

Connecticut Energy Trends & Opportunities to Control Costs



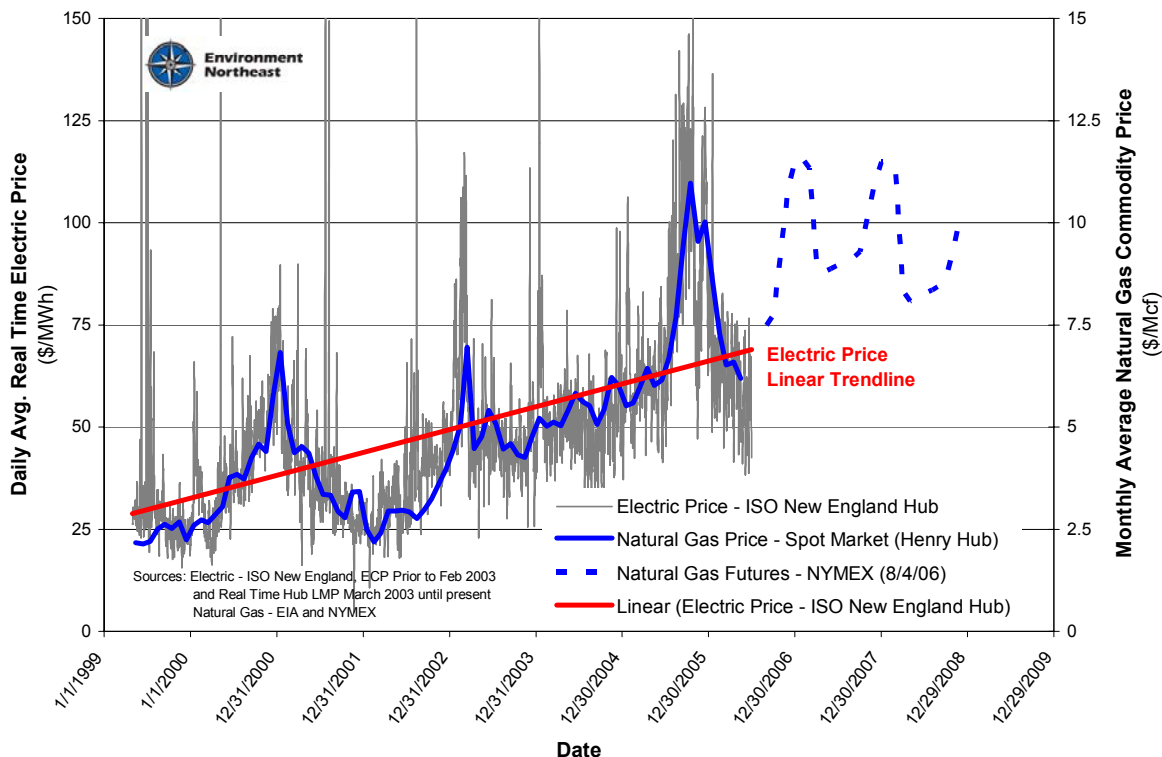
Controlling Connecticut's Energy Future

Escalating prices for electricity, natural gas and home heating oil are hurting consumers at every economic level and are diminishing the prospects for our state economy. Consider the following facts:

- The average household in Connecticut has seen the commodity portion of their heating oil bill go from \$600 in 2003 to over \$1,200 this past year.
- Natural gas consumers have watched as the commodity portion of their bill has risen from around \$450 in 2003 to over \$800 last year.
- Electricity prices are up by more than 50% since 2002 and further increases on the way.
- The money that Connecticut consumers spend on increased fuel costs flows directly toward energy producing states and foreign countries around the globe. Last year alone, this energy trade deficit for Connecticut exceeded \$3.4 Billion.
- The following tables and graphs will help to illustrate the situation that we face as energy consumers here in Connecticut and it will also illustrate how investments in energy efficiency are the best way to take control of Connecticut's energy future and lower costs for consumers, create local jobs and recapture billions of dollars that we lose each year that can be reinvested in our State's economy.

