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BEFORE THE ARIZONA CORPORATION COMMISSION

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BOB BURNS
SUSAN BITTER SMITH

IN THE MATTER OF RESOURCE PLANNING AND PROCUREMENT FOR 2011 AND 2012	DOCKET NO. E-00000A-11-0113 **SWEEP COMMENTS ON THE 2011 & 2012 RESOURCE PLANS: AUGUST 22ND PRESENTATION**

COMMENTS OF THE SOUTHWEST ENERGY EFFICIENCY PROJECT (SWEEP) AND SWEEP'S AUGUST 22, 2012 WORKSHOP PRESENTATION

The Southwest Energy Efficiency Project ("SWEEP") appreciates the opportunity to submit the presentation it shared at the August 22, 2012 Workshop and Special Open Meeting on the Integrated Resource Plans. Below we also provide a summary of the comments and main points communicated in the presentation. SWEEP wanted to make sure its comments were on the record in the Docket, as the Staff Report did not summarize the comments and presentations provided during the August 22 Workshop, though the materials were posted on the Commission website.

The SWEEP presentation, attached as Appendix A, explored the role of energy efficiency within the resource planning framework, summarized the performance and cost of energy efficiency programs, and documented the contributions of energy efficiency in meeting the resource needs of Arizona customers. The presentation relied primarily on data from the Arizona Public Service Company (APS) Resource Plan or from APS energy efficiency plans or reports. Specifically, the presentation:

- Highlighted the substantial contribution energy efficiency will make toward meeting the energy needs of Arizona's customers over the next decade (slides 2 and 3).
- Demonstrated how energy efficiency plays a crucial role in diversifying Arizona's energy resource portfolio over the next ten years (slide 3).
- Explained that the cost of saving a kWh though energy efficiency programs is significantly less than the cost of generating a kWh with existing generation or with future generation (slide 4), and therefore increasing energy efficiency will reduce total energy costs and utility bills for customers.

- Showed that the actual cost of implemented energy efficiency programs in Arizona has been less than the budgeted costs approved by the Commission (slides 4 and 5).

- Noted that separate from being the least expensive energy resource available, energy efficiency programs must also demonstrate their cost-effectiveness vis à vis the next best available energy supply resource in order to be implemented. Indeed, energy efficiency programs must demonstrate their cost effectiveness by passing a cost-effectiveness assessment conducted by the Commission Staff. This assessment compares the benefits of each energy efficiency program (e.g., the avoided costs of energy and capacity that each program delivers) with the costs of each program (e.g., the sum of each program's costs and customer costs) (slide 6). Energy efficiency is unique in being the only energy resource that must pass a cost effectiveness assessment in order to be implemented.

- Described the process whereby energy efficiency programs are continuously reviewed and improved to maximize their performance in current and future years (slides 6 and 7).

- Explained that Arizona's energy efficiency portfolios are exceeding their goals and that programs work concurrently to achieve this performance at the portfolio level, while acknowledging that the performance of individual programs may vary, since individual programs are affected by market conditions (e.g., the new construction market may be soft for a time, which limits the amount of new construction savings available during that time period, but other programs make up more than the difference by achieving savings higher than the planned program savings) (slide 8).

- Summarized the results of a poll that found that Arizona customers understand energy efficiency is the least expensive, least harmful energy resource available (slide 9).

- Described some of the other benefits of energy efficiency (slide 10).

- Explained that once energy efficiency measures are installed, there is virtually no cost uncertainty. In addition, there is very small uncertainty about energy efficiency performance as a resource and that under-performance in any one year can be addressed in the next year or future years (slide 11). This certainty with energy efficiency costs and performance was contrasted with the significant uncertainty of natural gas costs and natural gas cost projections, and their associated risks for utility customers (slides 12 and 13).

Thank you for the opportunity to submit the SWEEP presentation from the August 22, 2012 IRP Workshop and Special Open Meeting.

Respectfully submitted this 24th day of April 2013 by:

