



3830 jobs created

Repower and retrofit WA's social housing in three years.

Social Housing Retrofit	Jobs
Energy audit & energy coach program	160
Energy efficiency package	605
Solar installation	3050
Department resources	20
Total	3830

The proposal

Clean State is advocating for a Social Housing retrofit stimulus package that provides:

- An energy audit to all homes in the first year, to collect baseline data on tenants' energy use and carbon emissions and provide advice on zero cost changes to help save energy in the home.**
- A Refurbishment Package tailored to each home, including**
 - Insulation
 - Draught-proofing
 - Upgrading gas heaters, hot water and cookers with efficient electric
 - LED lighting
 - Security screens on doors and windows to allow natural ventilation
- Rooftop Solar systems or access to community owned renewables + batteries.**

The opportunity

Almost 45,000 Western Australian families live in social housing,¹ much of this housing stock is ageing, inefficient and needing upgrades.² Social housing is twice as likely to be uninsulated³ and less than 4% of all rental housing has solar power or solar hot water systems.⁴ The average star rating of pre-2005 homes is 2 stars or less.

Living in inefficient homes is expensive.

Homes that are poorly designed are more expensive to heat and cool and means income tenants are spending a disproportionate amount of their income on energy bills. A WA study found over 60% of low-income families surveyed had either frequently or occasionally curtailed their use of heating or cooling despite feeling discomfort, in order to pay their power bill.⁵

Living in inefficient homes is unhealthy.

A high proportion of public housing tenants are over 65 years old and almost half report a disability and are more likely to be vulnerable to temperature extremes in summer and winter.

A recent report found renters are four times more likely to be unable to keep cool in the summer.⁶

Perth is already experiencing more heatwaves and our residents are susceptible to heatwave related deaths. The impact of a simple energy efficiency scheme could halve deaths from cold weather and cut heatwave related deaths by 90%.⁷

Targeting social housing represents one of the greatest opportunities to reduce pollution

and dramatically improve the health, comfort, quality of life and cost of living for some of the most vulnerable Western Australians.

Insulation not only dramatically improves the comfort of the home (about 30% of the heat in a home is lost through an uninsulated ceiling) but can save as much as 40% on heating and cooling energy bills.⁸ **A comprehensive retrofit could save up to 80% of energy used for heating and cooling in the oldest and least efficient houses.**⁹

WA could be the first state to have every one of its social housing dwellings insulated and powered by the sun, with massive benefits to our most vulnerable communities and the climate.

While we acknowledge refurbishment package for 1,500 social housing dwellings announced by the state government recently,¹⁰ it does not include an energy efficiency package and is a missed opportunity in terms of jobs creation and carbon abatement.

What are the benefits?

Households would save at least \$120–200 per electricity bill, or up to \$800 – \$1600 each year.^{11,12} This translates to \$35–\$70million across all tenants.

How much carbon pollution would this save?

Energy efficiency is one of the quickest and cheapest ways to reduce emissions while improving productivity and creating jobs.

This program is estimated to reduce household energy consumption by 80% and will save 277,000 tonnes per year.¹³

What would it cost?

The retrofit program would cost approximately \$176m based on refurbishment costs of between \$3800–\$5000 per home. This does not include cost to provide energy audits and ongoing support in the first year. Providing solar would cost an additional \$135 million, based on systems costing \$2000–\$3000.

Clean State advocates for the inclusion of abatement created by this program as an accredited carbon credit.¹⁴ **Emissions abatement under this program could be packaged up as a form of WA carbon offset credit, which could generate \$124.6m over 30 years at \$15/tonne.**

How many jobs would it create?

This package would support 160 new jobs in energy auditing and providing ongoing 'energy coaching' to tenants, 605 new full-time jobs in energy efficiency and another 3050 in solar installation.¹⁵ Most of these jobs would be in small businesses, with many in the regions.

Acknowledgements & Endorsements

This package is endorsed by the Australian Insulation Foundation, Insulation Australasia, and Kingspan Insulation.

Clean State is grateful to Make Renting Fair, WACOSS, Energy Efficiency Council, ASBEC, Shelter WA, Access Housing, ClimateClever and Renew who were consulted in the development of this package.

“I would like to see every social housing property insulated to reduce the carbon footprint, as well as reducing heating, and cooling costs. I would also like to see solar panels put on each one of these roofs. If we can eliminate all debt from social housing we'll have a happy state.”

Stephen King, Australian Insulation Foundation



Endnotes

- 1 WA has 44,000 social housing dwellings: 33,800 public housing, 7800 community housing, 2600 Indigenous community housing.
- 2 A recent study found Western Australia had the worst building shell rating in the country, with WA homes rated little over 1 star out of a possible 5 on the residential scorecard at www.energy.gov.au/sites/default/files/Residential%20Efficiency%20Scorecard%20Research%20Pilot%20Evaluation%20Report%202019.pdf p16
- 3 <https://www.cefc.com.au/media/203027/cefc-market-report-financing-energy-efficient-community-housing.pdf>
- 4 <http://businesslaw.curtin.edu.au/wp-content/uploads/sites/5/2016/06/bcec-energy-poverty-in-western-australia.pdf>
- 5 <http://businesslaw.curtin.edu.au/wp-content/uploads/sites/5/2016/06/bcec-energy-poverty-in-western-australia.pdf>
- 6 www.perthnow.com.au/business/housing-market/renter-health-suffers-during-heat-report-ng-s-1993355
- 7 Alam, N, Sanjayan J, Zou P X W, Stewart M and J. Wilson (2016), "Modelling the correlation between building energy ratings and heat-related mortality and morbidity", Sustainable Cities and Society, 22:29–39. Pages 4–5, 41–43
- 8 Knauf Insulation at <https://www.knaufinsulation.com.au/home-owners/upgrading-your-home/ceiling-insulation>
- 9 Beyond Zero Emissions 2019 Collie at the Crossroads report, citing John Shiel, Low-carbon and Affordable Retrofits of Australian Housing for Climate Change and Scarce Resource Scenarios. NSW: University of Newcastle, 2017.
- 10 Housing stimulus protects jobs and charts path to economic recovery. 8 June 2020 <https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/06/Housing-stimulus-protects-jobs-and-charts-path-to-economic-recovery.aspx>
- 11 Infinite Energy Perth Solar System Size Comparison Chart at <https://www.infiniteenergy.com.au/residential/products-2/solar-system-sizes/solar-system-size-comparison-chart/>
- 12 Beyond Zero Emissions 2019 Collie at the Crossroads report; CEFC also estimates annual savings of up to \$1075 per household from deep retrofits.
- 13 Calculations based on average emissions per home of 7 tonnes and assuming 80% of emissions are reduced.
- 14 Clean State acknowledges the work of Stephen King and the Australian Insulation Foundation in this proposal.
- 15 Using figures based on the Energy Efficiency Council's 'Energy Efficiency Employment in Australia' Report and assistance from Rob Murray-Leach, at <https://www.eec.org.au/policy-advocacy/projects/energy-efficiency-employment-in-australia>