

NC A&T STATE UNIVERSITY

ENERGY PROGRAM OVERVIEW

Agenda

- ✓ FY 2008/2009 Year End Summary
 - ✓ University Strategic Energy Plan
 - ✓ Aggie Energy Watch – News Letter
 - ✓ Energy Policy Update
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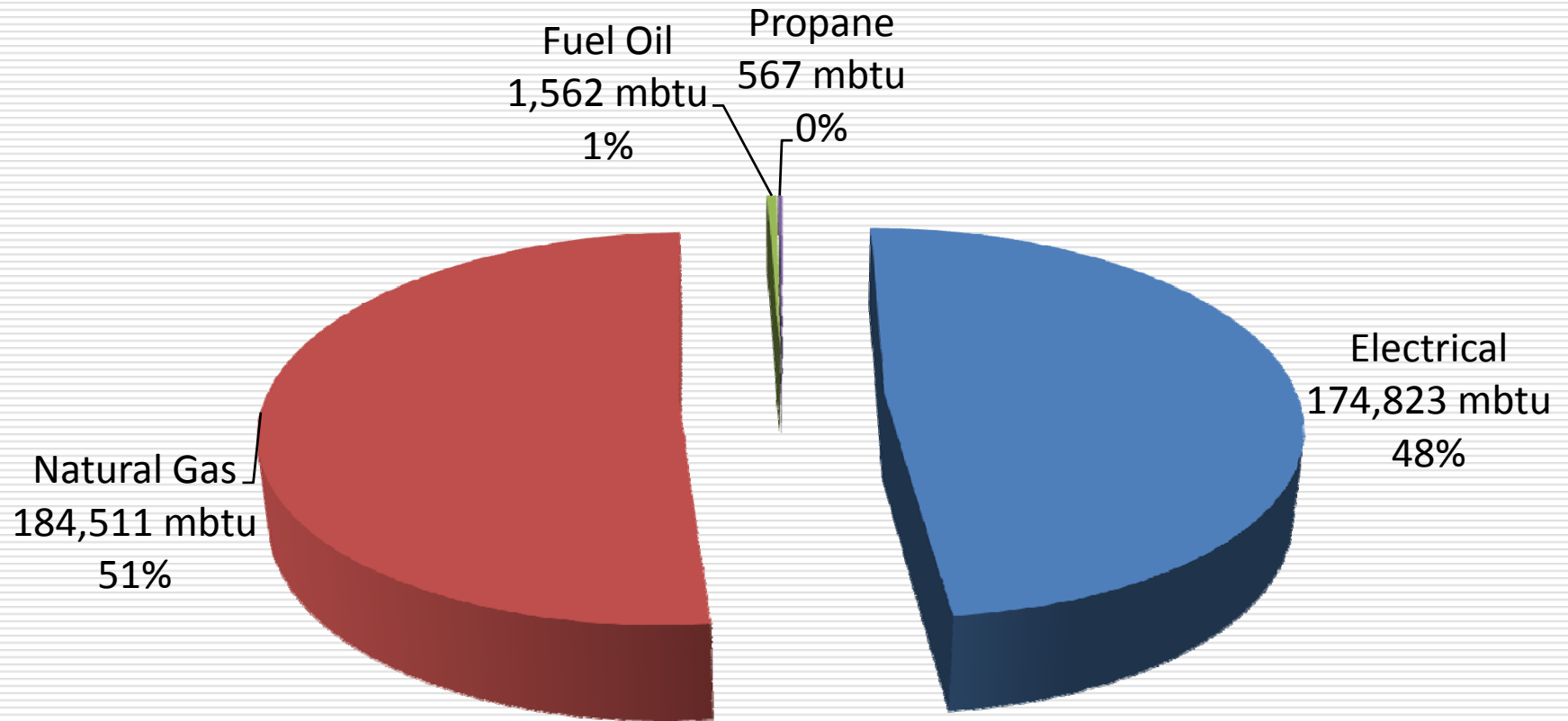
Energy Report: Fiscal Year 2009



