

research highlights

SOLAR PV ADOPTION

Incentives and behaviour

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Feed-in tariffs, in which individuals are paid for the amount of energy they export back to the grid, have been used to incentivize adoption of solar photovoltaics (PV).

However, such policies may influence how individuals make use of renewable energy technology in unintended ways. Jeff Sommerfield and colleagues from Queensland University of Technology, Australia, examined whether motivations for acquiring solar PV and subsequent behaviour changes were dependent on the feed-in tariff policy under which PV was acquired.

Structured interviews revealed that most participants acquired solar PV due to the perception of increasing electricity prices. However, those who acquired solar PV under a \$0.44 feed-in tariff were also motivated by the economic benefits from this tariff policy, whereas those who acquired solar PV under a \$0.06 feed-in tariff were not. All participants in the \$0.06 cohort reported that they changed their behaviour after acquiring solar PV to optimize use of the electricity they generated by increasing daytime energy use. In contrast, only half of the participants in the \$0.44 cohort reported changing behaviour, and in this case it was to maximize the financial returns from the feed-in tariff by reducing daytime energy use. These results suggest that higher feed-in tariffs provide greater financial incentives to acquire solar PV, but can result in behaviour changes that are at odds with policy objectives to increase household use of renewable energy.

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