

Evaluate Energy Savings from Home Appliance Replacements

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Extended Abstract

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Abstract Summary

This paper estimates the effects of a government subsidy program for top-rated energy efficient air conditioners and refrigerators in Taiwan. First, we find that prior to the subsidy program, more than 90% of air conditioners and refrigerators were already top-rated products. The subsidy program increased the shares of top-rated products to over 95%. Using detailed subsidy application records with comprehensive electricity billing data from all households in Taiwan, we employ a synthetic control approach to estimate the treatment effect of appliance replacement on energy use. Our findings indicate that replacing home appliances leads to substantial reductions in electricity consumption, particularly among high-usage households.