

Retrofitting Public Buildings for Energy and Water Efficiency

1 October 2015 - 31 March 2017

Governments occupy over 25% of Australia's commercial building stock and collectively spend over \$1 billion annually on energy and water utilities associated with their buildings, with the Commonwealth alone spending \$450 million per annum. Given that best-practice examples have shown that substantial energy and water savings are achievable in buildings, there is a significant opportunity to reduce the annual operating costs of Australian public buildings across all levels of government (i.e. local, state and Commonwealth governments). Moreover, government will be able to meet or exceed established environmental performance targets through implementing sensible energy and water efficiency retrofit building projects.

The overall aim of this project is to develop a best-practice guidebook on energy and water efficiency auditing and retrofitting of existing public building stock.

Objectives

This project will engage with key stakeholders, including government departments, consultants and contractors, as well as facility management firms, to derive a novel framework for accelerating the current rate of public building water and energy retrofit projects, thereby saving water, energy and money. This bold goal will be achieved by developing evidence-based guidelines to conduct such programs, formulating a financial framework and instruments for encouraging public building custodians to engage the private sector to retrofit their buildings, and promoting this new dynamic industry through knowledge creation and skill capacity building.

Industry Outcomes

The proposed framework will facilitate benefits and changes of practice at various levels of government, as well as in the private building sector, including:

- reduced environmental impact of government buildings (e.g. lower emissions, less water wastage, more recycling)
- better trained government officers in energy and water efficiency planning and procurement
- creation or development of service companies that can complete energy and water retrofits of public buildings
- better guidelines, toolkits and procurement models for auditing and retrofitting public buildings' energy and water operations
- innovative procurement models that reduce the up-front capital cost and lower the total cost of proposed energy and water efficiency retrofit projects



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