



Co-designing a resilient water and energy toolbox for Aboriginal and Torres Strait Islander communities.

Project Summary

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 **Griffith** UNIVERSITY
Queensland, Australia
Climate Action Beacon

A Cities Research Institute project

Project Overview



Project purpose

There is an urgent need for transformation of supply, use and management of water and energy in non-urban Aboriginal and Torres Strait Islander (herein Indigenous) communities in Australia.

Such a transformation will build social, economic and environmental resilience of the infrastructure and management to contribute to healthy and productive Indigenous communities.

A range of factors including high water use, poor coordination of maintenance, low energy and water literacy, poor economies of scale, high turnover of staff and exclusion of community input into decision making has led to high cost, inefficient systems that frequently do not meet drinking water quality or reliability standards (Jackson 2019). In 2020-21, government payments to subsidise energy costs in off-grid communities were \$66M alone in Queensland (Queensland Government, 2021). Addressing these complex issues requires sustainable governance and collaboration between managers and Indigenous communities to identify appropriate solutions to water security and quality issues. Further, as investment in fast, reliable telecommunications infrastructure and use of smart phones grows in remote Indigenous Australia (Featherstone, 2020; Watson, 2015) there is significant opportunity to support community-based, culturally appropriate engagement with digital tools for sustainable remote water and energy management. To date this has not been researched in Australia due to uncertainty

in uptake in more communities, however recent research from Beal et al (2019) clearly shows this is a feasible, yet unexplored area.

The aim is to **collaboratively create a toolbox of innovative, community-based approaches for water and energy management in First Nations communities.**

This project will combine digital and cultural approaches to create a novel set of tested and evaluated tools for engaging both community and service providers in transforming water and energy use practises in discrete Indigenous communities.

The key output will be an **empirically** tested and user-friendly water-energy toolbox tailored to reduce the currently extreme cost of supplying essential services to remote communities. Application of these outputs will significantly reduce demand on local water sources and diesel-generated energy use while creating a skill base for local employment opportunities.

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Project objectives

The main objectives are:

- 1 Assess and understand whole-of-system baseline water and energy systems in three states/territories.
- 2 Co-design new tools with communities and key actors to support transformative water and energy management.
- 3 Trial, monitor and evaluate, through participatory processes, the impact and effectiveness of the co-designed tools.

Project approach

The project will cover three states/territories (Northern Territory, Queensland and Western Australia) in remote Australia and will focus on developing innovative, community-based approaches for water and energy management. Four communities will be selected (1 in NT, 2 in QLD and 1 WA) with help of key stakeholders.



Project name and logo

The name 'iKnow, weKnow' represents the combination of Indigenous knowledge, technical water and energy knowledge and digital technologies, together with the concept of inclusion and moving from a focus on individual behaviours to collective action to address water and energy security in a climate changed future.

The logo was created by [Indigenous artist Chad Briggs](#) who designed the logo to incorporate Aboriginal and Torres Strait Islander patterns and symbols representing water and energy.

