

# **Energy Efficiency Goals In Maryland**

**Ruth Kiselewich**  
**BGE's Director of DSM Programs**

**Tuesday, February 9<sup>th</sup>, 2010**

# EmPOWER Maryland Focused on State Activities In 2007

July 2, 2007 Press Release

“Governor Martin O’Malley today announced new energy efficiency goals for the State of Maryland to save taxpayers money, reduce stress on Maryland’s energy markets, and improve the environment. Under the “EmPOWER Maryland” initiative, the State of Maryland will reduce energy consumption by 15 percent by the year 2015.”

- Improve building operations, require efficient buildings
- Expand performance contracting, State Agency Loan Program

# EmPOWER Maryland Legislation Passed In April 2008

- Overall per capita energy and demand reduction of 15% by 2015
  - Utilities must reduce per capita energy consumption by 5% by 2011 and 10% by 2015
  - Utilities must reduce per capita demand 5% by 2011, 10% by 2013 and 15% by 2015
- Utilities required to develop cost effective energy efficiency and demand response programs for all customer segments including large commercial and industrial
- On or before July 1, 2008 and every three years thereafter, utilities are required to “consult” with the Maryland Energy Administration (MEA) “regarding the design and adequacy” of plans
- On or before 9/1/08 and every three years thereafter, utilities are required to submit plan to the Commission that details proposals for achieving electricity savings and demand reduction targets
- Annual updates are to be provided to the Commission and MEA

# Challenges To Implementing Legislation

- Goal and reporting are at wholesale level i.e. retail plus losses
- Demand is weather normalized but energy is not
- Per capita is calculated based on population data from source that does not have it as of December 31, 2007
- Definition of cost effective and need to balance with rate impact

## Selected Goal Deemed Aspirational

- Unclear how goal was established
- No energy efficiency baseline
- After goal set and legislation proposed, ACEEE conducted potential study
  - Had the 15% target by 2015 but included impacts from codes and standards
- Disagreement as to whether per capita increases difficulty of attaining goal

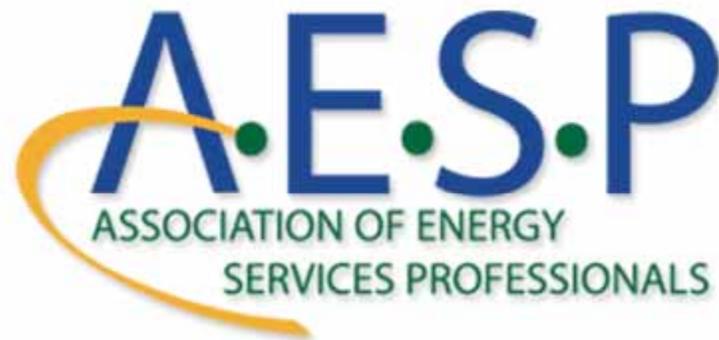
# Reaching Aspirational Goal

- Utilities starting programs from scratch after having stopped programs 10 years ago
- BGE proposed big portfolio of programs which would get us to 65% of the energy target: 2.8 million MWh, spending \$390 million
- Disconnect between measuring against baseline vs. measuring specific savings
- Issue of who gets credit for energy savings when utilities partner with State, counties

---

# BGE's Full Suite of Energy Efficiency & Conservation Programs

- ENERGY STAR® Lighting Discounts & Appliance Rebates
- Heating and cooling including quality installation
- Home energy audits and retrofits
- Low income energy efficiency program
- ENERGY STAR New construction
- Small Business Lighting
- Prescriptive commercial and industrial incentives
- Custom solutions for C&I accounts



