

Utility Savings Initiative Overview

Agenda

- **Introductions**
- **The Numbers**
- **Energy and Water Plans**
- **The Elephant in the Room**
- **Next Steps**

April 14, 2009



USI Contacts...

- Len Hoey
919 733 1891
len.hoey@doa.nc.gov
- Chuck Sathrum
919 715 1158
charles.sathrum@doa.nc.gov
- Reid Conway
828 670 3389
reid.conway@doa.nc.gov

April 14, 2009



2007-08 Reported Data

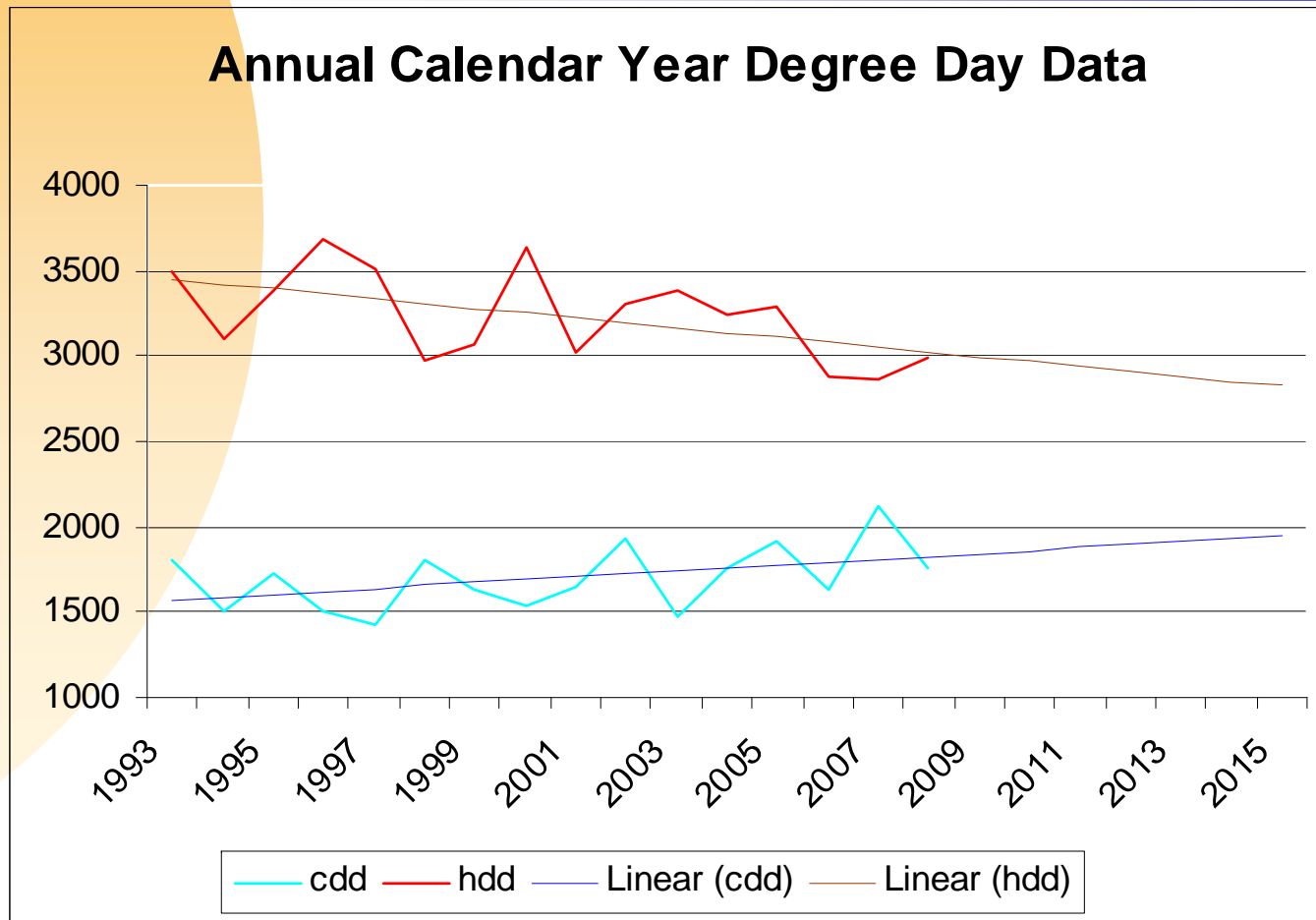
Reporting figures for period:

Agencies required to submit full plans:	41	Number submitted:	21
Agencies required to submit annual usage reports:	41	Number submitted:	36
Community Colleges required to submit annual usage reports:	58	Number submitted:	58