GOAL TO REDUCE ENERGY

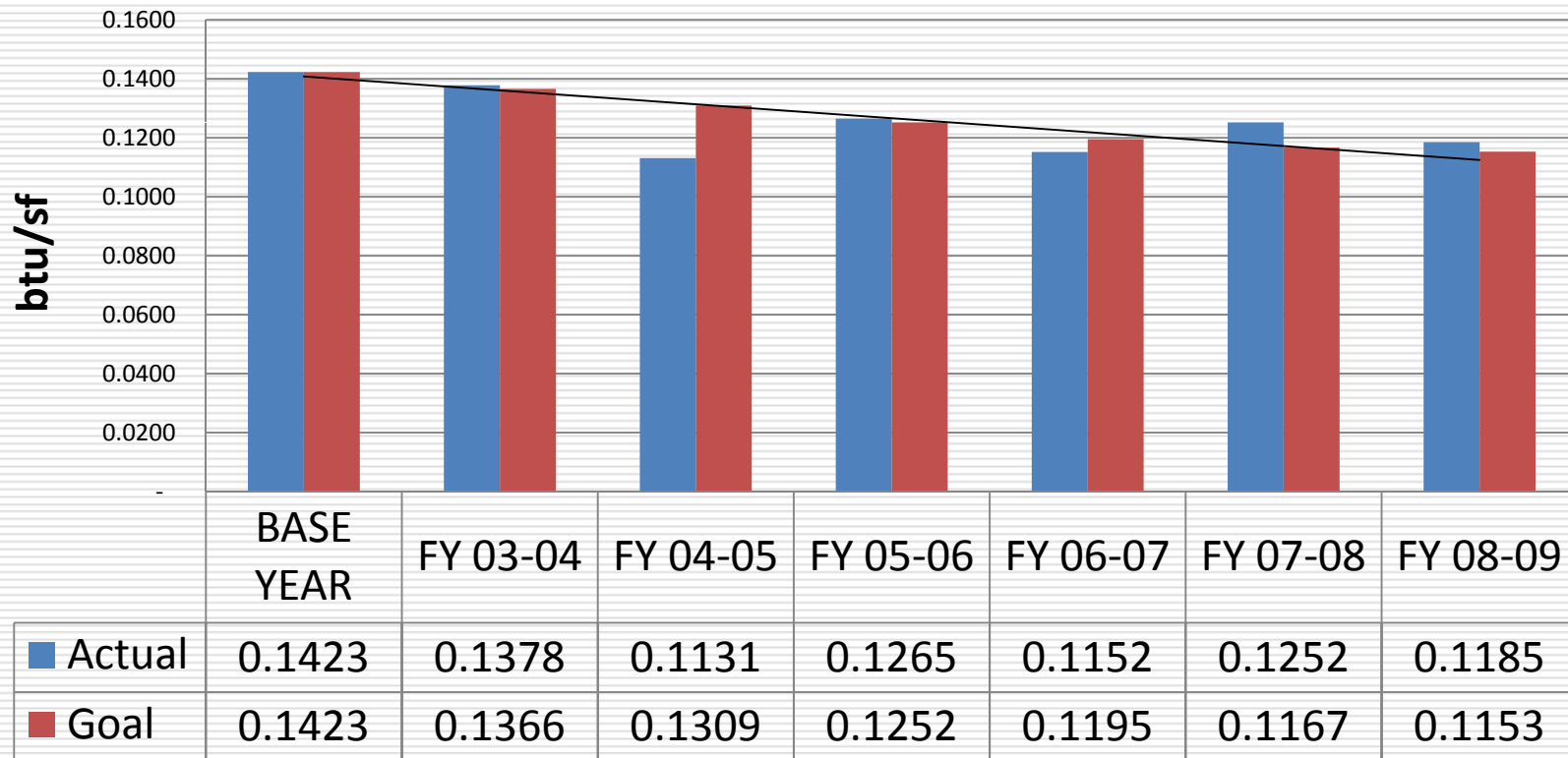
- ✓ Our goal for FY 2009 was to reduce the University energy consumption 19% per gross square foot below the energy used in FY 2003. We achieved 17% per gross square foot reduction.
 - ✓ The goal for FY 2010 is to achieve a 20% reduction.
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ENERGY CONSUMPTION JULY '08 THRU JUNE '09