---

# 21st National Conference & Expo

January 17-20, 2011 • Hilton Walt Disney Resort



**"History will be kind to me for I  
intend to write it"  
(Winston Churchill)**



**Mike Brandt  
ComEd**

# Preliminaries – the 2007 Statute

## *Energy Efficiency Goals – each utility*

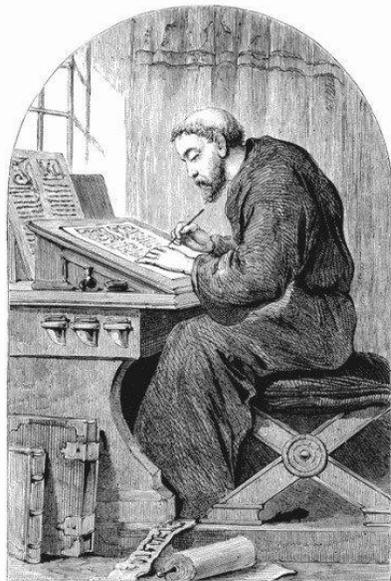
Year Commencing	Goal as Pct of Energy Delivered in Year
1-Jun-08	0.2%
1-Jun-09	0.4%
1-Jun-10	0.6%
1-Jun-11	0.8%
1-Jun-12	1.0%
1-Jun-13	1.4%
1-Jun-14	1.8%
1-Jun-15	2.0%

## *Demand Response Goal*

Implement cost-effective demand response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers

25% of spending allocated to State Energy office for Low Income, Government, Schools, MT