Jeff Schlegel & Ellen Zuckerman
Southwest Energy Efficiency Project

SWEEP Comments – APPENDIX A

Energy Efficiency & Resource Planning

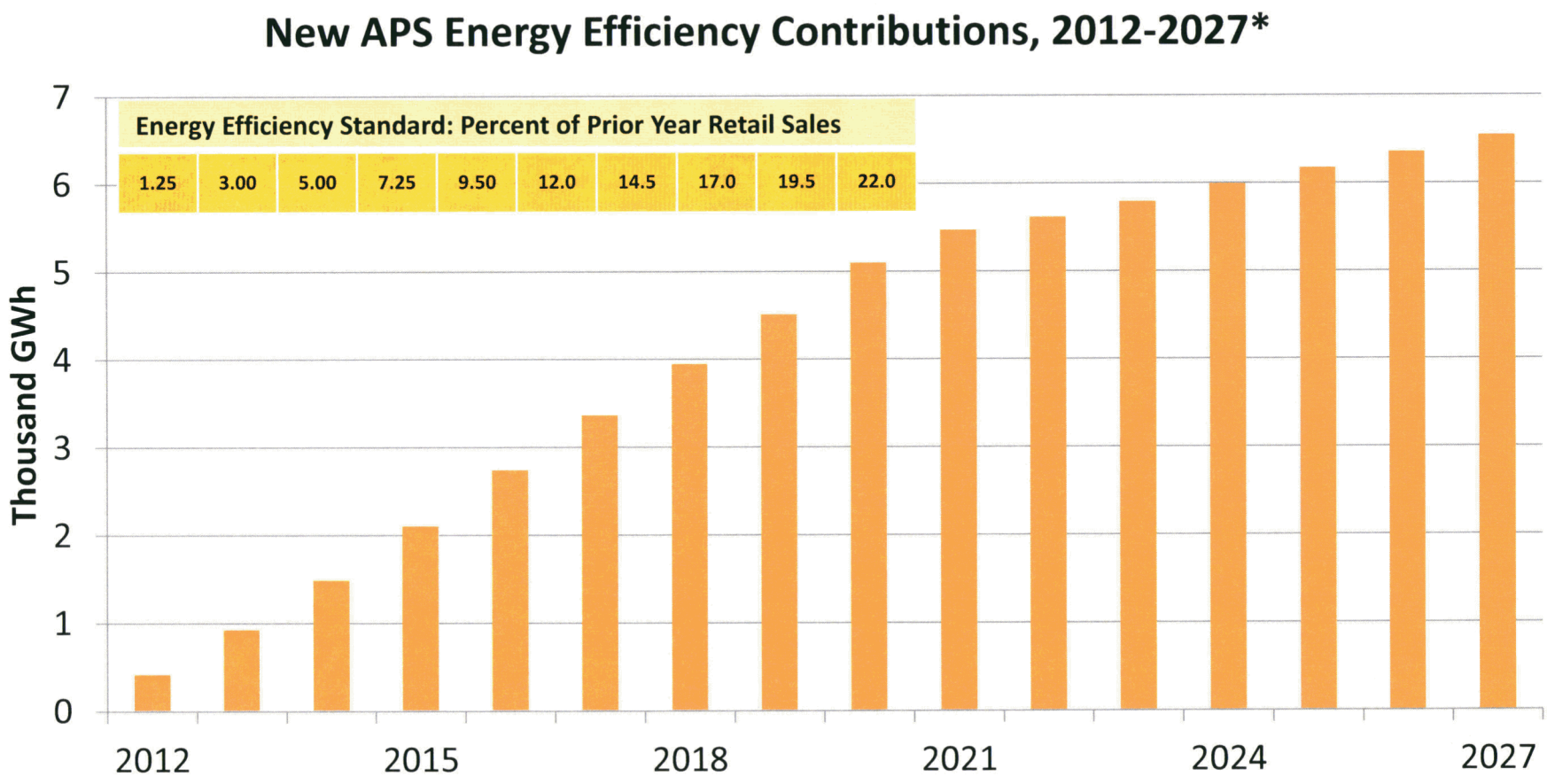
Jeff Schlegel & Ellen Zuckerman

Southwest Energy Efficiency Project

August 22, 2012

SWEEP

APS Energy Savings Over the Next 15 Years



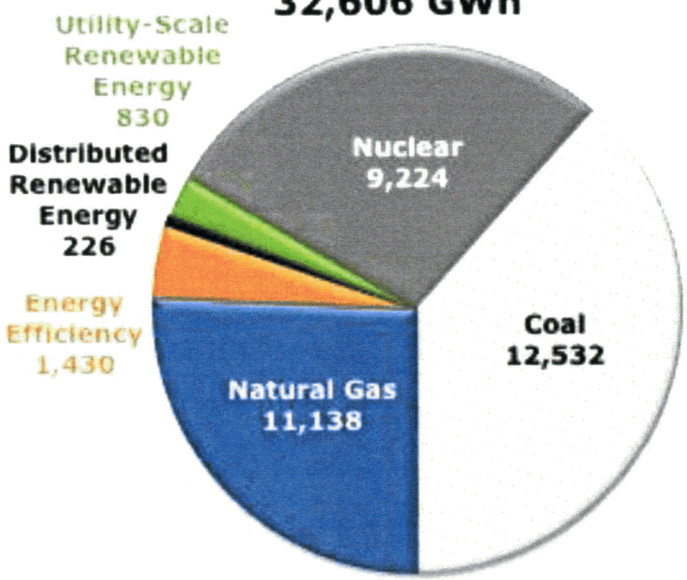
* New EE above does not include 1094.384 GWh from 2005 to 2010 programs

