
Top research impacts and outcomes in brief

In the home

- 81% of a home's electricity supply can be met by a combination of solar 3kW PV and a 10kWh battery
- Air-conditioned houses use 37% more energy
- Houses with pools use 50% more electricity per day
- CRCLCL research developed environmentally friendly benchtops made from recycled glass
- National Construction Code changes could cut household energy bills by \$200-\$900 a year
- Energy bills are third highest household cost after rent, mortgage and food for low income families
- 92% of people want energy efficiency information as part of sale and lease processes
- 89% of people would prefer to buy or rent an energy efficient home

In the precinct

- Block-chain technology allows home owners in precincts to trade energy
- \$24,935 – the amount owner occupiers of net zero energy homes will save over their home's life-time
- One of CRCLCL's 16 Living Labs, CSR House, has a 45% lower heating and cooling load than a minimum 6-star NatHERS home

In the community

- Low Carbon Schools Program saved schools over \$30,000 in utility bills and 20% per student in carbon emissions
- Walking and cycling to school reduces a child's carbon footprint by 15%
- Community renewable energy projects could supply 20% of Australia's future electricity
- One tonne of food waste compost can avoid ten tonnes of greenhouse gas emissions
- 30 Blue Mountains NSW businesses achieved up to 15% carbon reductions

In the City

- Mitigation technologies in Western Sydney including water-based technologies can reduce the heat related mortality by 40 %
- Irrigated and tree-covered parks are 2-4° and 1-2° cooler
- Changes to the National Construction Code could improve the energy efficiency of buildings by up to 56% - reducing energy bills by nearly \$27 Billion by 2050
- In heat-waves people increase energy and water use by approx. 20% and a similar % experience heat-related health issues
- UHI mitigation decision-support tool could help reduce urban temperatures by 1.3°C

On and in the water

- World first trial of geopolymers concrete ocean barricades taking place between CRCLCL and NSW Ports – geopolymers concrete has a 50% lower carbon footprint to regular concrete, but denser so beneficial for sea walls
- Waste water process changes saved \$150k pa, lowering odour emissions and improving biosolids.

CRC for Low Carbon Living

We are a national research and innovation hub supported by the Commonwealth Government's Cooperative Research Centres programme that seeks to enable a globally competitive low carbon built environment sector.

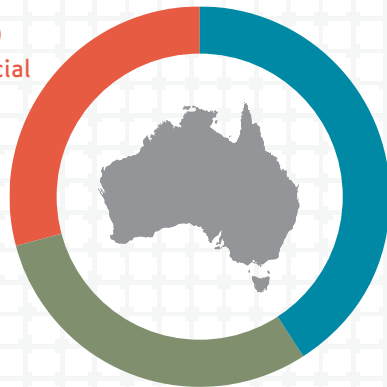
With a focus on collaborative innovation, we bring together practitioners from industry and government with leading Australian researchers to develop new social, technological and policy tools for facilitating the development of low carbon products and services to reduce greenhouse gas emissions in the built environment. For more information visit www.lowcarbonlivingcrc.com.au/

2018 SNAPSHOT

\$684m

expected benefit to Australian economy by 2027

29%
Commercial revenues



41%
Energy & carbon reductions



120+

APPROVED PROJECTS
52 COMPLETED
77 ACTIVE

30%
Other benefits

188 TOTAL MILESTONES DUE TO DATE



8 IMPACT PATHWAYS

16 LIVING LABORATORIES



44 PARTICIPANTS
19 Industry
15 Government
10 Research



161 PUBLICATIONS

7 Books/chapters
59 Journal articles
69 Conference papers
26 End-user reports



ENABLING SIGNIFICANT CARBON REDUCTIONS

10Mt target by 2020 = the annual greenhouse gas emissions from 2.1 million passenger vehicles*

67Mt target by 2027 = the annual emissions from 14.3 million passenger vehicles*

*Source: USA EPA Greenhouse Gas Equivalencies Calculator



ONCE IN A GENERATION

CAPACITY BUILDING FOR THE BUILT ENVIRONMENT SECTOR



PREPARING INDUSTRY-READY GRADUATES

FORECAST INVESTMENT

\$8m

in student scholarships over life of CRCLCL

HDRs ENROLLED

104

67 ONGOING
27 COMPLETED
10 DISCONTINUED

6

NODES OF EXCELLENCE

Curtin University
Swinburne University
University of Melbourne
University of South Australia
University of Wollongong
UNSW Sydney



KNOWLEDGE HUB launched in 2018