# Planning Targets

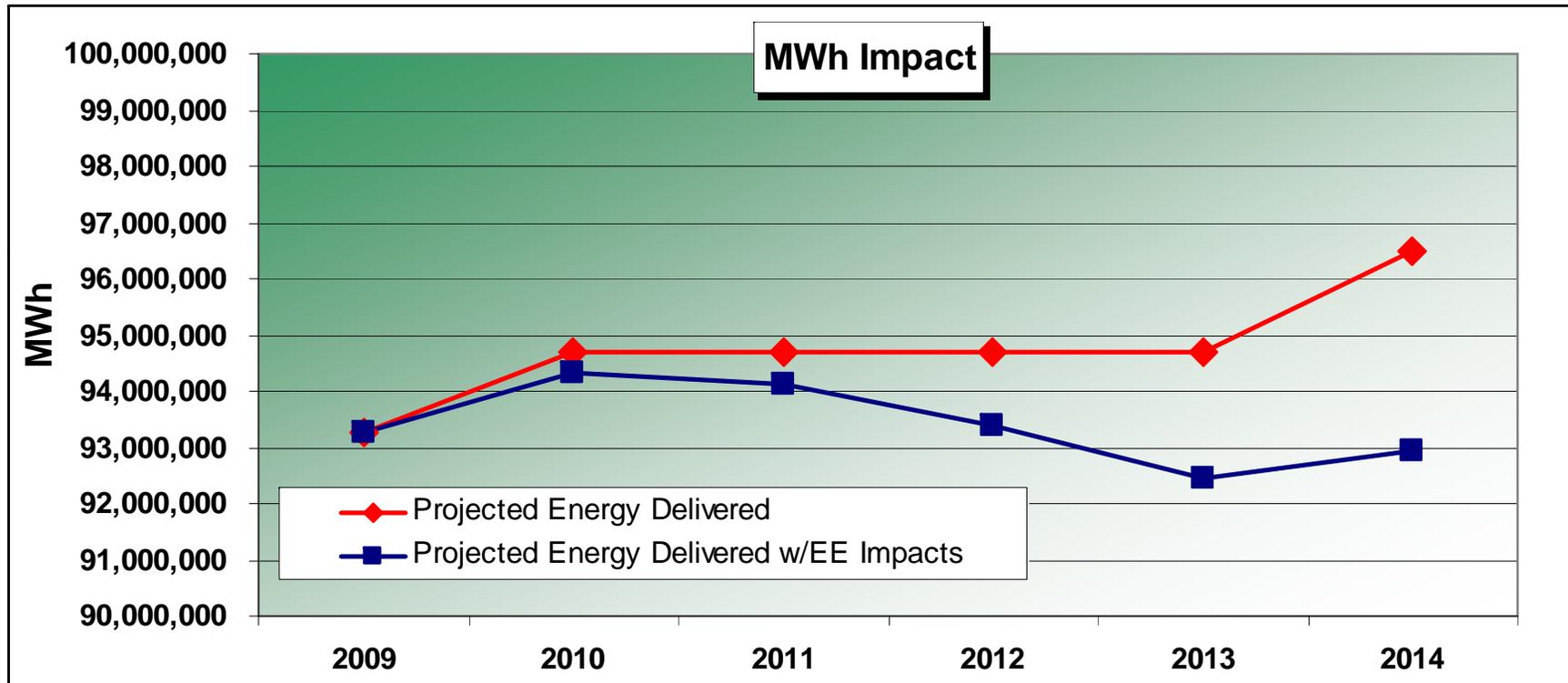


	2011*	2012*	2013*
<b>% of Energy Delivered</b>	0.8%	1.0%	1.4%
<b>MWh Goal (EE)</b>	753,000	934,000	1,294,000
<b>MW Goal (DR)</b>	10	10	10
<b>Spending Screen (\$M)</b>	\$170	\$210	\$295