Data Source: Arizona Public Service Company, 2012

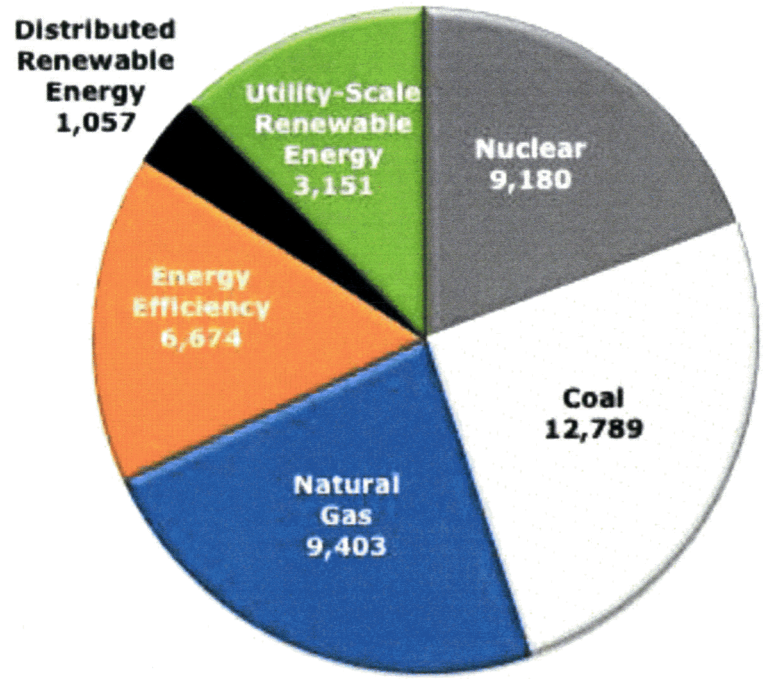
The Effect of Higher EE Savings Due to the Energy Efficiency Standard

Energy efficiency is the fastest growing resource at APS, reaching 16% of total resources and 19% of retail sales by 2020

2011
Total Energy
32,606 GWh



2020
Total Energy
42,253 GWh

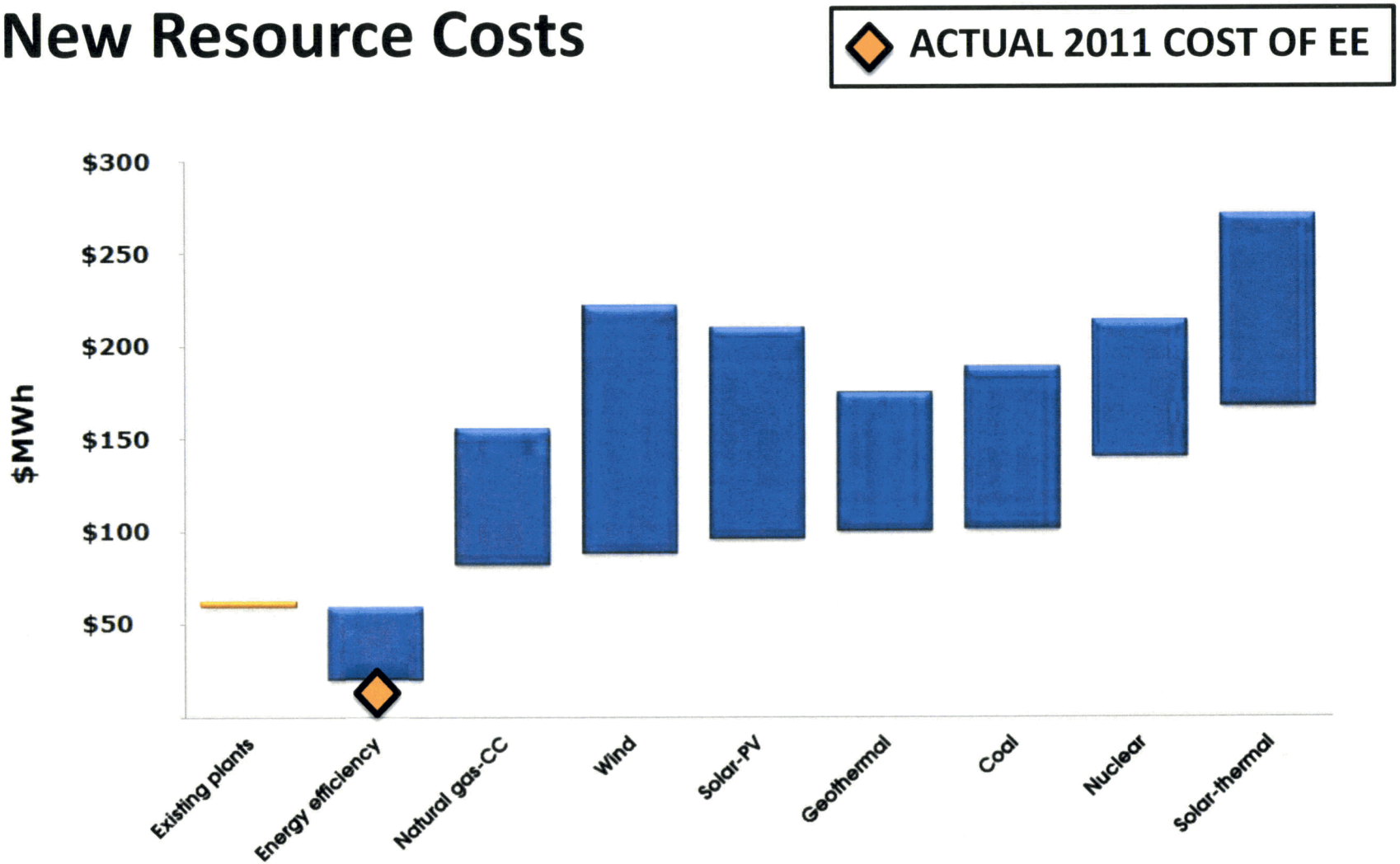


Customer energy growth of ~9,650 GWh *without EE impacts*, nearly 30% above current levels

Source: Arizona Public Service Company, 2011.

