The Economic Dynamics of Sustainability at the University of Rhode Island

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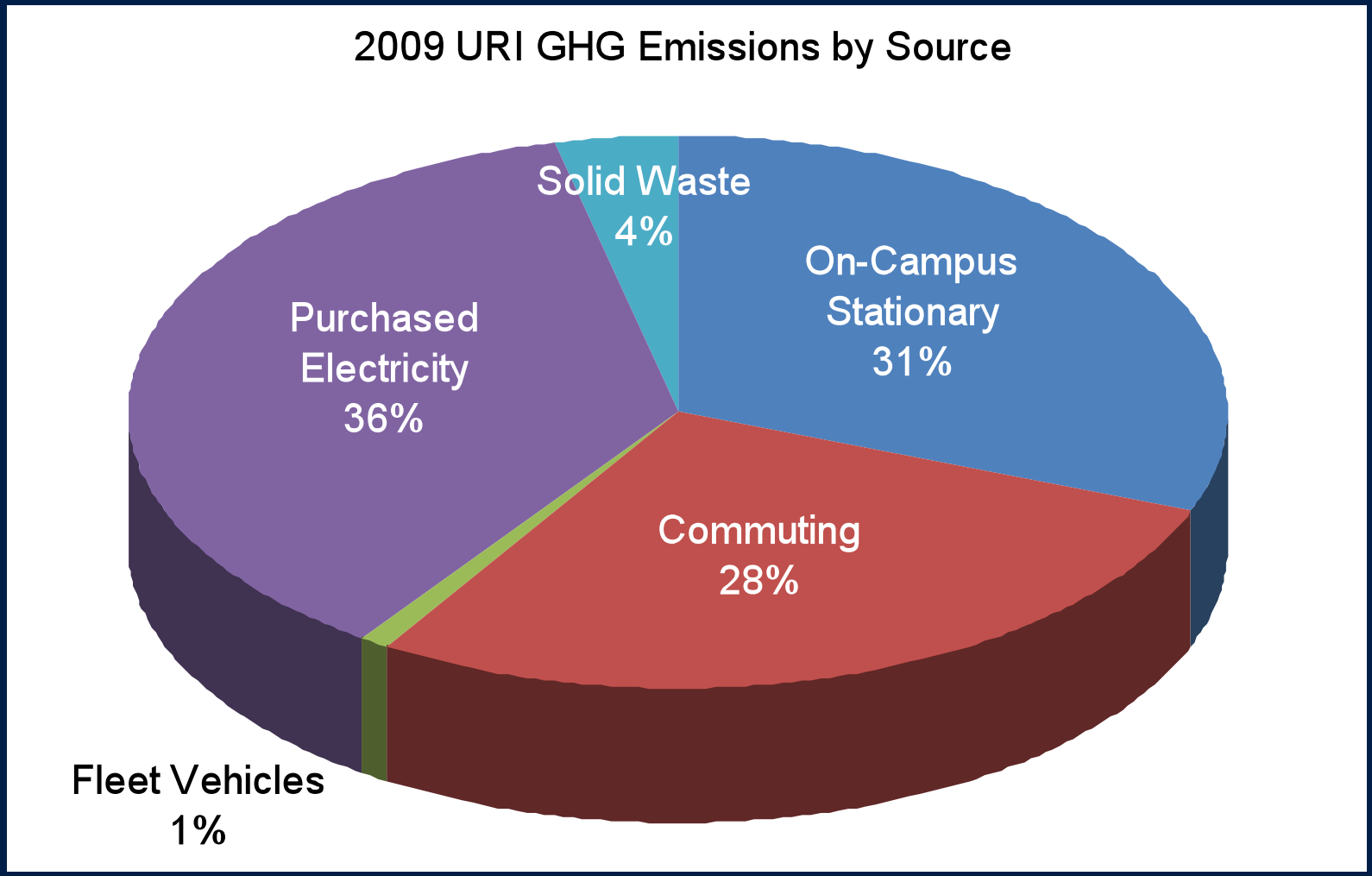
THINK BIG WE DO℠

