



# ALL AUSTRALIANS DESERVE A HEALTHY, SAFE, AFFORDABLE HOME

Community organisations call for a national strategy for low energy homes

July 2019

# Why housing energy performance matters

## Energy efficient homes necessary for a safe, healthy and affordable life

Rapidly rising energy prices over the last decade have left many Australians struggling to afford the energy services they need to live a safe and healthy life. But price is only part of the energy hardship equation – how much energy is needed to meet a household’s needs is a significant factor in the size of a bill and its affordability.

Australian building efficiency standards lag behind other major economies, leaving many Australians living in homes that are damp, too cold in winter or too hot in summer. More people die in Australia due to heatwaves than any other natural disaster, while our rate of cold-associated deaths is double that of Sweden. In attempting to mitigate the impact of poor quality housing, many people are accumulating increasingly unaffordable energy bills. As a result, too many people face the difficult choice between cutting back on energy use to the detriment of their family’s health and safety or going without other essential services such as food and medicine to afford energy bills. In some cases, people are forced to pay the energy bills over paying rent on time and end up homeless.

People on low incomes are particularly vulnerable to energy bill hardship, because they spend significantly more of their income on electricity. And yet, low income households most in need of the bill savings typically have little choice or control in improving the energy efficiency of their homes or access renewable energy, because they cannot afford the upfront costs of upgrades and/or because they rent their homes.

With 3 million people living in poverty and an even larger number renting, there is an urgent affordability, health and economic challenge that needs a coordinated, national and ongoing response. Improving housing energy efficiency must be central to any effort to bring down power bills, and address the health and well-being of households.

“Improving housing efficiency must be central to any effort to bring down energy bills.”

### Tess

Tess works voluntarily for the co-operative housing provider (co-op) through which she rents a house for \$200 per week. She is studying part-time to complete a post-graduate qualification which she started before her son was born. He is now in primary school. Tess has a medical condition and receives the Disability Support Pension. Tess is at home most days – either doing the administration work for the co-op, or studying. Sitting still for long periods she says:

“In winter I have the heating running... It’s very draughty this house, too. It gets very, very cold. So, it gets very expensive, the bills. I’m just not the sort of person that can be completely frugal and just sit there in the cold... I know a lot of people that do that, but I just, I like to be comfortable.”

The home’s gas ducted heating system cannot be zoned so has to heat the whole of an uninsulated, draughty house with only very light blinds on the windows. Even with the thermostat set at 20°C or below, Tess says the winter gas bills are “a killer.” Medication for her health condition makes Tess feel hotter than the general population and it’s harder to cool her body down. She has a portable air-conditioning unit.

“I do run the aircon because this house has never been insulated, it’s very, very hot. So it does get expensive.”



## Improving housing energy performance has multiple benefits

Improving the energy efficiency of our homes is a moral imperative and has multiple benefits for people, the community, the electricity grid and governments through:

- **Lower energy bills.** One off investment in energy efficiency could provide annual savings from \$289 for apartments to \$1,139 for houses annually.<sup>1</sup> Increasing the current 6-star efficiency standard for new homes and improving appliance efficiency standards could cut average annual energy costs by up to \$900 per household.<sup>2</sup>
- **Improved health and well-being.** The poor energy efficiency of our housing is imposing significant health risks, particularly in extreme weather events such as heatwaves and among vulnerable groups such as children, older people and those with pre-existing illnesses. The heatwave in south-eastern Australia in 2009 is estimated to have contributed to 374 excess deaths,<sup>3</sup> while a recent international study concluded that more people die from the effects of chronic cold in Australia than in Sweden – largely due to the poor energy performance of our homes.<sup>4</sup> Poor residential efficiency means that the nexus of increasing energy cost combined with increasing usage driven by climate and weather, is increasingly unaffordable, and driving more and more people into debt, financial distress and ill-health, often at the same time. There is a moral imperative to act to improve the energy efficiency of existing homes, not just to prevent deaths and health impacts, but to reduce pressure on health services and budgets.
- **Economic stimulus and job creation.** Energy efficiency is already a major job creator in Australia. Recent analysis found that implementing basic improvements to Australian homes and businesses would create a more than 120,000 job years of work.<sup>5</sup> Energy bill savings freed up for spending elsewhere in the economy contribute to further economic stimulus and job creation.
- **Improved resilience of the electricity system.** Australian homes account for around 24 percent of electricity demand – even more in peak periods such as heatwaves.<sup>6</sup> Where both network investment and wholesale energy prices are driven by periods of peak demand, reducing demand by improving 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.<sup>7</sup>
- **Low-cost emission reductions.** Homes contribute more than 11 percent of Australia's greenhouse emissions.<sup>8</sup> Reducing building sector emissions could deliver 28 per cent of Australia's 2030 emissions reduction target at low to negative cost, as efficiency investment generates bill savings by reducing waste. Failing to capture low-cost opportunities in the building sector will increase the cost of meeting international commitments, by requiring potentially higher cost reductions in other sectors of the economy.<sup>9</sup>
- **Social equity.** People on low incomes, renters and social housing tenants are more likely to live in poor quality housing and rely on inefficient appliances that are cheap to buy but expensive to run. But those most in need