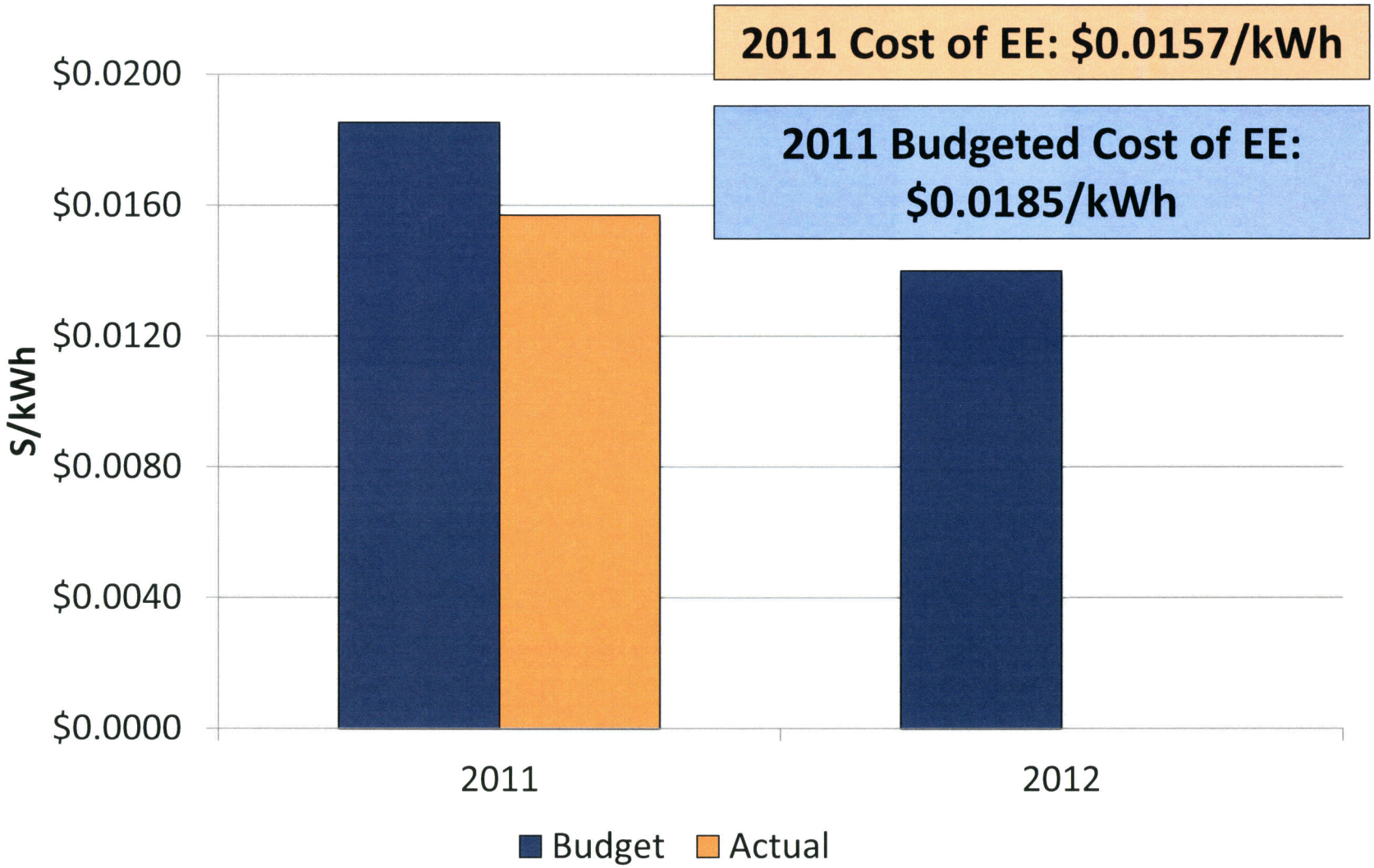
Energy Efficiency: The Most Cost-Effective Energy Resource

New Resource Costs



Source: Arizona Public Service Company, 2011.