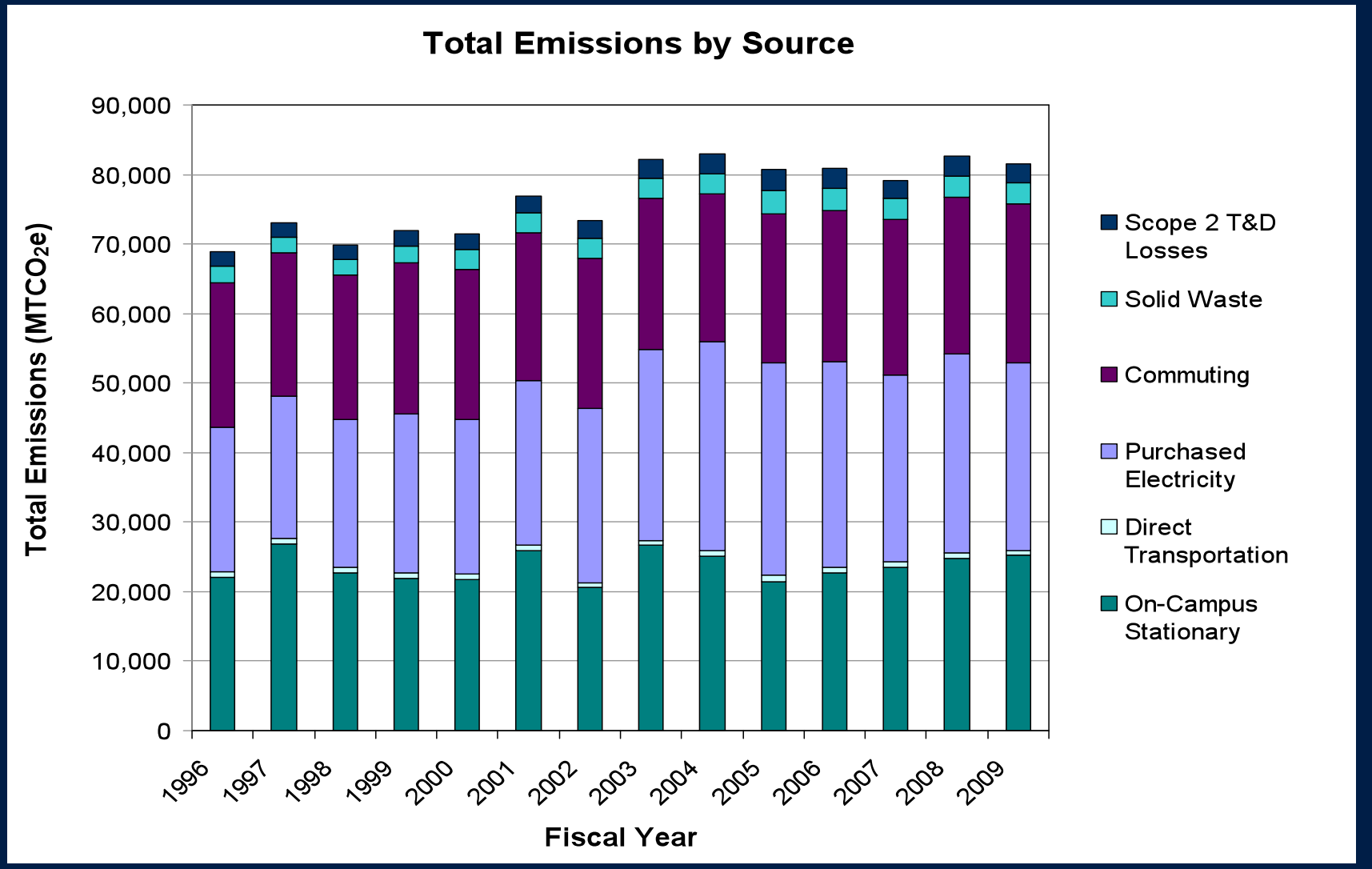
URI President's Council on Sustainability

- Assistant Vice President for Research Administration; Professor of Oceanography
- Associate Professor of Natural Resources Science
- Associate Professor of Business Administration
- Climate Action Plan Coordinator
- Director of Coastal Institute; Professor of Communications Studies and Theatre
- Professor and Chair of Landscape Architecture Department
- Professor of Chemical Engineering
- Professor of Economics
- Professor of Plant Sciences
- Director of Capital Planning and Design
- Director of the URI Outreach Center; Co-director of the URI Energy Center
- URI News Bureau Writer
- Undergraduate Student, Environmental Science and Management
- Utilities Engineer, Facilities Services
- Vice President for Administration and Finance

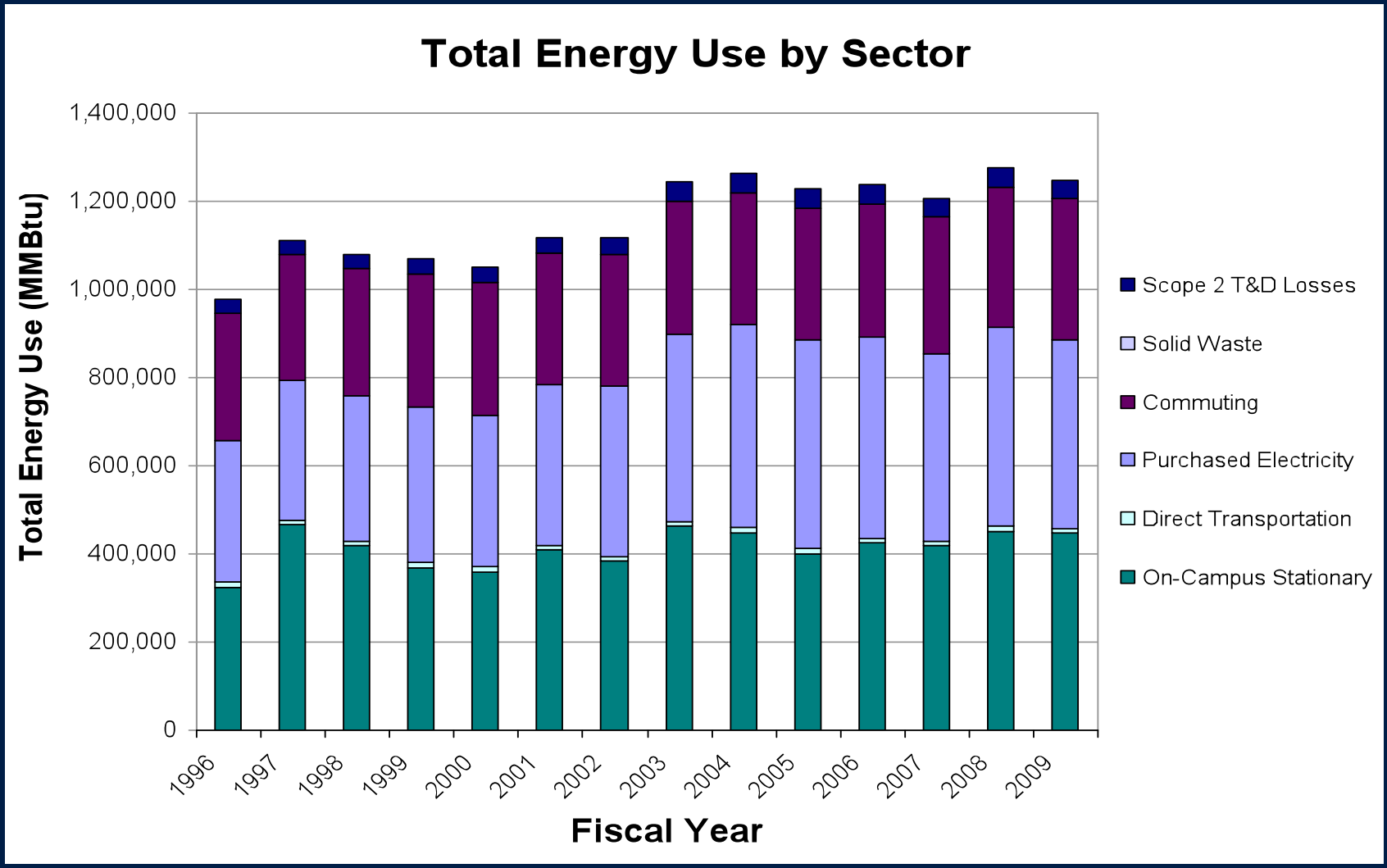
Greenhouse Gas Emissions Inventory (2009)



