

ACOSS Submission to Residential Electrification

Senate Economics References Committee

12 October 2023

About ACOSS

The Australian Council of Social Service (ACOSS) is a national voice in support of people affected by poverty, disadvantage and inequality, and is the peak body for the community services and civil society sector. ACOSS consists of a network of approximately 4000 organisations and individuals across Australia in metro, regional and remote areas. Our vision is an end to poverty in all its forms; economies that are fair, sustainable and resilient; and communities that are just, peaceful and inclusive.

Climate change disproportionately impacts people who face disadvantage including people on low incomes, people with disability, people with chronic health issues and Aboriginal and Torres Strait Islander peoples.

A rapid transition to net zero emissions, consistent with limiting global warming to 1.5 degrees C, is therefore critical to reducing the impact on people facing disadvantage. This will require Australia prioritising emission reductions this decade and aim for net zero emissions by 2035.

However, to achieve benefits for everybody, the transition to net zero emissions must be fair and inclusive. Putting people with the least at the centre of policy design means we can rapidly reduce emissions, poverty, and inequality in Australia.

Supported by:

ACOSS prepared this submission in consultation with members of the ACOSS Climate and Energy Network and the Healthy and Affordable Homes Coalition. The following organisations wanted to explicitly endorse the submission.



Discussion

ACOSS welcomes the opportunity to make a submission to the Economics Reference Committee's inquiry into Australia's residential home electrification efforts.

Electrification refers to switching out traditional gas appliances like hot water, heating and cooking to efficient electric appliances. More and more research shows that gas appliances in the home are leading to health risks, including asthma and some cancers.¹ Modern electric appliances are more efficient than gas alternatives, meaning they are cheaper to run.² Electric appliances can be utilised in demand management. Paying for a gas and an electricity network adds additional costs for households. And gas is a polluting fuel contributing to the climate crisis.

Switching from gas to electric appliances, Australian households can save on their energy bills, reduce health risks and help to reduce emissions. The emissions savings from switching to electricity will continue to grow as we keep decarbonising the electricity grid and shifting to a 100 percent renewable energy system.

Electrification of residential households is considered by many as a "no regrets" measure. This means it is an action that is worth taking because it is likely to be beneficial no matter what happens in the future.

There are no plausible alternatives to efficient household electrification. Potential 'alternatives' like hydrogen (green or otherwise) or biofuels fail to meet some or all of the benefits outlined above, either failing to reduce emissions, improve household health, or involving unnecessary cost and risk to households.

People on low incomes would benefit the most from efficient electrification, given they pay disproportionately more of their income on electricity and gas bills, and face high cost of living or other essentials. However, they also face the greatest barriers to electrification, especially if they rent, because they have less choice and control over changes to their home.

ACOSS strongly supports electrification of the residential sector as a key solution to reducing energy bills, improving health outcomes, cutting carbon emissions and reducing poverty and inequality.

However, **electrification must be done alongside energy efficiency improvements**, including insulation, draught proofing, efficiency windows, shading and coverings and where feasible, access to **small-scale renewables** and storage (rooftop solar, solar heat pumps, batteries), to achieve emission reduction goals and maximise the other benefits. **Low-income households must be prioritised and supported to access these clean energy and efficiency features.**

¹ Doctors for the Environment Australia, Homes Gas Appliances Your Health Fact Sheet <https://dea.org.au/wp-content/uploads/2020/12/Home-gas-appliances-fact-sheet.pdf> And Climate Council 2021 'Kicking the Gas Habit: How Gas is Harming our Health' <https://www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf>

² Renew

1. Electrification should be accompanied by efficiency and small-scale renewable energy

1.1 More bill savings if we combine electrification with thermal efficiency and small-scale renewable energy.

Climate Council analysis shows electrifying a home's cooking, heating and hot water can save a household between \$336 and \$1,311 a year; with households in Hobart, Melbourne, Canberra and Brisbane saving the most.³

The Climate Council's analysis also showed that upgrading the thermal efficiency of a home (by putting in insulation and finding and fixing draughts) can additionally save a household between \$354 and \$1,561 each year.

Households could achieve even more through access to rooftop solar. The savings from rooftop solar will vary based on factors including the size of the system, size of the house, consumption patterns and geographical location, among other variables. As an indicator of the level of savings, the average bill reduction for a family of four, using 15kW of energy per day, with a 6.5 kW solar system is between \$1,134 a year in Victoria up to \$1822 in South Australia.⁴

There are significant bill savings that can be made by improving the **overall energy performance** (thermal efficiency, electrification and small-scale renewables) of housing.

