

Case Study

A collaborative success story between Tasman Power and Fuelfix demonstrating how hybrid power technology can improve safety, reduce operating costs and lower emissions for remote site facilities.



OVERVIEW

Tasman Power partnered with Fuelfix to deliver a reliable and efficient power solution for temporary site facilities supporting electrical infrastructure works at a major mine site operation in the Pilbara.

The project required reliable power for site offices, lunchrooms, storage facilities, hot water systems, kitchen appliances and other essential amenities supporting a workforce of up to 70 personnel during shutdown activities.

Together, the teams developed an alternative to a conventional generator-only approach, helping reduce fuel consumption, minimise servicing requirements, improve safety and the overall efficiency of site operations.

Fuelfix hybrid energy solution, combining battery energy storage, solar generation and genset was designed to support Tasman Power's sustainability objectives while maintaining dependable site power.

CHALLENGE

Temporary site facilities in remote mining environments require dependable power to support day-to-day operations. Traditionally, these applications are powered by diesel generators, which can result in high fuel consumption, regular servicing requirements and increased operational costs, particularly



LOCATION	West Angelas, Pilbara WA
YEAR	2026
INDUSTRY	Mining and Resources
FOCUS	Provide reliable temporary power for remote site facilities while enhancing safety on site, reducing fuel consumption, generator runtime and servicing requirements
SOLUTION	Fuelfix's Integrated Hybrid Power Solution



where power demand remains relatively low for extended periods.

For Tasman Power, the challenge was to provide reliable power for site facilities while addressing several operational concerns:

- High fuel consumption associated with running generators continuously.
- Frequent servicing requirements for generators operating below optimal load levels.
- Additional labour, travel and logistics associated with refuelling and maintenance activities in a remote location.
- Exposure to safety risks during refuelling and servicing activities.
- A desire to reduce diesel consumption and environmental impact without compromising reliability.

SOLUTION

Fuelfix worked closely with Tasman Power to deliver a hybrid power solution tailored to the site's operational requirements. The system combined battery energy storage with a 5kW solar array plugged with their existing diesel generator to provide reliable power for the temporary site facilities.

The solution was designed to maximise the use of stored and renewable energy while significantly reducing genset runtime.

Key Components:

• Battery Energy Storage System (BESS)

The battery Energy Storage System became the primary power source for site facilities, supporting daily operational loads while reducing dependence on diesel generation.

• Solar Integration

A 5kW solar array contributed to charging the battery system and reducing overall energy demand from the generator.

• Generator Backup

A 37kW diesel generator remained available to recharge the battery system and provide backup power when required. Rather than operating continuously, the generator typically ran for approximately one hour to recharge the battery.

Collaborative Project Delivery

Designed to maximise the use of stored and renewable energy, the solution significantly reduced genset runtime while delivering reliable power, lower operating costs, reduced emissions and improved site safety.

ANNUALISED ESTIMATED BENEFITS



82%

Reduction in generator runtime



Reliable power

Maximising use of renewable energy



14,841L

Diesel saved annually



\$39,827

Annual operational cost savings



Quieter operations

Lower noise pollution



40 tonnes

Fewer CO₂ emissions



Less maintenance & refuelling requirements reducing site interventions and exposure to higher-risk activities

VERDICT

The hybrid power solution delivered measurable operational, financial, safety and environmental benefits while continuing to provide reliable power to the site facilities.

- Reliable power provided for offices, lunchrooms, storage facilities, hot water systems and other site amenities.
- Reduced fuel consumption and carbon emissions.
- Significant reduction in generator runtime compared with a traditional generator-only setup.
- Reduced generator servicing requirements, extending service intervals from approximately every 10 days to around every 7 weeks.
- Lower maintenance and servicing costs associated with generator operation.
- Fewer refuelling activities required onsite.
- Reduced generator servicing requirements.

- Reduced personnel exposure to higher-risk operational activities.
- Lower risk of fuel spills and associated environmental incidents.
- Less vehicle movement associated with fuel deliveries and servicing activities.

"Traditionally, running a diesel generator for our site facilities wasn't efficient for the relatively low power demand we required. Partnering with Fuelfix has allowed us to use a battery energy storage system with solar integration, significantly reducing generator runtime, fuel consumption and servicing requirements. We're saving around 60 to 80 litres of fuel per day, reducing maintenance costs and creating a safer work environment by minimising refuelling and servicing activities onsite. The environmental benefits have also been significant, and it's a solution we would absolutely consider using again on future projects."