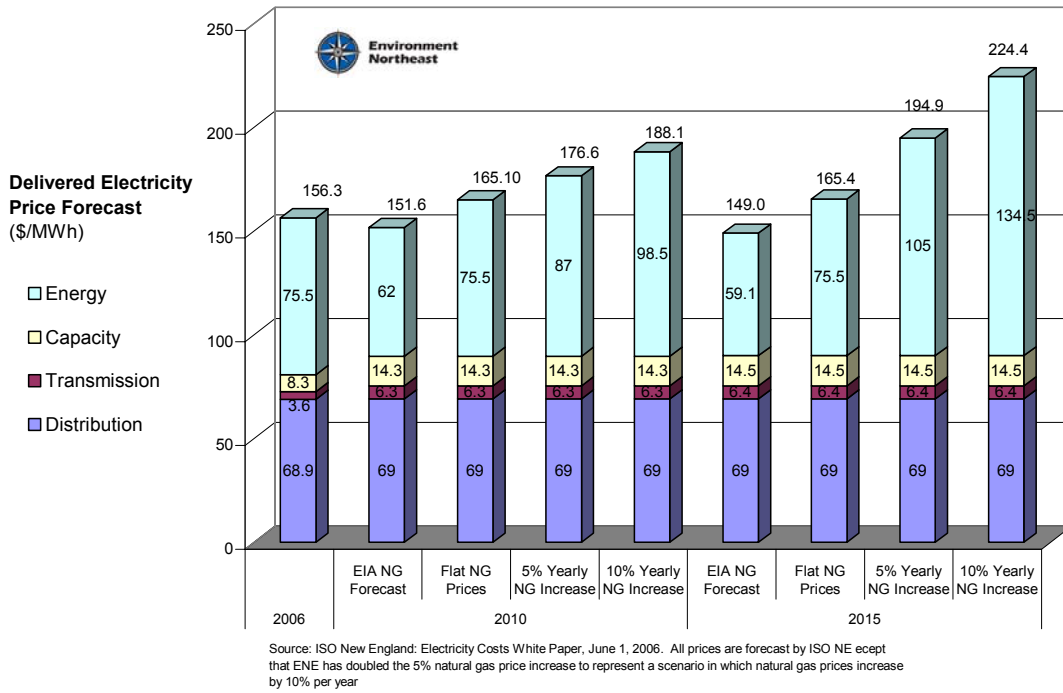
ISO New England Historical Wholesale Electric Prices vs. Natural Gas Commodity Prices

There is a clear correlation between rising electric prices and natural gas prices (natural gas and gas/oil power plants set the price for electricity 87% of the time in New England), with the price of oil & natural gas being outside of the state's control and likely to stay high. Weather is the key driver of peak demand days and short-term expensive price spikes.