1.2 Greater health benefits if we combine electrification with energy efficiency.

There are significant health benefits of households shifting off gas to electric appliances. Gas is poisonous, and the use of gas appliances in homes reduces indoor air quality, both when gas is burned and through leakage. For example, cooking with gas has been estimated to be responsible for up to 12% of the burden of childhood asthma in Australia.⁵ Better ventilation, including modern extraction fans over stoves, flues for gas heaters and other safety measures like ensuring appliances are properly serviced or opening windows can reduce but not eliminate these risks.

Efficiency measures provide additional physical and mental health benefits. A study of the Victorian Government's Healthy Homes Program that provided thermal comfort and energy efficiency upgrades to 1000 homes of low-income Victorians with a health or social care need, found modest energy efficiency upgrades, including insulation, draught proofing, window coverings and reverse cycle heating/cooling, were associated with health benefits like reduced breathlessness and improved quality of life, particularly in mental health and social care.⁶ These benefits spread beyond

³ https://www.climatecouncil.org.au/wp-content/uploads/2023/04/CC_MVSA0353-CC-Report-Two-for-One-Home-Energy-Efficiency_V5.2-FA-Screen-Single.pdf

⁴ <https://www.9news.com.au/national/power-price-rises-forging-the-way-for-renewables/93965306-680f-4b9f-a909-7bc26201af9e> based on analysis by the Australian Photovoltaic Institute.

⁵ <https://www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf>

⁶ <https://assets.sustainability.vic.gov.au/susvic/Report-Energy-Victorian-Healthy-Homes-program-research.pdf>

individuals, with the study finding the upgrades led to healthcare savings of almost \$900 per person over the winter period. For every \$1 saved in energy, more than \$10 was saved in healthcare.⁷

In New Zealand, a government program aimed at improving efficiency through better insulating homes found benefits including: hospitalisation and pharmaceutical cost savings; reduced medical visits; reduced days off school or work; and reductions in caregiver costs.⁸

1.3 Faster emissions reductions if we combine electrification with energy efficiency and small-scale renewable energy.

We will need electrification, energy efficiency and renewable energy to achieve our goal of limiting global warming to well below 2 degrees C and pursue a limit of 1.5 degrees.

The International Renewable Energy Agency estimates that energy efficiency will deliver 25 per cent of the entire world's emissions reductions to 2050, the same proportion that is expected to come from renewable energy. Electrification is anticipated to deliver a further 20 per cent reduction.⁹

New research commissioned by the Energy Efficiency Council and ANZ, confirms the international figures are similar in Australia. The research shows energy efficiency and electrification can deliver 14 per cent and 26 per cent of Australia's emissions reductions, respectively at low cost.¹⁰

2. The energy performance of Australian homes is poor

The energy performance of the majority of Australia's approximately 11 million dwellings is notoriously poor.

Most homes in Australia waste energy, are unnecessarily expensive to power, are too hot in summer and too cold in winter and are making people sick. Global warming will mean many parts of Australia will experience more periods of extreme heat and for longer durations.

With recent energy price rises and more predicted over the next couple of years, it will become even harder for people to afford to keep their homes and themselves healthy.

Around 8 million dwellings were constructed prior to the introduction of any residential energy efficiency standards.¹¹ The average energy efficiency NATHERs¹² rating¹³ of

⁷ Ibid.

⁸ Grimes et al. 2012, [Cost Benefit Analysis of the Warm Up New Zealand: Heat Smart Programme](#), New Zealand Ministry of Economic Development.

⁹ International Renewable Energy Agency (IRENA) 2022, [World Energy Transition Outlook 2022](#).

¹⁰ Northmore Gordon 2023, [Energy efficiency scenario modelling](#).

¹¹ <https://www.powerhousingaustralia.com.au/wp-content/uploads/2021/11/PHA-eScan-2021-FINAL.pdf>

¹² Nationwide House Energy Rating Scheme (**NATHERS**)

¹³ NatHERS home's rating depends on how well these factors suit the local climate, including layout of the home and orientation; roof, walls, windows and floor construction methods and materials; shading to the sun's path

existing homes in Australia is 1.7 stars,¹⁴ compared to new homes which are now required to meet a rating of 7 stars, out of a possible 10 stars.

There are 5.2 million households (growing by 100,000 a year¹⁵) that rely on inefficient, high polluting, unhealthy and increasingly expensive gas for heating, hot water and cooking.

There are only 3.2 million homes with rooftop solar.¹⁶

As demonstrated above, there is substantial work to do to improve the energy performance of homes via improved thermal efficiency, electrification and small-scale renewable energy, but it also means there are substantial opportunities and benefits at low cost.

3. People on low incomes are more likely to live in poorly performing homes with devastating consequences.

People who are financially disadvantaged, especially those who rent, are more likely to live in poor energy performing homes,¹⁷ less likely to have rooftop solar,¹⁸ and spend on average four times more of their income on energy bills,¹⁹ after they have deprived themselves of energy and other essential services.