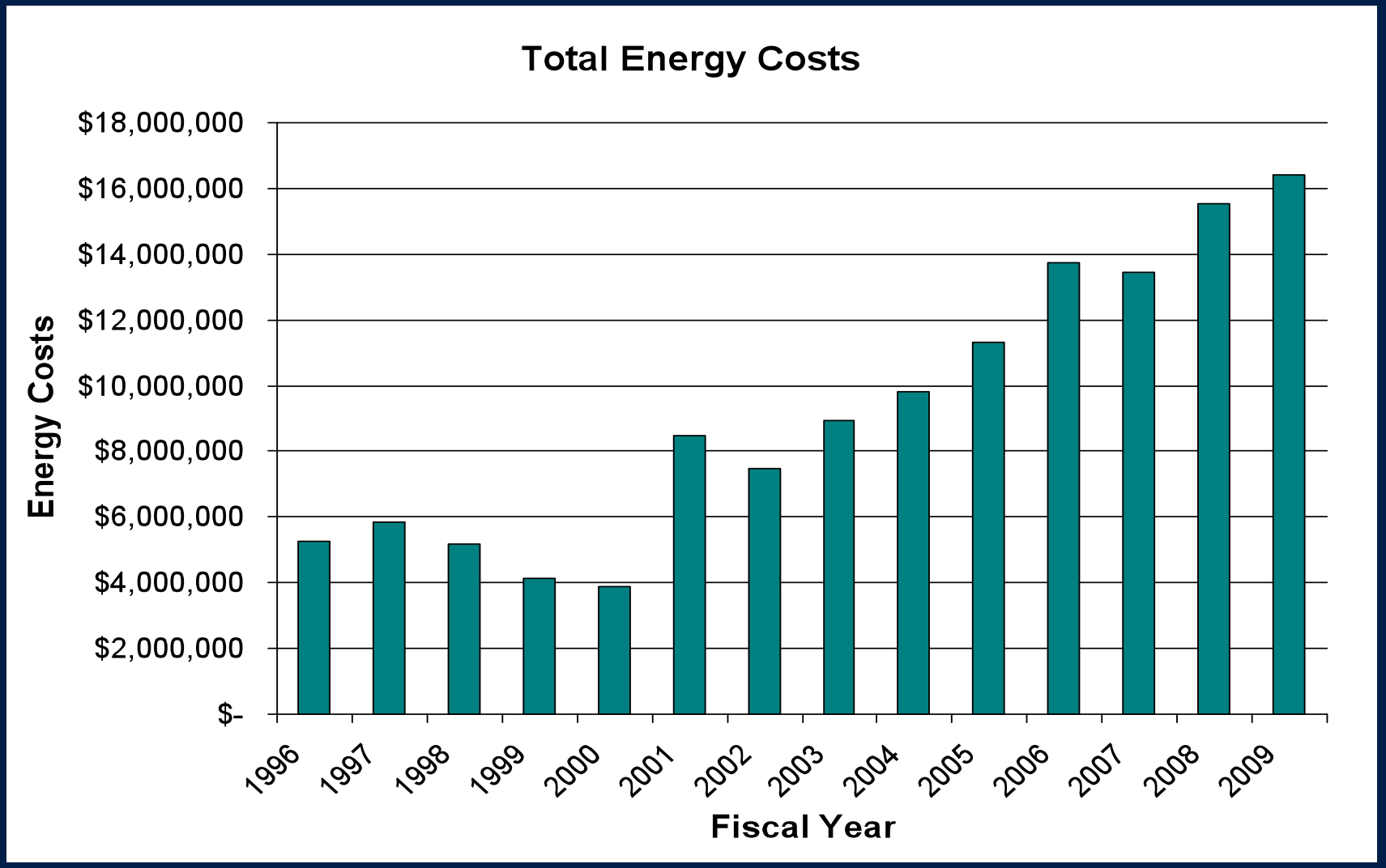
Historical Emissions by Source (1996-2009)