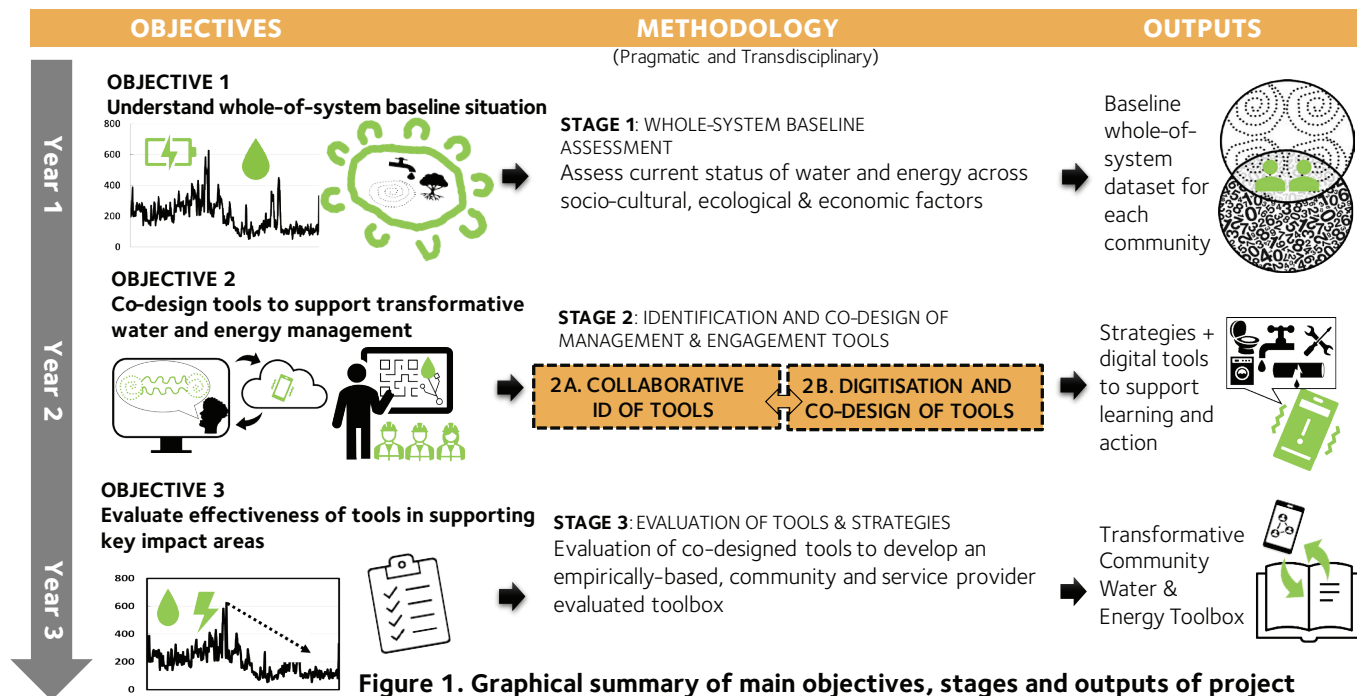


Figure 1. Graphical summary of main objectives, stages and outputs of project

Industry Partners



Centre for Appropriate Technology
cfat.org.au

Ergon Energy
ergon.com.au

Indigenous Technology
indigenoustechology.com.au

Murdoch University
murdoch.edu.au

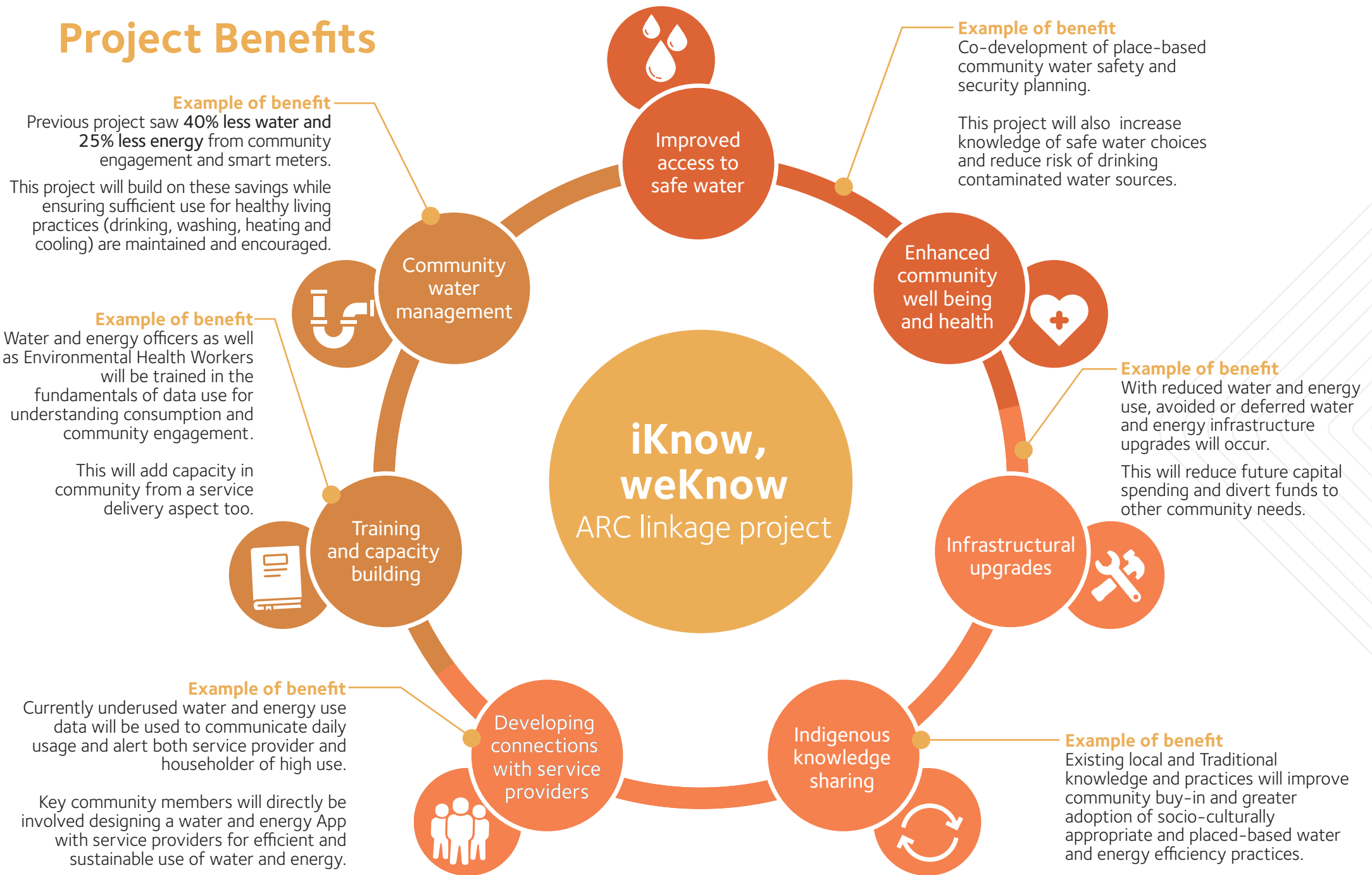
Northern Territory Government
nt.gov.au

PowerWater
powerwater.com.au

TSRA
tsra.gov.au

Water Corporation
watercorporation.com.au

Project Benefits





Queensland, Australia

Climate Action Beacon

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Website

<https://www.griffith.edu.au/cities-research-institute/research/iknow-weknow>

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