Information Provision and Energy Consumption: Evidence from a Field Experiment

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Abstract

Energy consumption and the residential real estate market are closely related, leading to a multitude of policy interventions targeted to reduce the carbon externality from the housing market. Feedback provision regarding household energy consumption is considered a low-cost strategy for promoting energy conservation. Although various studies investigate the impact of information feedback on energy consumption, less is known about the heterogeneity of these responses. In this paper, we report the findings from a field experiment where participants are exposed to consumption feedback through the use of in-home displays during two discrete stages. The results show that information provision reduces electricity consumption by around 20 percent, on average, relative to a sample of non-treated households. Importantly, we also show that this average effect significantly differs based on the time of day and across the treatment group. Most of the feedback effect occurs during off-peak hours, and clusters among households that are older and that are most focused on energy conservation.

JEL Codes: Q30, Q40, R22

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