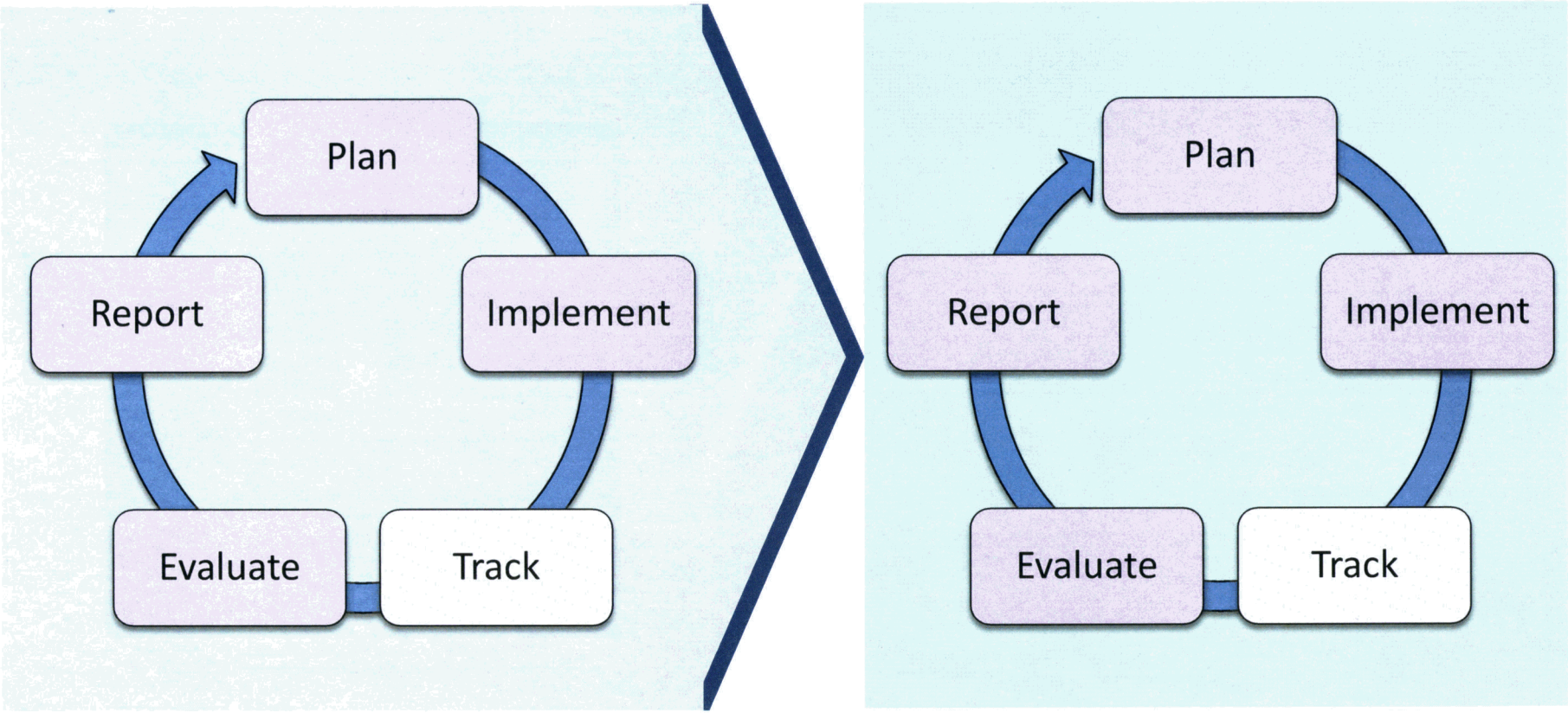
APS Energy Efficiency Portfolio: Less Expensive than Budgeted



Energy Efficiency Portfolios: Screened to Ensure Cost-Effective Programs are Implemented