ENERGY REDUCTION PROGRESS FY2009

Energy Consumption Per Square Foot



GOAL TO REDUCE ENERGY

Energy Reduction Per Square Foot Thru June '09



	BASE YEAR	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09
Actual %		-3%	-21%	-11%	-19%	-12%	-17%
Goal %		-4%	-8%	-12%	-16%	-18%	-19%

Repairs and Installations

- ✓ Total utility Cost avoided \$900,971
 - ✓ Repairs on Laurel St. steam and condensate line produced saving (217,972 therms) of 11% in natural gas
 - ✓ Electrical consumption increased .1% (45,412 kwh)
 - ✓ Water cost increased 4%, but consumption decreased by 7% (over the passed fiscal year)
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Repairs and Installations

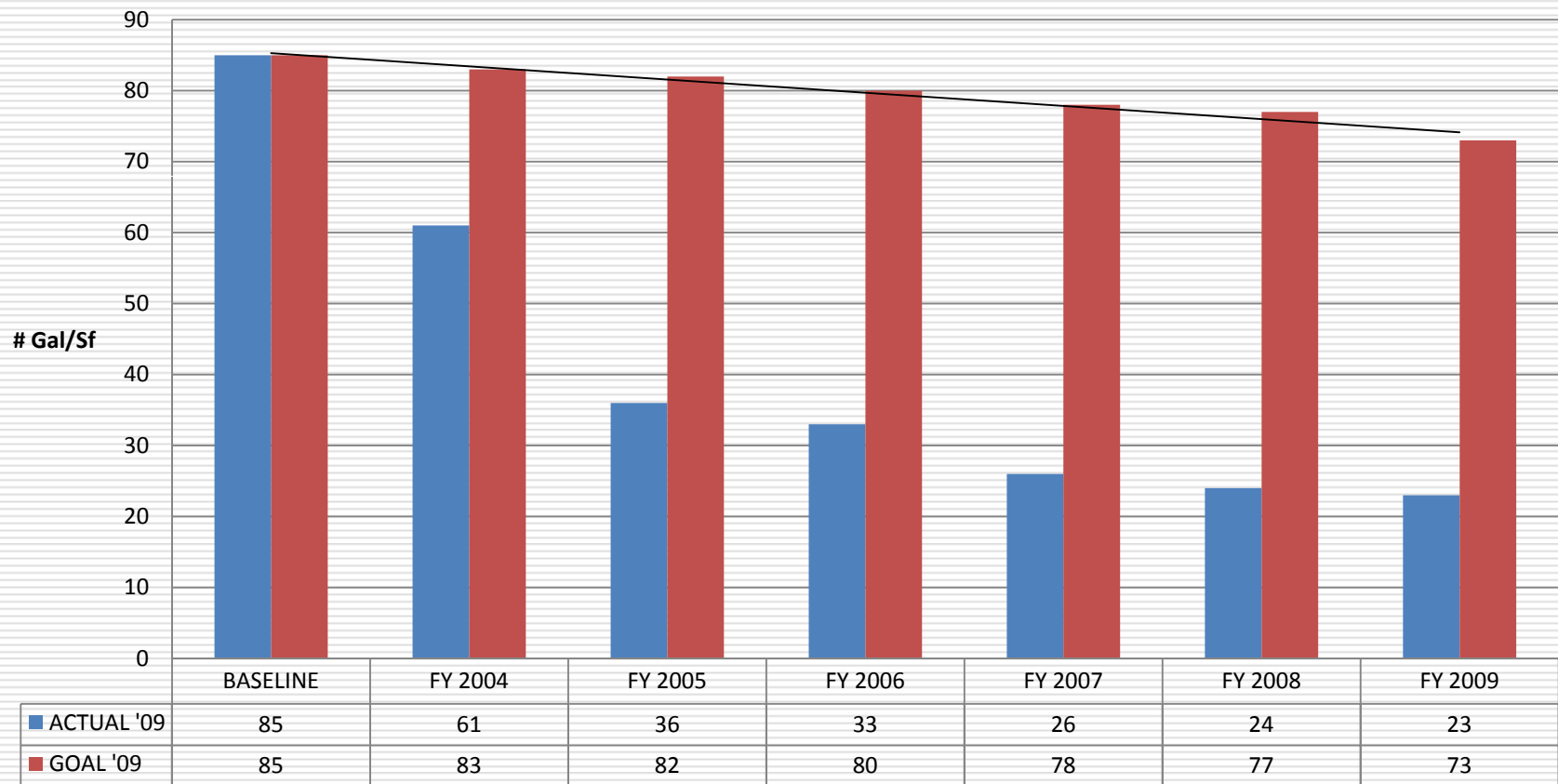
- ✓ Water savings totaled 4.9 Million gallons for the fiscal year
 - ✓ During February and March '09, 287 occupancy sensors were installed in ten buildings
 - ✓ This will save an estimated 188,884 kwh (\$11,333) per year
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Water Conservation

