

SolarMax Energy Systems

Solar panel demand rebounds



Overview

Households adopt solar panels for different reasons, but usually with a reduced electricity bill in mind. However, the access to solar power at near zero marginal costs may well induce rebound effects which shift.

Do solar households have a rebound effect?

More precisely, solar households in the first quartile of the electricity production distribution show a rebound effect around 11%, whereas the households in the last quartile of the distribution exhibit a rebound effect around 36%. Rebound effect by seasons. The dependent variable is daily electricity consumption.

What is solar PV rebound effect?

The solar PV rebound effect shows heterogeneity across time and production level, with higher rebound effects during seasons characterized by higher solar irradiance. The threat of global warming and climate change urges countries and communities to take action.

Do solar panels increase electricity consumption?

Our point estimate translates to a rebound effect of 28.5%, suggesting that nearly a third of the electricity produced by a customer's solar panels is used for increased energy services, rather than reduced grid electricity consumption. We explore several potential drivers of an increase in electricity consumption.

Are solar panels a good investment?

Households adopt solar panels for different reasons, but usually with a reduced electricity bill in mind. However, the access to solar power at near zero marginal costs may well induce rebound effects which shift households' demand curve and distort the net effects of solar PV investments.

Is residential solar down today?

Residential solar might be down today, but its long-term prospects remain

solid. We see that residential solar is poised for steady growth, especially for companies that take the right steps now in preparation to enter the next phase.

Does solar irradiation cause a rebound effect?

This variation across seasons might also indicate that the rebound effect is mainly arising due to short-run responses to electricity production level, instead of a change in households' appliance stock, as we observe no difference in electricity consumption levels of solar and non-solar homes during seasons with lower solar irradiation.

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Microeconomics of the solar rebound effect - Energy Policy and

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The solar rebound effect in residential PV

The panel dataset contains detailed



monthly information on electricity demand and bills, solar system capacity, production, and installation ...

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summary statistics for solar and non-solar houses separately (see Table 1). The statistics suggest that, on average, the households with solar panels consume around 7.5 kWh more

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