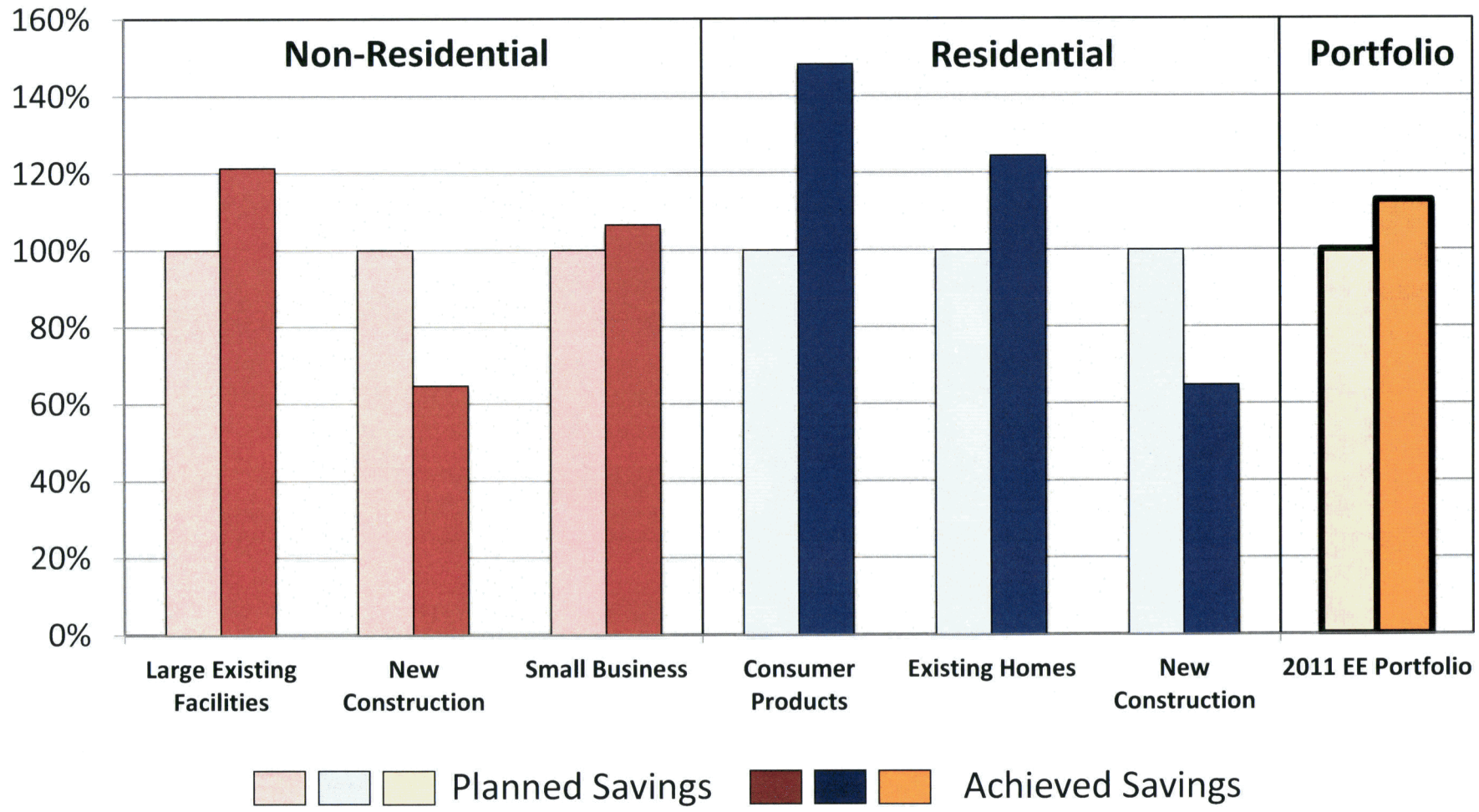
- All programs must be cost-effective (benefits must exceed the costs)
- Cost effectiveness assessment compares the benefits (avoided costs of energy and capacity) to the costs of the program (sum of program costs and customer costs)
- Independent review and analysis of cost-effectiveness by Commission Staff
- Commission review and approval

Energy Efficiency Portfolios: Continuous Review and Improvement to Maximize Performance



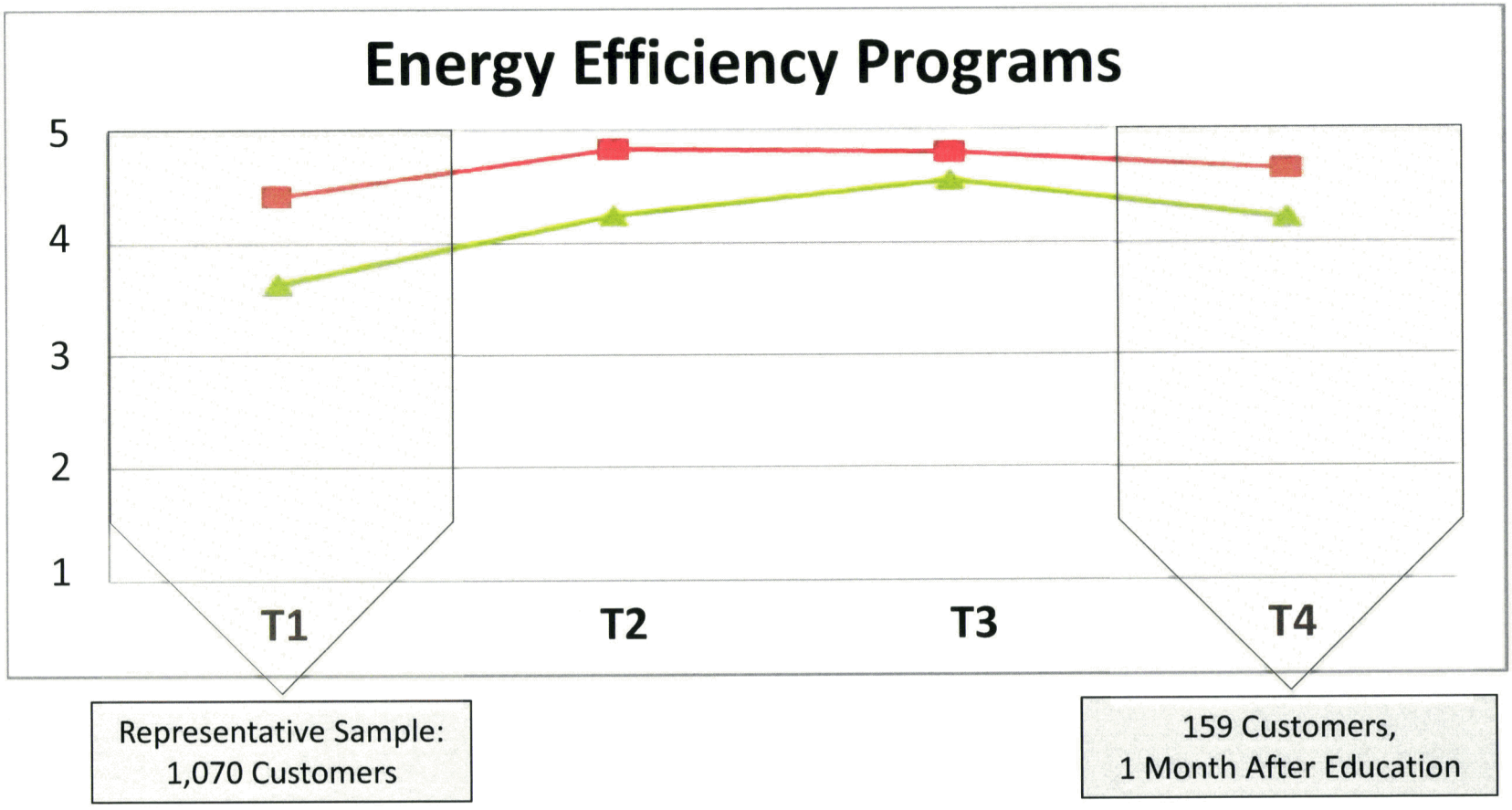
The Portfolio of Programs Exceeds the Goals Even Though Individual Program Performance May Vary