3.1 People on low-income deprive themselves of energy to afford energy bills

Research has found that people on low incomes are more likely to deprive themselves of energy to afford energy bills because the energy performance of their home is so poor.

A 2023 survey of 427 people on low incomes conducted by ACOSS²⁰ found that 97% were cutting back on their energy use to afford their energy bills:

- 74% cut back on cooling and heating.
- 62% cut back further on use of lights.
- 55% took fewer hot showers.
- 51% changed how they cook meals (i.e. not using the oven).
- 49% went to bed early to keep warm or cut down their use of lights.
- 33% stopped having people over.

and how well your home takes advantage of local breezes. It does not rate hot water systems, lights and household appliances aren't taken into account in NatHERS ratings because they're usually replaced several times in the building's lifetime.

¹⁴ COAG Energy Council (2019) Report for Achieving Low Energy Existing Homes https://energyministers.gov.au/sites/prod.energycouncil/files/publications/documents/Trajectory%20Addendum%20%20Report%20for%20Achieving%20Low%20Energy%20Existing%20Homes_1.pdf

¹⁵ <https://www.gasenergyaus.au/gas-facts.html#:~:text=As%20individuals%2C%20and%20as%20a,growing%20by%20100%2C000%20per%20year>

¹⁶ <https://www.roymorgan.com/findings/9091-solar-energy-systems-on-households-more-than-double-since-2018-now-at-nearly-a-third-of-all-households>

¹⁷ https://www.acoss.org.au/images/uploads/ACOSS_ENERGY_EFFICIENCY_PAPER_FINAL.pdf

¹⁸ <https://www.acoss.org.au/wp-content/uploads/2018/10/Energy-Stressed-in-Australia.pdf>, see figure 18.

¹⁹ <https://www.acoss.org.au/wp-content/uploads/2018/10/Energy-Stressed-in-Australia.pdf>

²⁰ ACOSS Energy and Cost of Living Snapshot, October 2023 <https://www.acoss.org.au/wp-content/uploads/2023/10/ACOSS-Energy-Cost-of-Living-Snapshot-October-2023.pdf>

Other actions taken to reduce energy use include disconnecting power to all devices on standby; turning off the hot water heater system and fridge; reducing time spent in the home; and placing bubble wrap on the windows as an insulator.

A third of the people surveyed said they have already cut back their energy use as much as they can and do not know what else to do.²¹

"Our water and electricity bills keep getting higher and higher, now we drink tank water to try and cut down the cost. We also turn our fridge off at night and back on in the morning." – Brock, QLD²²

3.2 People on low incomes are also going without other essentials to afford energy bills, but are still finding themselves in energy debt

The poor energy performance of homes combined with rising energy costs, is seeing people on low incomes go without food, health care and other essentials to afford their energy bills. Many are also forced into energy debt.

In the ACOSS 2023 cost of living survey, 60 per cent of the respondents reported going without food or medicine to afford their energy bills.²³ These actions can have particularly severe consequences for people with compromised health.

In addition, energy debt is a common occurrence with:²⁴

- 19% of the 427 respondents currently in energy bill debt with their energy retail provider.
- A further 17% expected to go into energy debt with their next bill.
- 8% have been disconnected or expect to be because they can't afford their energy bill.

These numbers were higher for people on JobSeeker, with 32 per cent of JobSeeker recipients reporting they had an energy debt and a further 32 per cent reporting they expected to go into energy debt after the next bill.²⁵

These findings reflect the Australian Energy Regulator's (AER) data, that found the number of people in energy hardship debt increasing as is the size of the debt.²⁶

3.3 People on low incomes have higher heat and cold related health impacts.

Research shows that people on low incomes are twice as likely to have heat- and cold-related health impacts compared to people on higher incomes.²⁷

A 2022-23 survey of 208 people on low incomes conducted by ACOSS in summer found 89 per cent experienced their home getting very hot in summer, with some

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ Ibid

²⁵ Ibid

²⁶ AER [Quarterly retail performance report January- March 2023](#)

²⁷ ACOSS 2013, Energy Efficiency and People on Low Incomes, https://www.acoss.org.au/images/uploads/ACOSS_ENERGY_EFFICIENCY_PAPER_FINAL.pdf

describing their interior temperature as “unbearable”.²⁸ More than 62 per cent of people who reported their homes get very hot in summer were unable to cool them down. Some 90 per cent said the heat made them sick and 30 per cent suffered heat stress so badly they sought medical care.²⁹

Remote areas are more likely to experience extremes in temperatures and, as climate change continues to accelerate, the number of days over 50 degrees are predicted to increase. Many people in remote areas cannot seek refuge and relief from weather extremes at home, because their homes have poor levels of energy performance.

