

Responding to the Natural Gas Crisis: America's Best Natural Gas Energy Efficiency Programs

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American Council for an Energy-Efficient Economy

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Background

- Looming natural gas crisis: constrained supplies and high demand=>high costs
- Consumers already have had a taste of likely rate increases
- Given gloomy outlook, we anticipated renewed interest in natural gas efficiency programs

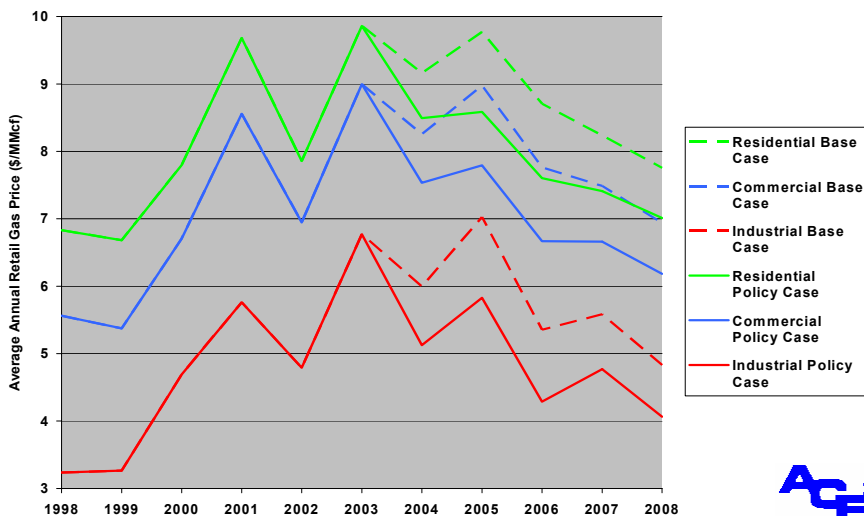


Energy efficiency as a tactic to confront the problem

- ACEEE's own recent analysis of market impacts of increased levels of energy efficiency and renewables shows that gas costs could be decreased by about 20% by such actions
- Nothing startling about this, just Econ 101: Reduced demand=>reduced price



Impacts of EE & RE on Annual Retail Natural Gas Prices (from Elliott et al. 2003, ACEEE – see last slide)



Natural Gas Efficiency Program Best Practices: Project Overview

- Project objective: Provide public utility commissions, utility managers, and other decision-makers with examples of exemplary natural gas end-use efficiency programs.
- Also survey states to see how many have natural gas efficiency programs in place
- Also examine regulatory and policy mechanisms that support such programs



Methodology and Approach

- Phone survey and other contacts with PUC staff for 50-state (and DC) survey
- Follow-up, more in-depth surveys and communications with key PUC staff and program experts for regulatory mechanisms and program nominations
- Broad “call for nominations” for exemplary programs.

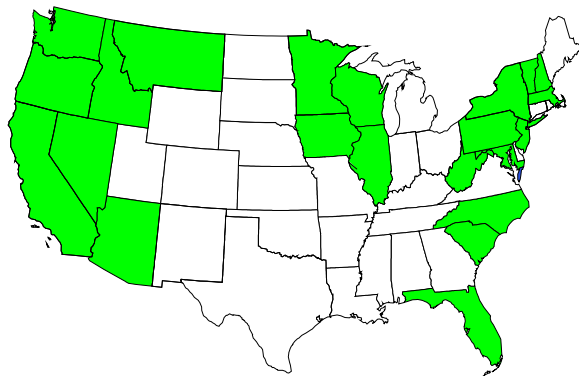


Results: 50-state (+DC) Survey

- NG programs are offered in only 22 states—in 19 of these, utilities operate programs. In the other 3, NG efficiency is addressed by statewide public benefits programs.
- Some current discussion and consideration of NG efficiency programs in the states not offering anything - - 4 out of 24 responding - - and a lot of interest in our project from various parties we contacted.



States with Natural Gas Utility-Funded Energy Efficiency Programs



Regulatory Mechanisms

- In selected set of leading states (CA, MA, NJ, WI, VT, MN, OR, WA, and Ontario), program cost recovery through rates or other funding mechanisms are universal
- Performance incentives for the utilities and “lost revenue” recovery offered in only a few states
 - Performance incentives: MA, MN, Ontario
 - Lost revenue recovery: MA, VT, Ontario



Exemplary Natural Gas Efficiency Programs

- Selected 29 programs plus 5 special case studies of comprehensive portfolios and collaboratives
- Small number of states represented—a few states dominate: MN, MA, NJ, VT, NY and WI with multiple selections—other states with single selections—WA, OR, PA, CA and Quebec.
- Obvious correlation with regulatory mechanisms and statutes/orders for programs