APS: 2011 Planned & Achieved Savings for Portfolio & Select Programs



Customers' Views on Energy Efficiency: Least Expensive, Least Harmful Resource

Results from the APS Informed Perception Project



Least Harmful = 5 ▲ Least Expensive = 5

Source: Morrison Institute for Public Policy, 2011.

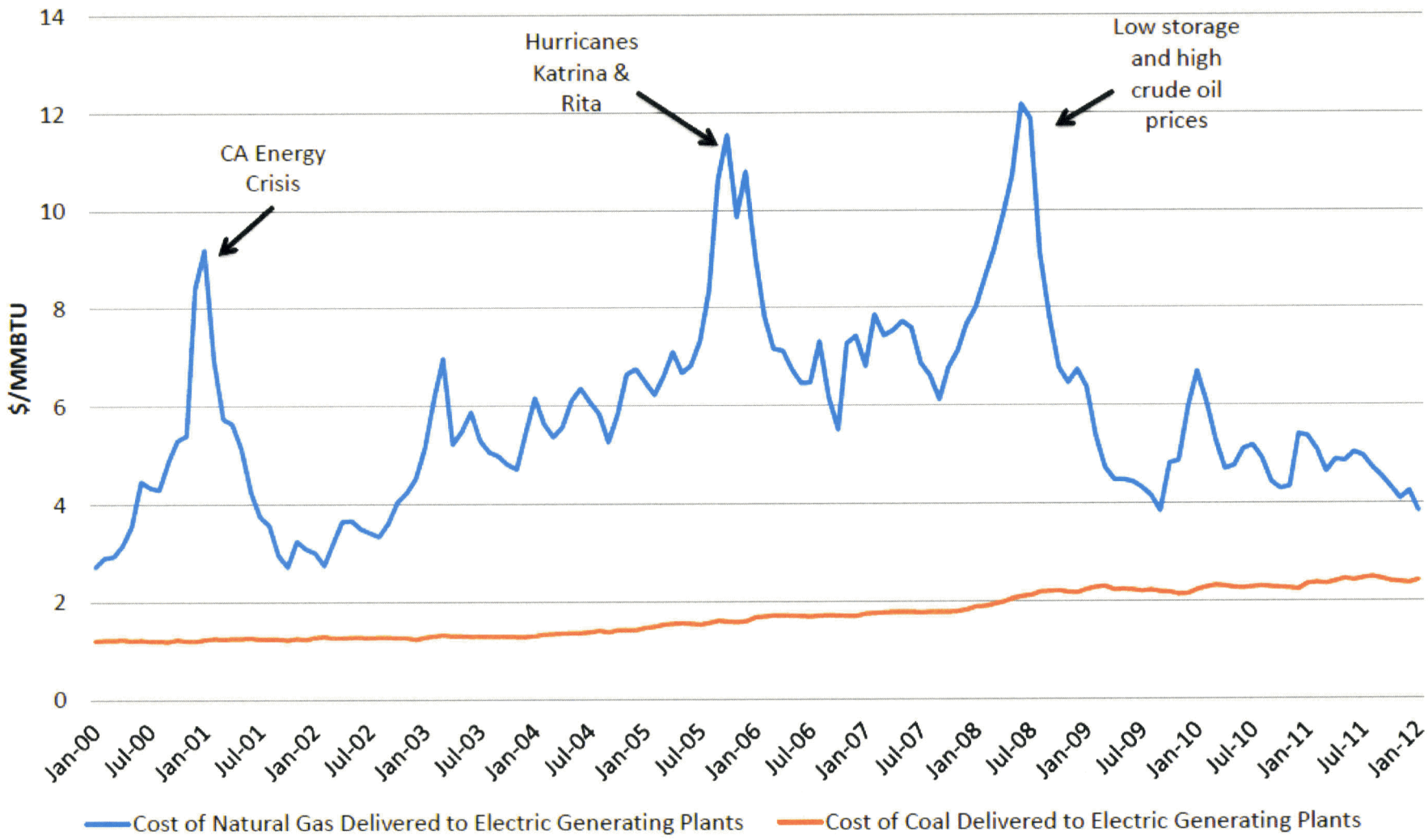
Other Benefits of Energy Efficiency

- Reliability Through Diversity (many small resources instead of all the eggs in one basket)
- Less Water Usage
- Less Air Pollution
- Local Job Creation