The Australian Institute of Health and Welfare (AIHW) notes that a safe, secure home with working facilities is a key support for the good health and wellbeing of Aboriginal and Torres Strait Islander peoples.³⁰ It can influence life expectancy, young child mortality, disability, chronic disease, and family and community violence.³¹ Yet, a report by the Kimberley Community Legal Services, *Stuck in the Heat: lived experience of public housing tenants in the Kimberley*,³² found that the effects of extreme heat in inadequate housing is impacting not only the health of Aboriginal people but their social, mental, and financial well-being. To make matters worse, many remote Indigenous communities rely on metering cards to access electricity and can go for days or weeks without electricity because they cannot afford a new metering card. This makes people more reliant on thermally efficient homes to stay cool.

3.4 People on low incomes more likely to rent and have less choice and control.

Currently 33% of households in Australia rent,³³ with people on low incomes (lowest 20% of incomes) more likely to be renters (40%).³⁴

This figure is significantly higher for First Nations communities, where 68% of Indigenous Australian adults renting, with 34% living in social housing and 34% private renters or renting from another type of landlord.³⁵ The statistics change considerably when looking at Indigenous Australians living in remote and very remote areas, with 89% renting, including 71% living in social housing.³⁶

As noted further below people in rentals have less choice and control over the energy performance of their home, lack resources to fund changes, are more likely to live in

²⁸ ACOSS 2023 Heat Survey: How hotter days affect people on lowest incomes first, worst and hardest. https://www.acoss.org.au/wp-content/uploads/2023/02/Heat-Survey-Report_20230228.pdf

²⁹ Ibid

³⁰ AIHW (2023) Housing circumstances of First Nations People <https://www.aihw.gov.au/reports/australias-welfare/indigenous-housing>

³¹ SCRGSP (Steering Committee for the Review of Government Service Provision) 2020. Overcoming Indigenous disadvantage: key indicators 2020. Canberra: Productivity Commission

³² Kimberley Community Legal Services (2022) *Stuck in the Heat: lived experience of public housing tenants in the Kimberley*, <https://static1.squarespace.com/static/56aae0e04d088e4dfa68396f/t/6385f2f85f679917d0fb7b2e/1669722882386/Stuck+in+the+Heat+2022.pdf>

³³ AIHW (2023) Housing Affordability <https://www.aihw.gov.au/reports/australias-welfare/housing-affordability>

³⁴ ACOSS and BSL (2018) Energy Stressed in Australia <https://www.acoss.org.au/wp-content/uploads/2018/10/Energy-Stressed-in-Australia.pdf>

³⁵ AIHW (2023) Housing circumstances of First Nations People <https://www.aihw.gov.au/reports/australias-welfare/indigenous-housing>

³⁶ Ibid

poor energy performing rental homes, and there are no incentives for landlords to improve their energy performance of rental housing.

3.5 Income intersects with other factors to increase poor outcomes from living in poor energy performing homes.

Aboriginal and Torres Strait Islander people, elderly people, people living with a disability, or people living with health conditions like diabetes, high blood pressure, asthma and seizures, are most at risk of experiencing poor outcomes from living in poor energy performing housing.

4. Benefits

4.1 Reduce energy bills and prevent energy hardship

As noted in section 1.1, there are significant energy bills savings to be had from electrification, thermal efficiency and small-scale renewable homes.

- Electrifying a home's cooking, heating and hot water can save a household between \$336 and \$1,311 a year.
- Upgrading the thermal efficiency of a home can provide additional savings between \$354 and \$1,561 more each year.
- A 6.5 kW solar system can save between \$1,134 and \$1822 a year.
- An efficient, all-electric new home (e.g. with efficient electric appliances like heat pump hot water systems, split-system air-conditioners and LED lighting) with a 5-kilowatt solar system would save occupants \$9,000 – \$16,000 over 10 years, compared with a new home that is thermally efficient, gas-electric but with no solar.³⁷

Given people on low incomes spend disproportionately more of their income on energy bills, and experience higher levels of energy deprivation and debt, high energy performing homes will benefit people on low incomes the most, will significantly reduce the numbers of people in energy hardship and help reduce poverty and inequality.

4.2 Improve health and wellbeing.

Many homes in Australia are making people sick because they are too hot in summer and too cold in winter and are costly to keep at healthy and comfortable temperatures year-round.³⁸ Every year, the deaths of 10,000 people in Australia are attributable to cold³⁹ and data show an estimated 36,000 deaths were associated with the heat

³⁷ Renew, [The Household Fuel Choice in the National Electricity Market](#)

³⁸ DELWP (2022) Research Report on Energy Efficiency in Rental Properties.

https://www.energy.vic.gov.au/__data/assets/pdf_file/0021/451335/NGR-1708010-DELWP-Energy-Efficiency_Full-Fin alReport.pdf

