

Title	Zero carbon housing policy can save billions and lift living standards research confirms
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A national, zero carbon housing standard can not only bring billions of dollars in benefits to the population, it can also improve living standards by providing greater comfort and better health to occupants whilst delivering positive energy bills (with houses generating more energy than they use) – new research shows.

Funded by the [CRC for Low Carbon Living](#) (CRCLCL), the research looked at the value propositions – perceived dollar benefits minus costs – of zero carbon housing policy from both [government](#) and [householder](#) perspectives. It utilised data from the South Australian Government’s near zero carbon housing estate known as [Lochiel Park Green Village](#), a Renewal SA development consisting of just over 100 super low carbon homes.

The homes use less than one-third of the energy usually needed to maintain thermal comfort and include features typical of low carbon dwellings such as energy efficient lighting and appliances, solar water heaters to reduce the demand for energy, and photovoltaic panels to generate energy on site.

Lead researcher Dr Stephen Berry at the University of South Australia said the results of adopting a zero carbon housing standard locally were demonstrated to be ‘overwhelmingly positive’, with potential for the South Australian community to receive benefits in the order of \$1.31 billion if the policy were implemented state-wide for 10 years, meaning that for every \$1 invested in low carbon homes, the community would receive \$2.42 in economic gain.

“Each new home builder can also expect net benefits of around \$25,000 across the life of their home through greater energy efficiency and on site generation, also receiving other benefits such as better health and wellbeing,” he said.

“These results could be applicable nationally and show that it is time for building standards to be raised from the current six star minimum rating to one that would achieve a much deeper cut in residential carbon emissions.

“Australia has taken significant steps to embrace sustainable low carbon building since the first building energy standard was set in 2003 at four stars and progressed to six stars in 2010. Our research confirms zero carbon housing is both achievable and financially rewarding for householders and the wider community.

“Lochiel Park is an ambitious project that has successfully achieved near zero carbon status. Many residents said their house is the most comfortable they have ever lived in, with comfortable temperatures throughout the year, neither too hot or too cold. This ‘Goldilocks’ feature is crowned with the added benefit of positive energy bills for most households, making electricity bills a thing of the past,” said Dr Berry.

CRCLCL Project Leader Dr Kathryn Davidson said the results shone a bright light on the future of zero carbon housing.

“Our study shows Australia is well on its way to making zero carbon housing a reality for the near future. We are now expanding our research to different types of housing precincts and looking at how people consume energy differently, to address more important questions that will impact our zero carbon future within the built environment,” said Dr Davidson.

Media Contacts:

CRC for Low Carbon Living

Sharon Kelly

E: s.kelly@lowcarbonlivingcrc.com.au

M: +61 414 780 077

About the CRC for Low Carbon Living Ltd

The CRC for Low Carbon Living (CRCLCL) is a national research and innovation hub that supports Australian industry to be globally competitive in the low carbon built environment sector.

It brings together property, planning, engineering and policy organisations with leading Australian researchers to develop new social, technological and policy tools for reducing greenhouse gas emissions in the built environment.

A key aim of the CRCLCL is to help cut Australia’s residential and commercial carbon emissions by 10 mega tonnes by 2020. It will do this by developing opportunities for lower-embodied carbon manufacturing, creating efficiency and productivity in the built environment sector, empowering and engaging communities, increasing the evidence base for government policy and planning, and building the sector’s capacity for high quality research, education and training.

The CRCLCL is supported by the Cooperative Research Centres programme, an Australian Government initiative.