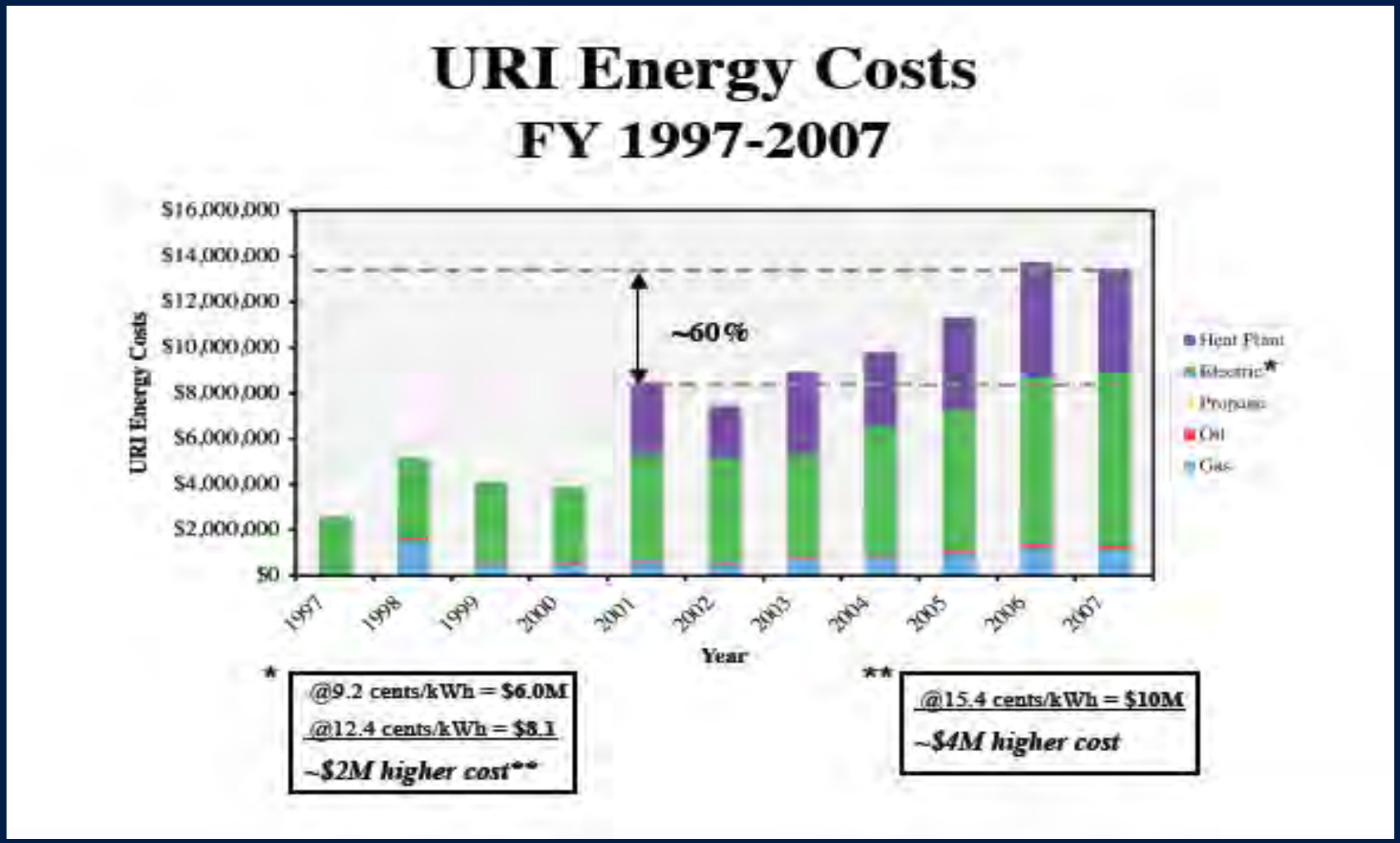
Historical Energy Use by Sector (1996-2009)