³⁹ Gasparrini, Antonio, Yuming Guo, Masahiro Hashizume, Eric Lavigne, Antonella Zanobetti, Joel Schwartz, Aurelio Tobias, et al. "Mortality Risk Attributable to High and Low Ambient Temperature: A Multicountry Observational Study." *The Lancet* 386, no. 9991 (2015): 369–75. [http://dx.doi.org/10.1016/S0140-6736\(14\)62114-0](http://dx.doi.org/10.1016/S0140-6736(14)62114-0)

between 2006 and 2017.⁴⁰ Lack of access to energy efficient homes is considered a primary factor. There are also clear impacts in terms of mental health.⁴¹ Further, methane in 'gas' is poisonous, and the use of gas appliances in homes reduces indoor air quality, both when gas is burned and through leakage of unburned methane.⁴²

As noted in section 1.2, research in Australia and New Zealand has shown that improved energy performance of homes leads to fewer visits to health professionals and hospitals, improved health outcomes, less days away from school and work, and less social isolation.

4.3 Reduce poverty and inequality.

The benefits of improved energy performance in low-income homes includes energy bill savings, improved health outcomes, and fewer days away from work, all of which directly contribute to reducing poverty and improving social equity outcomes.

4.4 Targeting low-income housing has greater economic benefits.

Analysis by Deloitte Access Economics of the economic benefits from improving the energy performance of 1.8 million low-income homes found it would deliver an additional \$4.9 billion in gross domestic product and it would deliver a 17% higher economic impact than an equivalent program delivered across a broader base.⁴³ The report notes these positive impacts are sustained as improved energy efficiency delivers ongoing productivity improvements for the Australian economy.⁴⁴

4.5 Support employment growth in urban, regional, and remote areas.

Previous estimates have found that even a very basic program of energy efficiency and solar upgrades to residential properties could create more than 120,000 job-years of employment.⁴⁵ As housing is located in urban, regional and remote areas, the jobs would be spread across the country providing local employment opportunities.

4.6 Improves resilience of the electricity system and reduces cost of the energy transition.

Australian homes account for around 24 percent of electricity demand – even more in peak periods, such as heatwaves.⁴⁶ Where both network investment and wholesale energy prices are driven by periods of peak demand, reducing demand by improving

⁴⁰<https://iced.s.anu.edu.au/research/research-stories/we-know-heat-kills-accurately-measuring-these-deaths-will-help-us-assess>

⁴¹ Bentley et al (2023) The effect of energy poverty on mental health, cardiovascular disease and respiratory health: a longitudinal analysis. The Lancet, Regional Health Western Pacific. [https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065\(23\)00052-4/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(23)00052-4/fulltext)

⁴² Doctors for the Environment Australia, Homes Gas Appliances Your Health Fact Sheet <https://dea.org.au/wp-content/uploads/2020/12/Home-gas-appliances-fact-sheet.pdf>

⁴³ Deloitte Access Economics (2021) The Economic Impacts of the National Low-income Energy Productivity Program https://www.acoss.org.au/wp-content/uploads/2021/10/DAE-ACOSS_Economic_Impacts_of_NLEPP_Final_Report_211005.pdf

⁴⁴ Ibid

⁴⁵ Energy Efficiency Employment in Australia (2019) <https://www.eec.org.au/uploads/Projects/Energy%20Efficiency%20Employment%20in%20Australia%20-%20full%20report.pdf>

⁴⁶ Department of Climate Change, Energy, the Environment and Water (DCCEEW) 2023. Residential buildings. <https://www.energy.gov.au/government-priorities/buildings/residential-buildings>

efficiency can reduce the need for costly network and generation investment resulting in lower prices for all, while also reducing the risk of blackouts at peak times.

4.7 Reduce emissions.

Federal, state and territory governments have committed to reduce emissions to limit global warming to well below two degrees and aim for 1.5 degrees C. Australian homes contribute more than 11 percent of Australia's greenhouse emissions.⁴⁷

Improving energy performance of homes not only has a role in directly abating emissions, but also in facilitating and expediting the transition to a zero-emissions energy system.

5. Barriers

5.1 Lack of regulation, governance and legislation

Existing legislation, regulation and governance is predicated on supporting and expanding gas networks and increasing gas utilisation.

Across jurisdictions, existing regulations (or lack of regulation where needed) and policy impede improved standards of appliances and homes.

Energy performance rating tools for existing homes are still in development.

Comprehensive, coordinated reform is urgently required to enable efficient household electrification.

5.2 Upfront costs

Improving the energy performance of a home can come with significant upfront costs for households presenting a barrier for many, particularly those with lower incomes. The long-term savings enabled by efficient electrification make it an undeniable benefit over time. However, many households are not able to access the capital required to undertake retrofits. Even for those households who may be capable, cost of living pressures often mean the upfront costs of energy performance upgrades can't be made a priority.