The MWh goals are early projections – not finalized for next plan.  
The Spending Screen assumes NO revenue cap.

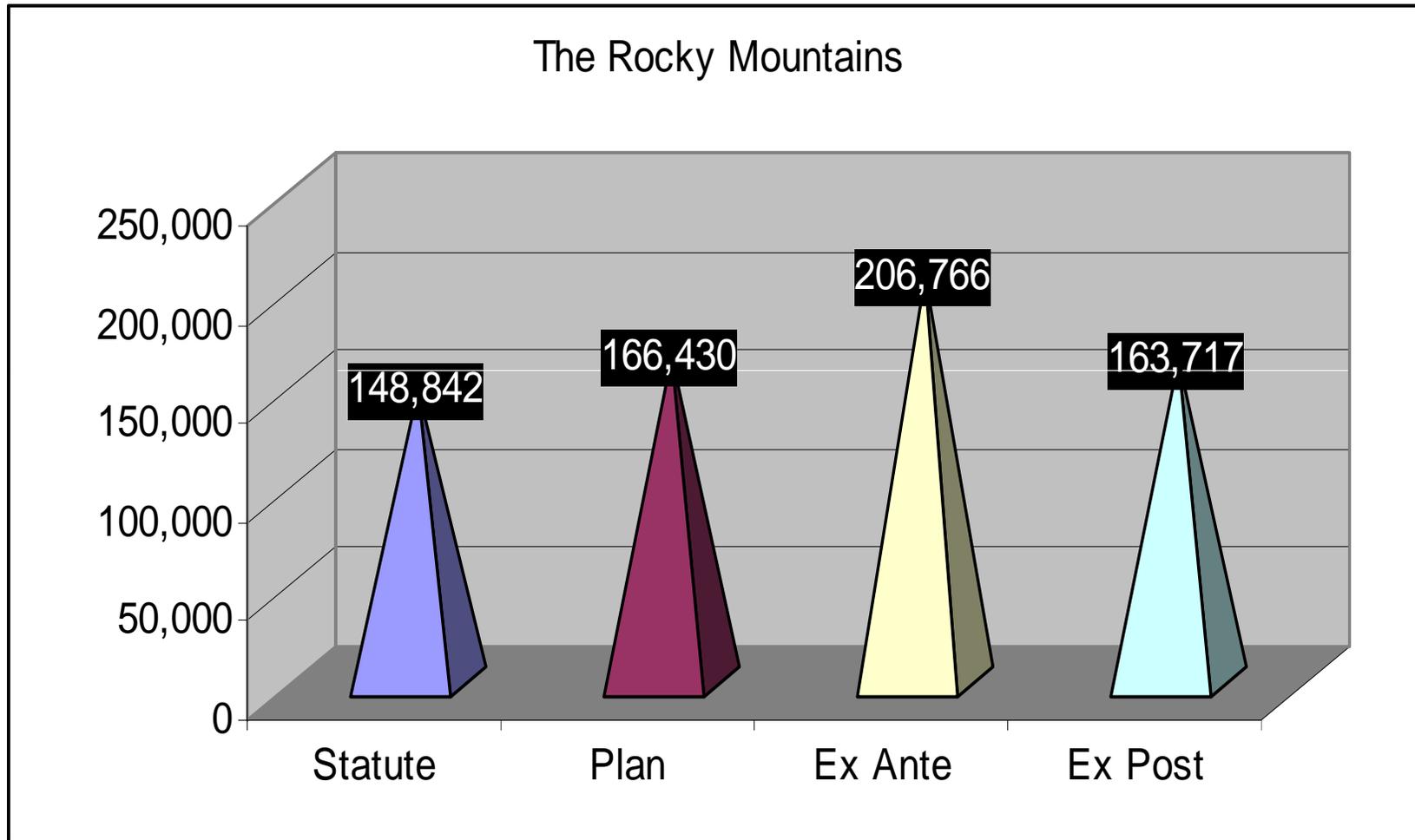
Revenue Cap= 2% – will hit that before we achieve 2% savings