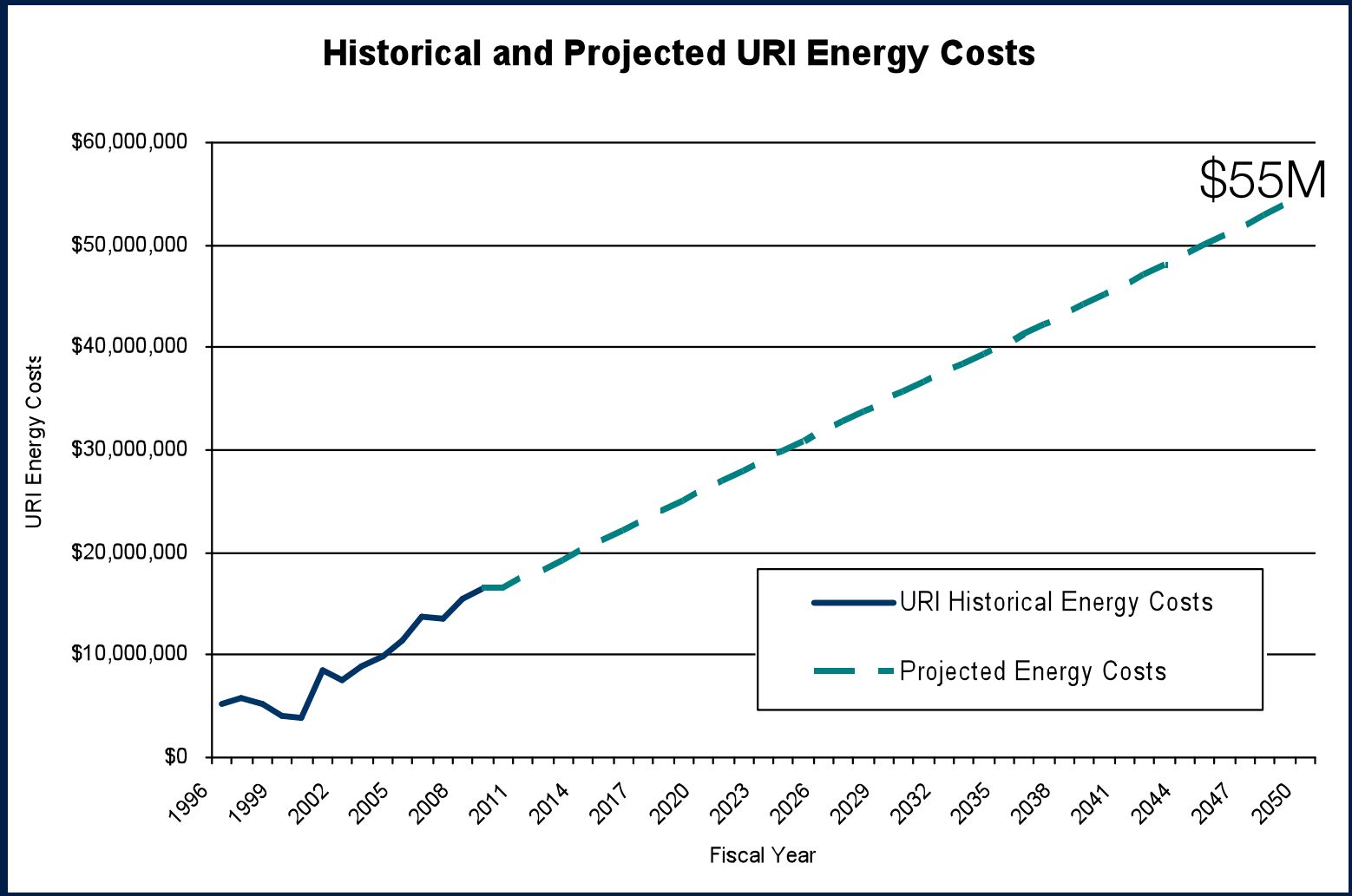
Historical Energy Costs (1996-2009)



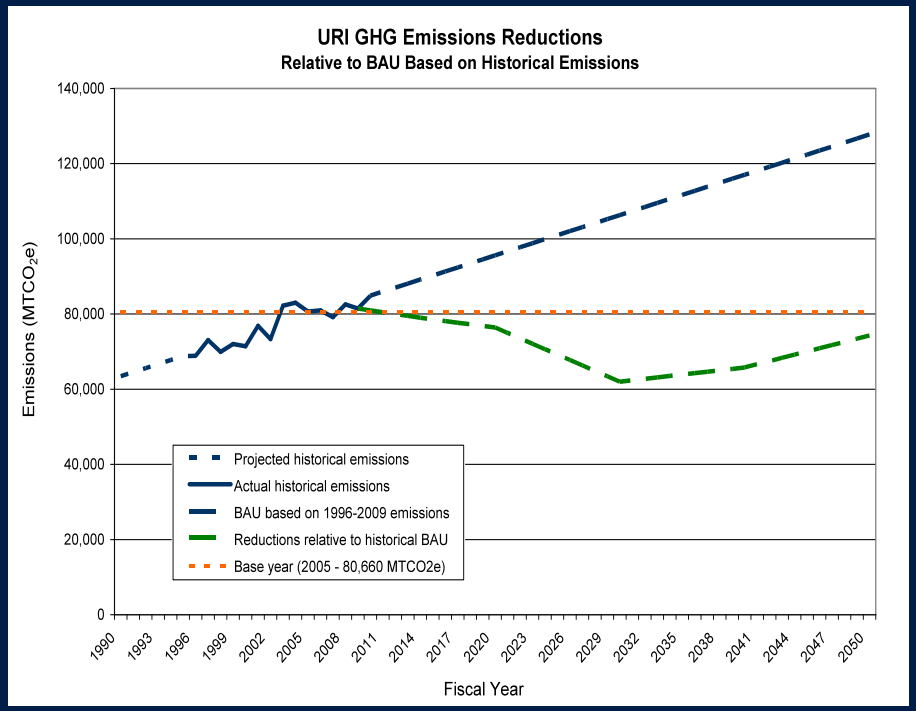
Historical Energy Costs (1996-2009)