- ✓ The goal for water reduction was 12% per gross square foot, we achieved 46% reduction
 - ✓ In terms of gallons the goal was set at 73 gallons we achieved 46 gallons per square foot
 - ✓ Thanks to our students, faculty, staff and a special thanks to the Plumbing Shop
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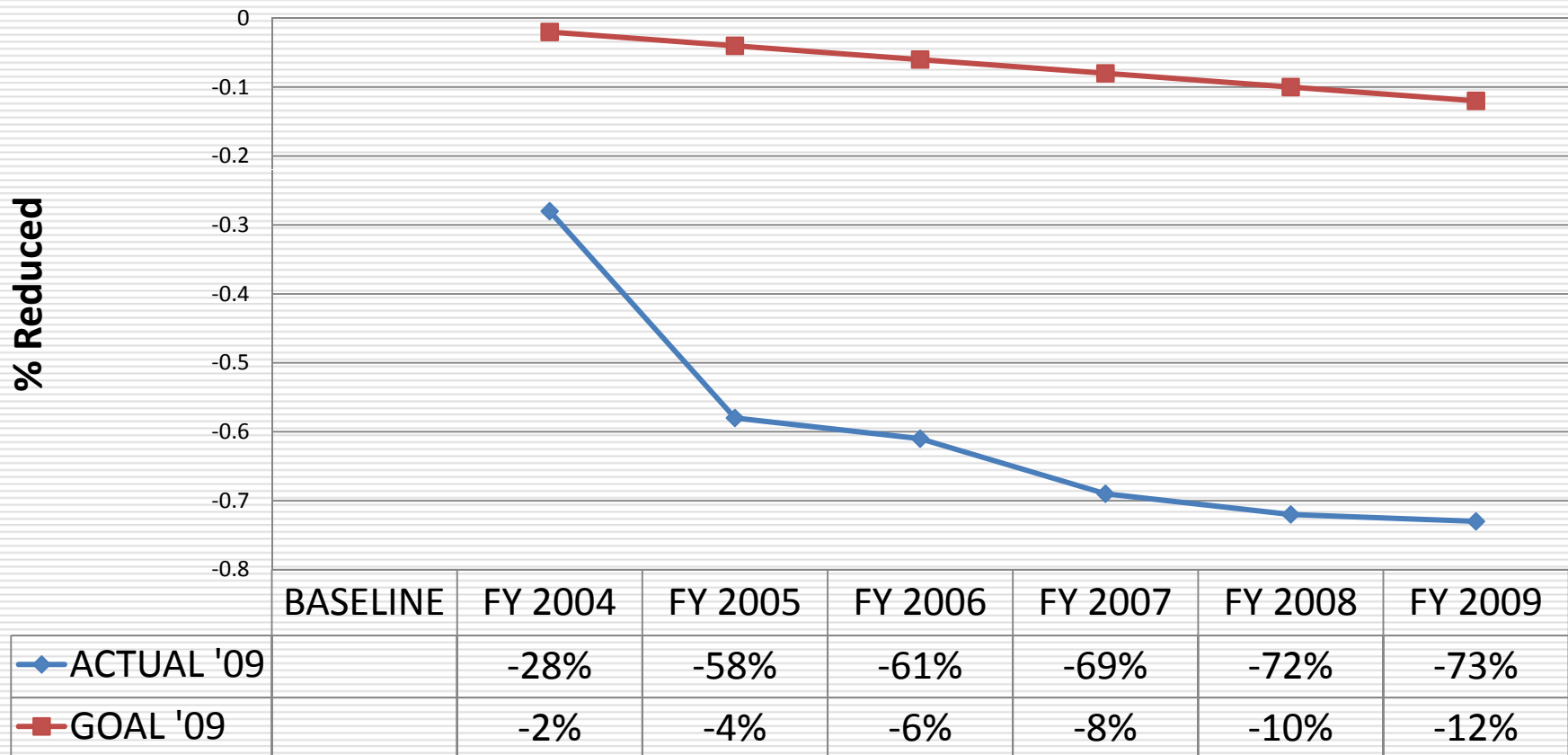
WATER USE