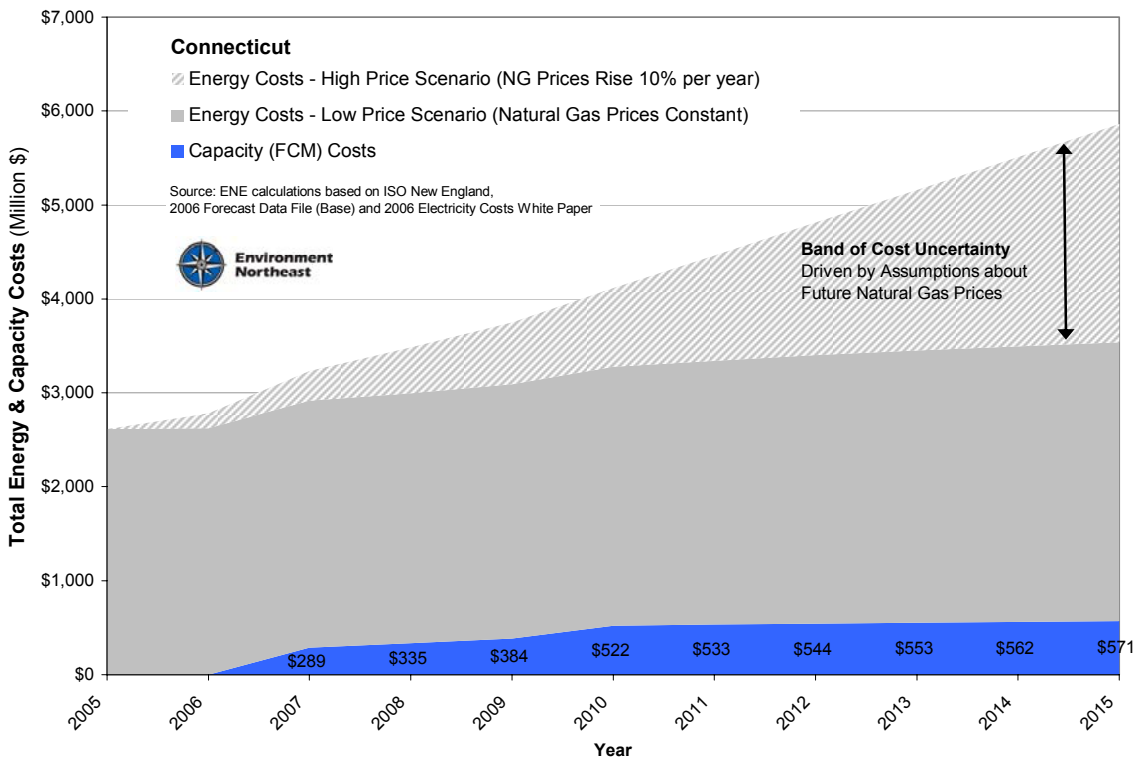
Projections of Future Electricity Prices

ISO New England in their 2006, Electricity Costs White Paper, indicates that the primary uncertainty associated with future electric prices is the price of natural gas (NG); the following shows four electric price scenarios with natural gas prices declining, staying flat, increasing by 5% per year, and by 10% per year. The price of natural gas is likely to be as high, or higher than today for the foreseeable future (see futures prices in the previous figure). In 2003, customers were paying \$110/MWh (11 cents/kWh) for electricity – those days are over as future price estimates range from \$149 to \$224 per MWh.



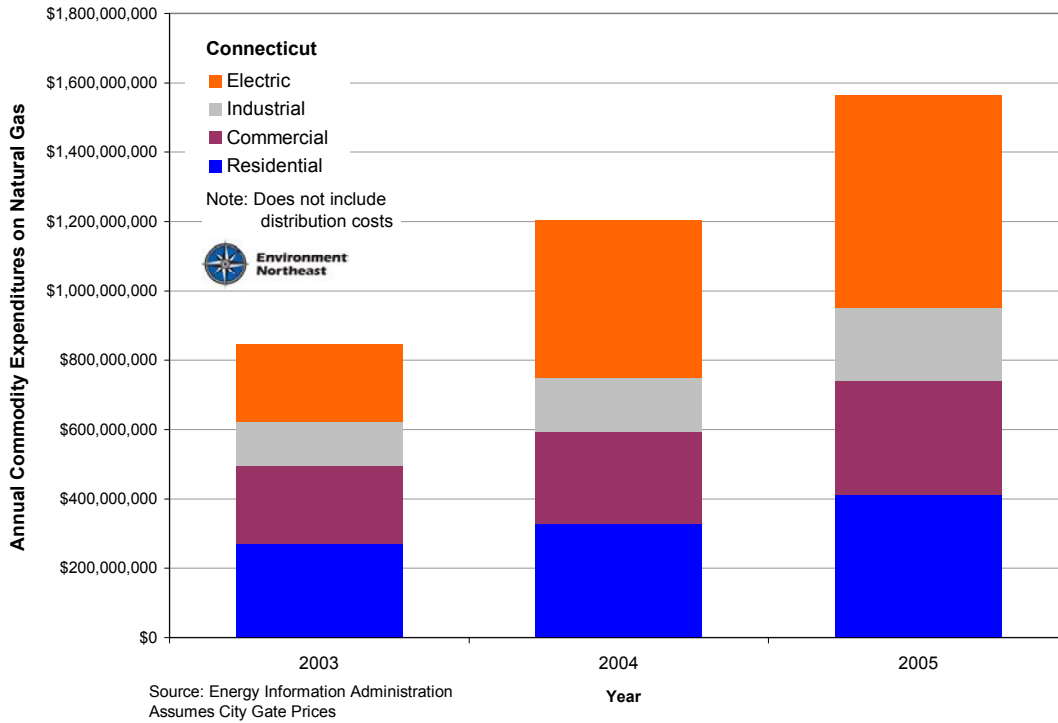
Projections of Future Connecticut Electric Energy & Capacity Costs