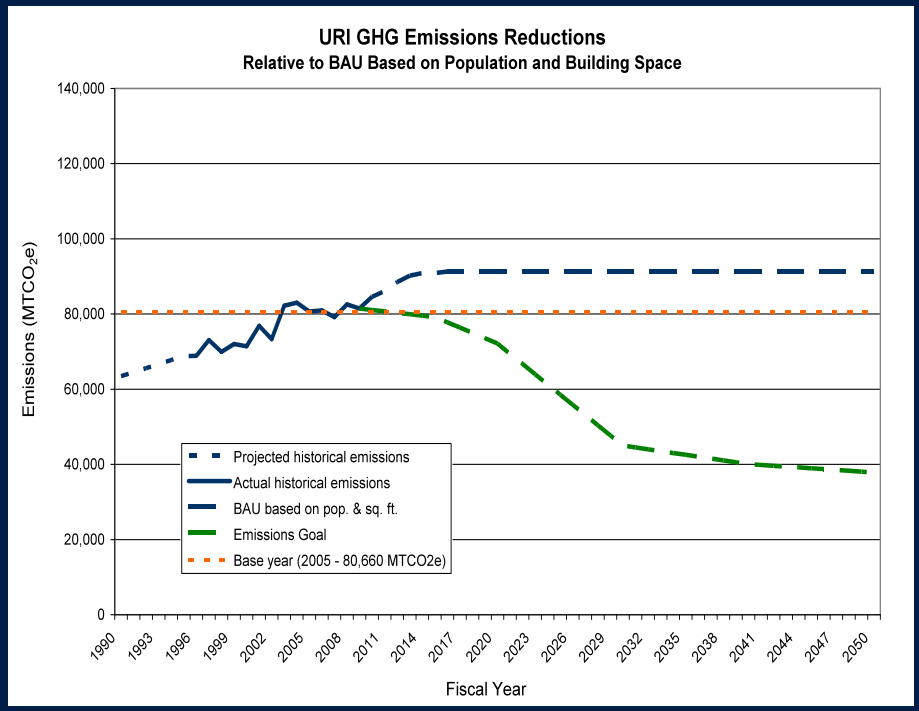


Projected Energy Costs



URI Emissions Reductions