April 14, 2009



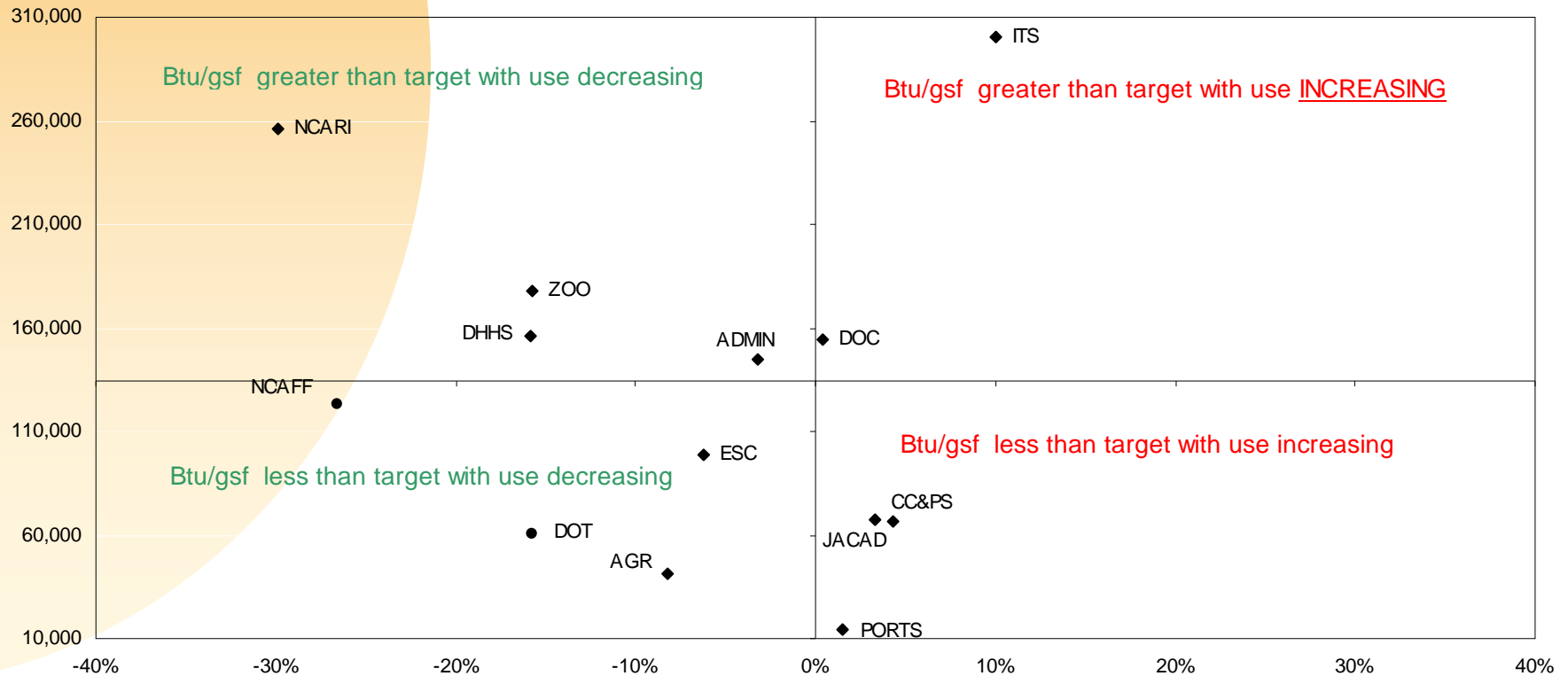
Projected Trends



April 14, 2009

Last Year's Performance

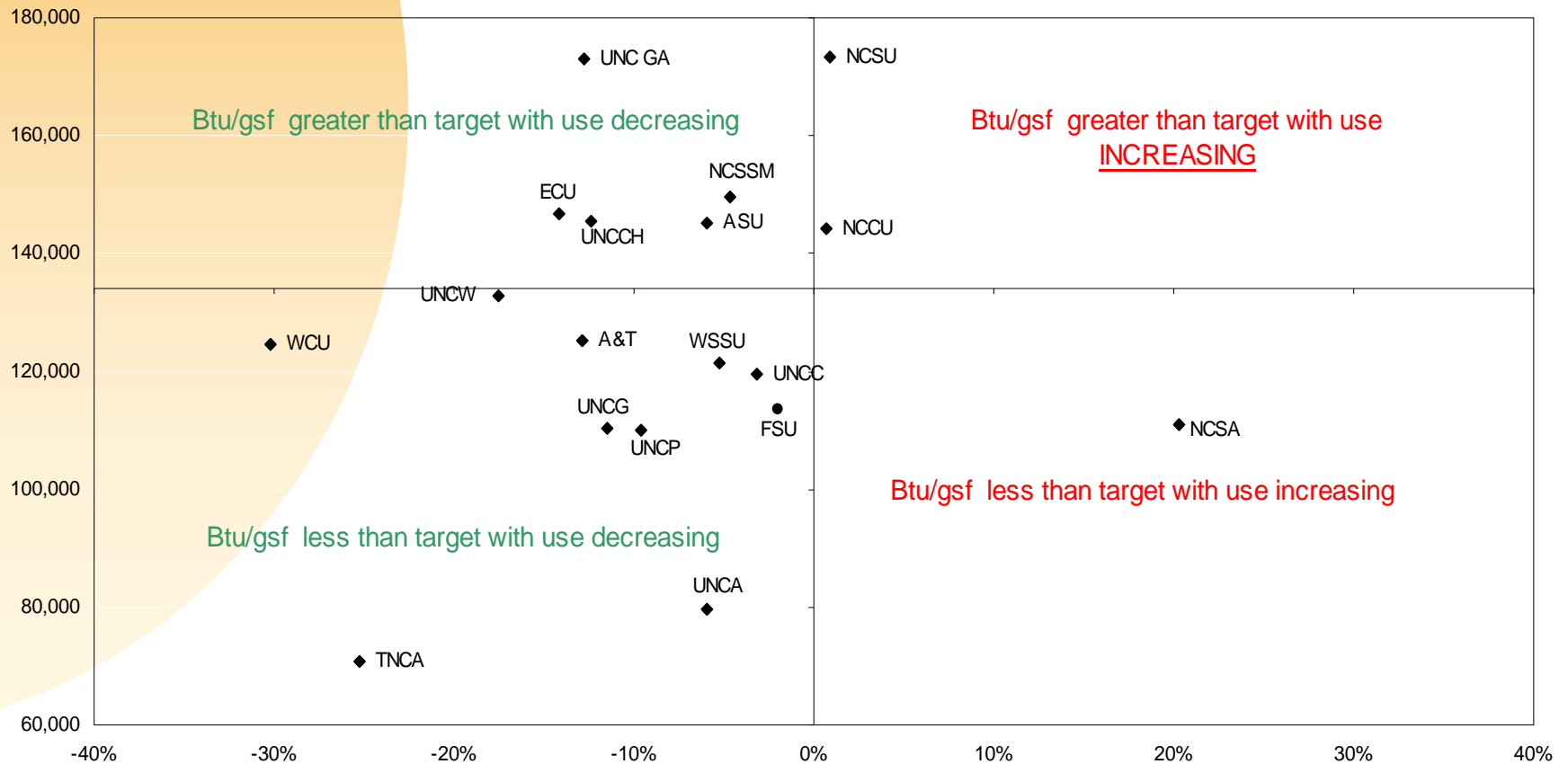
STATE AGENCY Btu/gsf and % REDUCTION



April 14, 2009

Last Year's Performance

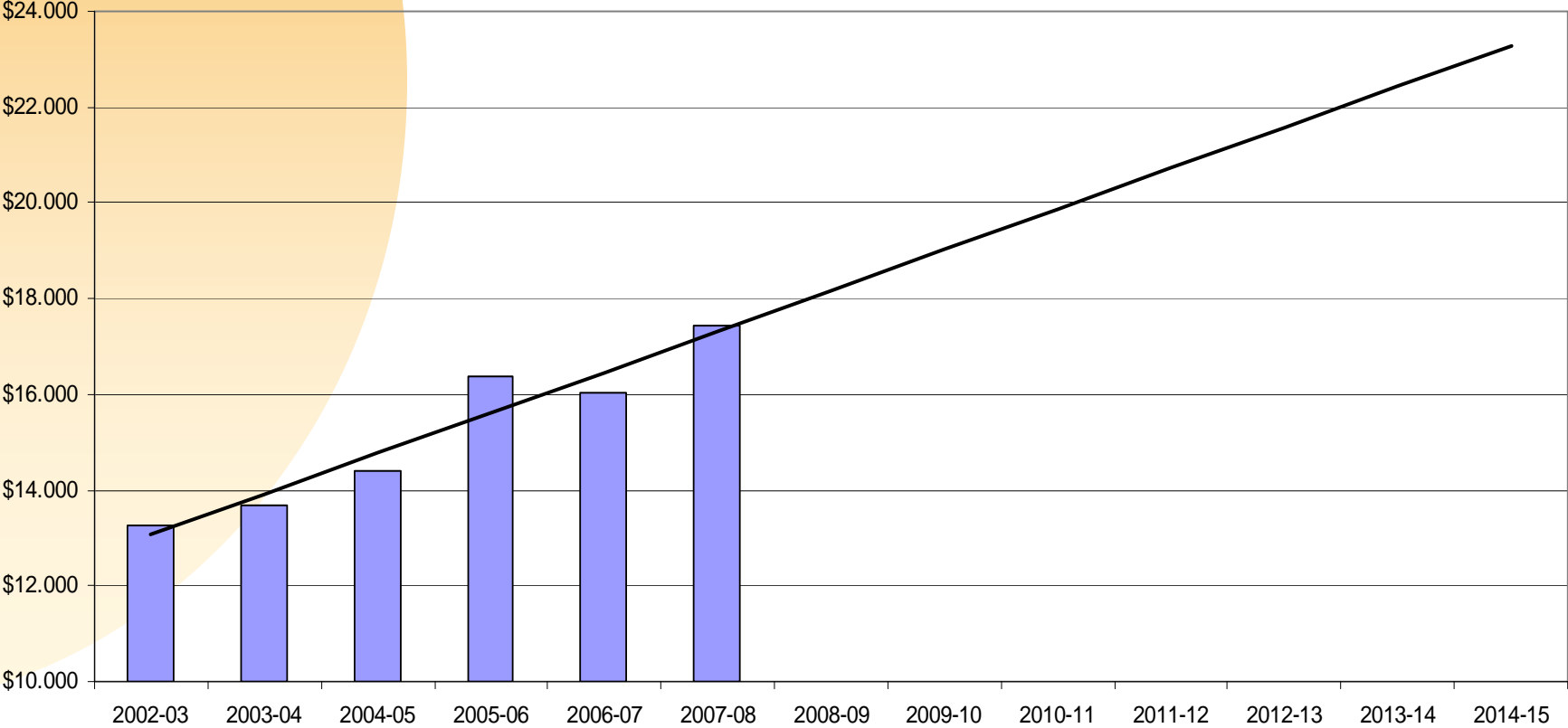
UNC SYSTEM Btu/gsf and % REDUCTION



April 14, 2009

Projected Trends

Cost per Million Btu Trend
75% Increase