are typically locked out of access to efficiency upgrades that would lower bills, because they can't afford the upfront costs, face language, cultural or other barriers, or rent their homes. Renters face a 'split incentive' whereby landlords have little incentive to invest in efficiency because the benefits largely go to tenants.<sup>10</sup>

- **Reduce homelessness.** High energy bills can contribute to cost of living pressures and an increased risk of homelessness for people on low incomes, particularly for those who rent their homes who face difficult choices between paying utility bills and rent.<sup>11</sup>

## Improving housing performance has significant public support

There is significant public support for investment in energy efficiency for households. A 2018 National poll found 88 per cent of voters supported government investment in energy efficiency, which rated the highest policy option tested. There was 88% support for strengthening minimum standards for new homes, 84% support for governments funding upgrades on homes for vulnerable households, and 80 per cent support for minimum standards for rental homes.<sup>12</sup>

In September 2018, community and consumer organisations came together at Energy Consumers Australia's Housing Summit, to call for action to ensure that our homes aren't endangering Australians' health and wellbeing.

“ We are calling on government to develop a comprehensive national strategy to improve the energy performance of all Australian homes for the benefit of its citizens ”

Representing hundreds of thousands of Australians, we call on government to commit to:

- Raising energy performance standards for new homes and major renovations.
- Improving the energy performance of existing homes, including targeted measures to overcome the barriers faced by low-income households to accessing energy performance upgrades for their homes.

Over the next 3 to 5 years up to one million houses will be built, adding to the nearly ten million existing homes. Without much stronger measures to improve the energy efficiency of new and existing homes, the very real problems already being experienced will get worse.

Working with community groups and industry, government must adopt a clear pathway towards safe and affordable, low energy homes, to deliver benefits to the people who live in them and provide direction and certainty for industry.

We welcome Commonwealth, State and Territory governments' support for the *Trajectory for Low Energy Buildings* recommendations, including commitments to progress implementation in the National Construction Code, and explore options for improving existing homes including targeted support for low-income and disadvantaged households.

# A national strategy to improve housing energy performance

## Improve energy performance standards for new homes including fixed appliances

There has been no increase in efficiency standards for new homes in the National Construction Code since the current 6-star standard was introduced in 2010. More than half the homes standing in 2050 will have been built after 2019, meaning today's standards will continue to influence liveability for millions of Australians for many decades to come.

The current review of the National Construction Code – to be implemented in 2022 – is an opportunity to set higher standards for new homes.

Industry leaders are already building higher performing homes with annual energy bills less than \$500 per year (and often less than zero), with savings in the order of \$2k to \$3k per year for as little as \$6,000 additional cost (often much less).<sup>13</sup> Cost-effective improvements to the Code could also deliver 10.8 million tonnes of cumulative emissions reductions to 2050 – more than the annual emissions of Victoria's Loy Yang B coal-fired power station.<sup>14</sup>

We call on Commonwealth, State and Territory governments to commit to:

### From 2020:

- Provide people with user-friendly information and tools to understand energy performance “star” ratings, and the potential long-term benefits of energy efficiency, in order to drive consumer demand for higher performing homes;
- Commit to building new social and low-cost housing to above minimum standards, and provide additional funding and resources, including sector capacity-building to ensure compliance;
- Work with industry to ensure effective compliance with minimum standards through skills training and incentives, and improved mechanisms for dispute resolution and redress. Provide a well-resourced regulator with adequate tools and powers to address non-compliance; and
- Ensure the energy efficiency objective in the National Construction Code reflects the range of benefits from energy efficient homes, enabling the full range of benefits to be considered in regulatory decisions.