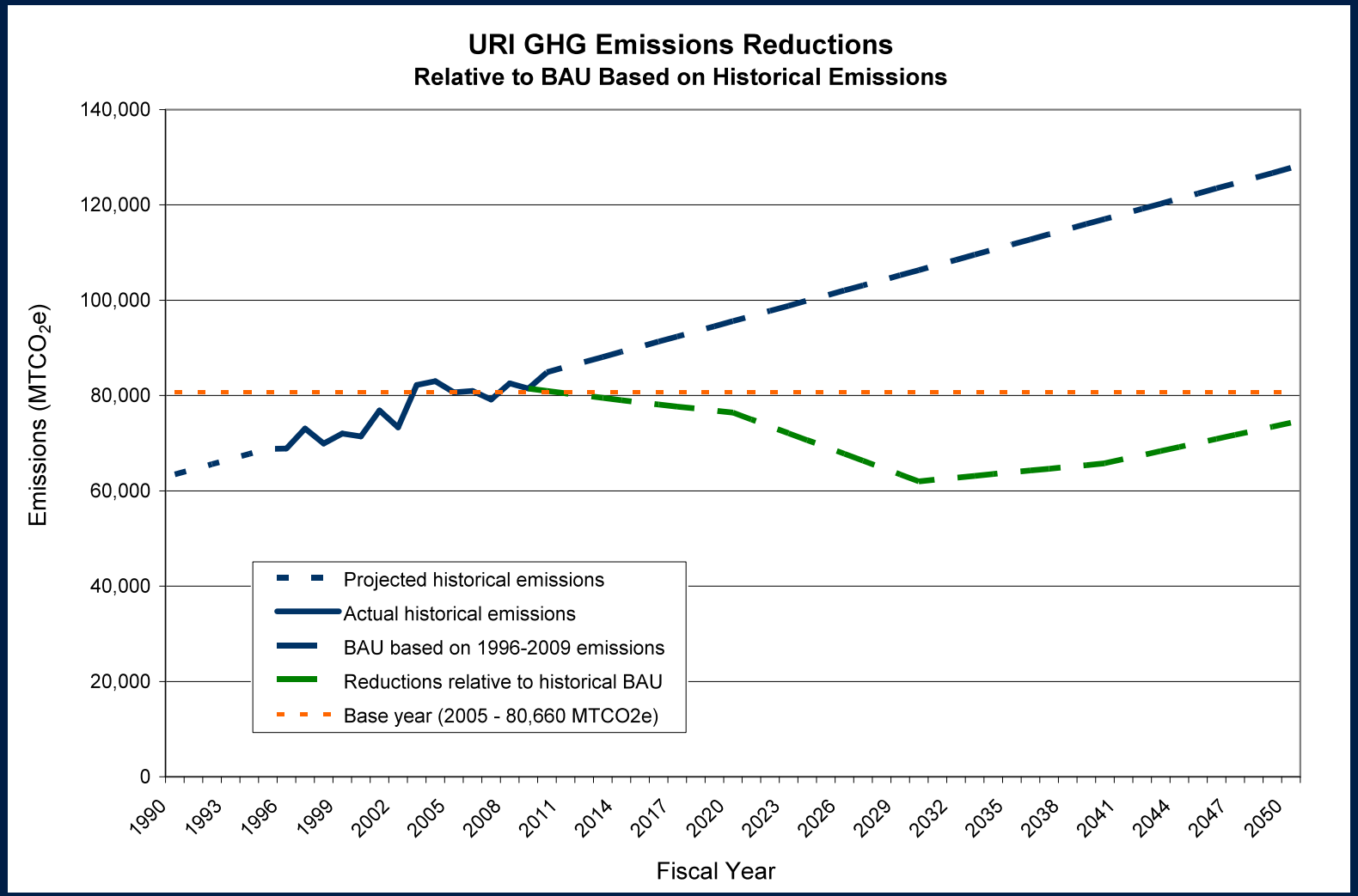




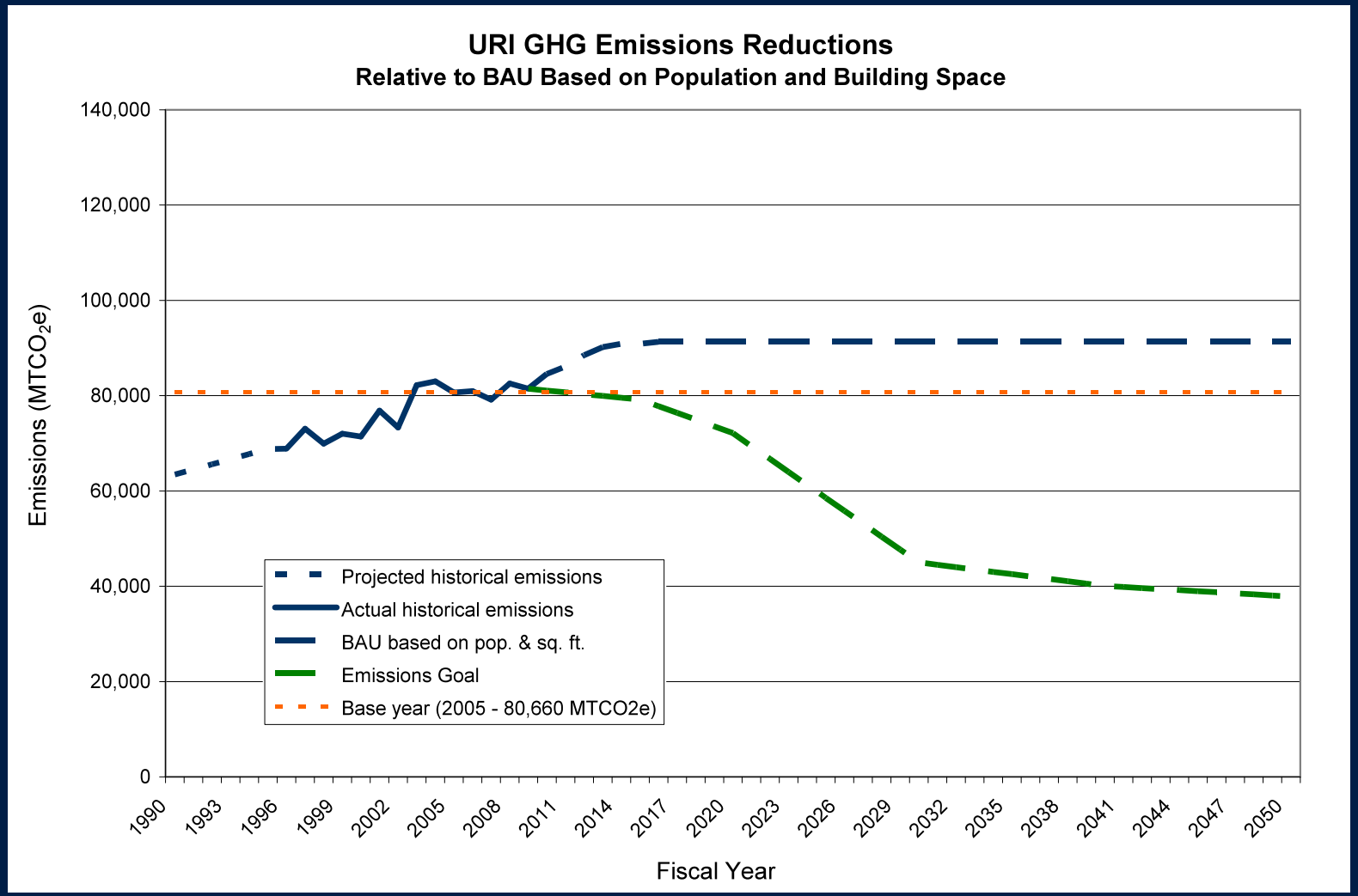
Relative to business as usual projection