5.3 Awareness and information

As energy efficiency can be highly technical, it can be difficult and time consuming to locate and understand the various benefits and costs (such as investment pay-back, comfort, health, etc.) afforded by energy efficiency. This can make people more risk averse where energy savings are uncertain.

There may also be a lack of awareness and knowledge about energy use, energy costs or energy efficiency measures available that can best meet their situation.

⁴⁷ Department of Environment and Energy 2018 Australian National Greenhouse Accounts: National Inventory by Economic Sector, February 2018, page 2

Further, there is a lack of awareness or access to information of what incentives might be available, how to get an assessment done, and where to source qualified accredited trades.

5.4 Split incentives.

In private rental properties, landlords are reluctant to invest in energy upgrades, especially if they cannot recoup their costs through increased rental payments or some other return on investment. This creates a split incentive, where one party accrues the costs (upfront capital investment), while the other party receives the benefits (for example lower energy bills).

Currently, landlords have no price signal, incentive, or requirement to raise the standard of their properties. Current tax rebates for replacing appliances require 'like for like replacement'. There is overwhelming evidence that market forces are not capable of encouraging landlords to improve rental properties' efficiency.⁴⁸ Even when landlords have been offered free energy efficiency upgrades, many have declined.

Renters generally have no security of tenure and limited rights to make changes to improve the thermal and energy performance of their homes. Renters must live with the health and economic consequences of energy inefficient homes and many face the threat of eviction or punitive rent rises if they raise issues with the property.

5.5 Regional and remote communities.

There are unique barriers facing people in regional and remote areas in making their homes more energy efficient, including the higher cost of implementing energy efficiency improvements and lack of access to qualified tradespeople and services. Bulk installation programs often avoid rural areas as the economies of scale needed by private sector providers to achieve economic viability can be difficult to achieve.

5.6 Apartments

A significant number of people across Australia live in housing within a strata scheme, largely in apartments and flats. Many residents have limited opportunities or capacity to opt for renewable infrastructure or otherwise reduce their energy use. This is particularly true for renters in strata schemes, as they are generally not able to participate in discussion or strata decision making through Owners' Corporations.

5.7 Lack of data.

There is lack of data on the condition of housing, including public and community housing, which makes it difficult to know the extent of improvements required and estimated costs to retrofit.

5.8 Focus on small scale energy performance.

Existing Energy Efficiency Obligation Schemes have historically been most successful in driving investment in cheap, least effective energy efficiency measures and also

⁴⁸ Heffernan et al (2021) The Carrot and Stick: Policy Pathways to an Environmentally Sustainable Housing Sector
<https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1071&context=balpapers>

have had low take-up amongst people on low incomes. We, therefore, do not see obligation schemes as a primary policy instrument to achieve deep retrofits for low-income housing unless improvements are made to better target low-income households and achieve more impactful energy efficiency measures.

5.9 Supply chain and workforce.

There are very few trained and qualified assessors nationally to measure and recommend what measures are required. There are significant supply chain constraints including not enough products in the Australian market (i.e. heat pumps) and limited trades, especially in new skills areas such as energy efficiency audits and trades where skill shortages are already occurring such as electrical and plumbing. Workforce shortage is still more acute in regional and remote areas.

Improving the energy performance of low-income housing faces additional barriers, including:

5.10 Affordability

Low incomes and rising cost of living stress, limit the ability of low-income households to find additional funds to improve the energy performance of the housing they are in (where they have choice and control). Low-interest loans are still often out of reach, as many people on low incomes do not have the scope within their budget to pay additional interest costs.

5.11 Lack of planning and support around gas transition.

As more people electrify their homes, those left on the gas network will face higher network charges as the pool of people paying these charges shrink. Without government planning and support it is very likely that low-income and rental households who are least able to bear these costs will be the households left on the network, exacerbating their disadvantage in not being able to efficiently electrify.

5.12 Ownership structure.

There are significant numbers of people on low-income who live in private, public and community rental housing. The ownership structure presents unique challenges, for example:

- Public housing (and a significant portion of community housing) is owned by state and territory governments and is subject to government policy and budget. It is worth noting that between 2014 – 2020, investment in social housing for people on the lowest incomes has shrunk from 4.6% to 4.2%.⁴⁹
- Community housing faces several barriers to improving energy performance in existing properties, including regulation, lack of finance or financing models, lease periods and the fact that most of their housing is managed on behalf of the state.
- Private landlords, as mentioned above, have no price signal, incentive, or requirement to raise the energy efficiency standard of their properties. People on

⁴⁹ AIHW (2021) Housing Assistance in Australia. <https://www.aihw.gov.au/getmedia/af79eec1-7f83-4404-bd10-3b5966b39af7/housing-assistance-in-australia-2021.pdf?inline=true>

low-income are more likely to live in poor energy performing rental properties because they cannot afford higher performing and more expensive properties.