Future electric energy costs are dependent on natural gas prices and changes in energy consumption but are very large; capacity charges will cost Connecticut significant amounts of money in the coming years and constitute an important portion of total costs. (Note: this chart does not include transmission & distribution costs).



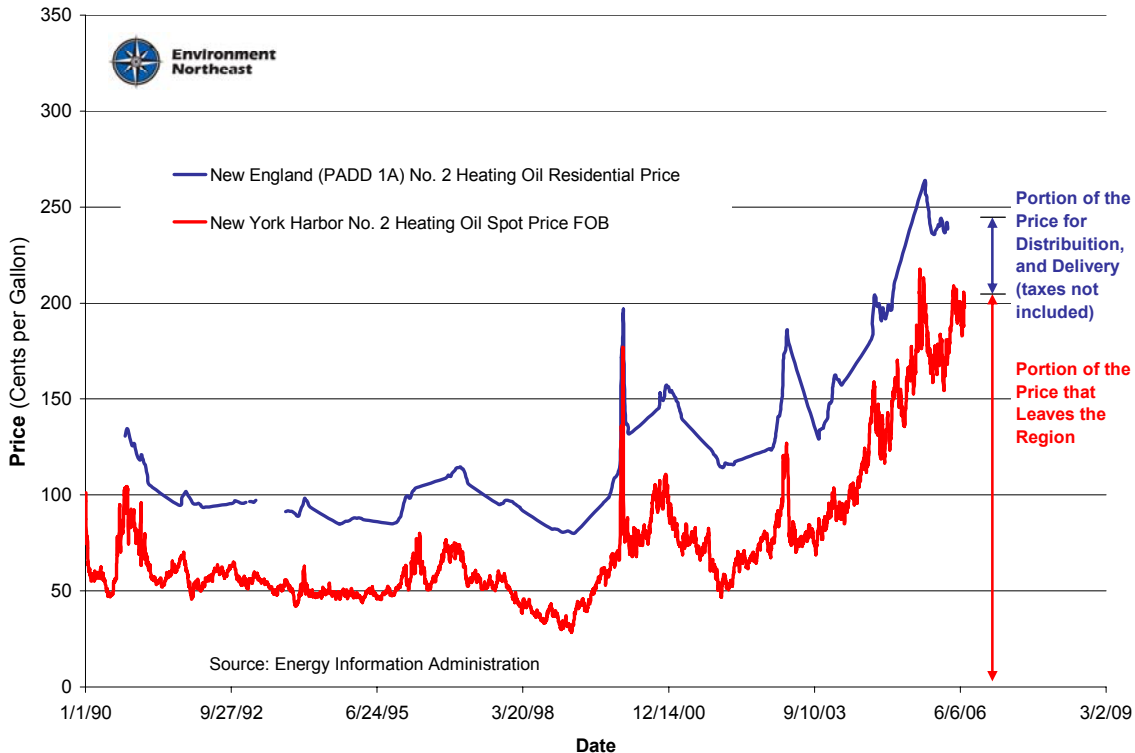
Connecticut Spending on the Commodity Portion of Natural Gas