Relative to projection with policy expectations

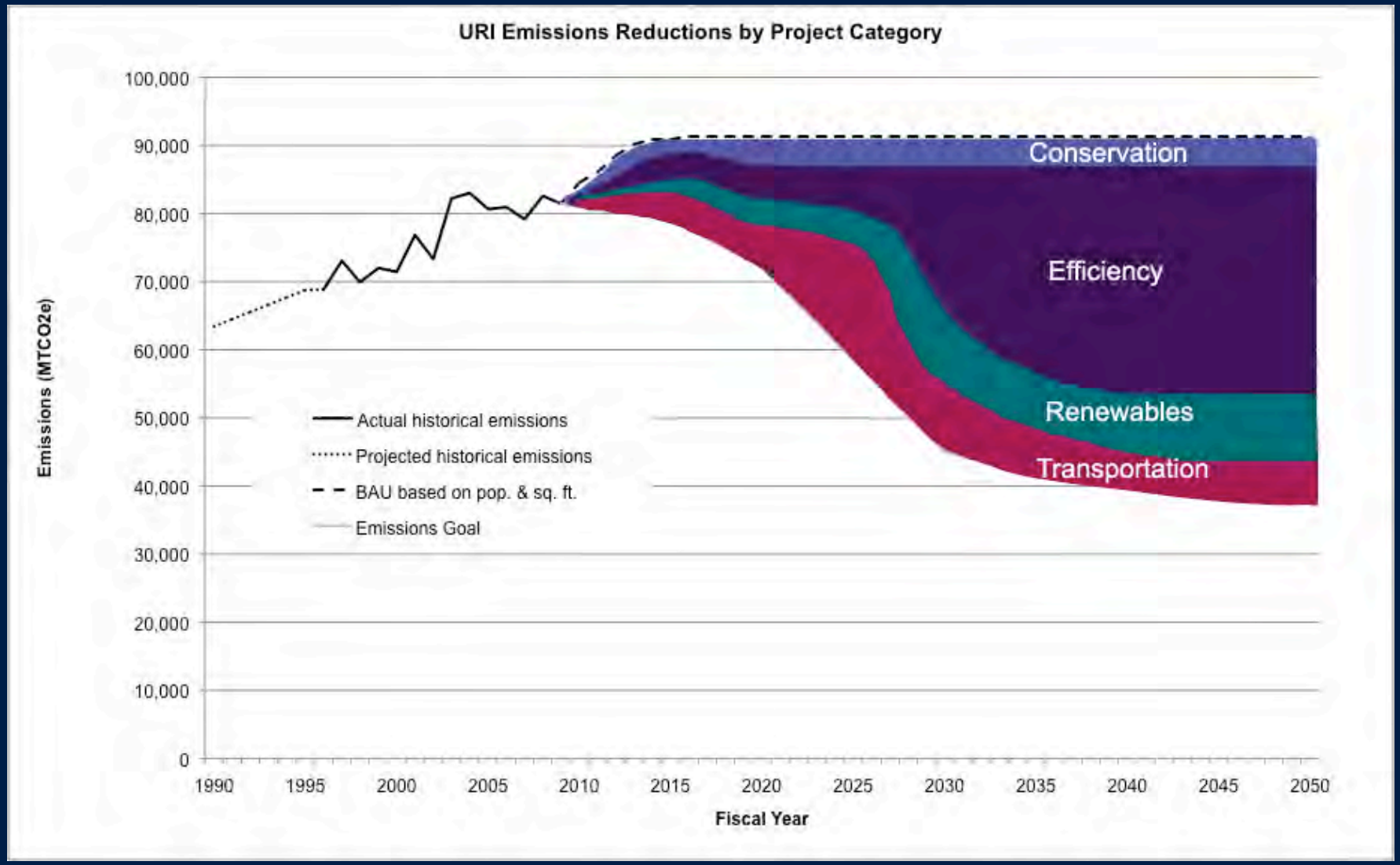
Emissions Reduction (Historical BAU)



Emissions Reduction (Policy BAU)



Emissions Reductions by Project Category



Reduction Targets

Target	Year	Reduction
5-Year Target	2015	2005 Levels
10-Year Target	2020	10% below 2005 levels
20-Year Target	2030	40% below 2005 levels
30-Year Target	2040	45% below 2005 levels
40-Year Target	2050	50% below 2005 levels

5 Year Target – 2005 Levels by 2015

5 YEAR TARGET – 2005 LEVELS BY 2015				
Project	**Avg. Annual Cost**	**Avg. Annual Benefits**	**$MTCO_2e$/year Reduced**	**% of Total Reduction**
Biodiesel Fuel Transition	$2,748	$0	3,734	7%
NORESCO Project 7 - Option A	$701,170	$1,246,233	3,259	6%
Nightly Desktop Shutdown	$0	$423,098	1,323	2%
Increased Bus Trip Frequency	$0	$0	1,125	2%
Real-time Energy Monitoring	$14,482	$205,565	610	1%
Heating Set-point	$9,091	$174,133	445	1%
Transportation Marketing Program	$5,000	$0	319	1%
Cooling Set-point	$9,091	$814,539	240	<1%
Employee Telecommuting	$0	$0	181	<1%
Car Sharing Program	$0	$0	180	<1%
Summer Building Consolidation	$0	$42,161	124	<1%
Vending Misers	$682	$42,114	105	<1%
Nightly Monitor Shutdown	$0	$16,924	53	<1%
Geothermal - New Pharmacy Building	$1,352	$6,042	12	<1%
TOTAL			**11,710**	**22%**

10 Year Target – 10% by 2020

10 YEAR TARGET - 10% BY 2020				
Project	**Avg. Annual Cost**	**Avg. Annual Benefits**	**$MTCO_2e$/year Reduced**	**% of Total Reduction**
Purchased Wind Power	$1,023,667	$0	4,498	8%
Fully Subsidized Bus Passes	$55,194	$0	1,127	2%
Carpool Parking Lot	$146,673	$0	880	2%
Freshman Parking Ban	$183,029	$0	810	2%
Infrequent Parking Permits	$47,212	$0	158	<1%
TOTAL			**7,473**	**14%**

URI Climate Action Plan

Avg. Annual Costs	Avg. Annual Benefits	Emissions Reduced	% Emissions Reduction
$7,507,087	$18,731,452	53,099 $MTCO_2e$	50% Below 2005 by 2050

Emissions in 2009: 81,453 $MTCO_2e$

Emissions in 2050: 37,857 $MTCO_2e$

$MTCO_2e$ = Metric Tons of Carbon Dioxide Equivalents

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