Electric Vehicles	2%	2%	6%
Energy Supply and Delivery: The Shift to Renewable Energy Resources			
Advance Utility-Scale Renewable Energy Supply	0%	30%	11%
Advance Residential and Commercial Solar Adoption	18%	14%	10%
Shift Heating Loads to Biofuels, Geothermal, and Electrification	3%	4%	12%
Waste Reduction and Materials Regeneration			
Road to Zero Waste /Carbon Sequestration	17%	7%	9%
Carbon Sequestration	<1%	<1%	<1%
TOTAL ESTIMATED MTCO2e REDUCTION FROM STRATEGIES	**272,000**	**1,119,000**	**1,192,000**
Estimated Percent Reduction from 2005 Baseline	**32%+**	**73%+**	**86%+**


It's only common sense

Thank you!

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fcgov.com/climateprotection

Rocky Mountain Utility Efficiency Exchange

October 1, 2015