



Australian Government



Clean energy and Australia's retail property sector

How can Australia's retail property sector tap into clean energy to become more sustainable? This report gives some practical insights, drawing on the work of the CEFC and the Queensland Investment Corporation (QIC).

QIC



The investment

In a retail property first, the CEFC has committed up to \$200 million in senior debt to QIC's Global Real Estate flagship Town Centre Fund (QTCF), to deliver improvements in energy performance across the QTCF shopping centre portfolio.

QTCF retail property footprint

1.1m

square metres of gross
lettable area

157m

visitors each year

\$6.6m

retail property transactions

The goal

- Demonstrate an Australian-first business-to-business collaboration in the retail property sector, to secure a sustainable future for the large-scale assets within the QTCF Australian portfolio
- Support energy efficiency improvements in shopping centres in Queensland, Victoria, New South Wales and the ACT
- Strengthen sustainability and ESG initiatives within the QTCF capital management strategy, including managing energy risk across the retail property portfolio

The investors

Queensland Investment Corporation:

One of Australia's largest institutional fund managers, with a retail property portfolio of more than 50 assets globally.

Clean Energy Finance Corporation:

Extensive investments across the built environment through the Sustainable Cities Investment Program, which aims to cut emissions while supporting economic growth.



Operational and sustainability goals

An initial trial of the ACE platform at the Robina Town Centre in Queensland is applying rule-based analytics to deliver on five key operational and sustainability goals:

- 1 Centralised operational management through data-driven analytics
- 2 Cost savings through 'real time' fault identification and root cause analysis to minimise energy wastage, streamline rectification of issues and improve lifecycle of equipment
- 3 Skilling of on-site teams, including third party contractors, to reduce maintenance spend and improve contractor performance
- 4 Providing a safe and comfortable environment for those working in and visiting QIC centres
- 5 Significantly reducing energy consumption and carbon emissions through an enhanced and efficient approach to operational performance and maintenance.

Ace trial: compelling results

An ACE trial at the Robina Town Centre in Queensland generated compelling results, including a 15 per cent reduction in energy consumption (normalised energy consumption) or 582 MWh; and \$18,000 in maintenance savings.

Key initiatives included:

1

Reduction in overall energy consumption to the lowest rate in four years despite the addition of 15,000 square metres of gross lettable area

2

Streamlined and maximised productivity of contractor maintenance activity around the site through independent oversight, removing the need for investigation costs and unnecessary equipment inspections

3

Real-time identification of more than 200 faults, with a fault closure rating of 90 per cent, including essential plant and equipment such as fan coil units, air handling units and chillers; and identification of a significant tenant issue before it was logged, allowing for early intervention

4

Instant root cause diagnostics, cost impact calculations, fault prioritisation and tracking

Best practice asset management

QTCF is driving energy efficiency through a portfolio-wide installation of a best-in-class technology platform: CIM's Automated Commissioning for Energy (ACE).

QTCF has undertaken a major redesign of its property operations, using advanced automation technology to interrogate individual asset performance data. This is delivering real time information that materially enhances operational efficiency and sets a new standard in best practice asset management.

QTCF has partnered with leading Australian technology company CIM to manage energy optimisation across its major shopping centre portfolio, using a data-driven approach that collates and interrogates data from all the existing sensors across a building.

Failures and deteriorations in asset performance instantly generate an alert that details the location of each fault, the root cause, the cost impact and the solution. Each alert automatically becomes an assigned maintenance ticket for onsite teams to close out rapidly, ensuring energy wastage is addressed without delay.

Improving HVAC performance

The Robina Town Centre HVAC system relies on more than 750 pieces of mechanical equipment – including eight chillers of 3.5 mW units, air handling units, fan coil units, variable speed drives, variable air volume dampers, smoke exhausts, dehumidifiers and cooling towers.

QIC found that with so many mechanical components, continuous individual asset performance monitoring is essential. By working with some of Australia's best mechanical engineers and information technologists, QIC chose CIM to install a platform that can deliver the multifaceted monitoring and analytics required to centralise and maximise the performance of complex systems, providing a new benchmark in operational and sustainability practices.

The ACE platform is being implemented across the QTCF portfolio to drive significant improvements in operational efficiency and establish a new level of sustainable practice in large public buildings.



“Given the scope of QIC's Australian real estate portfolio and the material benefits fault detection and diagnosis technology can produce, we are very excited to be partnering with QIC in reducing their carbon footprint, reducing costs and ultimately delivering on their sustainability goals.”

David Walsh
CIM CEO

Clean energy and the built environment

The CEFC has a strong commitment to reducing emissions across Australia's built environment, including the property sector.

We see compelling reasons to improve the energy profile of Australia's built environment. Energy efficient buildings using proven clean energy technologies reduce stress on the electricity network, lower electricity consumption, and support a least-cost pathway to net zero emissions, improving health and resilience outcomes for households and businesses.

CEFC property investments often include a focus on 'demonstration' projects with the ability to deliver best-in-class performance around energy efficiency and the integration of renewable energy into new and existing buildings. Our commitments cover hospitals and healthcare, shopping centres, hotels, masterplanned residential communities and commercial-scale precincts. These subsectors all have significant potential to unlock emissions reductions and cost savings through a heightened focus on sustainability.

The CEFC invests in property-related projects as part of our Sustainable Cities Investment Program, which aims to cut emissions while supporting economic growth.

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Successfully implementing these initiatives will contribute to achieving our triple bottom line objectives of improved economic, environmental and social outcomes.

We are proud to work alongside the CEFC.”

Michael Fattouh
QTCF Fund Manager

About the CEFC

The CEFC has a unique mission to accelerate investment in Australia's transition to net zero emissions. We invest to lead the market, operating with commercial rigour to address some of Australia's toughest emissions challenges. We're working with our co-investors across renewable energy generation and energy storage, as well as agriculture, infrastructure, property, transport and waste. Through the Advancing Hydrogen Fund, we're supporting the growth of a clean, innovative, safe and competitive hydrogen industry. And as Australia's largest dedicated cleantech investor, we continue to back cleantech entrepreneurs through the Clean Energy Innovation Fund. With \$10 billion to invest on behalf of the Australian Government, we work to deliver a positive return for taxpayers across our portfolio.

