

# Case Study

Enhancing operational efficiency and reducing emissions for a major copper mine in South Australia.



## OVERVIEW

A long lasting-customer of Fuelfix & Tanks2Go, a leader in the mining industry, approached us to assess the hydrocarbon installations of their newly acquired mine site located north of Port Augusta in South Australia. We developed a plan to ensure the critical infrastructure was operating safely, efficiently and effectively.

## CHALLENGE

The existing site maintenance programs and fuel calibrations were not aligned with the client's safety and operational standards, increasing risks of failure.

The mine's existing fuel storage and dispensing infrastructure suffered from defects and was prone to breakdown, leading to maintenance challenges. This affected refuelling operations and overall productivity.

The Inpit Refuelling tank, a 25,000L self-bunded tank which was powered by a diesel-driven pump was also proving to be a challenge to maintain and service. The pump on board the tank would need to be refilled every 3-days, requiring a lengthy drive down into the pit by the service crew.

With no external power supply to the site, the use of diesel-powered engine contributed to emissions and increased maintenance requirements and operating costs.



LOCATION	North Port Augusta, SA
YEAR	2024
INDUSTRY	Mining
FOCUS	Operational Efficiency and Emissions Reductions
SOLUTION	Safe, stand-alone, energy-efficient and green refuelling solution

Due to the remoteness and scale of the site, access to a safe and reliable fuel supply is critical for the client's team; ensuring minimal impact on the operations during the Fuelfix assessment and upgrade of their existing fuel infrastructure was crucial.

The key to the success of this project was the ability to strategically plan and execute the work on site to avoid unnecessary downtime related to fuel supply.

The site counted a large fleet of Transtank self-bunded tanks, and Fuelfix being the Transtank-approved service agent, we were approached to assess the hydrocarbon installations across the site and perform service, upgrade and calibration works.

The overall objective of the project was to provide a safe, stand-alone, energy-efficient and greener refuelling solution that will operate completely off-grid, provide optimal performance and require minimal maintenance.

## SOLUTION

Following a comprehensive assessment of the site's fuel infrastructure, Fuelfix developed a scope prioritising the completion of urgent and critical works and including a scheduled maintenance program designed to ensure the on-going reliability and efficiency of the installations.

To avoid the added cost, noise, maintenance, and refuelling requirements of a diesel powered engine, our team adapted the scope of the project to replace the diesel pump module,



traditionally used to power fuel tanks in remote areas, with our Fuelfix Go-Greener solutions that perfectly matched our customer's requirements.

The diesel-powered pump module of the 25,000L self-bunded tank was removed and replaced with a 415vAC Skid Pump Module enhancing energy efficiency.

Drawing from our Fuelfix Advanced Power Solutions, we supplied an off-grid solution, scaled to suit the client's needs which comprised of an ESU15 Battery Energy Storage System combined with 2 Solar Skids.

The ESU15 unit integrates with solar energy to provide robust and reliable power with reduced operating costs, ultimately leading to safer and more efficient site operations.

We were able to quickly mobilise our team on site to perform the calibrations, repairs and improvements and install the Inpit Go-Greener Solution. The system was operational within hours of being delivered to site and connected by our skilled and industry-qualified team.



The old equipment was safely removed, and we were able to seamlessly co-ordinate with the client's team to ensure works were completed on time and without impacting their operations.

Fuelfix's technicians provided training to service personnel on how to operate the new equipment and assisted in the development of pre-start inspection and manuals for use by the client's team between our mobilisations.

## VERDICT

By addressing infrastructure challenges, reducing emissions, and improving reliability, Fuelfix successfully transformed the Prominent Hill Mine's fuel facilities.

Site personnel now have safer, more reliable access to diesel throughout the site, and future works have been scoped to ensure the improvement of site facilities continues.

We provided a reliable, easy to use and 100% off-grid solution that performed as per the client's requirements and expectations, with all the benefits of a green powered solution.

As a result, the client was able to continue operations on-site with minimal downtime and without the additional risk or costs associated with the installation and maintenance of a diesel-driven generator.

The solution supplied provided robust and reliable power with reduced operating costs, leading to safer and more efficient site operations.



It enabled the client to make great savings in fuel consumption, equipment maintenance and servicing as well as carbon emissions. It also helped enhance safety and productivity by significantly reducing movement onsite to refuel the diesel-powered engine multiple times a day.

**Two Pathways,  
One Goal**



This project is in line with our [Two Pathways, One Goal Strategy](#) which includes designing and delivering solutions that provide opportunities to reduce carbon emissions and maintain efficient operations with better environmental outcomes.

By implementing our solutions, our client has taken demonstrable steps to operating a more efficient and environmentally conscious mine.