



U.S. Natural Gas Market Evolution

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In a talk that traced the history of natural gas in the U.S. from the earliest local uses through the development of regulated open access markets, Federal Energy Regulatory Commission (FERC) Chief Economist Richard O’Neill described how an expansive federal regulation of natural gas developed sometimes because of and sometimes despite presidential intentions, how and why this regulation turned to a restrictive “cradle to grave” approach, and how eventually it underwent a “paradigm change,” as regulators moved from cost-based to market-based rates and a more restrained approach to regulation.

O’Neill traced the history of natural gas regulation from early local and state regulation to the landmark 1938 Natural Gas Act (signed by President Franklin Roosevelt) which provided for federal regulation of the transportation and sale of natural gas in interstate commerce, requiring “just and reasonable rates with no undue discrimination”—a law, O’Neill explained, that came (with the 1954 *Phillips Petroleum v. Wisconsin* decision) to be interpreted broadly to include sales at the natural gas wellhead, not just sales from interstate pipelines—a comprehensive interpretation which President Eisenhower found it politically impossible to reverse.



In the period from 1956-1989, O’Neill explained, federal regulators developed a comprehensive cost of service regulatory framework for natural gas which included area rate caps, approval of gas contracts, and incentives that led to the creation of sharply divided interstate and intrastate market, due to the “molecule rule”—even one interstate methane molecule touching an intrastate molecule could make a whole pipeline subject to strict interstate regulations.

This activist regulatory picture was further complicated in the 1970s, O’Neill said, as natural gas wellhead prices rose sharply with the 1973 oil embargo. Misreading increased prices as the first sign of the depletion of the natural gas resource, forecasters predicted ever-rising natural gas prices. Lawmakers responded with the Fuel Use Act, which increased restrictions on how natural gas could be used—including barring the construction of new power plants that would use oil or natural gas, with the idea that natural gas needed to be preserved for “high value use.”

However, O’Neill recounted, just as the U.S. regulatory structure was fully oriented to a world of ever-rising natural gas prices and ever-increasing natural gas scarcity, in the 1980s, natural gas surprised forecasters with a multi-year period of falling prices. Many long-term contracts became uneconomic, and one large gas company (Columbia Gas) that had bet heavily on rising prices was forced into bankruptcy. In 1987, the government responded by repealing the Fuel Use Act, allowing natural gas to once again be used in power plants. This step marked the beginning of what O’Neill described as a “paradigm change”—a transition “from planning and cost-based regulation to markets and market-based regulation.” Rather than directly mandating prices, regulators turned their focus to ensuring markets operated well, on the theory that the resulting prices would inherently be “just and reasonable.”

Natural gas prices spiked in the first decade of the 2000s, O’Neill noted—but plummeted with the development of shale gas extraction technology. Today, regulators continue their market-based approach, challenged primarily by concerns, not about upcoming natural gas shortages, but about natural gas abundance and the impact of natural gas development on climate change—concerns, O’Neill noted, that are leading to significant pressure on regulators to act in response to policy concerns that many regulators believe is outside the scope of their regulatory authority.

O'Neill spoke as part of the Kennedy School's Energy Policy Seminar Series, which is sponsored by the Consortium for Energy Policy Research of the Mossavar-Rahmani Center on Business and Government.