

RP3020

INFLUENCING CHANGE THROUGH A LOW CARBON SCHOOLS PROGRAM

Research Question

What role does community play in a school's ability to decarbonise?

Methodology

This research is tracking and evaluating the extent to which a new Low Carbon Schools Pilot Program (LCSP) can reduce schools' operating carbon emissions from energy, and whether the schools (through their initiatives) can influence community awareness, knowledge and action on climate change and decarbonisation. 15 schools from across metropolitan Perth were selected to participate in the program (10 primary, 5 secondary).



Figure 1: Students at a participating primary school presenting about their low carbon initiatives.

The Low Carbon Readiness Index (LCRI), which was developed by Professor Yoshihisa Kashima and researchers at the University of Melbourne, is being used to gain insight into the level of readiness of parents of students to transition to low carbon living and used as a metric to understand the influence (if any) the students have on their parents around low carbon living.

To evaluate social impact, a logic model was developed using a participatory

approach and the impact will be measured using the indicators.

Results

The first stage of data analysis - school carbon emissions - is currently underway. Carbon emissions for 2015 and 2016 have been calculated and 2017 will be collected by December.

Results so far demonstrate a total carbon emissions savings of 200 tonnes CO₂-e between 2015 and 2016. A parent at a participating school calculated the number of trees required to offset all schools' 2015 emissions and subsequently organised tree planting for the schools, thus making the 15 schools carbon neutral for 2015.

Four schools (2 primary, 2 secondary) were selected as case studies to gain a deeper understanding of their carbon reduction journey. Interviews with school stakeholders and surveys to school sustainability committees and parents of students were conducted in October 2017. This data is currently being analysed.

Between 2015 and 2016, many schools underwent significant infrastructure changes such as the addition of demountable buildings due to increases in student numbers. To account for this, carbon emissions were calculated on a per student basis. The square meterage of the schools for 2015, 2016 and 2017 is currently being collected to allow for calculation on a square meter basis.

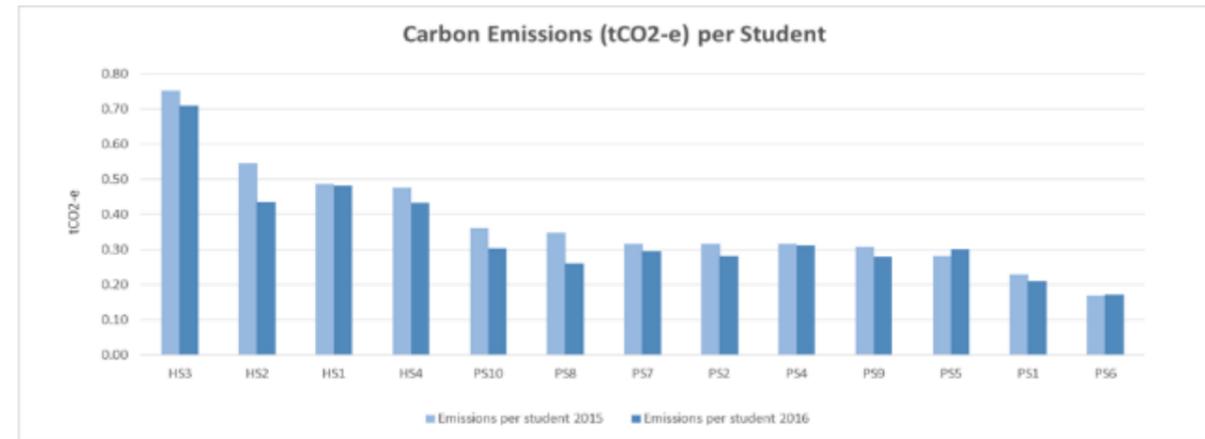


Figure 2: Carbon emissions (tCO₂-e) per student. HS indicates high school, PS indicates primary school

Conclusions

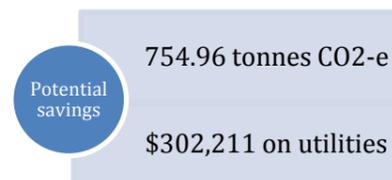
While data is still being gathered, anecdotal evidence suggests that the facilitation of a low carbon community and the sharing of experiences between schools has been highly valuable.

Comparing results from baseline utility data has encouraged many schools to investigate anomalies with their bills, with some schools already saving significant costs.

Data on the social impact of the program is currently being analysed.

Anticipated impacts

The aim of the LCSP is to reduce school carbon emissions by 20 per cent. It is anticipated that the majority of the savings will take place in 2017. If this is achieved, this reduction would equate to:



These savings extrapolated over the approximately 10,000 schools nationally, represents a significant opportunity to reduce carbon emissions and costs on utilities for the education sector.

Can low carbon initiatives in schools have a wider impact in the community around low carbon living knowledge and action?

Based on this research, a new national pilot is being launched in 2018 (The ClimateClever Initiative), underpinned by new, innovative, data-driven online tools, and learning resources, both for schools and their communities.

Further information

climateclever.org

Contact

Portia Odell

Curtin University Sustainable Policy (CUSP) Institute

portia.odell@postgrad.curtin.edu.au