Green Star Communities Assessment

PROJECT FACTSHEET

LOW CARBON LIVING CRC

KEY POINTS

- **Green Star Communities touches on many environmental issues, including greenhouse gas emissions.**
- **Green Star Communities is fit for purpose, but can be improved.**
- **Some recommended changes affect only Green Star Communities and can be implemented readily in its development program.**
- **Some recommended changes are substantial and require on overhaul of all tools in the Green Star suite of environmental assessment methods.**

THE OPPORTUNITY / CHALLENGE

Green Star Communities was a new tool at the time of the research, and so potential users were unsure of its value, particularly given that there were other tools with similar roles, and that the cost of using any of them was substantial. It was thought that an independent review of the tool would assist potential users, and would assist the Green Building Council of Australia in its development of the tool.

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/

OUR RESEARCH

The research involved several strands. First, Green Star Communities was reviewed against two important contextual issues – the shift to renewable energy (given the CRC's interest in low carbon living), and the expanding use of digital engineering (BIM) in the construction industry. Second, a literature review was carried out. Third, the contents of the tool – the Submission Guidelines, Calculators and Guides – were critiqued on their own terms. Finally, interviews were conducted to assess the tool's usability.

OUTCOMES

Green Star Communities is certainly fit for purpose, but it can of course be improved in ways minor, middling and major. The minor and middling changes involve only Green Star Communities, and so can be readily implemented. For example, middling changes involve adapting calculators used in other Green Star tools for use in Communities, and adjusting GHG emission requirements to take into account the shift to renewables in state energy supply mixes.

However, major improvements require changes to all tools in the Green Star environmental assessment methods series, to create an internationally-consistent integrated hierarchy and to enable them to draw data from digital engineering project models. This in turn requires collaborative work with other agencies, such as buildingSMART, Uniclass 2015 and national master specification organisations.

USERS OF THE RESEARCH RESULTS

The research may be used by the Green Building Council of Australia, in the ongoing development of the Green Star Communities rating tool and other tools in the Green Star suite, and by other agencies working on similar tools elsewhere. It may also be used by potential users of Green Star Communities, in answering the question: 'Is this tool fit for purpose'?

LESSONS

Independent investigations of this sort should be carried out regularly, and should consider the whole suite of Green Star tools together. Value is perhaps highest for newly-developed tools, as Green Star Communities was at this time – both for GBCA and for potential users. But the context of environmental assessment is changing all the time, and not just with climate change and our reactions to it. Digital engineering is a good example. Such investigations should be carried out every five years or so, even for established tools, perhaps especially for them, to ensure they stay relevant.

PROJECT TEAM

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PROJECT REPORT

Gelder, J, M Agrawal & J Miller (2018) Green Star Communities rating tool: An assessment, CRC Low Carbon Living, Sydney

FURTHER INFORMATION

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