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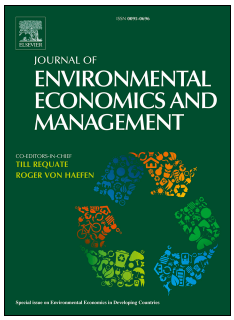

The heterogeneous impacts of low natural gas prices on consumers and the environment

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Abstract

We show that low natural gas prices increase gas-fired electricity generation, reduce coal-fired electricity generation, and reduce wholesale electricity prices. However, not all regions experience the same degree of coal-to-gas generation switching or electricity price declines. Specifically, regions experiencing more coal-to-gas switching experience smaller electricity price drops. We provide intuition that may explain this pattern. This finding also has environmental and welfare consequences: coal-fired plants emit more pollutants, and therefore regions that benefit more from greater emissions reductions experience lower benefits from declining electricity prices. The finding highlights a mechanism through which a carbon price would have heterogeneous impacts across regions.

JEL Classification Numbers: Q41, Q53
Key Words: Electricity Prices, Natural Gas, Coal, Cost Pass-Through, Pollution, Shale Gas
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