# Projected MWh Impact



The lines have moved closer to horizontal

# First Year Results



# Process used to set goals

- The ancient texts do not reveal.....

- 2% of annual sales seemed like a reasonable number given what knowledgeable people knew about what potential studies were suggesting

- About 8%+/- cumulative reduction



- Slight arithmetic problem

- Framers concluded that: *% incremental savings = % of revenue spent to achieve the incremental savings*

- Most readings of the statute conclude that this revenue constraint trumps the savings target

- Legislative process not well-suited to sorting out these sorts of issues

# Usefulness of Potential Studies in Setting Goals

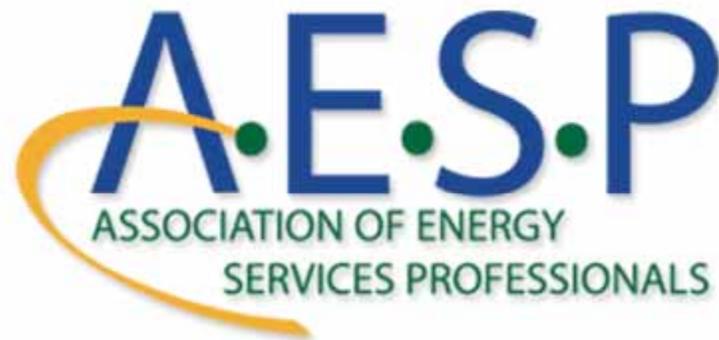


- Personal view – not so much
- Having access to reasonably recent vintage studies is useful for reality check
  - Long list of potential studies in recent years with results that are reasonably close – difference typically explained by methods
- In “greenfield” states like Illinois, it is pretty clear where the potential resides and that it is far larger than we could harvest in a few years
- Much more important is a solid market assessment that tells one where one is starting, e.g. % saturation of efficient products, %market share, etc.

# Are Goals Attainable?

It depends -

- Cost-effective potential clearly exists
- Experience shows that 2% per year levels are approachable, in theory
- Not clear how long 2% per year could be sustained
- When is 2% really 2%?
  - Hitting goals is almost less a function of good program design and implementation than it is of evaluation results (NTGR and Realization Rates)
- It will be difficult to sustain 2% with significant evaluation disallowance
  - Costs rise rapidly
  - Program credibility can decline



---

# **21st National Conference & Expo**

**January 17-20, 2011 • Hilton Walt Disney Resort**



# Energy Energy Efficiency Programs and Savings Goals in Texas

Robert J. King, President  
Good Company Associates  
[RKing@GoodCompanyAssociates.com](mailto:RKing@GoodCompanyAssociates.com)