Kyle Arndt — Project Manager, Tasman Power

In line with our [Two Pathways, One Goal Strategy](#), this project demonstrates how Fuelfix works with customers to develop practical energy solutions that improve safety, reduce operating costs and support sustainability objectives without compromising reliability.

By combining battery energy storage, solar generation and generator optimisation, Fuelfix helped Tasman Power reduce fuel consumption, lower maintenance requirements and improve the efficiency of temporary site operations in a demanding remote environment.

Contact Us | 1300 734 764

Perth (HQ)
5 Excellence Drive
Wangara WA 6947
(08) 9233 4501

Port Hedland
19 Moorambine Street
Wedgefield WA 6721
1300 734 764

Busselton
4/41 Cook Street
Busselton WA 6280
1300 734 764

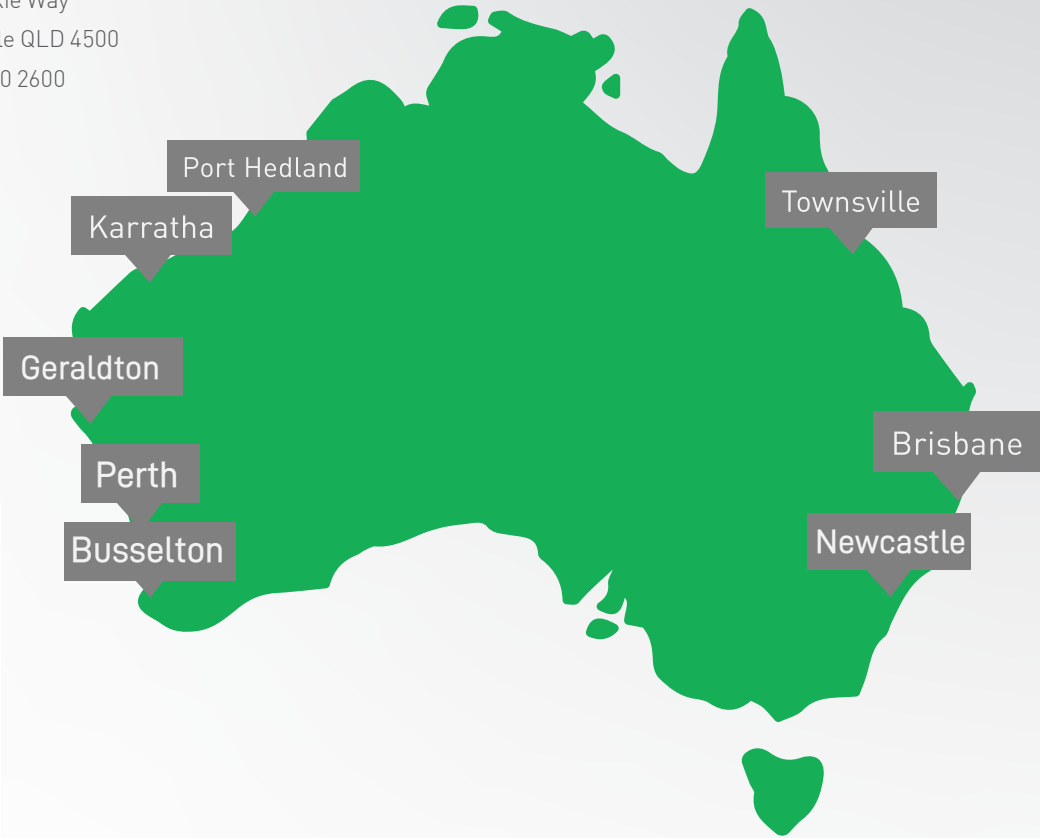
Geraldton
14 Allen Street
Geraldton WA 6530
(08) 9921 0404

Townsville
63 Toll Street
Mt St John QLD 4818
(07) 4758 4222

Newcastle
17-19 Martin Drive
Tomago NSW 2322
(02) 4035 3100

Karratha
70-71 Lambert Road
Karratha WA 6714
(08) 9182 3800

Brisbane
15 Mackie Way
Brendale QLD 4500
(07) 3490 2600



Visit Our Website



Trusted To Deliver Integrated Energy Solutions