EE Uncertainties for Resource Planning and How the Uncertainties are Addressed

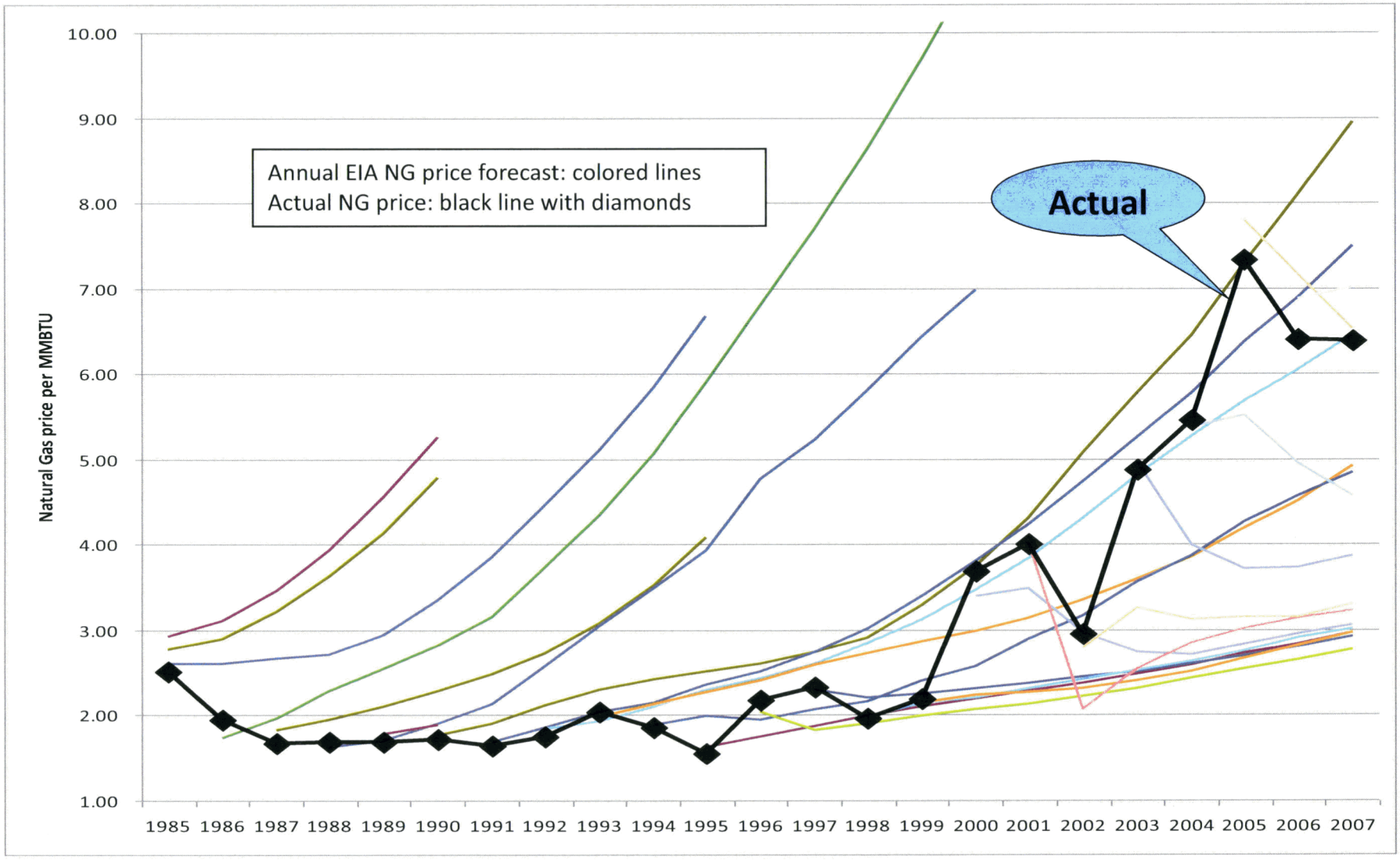
- Some uncertainty about what actions customers will take and when (and this can be influenced by programs and offerings)
- But once EE measures are installed:
  - Virtually no cost uncertainty (you know what it cost)
  - Very small uncertainty about performance (the actual energy savings are achieved or exceeded in most years, at portfolio level, documented in many studies)
- Flexible and responsive resource; under-performance in any one year can be addressed in the next year or future years

Historical Fossil Fuel Prices 2000-2012



Source: Arizona Public Service Company, 2012; Data from: EIA Monthly Energy Review.

Unknowable Future Natural Gas Prices



Source: Massachusetts Office of Energy and Environmental Affairs