

H2 Fast Track

Pathways to scale: Retrofitting One Million+ homes

Report at a glance



Final Report
RACE for Homes Program
Research Theme H2: Enhancing home thermal inertia

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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

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What is the report about?

This report distils the current research on the economic, environmental, and societal impacts of large-scale home retrofitting. It provides insight to advance the design and development of a large-scale home retrofit scheme in Australia. It explores the scale of the retrofit market, finance options available, current policy and programs and the stakeholder landscape.

Why is it important?

A large-scale home retrofit scheme can create jobs for Australian communities and provide comfortable homes that require less energy for heating and cooling for Australian households, whilst stimulating private finance and investment in the Australian home retrofit market. Australia needs a targeted and coordinated effort to retrofit the millions of existing homes. The scheme aims to retrofit homes so that they can support Australia's current and future comfort and energy needs and facilitate the transition to renewable energy. The way we generate and use energy is transforming. Our homes need to evolve alongside this to support our needs for comfort, efficiency, and resilience. Maximising thermal and energy efficiency in homes, moving energy demand into periods of maximum renewable generation, and enabling electrification can also support the transition toward net zero.

What did we do?

The project was delivered through desk-top research, a literature review of impacts and determinants of success for large-scale energy efficiency retrofit programs, modelling of benefits from various retrofit upgrades, and stakeholder consultation that included workshops, semi-structured interviews and meetings to support scheme design.

What difference will it make?

The findings of this report outline a suite of actions required from key stakeholders across the Australian energy efficiency home retrofit ecosystem to create the ecosystem to support a large-scale scheme, including government, financiers, energy efficiency service providers, training and accreditation providers, and product manufacturers.

This research project also paves the way for a longer-term research program to fill gaps in our current understanding and to support the roll out of home retrofits at scale.

What next?

The research has led to a recommendation that a large-scale home retrofit scheme aims to create future ready homes. That is; improved thermal comfort with a path toward electrification.

The research outlined in this report supports development of a scheme to retrofit Australian homes for the purpose of thermal and energy efficiency. Following learning from the international examples and our further research within this report, the ambition is to realise a home retrofit scheme for one million plus Australian homes, across five years.

A suite of work packages has been identified through the project that would support and progress a large-scale home thermal and energy efficiency retrofit scheme in Australia.

This is an opportunity for collaboration and partnership between homeowners, tenants, investors, industry, and government to develop, enable and implement the market demand and the ecosystem required to retrofit Australian homes and contribute to meeting our net zero emissions targets.

RACE for 2030

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