

Case Study

Fuelfix partnered with Ertech to deploy a hybrid energy solution for remote site facilities at Perth Airport, delivering reliable 24/7 power with substantially lower fuel use and CO₂ emissions.

OVERVIEW

Ertech, a leading civil and electrical contractor, was engaged for a key infrastructure project at Perth Airport, requiring continuous power for site offices, crib rooms, and ablutions. With a strong commitment to sustainability, Ertech sought alternatives to the standard diesel generator originally considered for the site.

They approached Fuelfix early on the project to explore advanced fuel management solutions and renewable power systems, aiming to automate and optimise their fuel management processes. After productive discussions and a site visit, Fuelfix recommended a hybrid power system combining an industrial battery unit with solar panels mounted on transportable containers. A backup generator was introduced at a later stage of the project for winter months.

This collaborative approach ensured the solution was tailored to Ertech's operational and environmental requirements, with both teams working closely throughout installation and commissioning.

CHALLENGE

Prior to engaging Fuelfix, Ertech planned to use a standard 50kVA diesel generator, which posed several challenges:

- High fuel consumption and frequent refuelling,

 	
LOCATION	Port of Cairns, North QLD
YEAR	2025
INDUSTRY	Civil Infrastructure
FOCUS	Supply a green power solution to lower CO2 emissions without compromising on operational efficiency
SOLUTION	Fuelfix's Hybrid Power Solution



- Regular monthly maintenance, increasing operational costs and site movements,
- Need for 24/7 power for lunchroom and ablution blocks, especially refrigeration,
- Enhanced safety requirements due to airport location and strict site inductions,
- Logistical difficulties and variable experience with renewable technologies.

Ertech objectives in a nutshell:

- Reduce manual intervention,
- Lower emissions,
- Improve operational efficiency,
- Meet stringent safety and logistical requirements

Ultimately, they sought a partnership that would enable continued improvement of their operational practices while reducing environmental impact. Fuelfix's proven service capabilities and experience, particularly with solutions tested under the demanding conditions of the Pilbara, made them an ideal partner for this collaboration.



SOLUTION

Fuelfix offered data analytics services and delivered an integrated, remotely monitored system comprising:

- ESU50 – 50kW Energy Storage Unit
- 2 x 5kW Solar Arrays mounted on 20-foot containers
- Backup Generator for seasonal resilience

This integrated solution provided reliable, clean power to remote site facilities, dramatically reducing onsite refuelling and maintenance needs. The system's transportable design and remote monitoring capabilities enabled proactive management and rapid troubleshooting, minimising site visits and manual intervention.





VERDICT

Throughout the project, the Fuelfix team worked closely with Ertech to ensure objectives were met and timelines maintained. Solar panels were mounted at Ertech's facility to speed delivery, and the on site installation met the specified standards and safety requirements.

On an annualised basis, our Go-Greener solution will enable Ertech to:



Limit the use of diesel generator for winter season only (as a back-up), saving 35,600L of diesel annually



Significantly lower fuel costs and maintenance costs as well noise pollution on site



Cut CO2 emissions by 95 tonnes and enhance operational efficiency and safety

The Fuelfix hybrid power system is tracking to deliver the projected savings while maintaining reliable power supply with significant reductions in maintenance and site movements.

This project exemplifies how collaboration between Fuelfix and Ertech delivers innovative, sustainable solutions for complex infrastructure environments. The partnership continues to drive positive change, with Ertech actively promoting the project as a benchmark for sustainable site operations.

"Fuelfix's hybrid power solution has helped us achieve our sustainability targets while improving operational efficiency and safety at Perth Airport. The collaborative approach and technical expertise made the transition seamless."

Lachlan Roshier — Senior Project Engineer at Ertech

This initiative is in line with our [Two Pathways, One Goal Strategy](#) and our commitment to enable our customers' transition to a cost-effective, cleaner energy future.

We provide flexible and innovative energy solutions to assist our customers to maximise their fuel efficiency, minimise their operational costs and reduce their Scope 1 and Scope 2 emissions.

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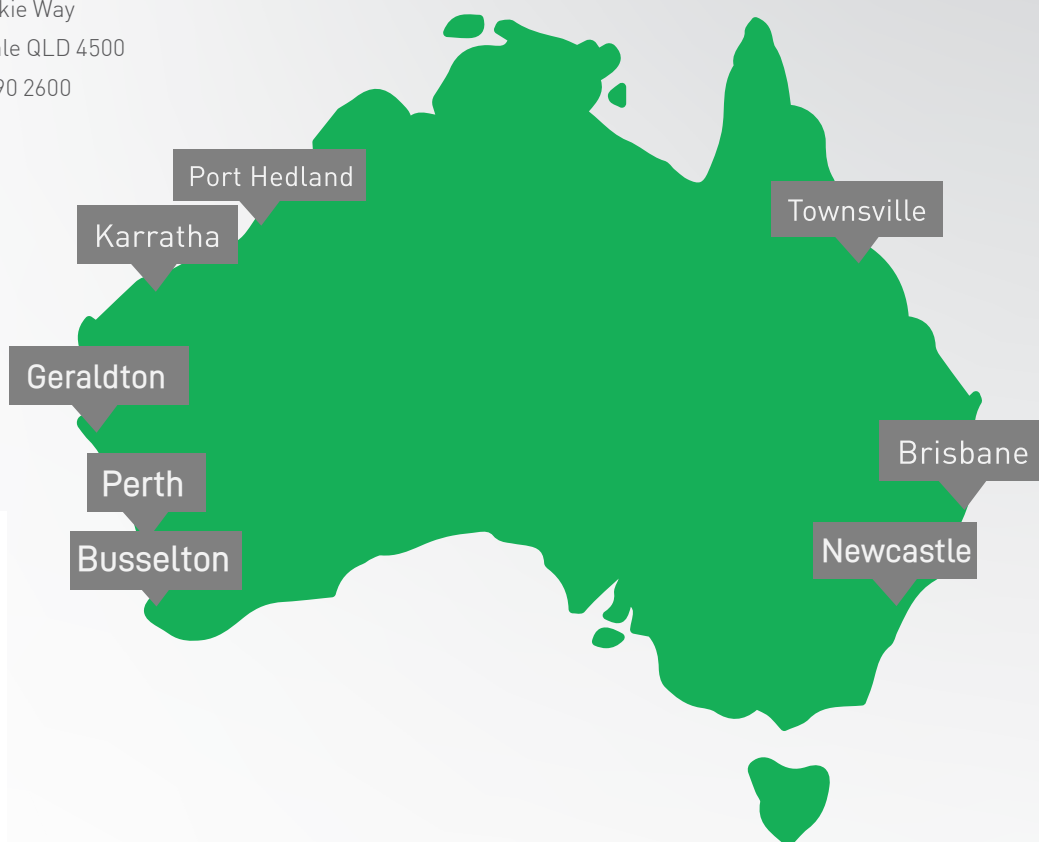
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