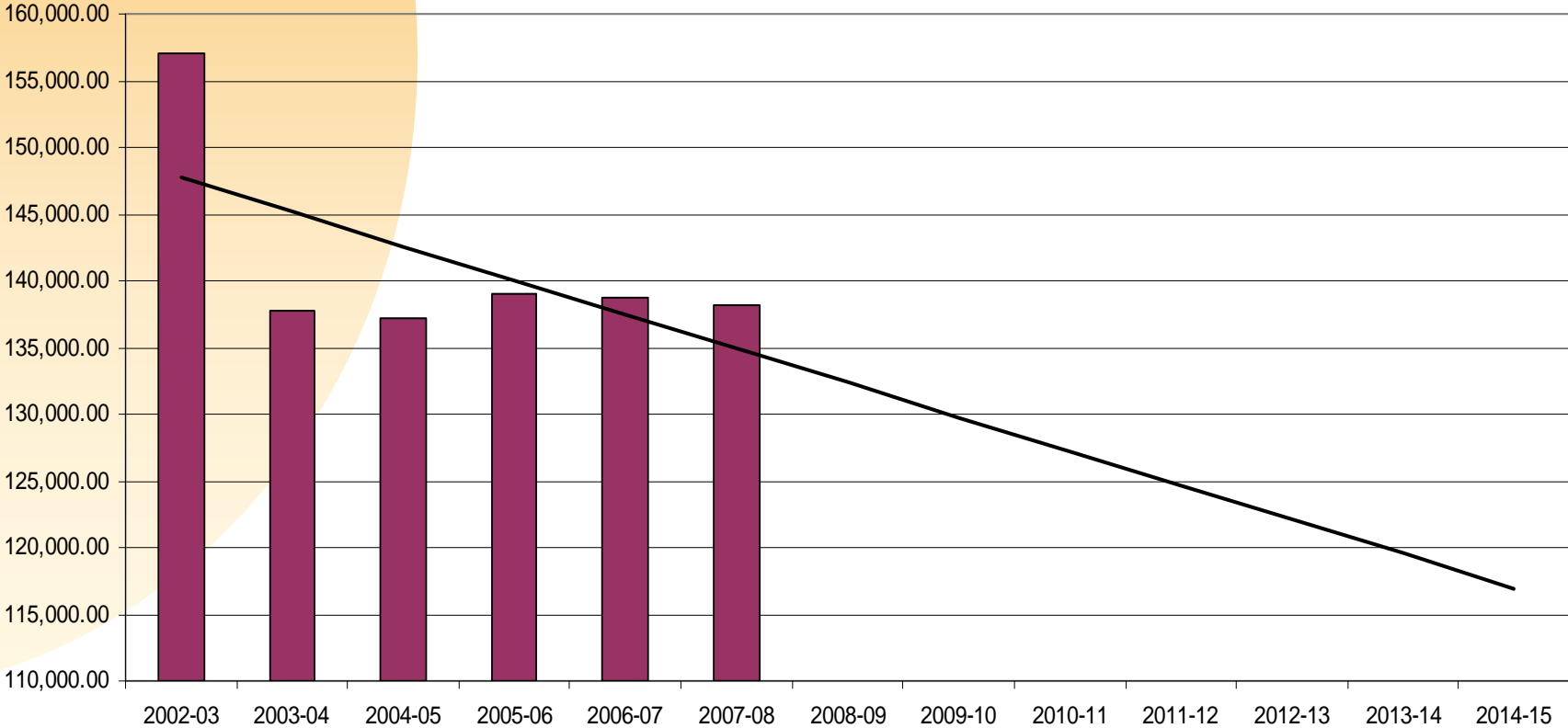
April 14, 2009



Projected Trends

Energy Use per Gross Square Foot

26% Decrease

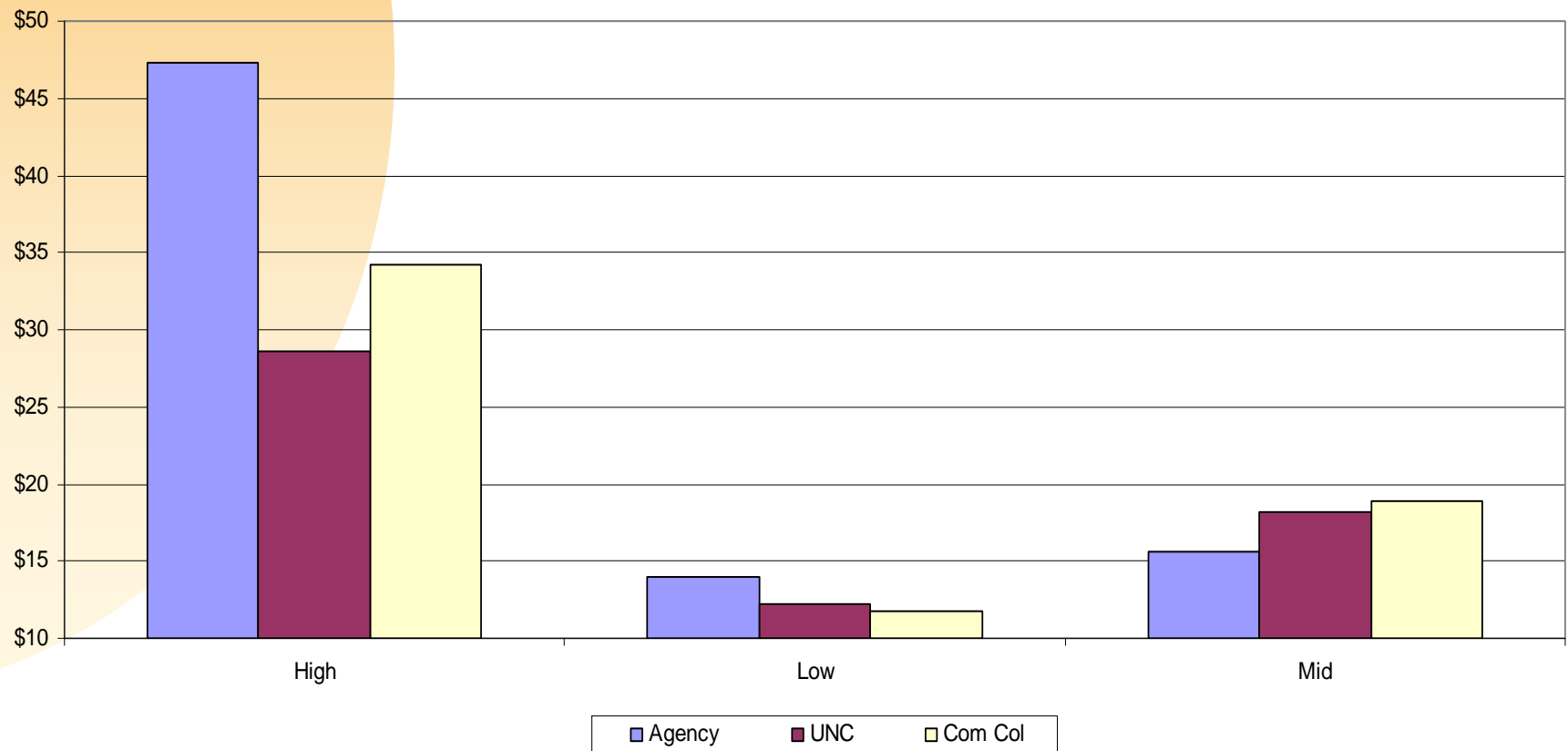


April 14, 2009



Where You Stand

Cost per Million Btu

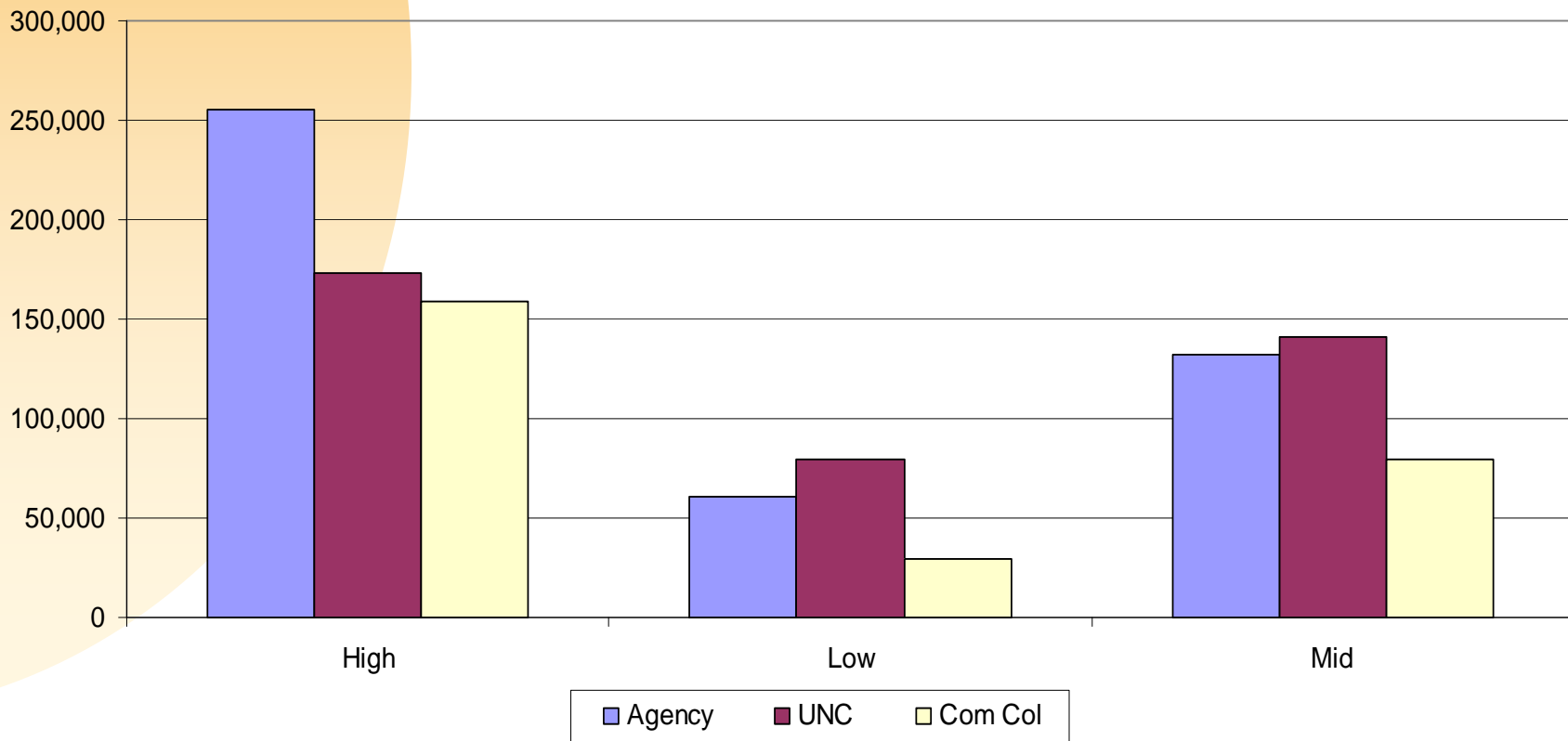


April 14, 2009



Where You Stand

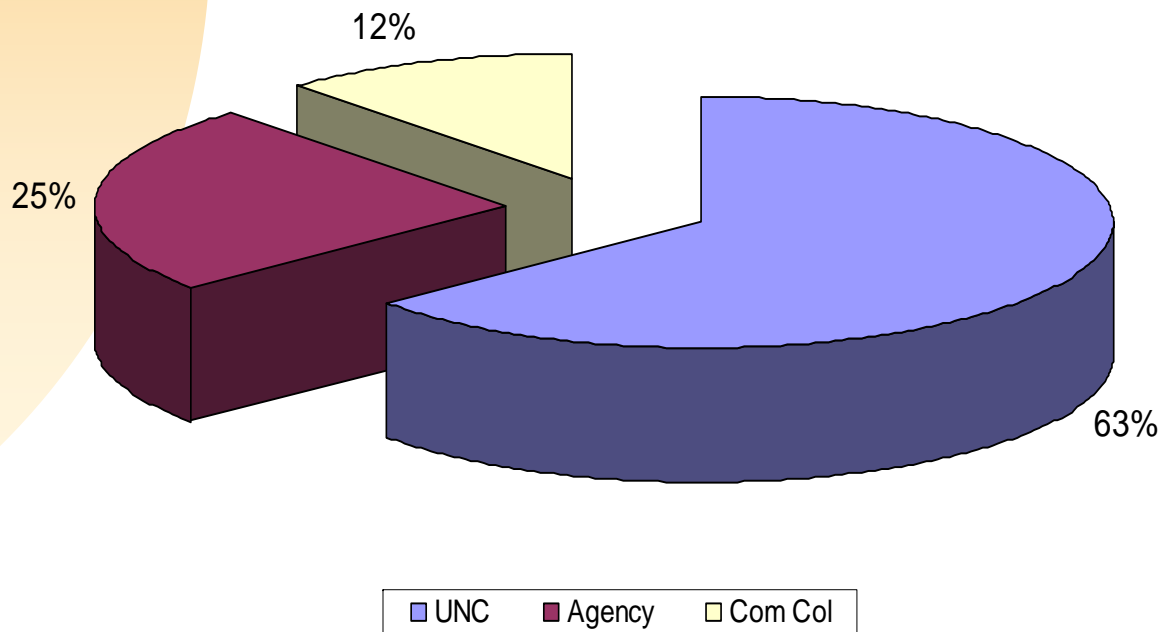
Btu per GSF per Year



April 14, 2009

Where You Stand

\$281,185,479