Natural Gas prices are up significantly over the past few years and every dollar the state spends on fuel (not distribution costs) leaves the region and is no longer available to invest in the state economy. As a result, the natural gas trade imbalance has gone from \$800 million in 2003 to \$1.5 billion in 2005; the average annual residential natural gas bill in Connecticut has gone from approximately \$450 in 2003 to \$800 in 2005.



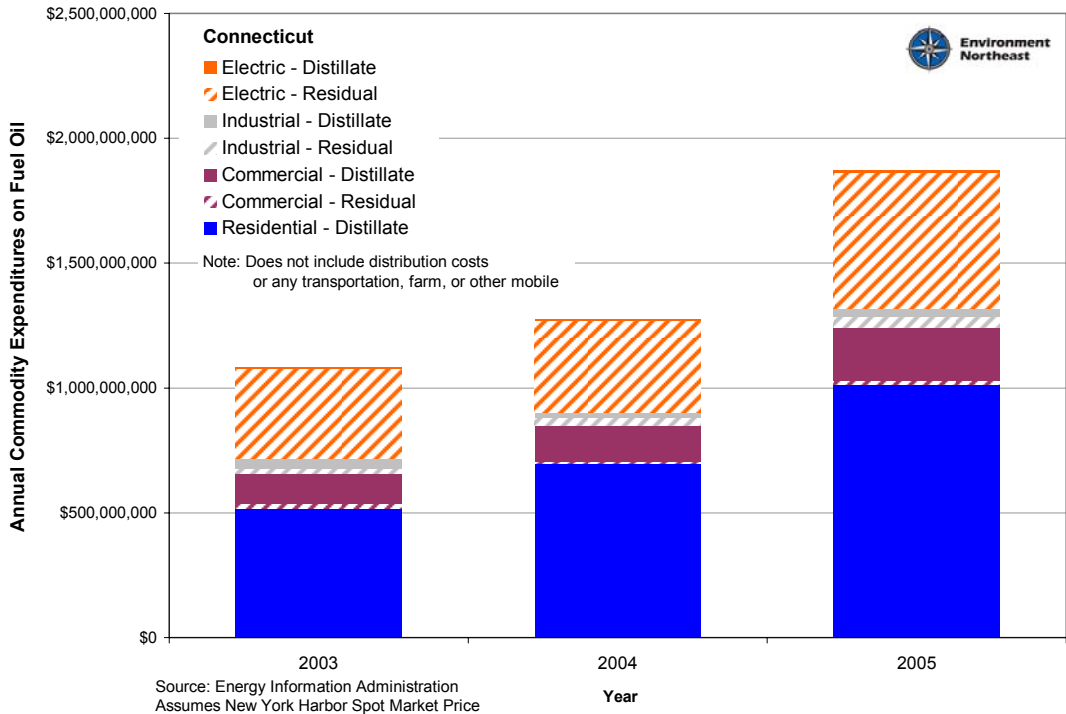
New England Fuel Oil Price Trends

As the price of fuel oil also rises, the majority of these dollars are also leaving the region. While commodity costs have skyrocketed, the cost of distribution and delivery has remained relatively constant.



