

H4 Opportunity Assessment

Rewarding flexible demand: Customer friendly cost reflective tariffs and incentives

Report at a glance



Final Report

RACE for Homes Program

Research Theme H4: Rewarding flexible demand: Customer friendly cost reflective tariffs and incentives

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What is RACE for 2030?

The Reliable Affordable Clean Energy for 2030 Cooperative Research Centre (RACE for 2030 CRC) is a 10-year, \$350 million Australian research collaboration involving industry, research, government and other stakeholders. Its mission is to drive innovation for a secure, affordable, clean energy future. <https://www.racefor2030.com.au>

Project partners



Report at a glance

Theme H4: Rewarding flexible demand: Customer friendly cost reflective tariffs and incentives

What is the report?

This opportunity assessment presents a roadmap of proposed research projects and industry development to increase flexibility of household electricity use and generation through incentives. The report addresses the following priorities:

- Behavioural and social characteristics of households that are relevant to their take up of and response to new tariffs and other incentives
- Tools that support household decision-making
- The design of tariffs and other incentives

Why is it important?

The aim of residential electricity flexibility is for households to alter their pattern of demand and their use of distributed energy resources – such as rooftop solar, batteries, controllable loads and smart appliances – to reduce energy bills and deliver system-wide benefits. Rather than designing perfect tariffs and incentives, it is crucial to focus on sustained incremental improvement. The research roadmap presents a pathway to achieve this.

What did we do?

A household perspective informed our research into electricity flexibility and the factors that influence it. In preparing the report, we:

- described the current state of play
- outlined the available mechanisms and decision-making tools
- analysed barriers and research gaps
- assessed the potential financial value
- designed a research roadmap.

What difference will it make?

Increasing household electricity flexibility supports the transition to a low-carbon electricity system by increasing capacity for renewable generation, reducing reliance on fossil fuels and reducing household costs. This Increased flexibility can reduce peak demand, grid infrastructure costs, and electricity spot prices, which contribute to lower electricity bills, lower emissions, higher reliability, more jobs and other social benefits. This report estimates that the accelerated adoption of cost-reflective tariffs and incentives could deliver net customer bill benefits of \$3.2 billion by 2035.

What next?

The research roadmap consists of 36 research questions, with 30 mapped to seven priority areas and 6 related to the modelling outcomes presented in the report, along with suggested approaches to address each question. This will contribute to the design of customer-friendly cost-reflective incentives to reward residential electricity flexibility.

RACE for 2030

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