### From 2022:

- Implement the *Trajectory for Low Energy Buildings* recommendations in the National Construction Code,<sup>15</sup> at minimum:
  - Improve minimum performance standards for residential buildings to at least a 7-star NatHERS equivalent and introduce an energy usage budget encompassing all fixed appliances in the home (a whole-of-building approach);
  - Update energy efficiency provisions every 3 years where they deliver benefits for households towards the goal of net zero energy ready buildings;<sup>16</sup>
  - Enable renewable energy to contribute towards the energy usage budget, but not replace energy efficiency measures. Undertake further work on whether renewable energy should be mandated, noting affordability and equity issues, potential grid impacts and how to manage buildings with limited solar access or roof space.
- Deliver and monitor the roll-out of a program to build new social housing to above minimum performance standards, including the provision of additional funding and assistance to ensure compliance.

→  
Joe Spano and family's home at The Cape has annual energy bills of less than \$150, compared with more than \$2,000 for a conventional 6-star home



### ***The Cape:***

Showing it's possible build zero bill homes at no extra cost to home-buyers<sup>17</sup>

*The Cape* 230-home development on Victoria's Bass Coast is a world-class example of how the building industry can shift to a higher level of energy and water performance, at virtually zero cost to new home buyers.

Homes at *The Cape* perform to a minimum of 7.5 star energy efficiency plus 2.5 kilowatts of solar, energy management and 10,000 litres of rainwater storage. With these features and good design and orientation, they are comfortable year-round with minimal heating and cooling and have average energy bills of less than \$500 per annum. Many homes are now starting to achieve zero energy bills and generate 4 to 5 times as much energy as they consume. Importantly, *The Cape* is achieving this high energy and water performance in line with typical building costs in the industry (i.e. ~\$2,000/sqm).

## Improve the energy performance of existing homes including fixed appliances

Over 9.5 million homes were built before adequate minimum energy efficiency standards were introduced for residential buildings in 2005, and will continue to impose significant energy hardship, health and climate risks into the future. Without government intervention to address clear market failures, the costs of inefficient homes will continue to fall disproportionately on low income and disadvantaged households who are most in need of the bill savings and health benefits of efficiency.

We strongly support COAG Energy Council's commitment to developing a national strategy for improving the energy performance of existing homes, in close consultation with community groups. In developing policy options, careful consideration should be given to the equity implications and the barriers faced by renters and people on low incomes.

We call on Commonwealth, State and Territory governments to commit to:

- Mandate minimum energy efficiency performance standards for rental homes in the context of broader standards for health, safety and habitability;
- Implement safeguards to avoid adverse effects on housing affordability, including measures to protect against unintended adverse consequences including rent increases and evictions or unnecessary removal of properties from the low-cost rental market following upgrades;
- Where necessary, provide incentives (such as tax incentives) to landlords to enable compliance with standards, with priority given to upgrading low-cost rental properties;
- Review mechanisms that facilitate landlord support for tenants to initiate upgrades to their homes or fixed appliances;
- Develop and implement programs to improve the energy efficiency of all social housing, including community housing;
- Provide information and equitable incentives for owner-occupiers to upgrade their homes, with targeted support for upgrades to people on low incomes;
- Progress related measures including obligations on energy companies to achieve annual energy efficiency reductions, disclosure and information obligations on real estate companies and lending institutions;
- Commit to raising standards for major energy-using appliances (fixed and plug-in) consistent with best practice and the standards of our major trading partners. Provide financial assistance to enable low-income households to access efficient appliances;
- Strengthen the requirements of the National Construction Code to apply to a greater number of major renovations;
- Introduce mandatory disclosure of energy performance for all buildings when they are sold and leased.

### Experiences of renters seeking energy efficiency improvements

"I attempted to have insulation installed under the government's free scheme. The owner told us to get quotes, then said he would have the job done by someone who was doing all his properties. It never happened."

"I am charged quite a lot of money for energy, around \$420 per bill, just for two tenants. {The retailer} said there might also be something wrong with the thermostat as the hot water system in the garage takes ages to heat up, which results in hundreds of extra dollars per bill. The landlord will not get this fixed."

"[I] cancelled gas account as could not pay both electricity and gas bill, so chose just to have electricity to the property – no hot water, no gas stove – that's the reality..."



Policy options should draw on international best practice programs such as *Warmer Homes Scotland* and *Warm Up New Zealand*, the approach taken to rental standards by the United Kingdom, and the *Decent Homes Standard* for social housing in the United Kingdom

Policy development should ensure the full range of co-benefits of improved energy efficiency including health outcomes and reduced climate change risks, are incorporated into any cost-benefit analysis of policy options. Critically, it should actively consider the equity and distributional implications of policies, ensuring benefits are realised both in energy and housing affordability.