Cost Distribution



April 14, 2009




Avoided Costs Reported thru 2007-08

energy \$ avoided	energy \$/gsf	\$/mmbtu	\$/mmbtu %change	btu/sf	btu/sf %change
	\$2.08	\$13.249		157,076	
\$25,790,403	\$1.89	\$13.699	3%	137,676	-12%
\$29,542,359	\$1.97	\$14.385	9%	137,211	-13%
\$31,390,976	\$2.28	\$16.368	24%	139,078	-11%
\$31,212,852	\$2.22	\$16.023	21%	138,742	-12%
\$34,092,620	\$2.41	\$17.421	31%	138,114	-12%
\$152,029,211	\$0.00	\$0.000	0%	0	0%

April 14, 2009



A decorative graphic on the left side of the slide, consisting of a large orange semi-circle on the left and a horizontal blue bar with a gradient from light to dark blue on the right.

Strategic Energy Plan Simplified

April 14, 2009



Plan Updates

- **Executive Summary**
- **Supply Side**
 - Include data management
- **Demand Side**
 - Include data management
- **Awareness and Training**
- **Water**

April 14, 2009

Plan Updates

Key Performance Indicators

- Btu/Gsf/Yr
- Gal/Gsf/Yr (water)
- Btu/FTE (com col, UNC)
- Other as relevant

April 14, 2009

Plan Updates

Chart Objectives

- KISS
- S.M.A.R.T. goals
- Fewer may be better
- 1 year look ahead

April 14, 2009

Plan Updates

2008-2009 Plan

- Due July 2009
- 1 year look ahead
- 1 year left to get 20% from baseline

April 14, 2009



Plan Updates

2009-2010 Plan

- Due July 2010
- 5 year look ahead
- Total reduction 30% from baseline

April 14, 2009



Sample Declaration

I have read the Strategic Energy & Water Plan for my Organization. The plan, as presented, supports the reductions required in **G.S. 143-64.12(a)**

Implemented this _____ day of _____, 2008.