Water Consumption Per Square Foot



GOAL TO REDUCE WATER USE

Water Reduction Thur June '09



Strategic Energy Plan

- ✓ Background

- ✓ Energy goal is based on a FY 2002-03 baseline

- ✓ Unit of measurement - MBTU/GSF

- ✓ State goal: 20% reduction by Jun 30, 2010

- ✓ Goal extended: 30% reduction by Jun 30 2015

- ✓ Water/Sewer goal based on FY 2002/2003

- ✓ State goal: 14% reduction by Jun 30, 2010

Strategic Energy Plan

- ✓ Data collection and bill validation
 - ✓ Utility bills are collected and paid by Accounts Payable
 - ✓ Bills are forwarded to the university energy coordinator for validation and tracking
 - ✓ Auxiliary customers reimburse based upon GSF assigned
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Sub-Metering

- ✓ Why Meter ?
 - ✓ You can not control what you do not measure
 - ✓ Utilities charge-back can be done based upon actual usage vs. current per square foot basis
 - ✓ Allows development of building utility profiles
 - ✓ Facilitates early notice of excessive utility use
 - ✓ Can provide direct feedback to the customer on results of conservation initiatives
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Sub-Metering

- ✓ Plans and specification have been developed to install sub-meters for all utilities in 28 location
 - ✓ University purchased , installed and operated
 - ✓ Also evaluating a Duke energy proposal to install and operate sub metering in same buildings for a monthly fee
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Organization Integration

- ✓ Energy oversight committee
 - ✓ Business and Finance
 - ✓ Academic
 - ✓ Student Affairs
 - ✓ Research
 - ✓ Facilities
 - ✓ Residence Life
 - ✓ Aux Services
 - ✓ DoIT
 - ✓ University Relations
 - ✓ SGA
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Energy Newsletter

Aggie Energy Watch

Energy Policy (Draft)



Recycling In Aggie Land



- ✓ With the help of a recycling consultant and partnering with the City of Greensboro, A&T's recycling program is under way.
 - ✓ Trained over 100 staff personnel (Housekeeping and Grounds) on recycling thru The City of Greensboro
 - ✓ Helped broaden our knowledge on how and what to recycle.
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Recycling In Aggie Land

- ✓ The topics discussed and explained during the training class
 - ✓ **Reduce** – Buy Recycled, Eliminate Unnecessary Waste, Modify Consumption
 - ✓ **Reuse** – Repurpose, Get more than one use
 - ✓ **Recycle** –
Paper, Cardboard, Plastic, Aluminum
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Recycling In Aggie Land



- ✓ Topics included the 5 W's
 - ✓ Who
 - ✓ Why
 - ✓ Where
 - ✓ When
 - ✓ What
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Recycling In Aggie Land



- ✓ Effective October 1, 2009 it is be illegal for plastic bottles to find their way into North Carolina landfills.
 - ✓ Oil filters and wooden pallets will be banned on that day as well.
 - ✓ Aluminum cans are supposed to have been kept out of landfills since the 1990s.
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Recycling In Aggie Land



- ✓ The reason for the new law has as much to do with saving jobs as it does with saving the planet, experts say.
 - ✓ The state is already home to companies that recycle plastics such as Envision Plastics and Plastic Revolutions, both in Reidsville. A huge new recycling plant near Fayetteville will use up to 280 million pounds of the stuff every year.
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Going Ahead Strategy

- ✓ Create Sustainment Office
 - ✓ Establish Campus Energy Integration Team
 - ✓ Install Sub-Meters in Campus Facilities
 - ✓ Initiate Performance Contracting
 - ✓ Implement revised University Energy Policy
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Aggie Pride!
Conserve our Natural
Resources
