

# Factors Affecting Renters' Electricity Use: More Than Split Incentives

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Understanding potential renter effects on electricity consumption is important for a number of reasons. Renters tend to be relatively disadvantaged from a socioeconomic perspective. If renters had improved access to more efficient appliances and installations, less electricity consumption and expenditure would be required to achieve any given level of utility, which would help to alleviate financial stress. Lower electricity consumption would also help to reduce emissions of carbon dioxide and other pollutants. Well-designed policy to pursue these objectives requires knowledge of the channels and magnitudes involved.

We quantify the relationship between renting and household electricity use in the United States (U.S.). We also consider the effects of particular channels through which renting may lead to excess electricity use. This includes split incentives relating to energy efficiency and consumption, and also factors related to household behavior and higher dependence on electrical heating among renters. The paper also quantifies the effect of renting on uptake of various types of electrical appliances and on some relevant behavioral variables. Data are from the nationally representative 2015 U.S. Residential Energy Consumption Survey.

The paper finds that a negative unconditional effect of renting on electricity use turns into a positive conditional effect when suitable control variables are included. Specifically, renting households on average consume around 9% more electricity per household than non-renters after controlling for a vast array of socioeconomic factors and for quantities of electrical appliances that are less prevalent among renters. This finding is larger than those from some earlier studies of U.S. household energy consumption that included fewer control variables. The paper also finds that none of the channels via which the renter effect operates are dominant. Contributors to the phenomenon include differences in energy efficiency, bill payment responsibility, behavior, natural gas usage, and appliance and equipment quantities.

This attempt to understand the channels leading to excess electricity use by renters can help policymakers have a better idea of how much of the effect relates to split incentives. Approaches to address split incentives such as seeking to move towards greater self-payment of electricity bills have some potential to reduce residential electricity use. Policy approaches may also be able to better target issues such as the undersupply of energy-efficient installations in rented properties. Policy plans would ideally be developed in a context-specific way and consider equity issues.

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