We welcome the range of initiatives underway by State and Territory governments to improve the energy efficiency of homes, however we note that some are not meeting the needs of low-income households. The process outlined above should coordinate with the best of the State and Territory initiatives, building on their experience to identify effective policy and program delivery mechanisms.

## Energy efficiency and solar for community housing

The St George Community Housing project has been exploring what can be done in the community energy space. In partnership with the NSW government, St George Community Housing is retrofitting 1400 community housing developments across Sydney. The state government is contributing half the funds to the \$5.4 million project, which is expected to cut energy bills across the SGH properties by about \$800,000 a year. The outcome is an average of \$570 each year per property that tenants won't be spending on their energy bills. The project will include the installation of rooftop solar PV, ceiling insulation and LED lighting, and the replacement of electric water heaters with heat pump systems.

Source: Australian Council of Social Service, Brotherhood of St Laurence, The Climate Institute 2017, Empowering disadvantaged households to access affordable clean energy<sup>18</sup>

# Community organisations



# Supporting organisations



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- <sup>1</sup> Australian Council of Social Service (ACOSS) and Brotherhood of St Laurence (BS) 2019, *Affordable, clean energy for people on low incomes*, [https://www.acoss.org.au/wp-content/uploads/2019/02/FINAL-Report-Affordable-clean-energy-for-people-on-low-incomes\\_web.pdf](https://www.acoss.org.au/wp-content/uploads/2019/02/FINAL-Report-Affordable-clean-energy-for-people-on-low-incomes_web.pdf)
- <sup>2</sup> Australian Sustainable Built Environment Council (ASBEC) and ClimateWorks Australia (CWA) 2018, *Built to Perform: An industry led pathway to a zero-carbon ready building code*. July 2018, <https://www.asbec.asn.au/research-items/built-perform/>.
- <sup>3</sup> Department of Health and Human Services 2009, *January 2009 Heatwave in Victoria: an Assessment of Health Impacts*, Government of Victoria
- <sup>4</sup> A. Gasparrini et al., 2015, "Mortality risk attributable to high and low ambient temperature: a multi-country observational study", *Lancet*, vol. 386 p. 369
- <sup>5</sup> A "job year" represents full-time jobs for one year if all of those upgrades are completed within 12 months. Green Energy Markets 2019, *Energy Efficiency Employment in Australia*, commissioned by Energy Efficiency Council (EEC) and Energy Savings Industry Association (ESIA)
- <sup>6</sup> Department of Environment and Energy, *Australian National Greenhouse Accounts: National Inventory by Economic Sector*, February 2018, page 2
- <sup>7</sup> Australian Sustainable Built Environment Council (ASBEC) and ClimateWorks Australia (CWA) 2018, *The Bottom Line: The household impacts of delaying improved energy requirements in the Building Code*
- <sup>8</sup> Department of Environment and Energy 2018 *ibid.*
- <sup>9</sup> ASBEC, ClimateWorks Australia 2018 *ibid.*
- <sup>10</sup> Gabriel, M., Watson, P., Ong, R., Wood, G. and M. Wulff 2010, *The environmental sustainability of Australia's private rental stock*, AHURI Positioning Paper No. 125, Australian Housing and Urban Research Institute
- <sup>11</sup> Liu, E., Martin, C. and H. Easthope 2019, *Poor quality housing and low-income households*, Shelter Brief 63, City Futures Research Centre for Shelter NSW
- <sup>12</sup> ACOSS, Property Council and EEC (2018) *Energy Bills and Energy Efficiency: Survey of Community Views by YouGov Galaxy*. <https://www.acoss.org.au/wp-content/uploads/2018/04/EEC-Survey-online-FINAL-.pdf>
- <sup>13</sup> Renew 2019, *The Economics of 6 to 10 Star Victorian Homes*, prepared for the Victorian Department of Environment, Land, Water and Planning
- <sup>14</sup> ASBEC, ClimateWorks Australia 2018 *ibid.*
- <sup>15</sup> COAG Energy Council 2018, *Trajectory for Low Energy Buildings*, Commonwealth of Australia
- <sup>16</sup> Net zero energy ready buildings have an energy efficient thermal shell and appliances, have sufficiently low energy use and have the relevant set-up so they are 'ready' to achieve net zero energy usage, if they are combined with renewable or decarbonised energy systems on-site or off-site.
- <sup>17</sup> The Cape, <https://www.liveatthecape.com.au/>
- <sup>18</sup> Murray Trembath, 'St George Community Housing tenants to benefit from "green" energy upgrades', St George & Sutherland Shire Leader, August 4, 2016

