

Setting Energy Efficiency Goals and Measuring Results

Lessons Learned in California and Possible Applications for Ontario

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Topics to Cover

Balancing Limitations of Current program infrastructure and Results from Potential Studies in Setting Energy Efficiency Goals

Developing Protocols that standardize methods for estimating e savings and feedback loops into resource planning processes

Establish Performance Mechanisms that ensure program managers are accountable for performance and rewarded for success



The Purpose of Developing Energy Savings Goals

To reduce costs of meeting growth in structural demand for electricity

To motivate energy efficiency institutions/administrators to achieve measurable goals

To raise public awareness of linkage between increased efficiency investment and growth in disposable income

To study linkages between trends in energy use and economic growth



Setting Realistic Energy Savings Goals

Insist that estimates of Economic and Achievable Goals be balanced by historical program performance

In CA the “feasible” percentage increases in funding levels was the binding constraint, not customer acceptance or cost effectiveness (ranged from 50%/yr to 15%/yr level increase)



Resources and Data Necessary to Set Energy Savings Goals

Targeting of Opportunities –End Use Breakdowns , Efficiency opportunities , and program design skills

Measurement of Historical Program Performance Savings --Need Skilled Personnel

Feedback and Motivation to Delivery Agents & Customers

Public Support- Flex Your power equivalent



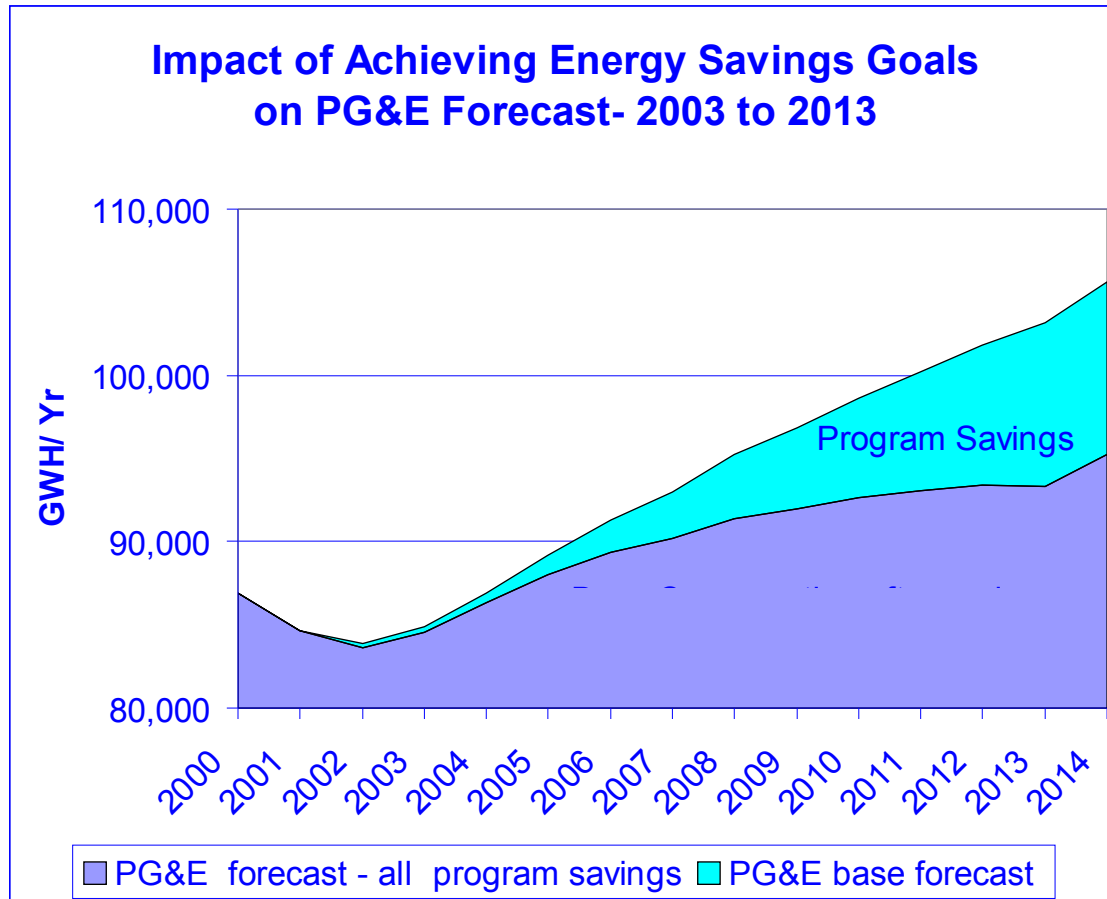
Importance of Motivation and Feedback

Biggest problem in our EE history was efficiency program managers that judged performance based on dollars spent.

Best innovation was insisting that administrators be judged on measured savings/performance- % of net dollar benefits from program that goes back to the organization



The Impact of Meeting Electricity Savings Goals in the California Context- 45 to 60% of incremental Growth met by Energy Efficiency Programs



Tentative Recommendations for Ontario

Ensure a stable source of funding-1% of revenue

Encourage Innovation through Open Bids for programs that gradually base a larger percentage of contract rewards on performance

Standardize measurement methods and require annual reporting. (see draft EM&V protocols)

Use Smart metering project to give customers and businesses feedback on efficiency investments on their bills

Set aggressive electricity and natural gas goals in the short and long run and reward/ penalize performance

Encourage program managers and building and appliance standards personnel to work together.



New EE Program Opportunities

On bill financing

Building Benchmarking

Partnership with CEC on building and appliance Standards

PV/ EE new construction packages

Lighting innovation centers for contractors

20/20 programs for mass markets

Sustainable Communities

Smart thermostats and Critical peak pricing



Want to Learn More about Energy Potential Studies and Setting Goals?

For the CEC staff report on electricity goals see
http://www.energy.ca.gov/reports/2003-11-05_100-03-021F.PDF

For the CEC staff report on Natural Gas savings goals see:
<http://www.cpuc.ca.gov/static/industry/electric/energy+efficiency/rulemaking/index.htm>

For the Kema-Xenergy Report on California's Secret Energy Surplus, The Potential for Energy Efficiency, see www.ef.org for commercial sector study see http://www.calmac.org/publications/CA_EEPotV1.pdf

For the Kema-Xenergy report on natural gas savings potential see
<http://www.cpuc.ca.gov/PUBLISHED/REPORT/30112.PDF>

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