---



---

# The Texas Energy Efficiency Portfolio Standard

- ▶ Began as a legislative proposal for EE to meet 25% of the rate of growth in demand, and was negotiated down to 10% as part of the original restructuring of the electric utility industry in 1999. (Section 39.905, Public Utilities Regulatory Act)
  - ▶ Adopted into Substantive Rules of the PUCT (Section 25.181, and 25.184)
-

---

# Structure of EE Programs

- ▶ Utilities are Neutral Administrators
  - ▶ Must Acquire Cost-Effective Efficiency
  - ▶ EE to be acquired from REPS and ESCOS
  - ▶ Standard Offer Programs
  - ▶ Limited, Targeted Market Transformation Programs
  - ▶ All Customers Classes to be Addressed
  - ▶ Utilities Cannot Offer Services (PURA 39.051(a))
- 
- 

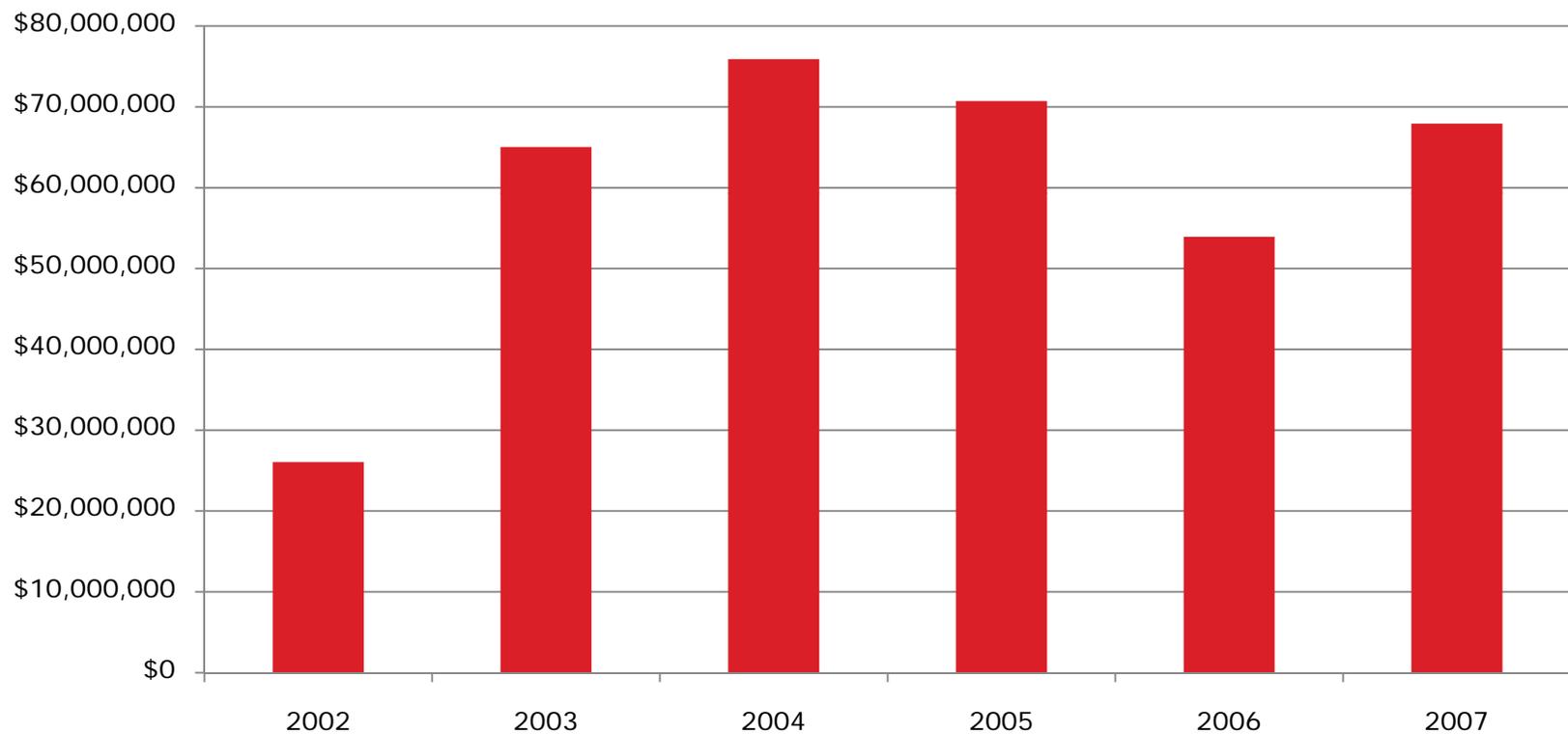
---

# PUCT Sets the Goal

- ▶ 10% of the Rate of Growth in Demand was Interpreted through the Rulemaking Process to be Peak Demand
  - ▶ Full Impact by January 2004, Half in 2003
  - ▶ Established a 5 year Rolling Average as Historical Baseline for Calculating the Goal
  - ▶ Cost-Effective = Less Than Avoided Cost in Rule (Avoided Capacity and Energy)
- 
-

# Program Expenditures

## Funds Expended



---

## 2007 Legislature Doubles the Goal

- ▶ Goal Increased to 20% of Growth in Demand
  - ▶ Legislature Directs the PUCT to provide Cost Recovery for Cost-Effective Savings, Plus a Bonus for Exceeding the Goal
  - ▶ Allowed 10% for Efficiency R&D
  - ▶ Legislature Directs the PUCT to Evaluate Potential to Reach 30 % and 50% of the Rate of Growth in the Interim
- 
-

