



## **Fact Sheet: Fuel Cost, Market Structure and Electricity Prices in New Jersey**

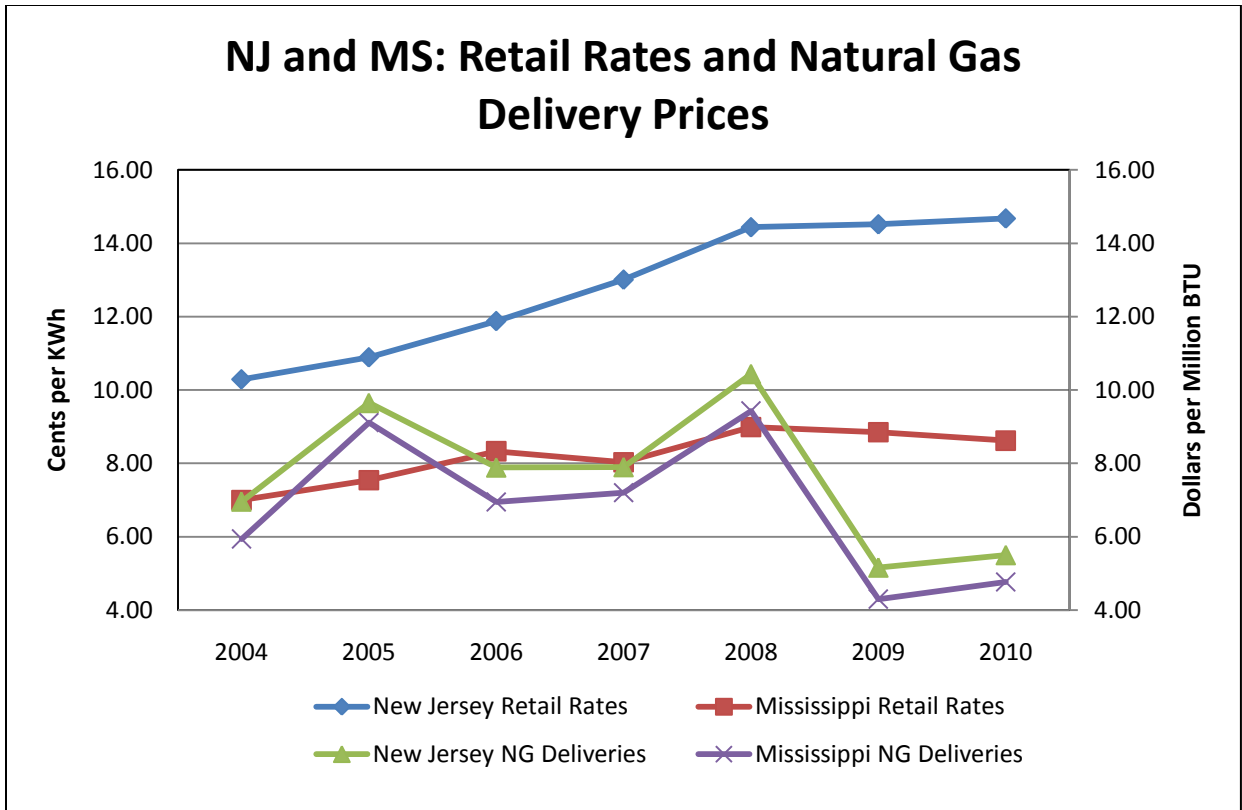
Rising electricity prices are routinely attributed to increases in fuel prices.<sup>1</sup> However, as shown in this fact sheet, the structure of the electricity market is also a very important factor. In 2010, 37.5 percent of the power generated in New Jersey was from natural gas, while 59.8 percent was from coal or nuclear facilities, both relatively low-cost, base-load power sources. The price of natural gas affects more than just the cost of producing power at a natural gas-fired plant because New Jersey is part of the PJM Interconnection regional transmission organization (RTO). In PJM, generation prices are set in bid-based electricity markets where the highest bid accepted in each interval sets the market price for that interval. While PJM does not provide statistics for individual states, its 2010 State of the Market Report shows that natural gas accounted for only 11.7 percent of the generation in PJM, but natural gas-fired units set the market price 26 percent of the time.

Mississippi operates under a different market structure: utilities still have the obligation to serve their customers; retail customers are charged full-service rates approved by state or local regulators; and utilities still own generating resources that provide the bulk of the power for their customers. Compared to New Jersey, Mississippi relies to a greater degree on natural gas for generation, as 54.3 percent of power generated in the state was from natural gas plants in 2010. A total of 42.7 percent of generation in Mississippi was from coal or nuclear plants.

The first graph below shows that while the average price of natural gas deliveries (expressed in dollars per million BTU) in New Jersey and Mississippi remained close throughout the period from 2004 to 2010, retail electric prices (expressed in cents per kWh) in New Jersey grew at a much higher rate than in Mississippi. Natural gas prices declined by nearly half from 2008 to 2010, yet retail electric rates in New Jersey continued to hover at well over 14 cents per kWh, and were 4.39 cents per kWh higher in 2010 than in 2004 despite a net decline in the price of natural gas deliveries from \$6.96 per million BTU in 2004 to \$5.50 in 2010. Natural gas delivery prices followed a similar track in Mississippi: rising from \$5.94 in 2004 to \$9.43 in 2008, then falling to \$4.77 in 2010. Yet total retail rates only increased by 1.62 cents per kWh, or 23 percent, during this same time period.

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<sup>1</sup> For example, in the *Myths & Realities of Competitive Electricity Markets*, the Electric Power Supply Association (EPSA) asserts that “[e]lectricity rates have been rising throughout the country, not only in restructured states. These increases are largely a result of rising costs for the fuel used by generators to produce electricity.” <http://www.epsa.org/industry/index.cfm?fa=mythsRealities>



The second graph puts the price spreads in greater focus. Natural gas delivery prices were just under \$1.00 more in New Jersey than in Mississippi for much of the time between 2004 and 2010. Despite this narrow spread in gas delivery prices to the electric power sector, the spread in retail rates nearly doubled. In 2004 total retail rates in New Jersey were 3.29 cents per kWh greater on average than in Mississippi. By 2010 the rate spread had grown to 6.06 cents per kWh despite similar trends in the gas market for both states.