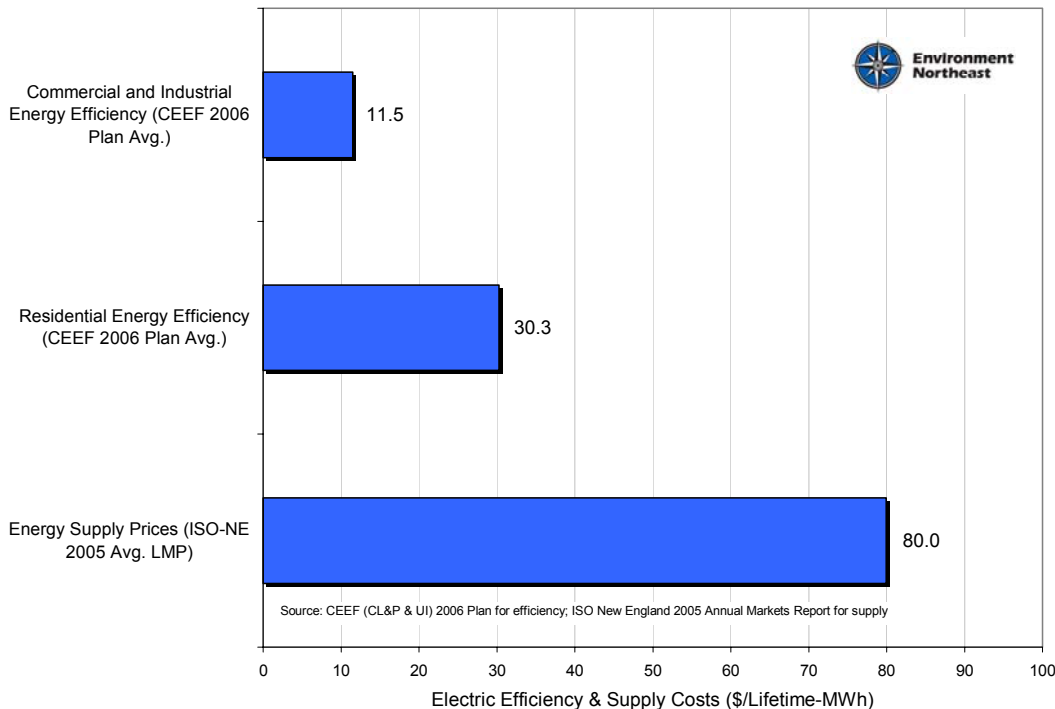
Connecticut Spending on the Commodity Portion of Fuel Oil (Stationary Uses)

Fuel Oil prices have also skyrocketed in the past few years with every dollar the states spends on fuel (not distribution costs) also leaving the region and no longer available to invest in the state's economy; the fuel oil trade imbalance has gone from \$1.1 billion in 2003 to \$1.9 billion in 2005; the average annual residential heating oil bill in Connecticut has gone from approximately \$600 in 2003 to \$1,200 in 2005.



Energy Efficiency is the Answer - Electric Generation vs. Energy Efficiency Costs

The figure below compares the cost to save consumers a unit of electricity versus the cost to supply an additional unit of electricity in MWh. Consumers spend 8 cents kwh (\$80 MWh) for new supply. Investing in residential energy efficiency can deliver the same amount of energy for 3 cents kwh (\$30.3 MWh)-- 1/3 of the cost of new supply. Investing in energy efficiency in commercial and industrial facilities cost 1 cent kWh (\$11.5 MWh)-- 80% less expensive than supply. Connecticut spends over \$2.5 Billion dollars on supply of electric energy while investing only \$60 Million in energy efficiency in 2006; we are not investing in the cheapest resource.