Utility Manager

Director of Facilities

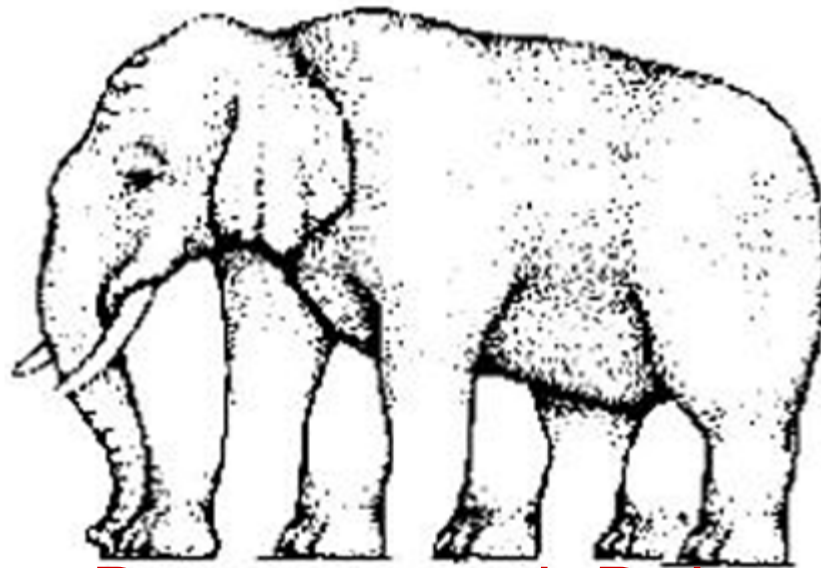
Chief Financial/Budget Officer

Department Head/Chancellor

April 14, 2009



The Elephant in the Room



American Recovery and Reinvestment Act

April 14, 2009

State Energy Office
ENERGY

American Recovery and Reinvestment Act

SEP Funds

State Energy Program Formula Grants
American Recovery and Reinvestment Act (ARRA)
Funding Opportunity Number: DE-FOA-0000052
Announcement Type: Initial
CFDA Number: 81.041, State Energy Program

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- The goals established for the State Energy Program (SEP) are:
 - Increase energy efficiency to reduce energy costs and consumption for consumers, businesses and government.
 - Reduce reliance on imported energy.
 - Improve the reliability of electricity and fuel supply and the delivery of energy services.
 - Reduce the impacts of energy production and use on the environment.

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- EPACT 2005 Reduce per capita energy consumption by 25 percent of the State's 1990 per capita energy use by 2012

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- Annual energy savings of at least **10 million** source BTUs for each **\$1,000** of total investment

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- Information to be Reported Quarterly
 - Building Retrofits
 - Number of buildings retrofitted, by sector
 - Square footage of buildings retrofitted, by sector
 - Building Energy Audits
 - Number of audits performed, by sector
 - Floor space audited, by sector
 - Auditor's projection of energy savings, by sector

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- Information to be Reported Quarterly
 - Technical Assistance
 - Number of contacts in which energy efficiency or renewable energy measures were recommended, by sector
 - Square footage of buildings retrofitted, by sector
 - Job Creation
 - Number
 - Type
 - Duration

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- Critical Annual Reporting Metrics
 - Energy Savings (kwh equivalents)
 - Renewable Energy Capacity and Generation
 - Emissions Reductions (tons) (CO2 equivalents)

April 14, 2009



American Recovery and Reinvestment Act

SEP Funds

- Data to be Reported Annually Related to EPACT Goal:
 - Total energy use per capita;
 - Residential energy use per capita;
 - Commercial energy use per capita;
 - Transportation energy use per capita;
 - Total energy intensity of production (Btu per dollar of state real GDP);
 - Industrial energy intensity of production.

April 14, 2009



American Recovery and Reinvestment Act

- Competitively bid projects
 - Very few unique products
 - Very few unique services
- Make sure contractors carry correct levels of insurance and can provide required construction bonds
- If it sounds too good to be true it probably is
- ARRA projects should align with overall USI objectives

April 14, 2009



Next Steps

- Incentives
 - Avoided costs go straight to bottom line
- Tactical conservation measures must become the new norm
- No space heaters
 - May negate building level setbacks
- No personal refrigerators, microwaves, coffee pots
- Scheduling – optimize building use

April 14, 2009



Next Steps

- § 143 135 New building construction
 - If new buildings are not 30% more efficient cannot meet USI requirement
- 18 of 41 Agencies and Universities already at 20% reduction or below target of 125,660 Btu/gsf/yr

April 14, 2009



Possibilities

“Don’t make excuses.
Find solutions.”

Unknown

April 14, 2009

Thank You for Attending



April 14, 2009

State Energy Office
ENERGY