

Environmental Consequences of Natural Gas Wellhead Pricing Deregulation

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Abstract

From 1958–1985, the U.S. Federal Power Commission, and then Congress, directly, exercised explicit control of the price of natural gas contracted for sale across state lines. This paper investigates the role of incremental deregulation of natural gas wellhead prices—a regulatory price ceiling—on U.S. air quality from 1972–1985, by influencing the incentive to move relatively cleaner natural gas across state lines. Controlling for various county, state, and national variables and trends, the results indicate that relaxing (raising) natural gas wellhead price caps is not associated with significant declines in national average sulfur dioxide (SO₂). However, disaggregating by states’ natural gas importing status reveals that relaxing wellhead price caps was associated with significant increases in SO₂ concentrations among natural gas exporting states but significant relative reductions among natural gas importing states. Estimates indicate that doubling the wellhead price cap, which happened roughly four times over the sample period, predicts approximately six percent of the observed declines in SO₂ among importers. Further analysis indicates that the reductions in SO₂ concentrations were significantly larger for larger volume importers.

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“The regulatory mechanics [concerning natural gas price controls] were mandated by court decision, calling for price stability without reference to market conditions of production or demand. These court decisions imposed a task on the Federal Power Commissions that it was not able to perform; eventually the consumer was, in fact, made worse off by their ceilings on prices. [...] The only question that remains is how long it will take to understand these mistakes and to learn from them in revising regulatory policy.” (McCavoy and Pindyck, 1974)