Exemplary Programs Selected

Program Name	Organization(s)	State
Residential Retrofit		
HomeBase Retrofit Program	Vermont Gas Systems, Inc.	VT
Residential Weatherization Program	KeySpan Energy Delivery	MA
Home Performance with ENERGY STAR®	New York State Energy Research and Development Authority	NY
Residential Audit		
Residential Home Performance Audit Program	CenterPoint Energy Minnegasco	MN

Residential Space Heating Equipment		
Joint Gas & Electric High Efficiency Furnace Rebate Program	GasNetworks®	MA, NH
High Efficiency Furnace Program	NW Natural	OR
High Efficiency Furnace Programs	Gaz Métro	Quebec
HomeBase Equipment Replacement Program	Vermont Gas Systems, Inc	VT
Residential Windows		
ENERGY STAR® Residential Windows Program	Northwest Energy Efficiency Alliance	OR, WA, ID, MT
Residential New Construction		
ENERGY STAR® Homes	Joint Management Committee (Massachusetts)	MA
New Jersey ENERGY STAR® Homes	New Jersey Clean Energy Program	NJ
Vermont ENERGY STAR® Homes	Efficiency Vermont and Vermont Gas Systems, Inc.	VT

Residential Low-Income Single Family		
Low-Income Gas Program	NSTAR Gas Company	MA
Non-Profit Affordable Housing Project	CenterPoint Energy Minnegasco, Habitat for Humanity, Project for Pride in Living, and the Greater Metropolitan Housing Corporation	MN
Low-Income Usage Reduction Program (LIURP)	National Fuel	PA
New Jersey Comfort Partners Program	New Jersey Clean Energy Program	NJ
Residential Multifamily		
Multifamily Low-Income Program	Efficiency Vermont, Vermont Gas Systems, Inc. and the Burlington Electric Department	VT
Apartment and Condo Efficiency Services	Focus on Energy	WI
Residential Appliances		
ENERGY STAR® Products	Wisconsin Energy Conservation Corporation	WI

Commercial/Industrial Technical Assistance and Demonstration		
New York Energy \$mart SM FlexTech Program	New York State Energy Research and Development Authority	NY
Multifamily and C&I Building Practices and Technology Demonstration Program	KeySpan Energy Delivery	MA
Commercial/Industrial Building and Equipment Retrofit		
WorkPlace Equipment Replacement Program and WorkPlace Retrofit Program	Vermont Gas Systems, Inc	VT
Flexible Gas-Efficiency Portfolio Standard	Avista Utilities	WA
Boiler Efficiency	Xcel Energy	MN
Custom Process Rebate	CenterPoint Energy Minnegasco	MN

Commercial/Industrial New Construction		
New Jersey SmartStart Buildings®	New Jersey Clean Energy Program	NJ
Energy Design Assistance	Xcel Energy, the Weidt Group, Herzog/Wheeler & Associates	MN
WorkPlace New Construction Program	Vermont Gas Systems, Inc	VT
Commercial/Industrial Small Business		
2002 Express Efficiency	Pacific Gas and Electric Company	CA

Special Case Studies: Comprehensive Portfolios and Collaboratives		
Large Utility Effort through Multiple Local Distribution Companies: <i>Comprehensive Program Portfolio</i>	KeySpan Energy Delivery New England	MA, NH
Single Investor-Owned Utility: <i>Comprehensive Program Portfolio</i>	Vermont Gas Systems, Inc	VT
Municipal Utilities Collaborative Program: <i>Conserve & Save</i>	The Triad: Austin Utilities, Owatonna Public Utilities and Rochester Public Utilities	MN
Multi-party collaborative: <i>Massachusetts Low Income Energy Affordability Network</i>	Massachusetts Department of Housing and Community Development in collaboration with KeySpan Energy Delivery New England	MA
Regional Multi-Utility collaborative: <i>GasNetworks® Comprehensive Program Portfolio</i>	GasNetworks®	MA, NH

Common Traits and Practices

- Integrated service packages – single point of contact for menu of program services
- Integration within programs and across portfolios
- Prescriptive approaches more typical for residential and small commercial;
- Customized services more typical for large C/I
- Technical assistance/services are common for all types of customers—residential and C/I



Common Traits and Practices

- Financial incentives (rebates) are prevalent—from residential to large C/I
- Multi-party collaboratives and strategic partnerships are common to leverage resources and improve program effectiveness and impact
- Education and training are common across program types—residential to C/I—often targeted for suppliers, retailers, contractors and other market participants



For More Information

- Final report and individual program profiles available for free, download from <http://aceee.org>

***Responding to the Natural Gas Crisis: America's Best
Natural Gas Energy Efficiency Programs***

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- Also see from our website:

***Natural Gas Price and Availability Effects of Aggressive
Energy Efficiency and Renewable Energy Policies***

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and Elizabeth Brown**