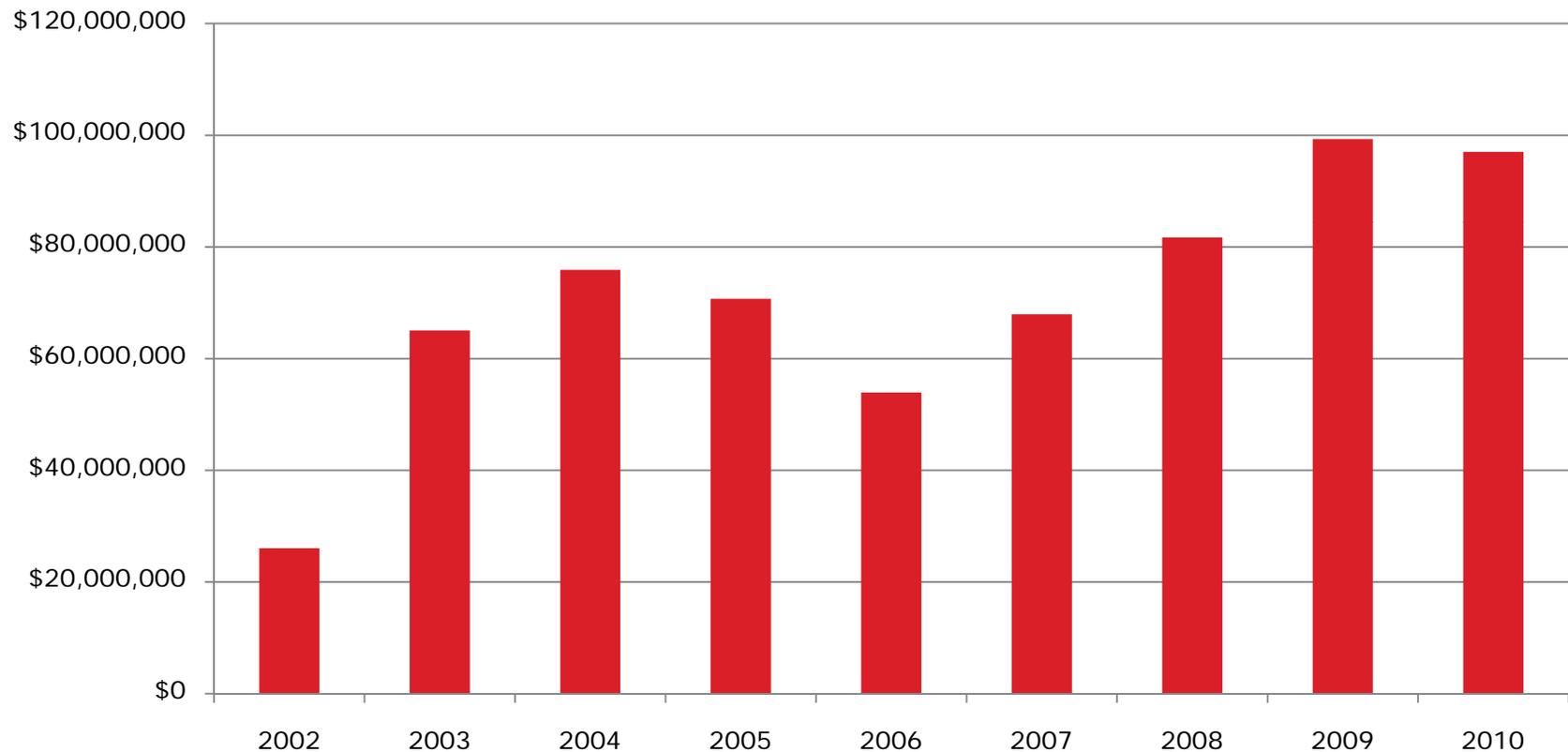
---

# PUCT Rulemaking

- ▶ Added an Energy Savings Goal to Demand Reduction Goal (20% load factor)
  - ▶ Gave flexibility on Measure Life
  - ▶ Added CHP up to 10 MW
  - ▶ Eliminated Some Stakeholder Processes to Reduce Staff Time Required
- 
-

# Program Expenditure Results

## Funds Expended



**Slide 8**

---

**I1**

Possible for slide with savings results; Did these program savings efforts result in utilities meeting their goals??

Mike Messenger, 11/2/2009

---

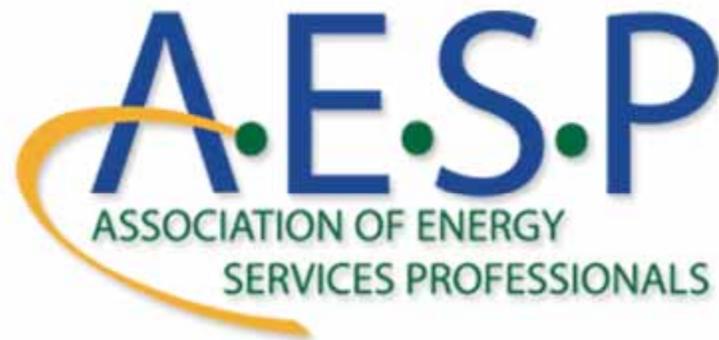
## Interim Evaluation of Goals levels

- ▶ Itron Selected to Perform Potential Study
  - ▶ Studied Efficiency Only (did not investigate impact of load management or demand side renewable resources)
  - ▶ Found it possible to Reach 50% Rate of Growth at Historic Rates
  - ▶ Recommended Linking Goal to More Stable Number: Total Load
-

---

# 2009

- ▶ Considered Adoption of Interim Evaluation Recommendations, but Broader Political Maneuvering and Industrial Push-Back Thwarted Major Legislation in 2009.
  - ▶ PUCT has opened Rulemaking to Consider Adoption of Some of the Interim Recommendations.
-



---

# **21st National Conference & Expo**

**January 17-20, 2011 • Hilton Walt Disney Resort**