2005 Program Results - Connecticut Energy Efficiency Fund¹

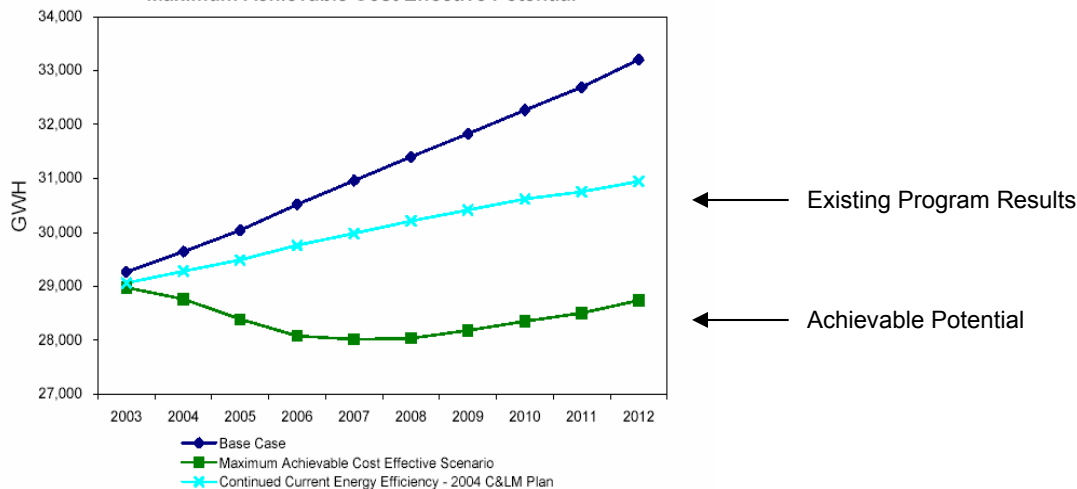
Annual Investment:	\$82 million		
Energy Savings:	4,398,000 MWh (Lifetime) ; 318,000 MWh (Year 1)		
Demand Reduction:	135,000 kW		
Economic Benefits:	\$550 million in avoided energy bills (Lifetime); \$40 million in avoided energy bills (Year 1) Generated \$4 in lifetime savings (today's dollars) for every \$1 spent Created approximately 1,000 non-utility jobs		
Customer Assistance to:	18,000 low income customers 890 small business customers 3,270 commercial and industrial customers		
Emissions Reductions:	Pollutant	2005	Lifetime
	CO2	198,586 tons	2,748,461 tons
	NOx & Sox	The program assists the region meet its goals under the cap and trade programs by reducing demand for electric power	
Awards:	Ranked #1 among U.S. states for cumulative annual energy savings (7.8%) as a percentage of annual total retail sales by American Council for Energy Efficient Economy (ACEEE) <i>National Scorecard on Utility and Public Benefits of Energy-Efficiency Programs</i> . (October, 2005). The U.S. national average is only 1.9%.		

Energy Efficiency is the Answer – There is a Large Untapped and Low-cost Resource

The maximum achievable electric efficiency potential report for Connecticut, commissioned by the CT Energy Conservation Management Board, indicates that we can reduce load growth in the state to zero and save consumers \$1.8 billion; all of this efficiency resource is available at lower cost than supply and only becoming more cost-effective as energy prices rise.² All states in New England have a similar untapped efficiency resource.

Demand Reduction	Reduction in Electric Use	NPV of Program Savings	Program Cost
Maximum Achievable Potential of 908 MW (13%) by 2012	Maximum Achievable Potential of about 4.47 million MWh (about 13%) by 2012, which eliminates projected load growth	\$1.8 Billion total, or \$1,228 per household	\$82 million - \$148 million / year (2003 dollars)

Figure 1-2 - Connecticut Energy Forecast (GWh):
Base Case, Continued Current Energy Efficiency, and
Maximum Achievable Cost Effective Potential

