



## **Are Fuel Costs the Primary Cause of Rising Electricity Prices? An Examination of the Role of Market Structure**

Rising electricity prices are routinely attributed to increases in fuel prices. But this argument ignores the important role of the structure of the electricity market -- primarily the changes resulting from deregulation. The role of these market changes can be discerned from a comparison of regions or states with similar fuel source profiles but different regulatory structures.

New England's electricity market is characterized by deregulated prices set largely in spot markets run by the New England Independent System Operator (ISO-New England). Other than Vermont, all states in the region have deregulated their retail electricity markets, and in all states except New Hampshire, required investor-owned utilities to sell off their generation. The New England region is heavily dependant on natural gas for generating power as 40.5 percent of total generation in the New England states was from natural gas in 2007. The price of natural gas affects more than just the cost of producing power at a natural gas-fired plant, because in New England, generation prices are set in bid-based electricity markets where the highest bid accepted in each interval sets the market price for that interval. According to ISO-New England, natural gas-fired units set the market price 74 percent of the time in 2007. Thus, the significant increase in natural gas prices beginning in 2005 has resulted in even larger increases in electricity prices. Between 2004 and 2007, the price of natural gas delivered to electric generators in New England increased by 19 percent, but average electricity prices paid by consumers increased by 41 percent.

Florida is similar to New England in its dependence on natural gas and oil. While generation in New England was 40.5 percent from natural gas and 4.4 percent came from oil in 2007, Florida's dependence on these rising-cost fossil fuels was greater, with 44.5 percent of generation from natural gas and 6.9 percent from oil. However, despite a 43 percent increase in the price of natural gas delivered to Florida's electric generators between 2004 and 2007, Florida consumers' average electric rates increased by only 26 percent.

The following chart shows that average electricity prices in New England rose much more than the delivered prices of natural gas -- both as expressed in dollars and in percents. Just the opposite was true in Florida: average electricity prices rose less than natural gas prices. In fact, electricity prices in Florida increased less than they did in New England, despite Florida's much greater increase in natural gas prices.

## Increases in Natural Gas and Electricity Prices, New England and Florida

Source: Energy Information Administration data series.

	<u>2004</u>	<u>2007</u>	<u>Difference</u>	<u>Percent Increase</u>
New England				
Average Price of Electricity Paid by Consumers (in \$ per MWH)	10.61	14.91	4.30	41%
Average Price of Natural Gas Deliveries to Electric Utilities (in \$ per million Btu)	6.54	7.78	1.24	19%
Florida				
Average Price of Electricity Paid by Consumers (in \$ per MWH)	8.16	10.30	2.14	26%
Average Price of Natural Gas Deliveries to Electric Utilities (in \$ per million Btu)	6.29	8.98	2.69	43%