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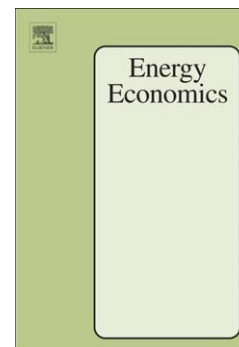
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# Move it! How an electric contest motivates households to shift their load profile\*

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## Abstract

Photovoltaic systems generate electricity around noon, when many homes are empty. Conversely, residential electricity demand peaks in the evening, when production from solar sources is impossible. Based on a randomized control trial, we assess the effectiveness of alternative demand response measures aimed at mitigating these imbalances. More precisely, through information feedback and financial rewards, we encourage households to shift electricity consumption toward the middle of the day. Using a difference-in-differences approach, we find that financial incentives induce a significant increase of the relative consumption during the period of the day when most solar radiation takes place. Information feedback, however, pushes households to decrease overall consumption, but induces no load shifting.

**JEL Classification:** C93, D12, L94, Q41.

**Keywords:** household electricity usage; smart metering; demand response; randomized control trial; difference-in-differences.

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