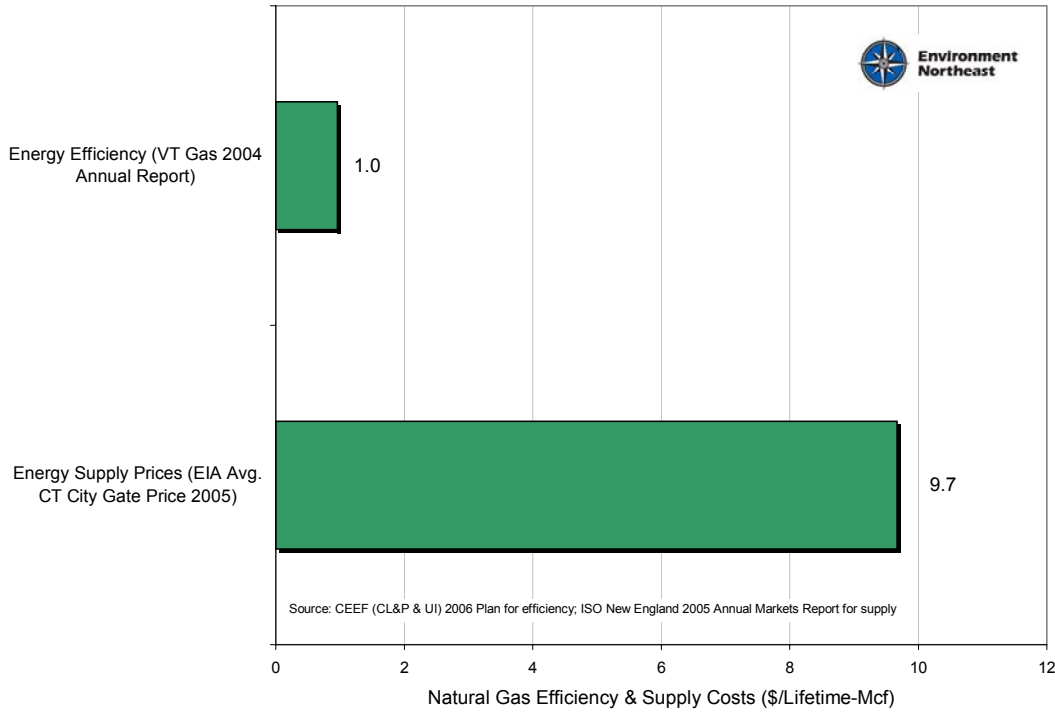


¹ Connecticut Energy Conservation and Load Management Board, "Energy Efficiency: Investing in Connecticut's Future – Report of the Energy Conservation Management Board, Year 2005 Programs and Operations," March 1, 2006

² Source: GDS Associates/Quantum Consulting, 2004, Maximum Achievable Potential Report, available at the ECMB web site : <http://www.state.ct.us/dpuc/ecmb/>

Energy Efficiency is the Answer – Natural Gas Supply vs. Energy Efficiency Costs

The figure below compares the cost to save consumers a unit of energy versus to cost to supply an additional unit of energy; Connecticut natural gas efficiency programs are in their infancy, with other states such as Maine, Massachusetts, Rhode Island, and Vermont investing 1 to 2% of utility revenue in efficiency programs; with the increases in natural gas supply costs, energy savings can now be delivered for a fraction of the cost of additional energy supply, keeping energy dollars at home.



2004 Program Results – Vermont Gas Systems, Inc Demand Side Management Program³

Annual Investment:	\$1.1 million 1.8% of Total Revenue (2003)	
Energy Savings:	57,000 Mcf (Annual) 1,168,000 Mcf (20 Year Lifetime)	
Demand Reduction:	480 Mcf Peak Day Savings	
Economic Benefits:	\$ 390,000 Saved (Annual) \$ 8 million Saved (Lifetime, not discounted)	
Customer Assistance:	Programs open to all customer classes on system 1,640 homes and businesses installed energy efficiency measures	
Emissions reductions (Tons):	<u>Pollutant</u>	<u>2004</u>
	CO2	3,300 tons
	NOx	2.6 tons
	SOx	1.1 tons
Awards:	VGS received the EPA/DOE Energy Star <i>Leadership in Energy Efficiency</i> in 2004. In recent years, more than 50% of residential new construction in the utility's service territory has met ENERGY STAR Qualified Home standards.	

³ Source: Vermont Gas Systems, Inc., "2004 Annual Report: Demand Side Management Programs," 2005, p. EXE-1.