5.13 Aboriginal and Torres Strait Islander housing.

Aboriginal and Torres Strait Islander housing faces similar and additional barriers to that experienced by broader regional and remote communities but can benefit the most from an energy performance strategy. As mentioned earlier, Aboriginal and Torres Strait Islander people are more likely to rent including 89% in remote areas. Remote housing is more likely to experience extreme temperatures. Many Indigenous communities rely on metering cards to access electricity and can go for days or weeks without electricity because they cannot afford a new metering card. This makes people more reliant on housing thermal efficiency to stay cool.

6. Energy efficiency, electrification and small-scale renewable retrofits should be achieved by 2035.

The Paris Agreement target is to limit global warming to well below 2°C above pre-industrial levels and pursue a limit of 1.5°C.⁸ Current science indicates that to contribute our fair share, Australia must reach net zero emissions by 2035. Emissions reduction in the residential sector should aim to reach net zero by this final date, if not before.

To reduce poverty and inequality, we propose more ambitious targets for low-income housing.

Level 1 – All homes

- **All homes to be efficient and electric by 2035** – where 2035 is a crucial emissions reduction target point and one where the energy system will be substantially renewable.

Level 2 – new and existing homes

- **All new homes – efficient and electric no later than 2025** – where this involves immediately proceeding to 'zero-carbon ready' new homes to minimise the future retrofit burden.
- **Existing homes – are retrofitted to be efficient and electric by 2035** – where this is a stretch target to inform action and provide certainty, and may involve allowing minimal, defined exceptions.

Level 3 – priority retrofits

- **Public and community housing is efficient and electric before 2030** – where these represent an economically efficient opportunity to build supply chains and markets while prioritising equity in the transition for those facing the biggest barriers and most likely to benefit.
- **First Nations regional and remote communities housing is efficient and electric before 2030** – where these represent an opportunity to prioritise equity.
- **Low-income owner occupier housing is efficient and electric by 2030** – where these are a priority group requiring government assistance and support and represent an opportunity to prioritise equity.

- **Rental standards for energy efficient and electric homes are mandated by 2025** in line with the community blueprint for minimum energy efficiency standards for rentals.⁵⁰ Full compliance with transition to all-electric rental properties should then be required by no later than 2035 – where this represents a crucial measure to prioritise equity and address the standards of existing housing stock and improve outcomes for more than 30% of the population who would otherwise be locked out of the benefits of efficient electrification.

Recommendations

The 2023 report, *Renovation Pathways*, by ClimateWorks finds an overreliance on market forces will not generate the levels of action needed to achieve electrification and energy efficiency across the building stock and that regulation and other policy interventions will be necessary.⁵¹

Interventions should include putting in place appropriate national residential building rating tools, mandatory requirements to disclose the energy performance of homes when selling and renting and mandating energy efficiency standards in rental properties. The current speed at which these frameworks are being developed is too slow.

One area that is critical and will require special attention and prioritisation, is improving the energy performance of low-income homes, including social (public and community housing) and private rental housing, Aboriginal and Torres Strait Islander housing and low-income homeowner housing.

Governments will have a crucial role in ensuring the homes of people on low incomes are upgraded as a matter of priority. Government investment in improving the energy performance of homes of people on low incomes, would assist in establishing the frameworks, tools, skills, workforce, and supply chains that will underpin multi-decade efforts to upgrade our broader housing stock.

Residential new homes

Recommendation 1: All jurisdictions implement the new 7-star NatHERS rating and energy budget in all jurisdictions by the end of 2023.

Recommendation 2: Federal Government support new social housing development to meet at least 7.5 plus star rating, with all properties electric and renewable-powered, including through providing access to additional funding if needed.

Recommendation 3: The next update to new build standards should aim to achieve zero carbon homes (best practice thermal efficiency, all-electric, powered by renewable). The update should be done by 2025.

⁵⁰ <https://static1.squarespace.com/static/602f0d14c4c0a77efc25e152/t/64b095418e792e5f538088fb/1689294161675/Final+Community+Sector+Blueprint+-+Mandatory+Minimum+Rental+Standards+ ++%28July+2023%29.pdf>

⁵¹ <https://www.climateworkscentre.org/project/renovation-pathways/>

Recommendations 4: The Federal government works with state and territory jurisdictions to end gas connections to new builds.

Recommendation 5: The Federal Government works with jurisdictions and industry to ensure effective compliance with minimum standards through skills training and incentives, and improved mechanisms for dispute resolution and redress.

Residential, including low-income, existing homes.

Recommendation 6: Mandate minimum energy efficiency performance standards for rental properties, as part of broader standards for what constitutes healthy and habitable rental housing, with the aim to legislate 'modelled performance' standards by 2025 in all jurisdictions, providing 3-4 years for full compliance. The mandated energy efficiency performance standards are aligned with the [Community Sector Blueprint](#) for energy efficiency rental standards.⁵²

Recommendation 7: To support implementation of mandatory energy efficiency performance standards in rental properties, consider the use of incentives, ensuring that any incentives are targeted and equitable and used to encourage compliance and greater ambition. Where incentives are used, they should be conditional on limiting rent increases. Noting financial support will be needed for community housing providers.

Recommendation 8: Prioritise funding to social (public and community housing) and affordable housing to bring every dwelling to at least 5 stars equivalent⁵³ (modelled performance, with electrification and where possible powered by renewables) before 2030.⁵⁴ Governments need to budget for upgrades or replacement of stock (where it's not cost effective to upgrade) through additional funding to ensure there is not a reduction in present or future stock.

Recommendation 9: The Federal Government funds or incentivises access to funds to support low-income homeowners to access energy efficiency audits and upgrades, electrify and install small-scale renewables. This could be done in partnership with energy companies, local councils or administered through a third-party provider.

Recommendation 10: Federal and state/territory governments prioritise energy performance retrofits of Aboriginal and Torres Strait Islander social housing, providing joint funding to:

- Electrify, improve the energy efficiency (to at least 5 stars), and install small-scale renewables to Aboriginal and Torres Strait Islander public and community housing, before 2030. Governments need to budget for upgrades or replacement (where it's not cost effective to upgrade) of stock through additional funding, to ensure there is not a reduction in present or future stock.
- Access to reverse cycle air conditioning Aboriginal and Torres Strait Islander social housing in areas with extreme heat or cold.

⁵² <https://www.healthyhomes.org.au/news/community-sector-blueprint>

⁵³ Noting the Whole of Home Performance rating will be a score out of 100.

<https://www.nathers.gov.au/sites/default/files/2022-09/Changes%20to%20the%202022%20certificate%20%26%20non-accredited%20report.pdf>

⁵⁴ Excluding housing that will need replacement.

- Access to educational programs for Aboriginal and Torres Strait Islander social housing tenants to support retrofits. The programs should be delivered in linguistically and culturally appropriate ways and in partnership with community leaders.

Recommendation 11: Work with jurisdictional governments to investigate whether reform of relevant strata laws and/or new governance options is required to improve energy efficiency and performance in existing apartments. This may include, for example, limiting or prohibiting the ability of strata schemes to prevent or restrict upgrades or retrofits in individual strata lots that may be required to meet new mandated energy efficiency standards.

Recommendation 12: Put in place a strategy, with timelines, to phase out gas and support electrification in existing homes with targeted support for people on low-incomes and policies for rental properties, to ensure a fair and inclusive transition.

Recommendation 13: Amend the property repairs, maintenance and capital expenditure tax rebate to require replacement with energy efficient, electric appliances.

Enabling policies

Recommendation 14: Set a date to achieve zero energy (and carbon) ready existing buildings. Including a long-term goal and end date, with incremental stages. The date should be consistent with limiting global warming to 1.5 degrees C.⁵⁵

Recommendation 15: Set energy performance targets for energy performance retrofits for low-income housing.

Recommendation 16: Urgently finalise and implement a national residential building energy performance rating system for existing homes.

Recommendation 17: Introduce mandatory disclosure of energy performance for all buildings when they are sold and leased by 2025.

Recommendation 18: Eliminate inefficient appliances sold in Australia by tightening requirements and expanding eligible appliances via the Greenhouse and Energy Minimum Standards (GEMS).

Recommendation 19: The Federal Government funds programs – like one-stop shops - to provide people with user-friendly and culturally appropriate information, tools and access to qualified trades, to understand energy performance ratings, electrification and the potential long-term benefits of energy performance measures, in order to encourage take-up beyond the minimum performance standard.

Recommendation 20: The Commonwealth, state, and territory governments reform national energy laws such as the National Energy Objectives and network Regulatory

⁵⁵ Noting that modelling by the Climate Targets panel found that Australia would need to achieve net zero by 2035 to do our fair share to limit global warming to 1.5 degrees C.
<https://www.climatecollege.unimelb.edu.au/files/site1/docs/%5Bmi7%3A%5D%5D/ClimateTargetsPanelReport.pdf>

Investment Tests, to promote, facilitate and value electrification, energy efficiency, demand management and social equity.

Recommendation 21: Commonwealth, state and territory governments require that the Integrated System Plan gives **greater weighting** to electrification, energy efficiency and demand management opportunities in future plans. This activity could be supported by resourcing the development of an annual Energy Performance Statement of Opportunities.

Contact

Kellie Caught
Program Director, Climate and Energy
Email: kellie@acoss.org.au