

# Case Study

Delivering an efficient Hydrotreated Vegetable Oil (HVO) Fuel Storage Solution to an iron ore miner in the Pilbara.



LOCATION	Pilbara Region, WA
YEAR	2023
INDUSTRY	Mining
FOCUS	Reliability, Safety and Quality
SOLUTION	Bespoke HVO Fuel Storage Solution

## OVERVIEW

As the world transitions towards a low emissions future, the demand to combine traditional fuels with renewable and next generation alternatives continues to gain pace. In response to operational requirements, Fuelfix developed an HVO fuel storage solution for a trial on the use of HVO at one of our major client's mine sites in Western Australia's Pilbara region.

## CHALLENGE

Based on a strong partnership built over many years, the mining company approached Fuelfix in the early planning stages to discuss the design and installation of the fuel storage infrastructure that best suited the unique aspects of the trial. The significance of the trial among internal and external stakeholders demanded a rigorous process in order to achieve success.

**The company's key requirements from the outset were the need for reliability, safety, ability to maintain product quality while handling different blends of the renewable diesel, as well as accurately measuring the dispensed volume during the trial period. Being a trial, it also needed to be available under a flexible hire arrangement.**

## SOLUTION

The key safety features of the facility included a distinct separation of refuelling vehicles and fuel tankers unloading into the tanks. The design included high mast fuel hoses to minimise refuelling manual handling risk, in-ground Fuelfix spill grates to contain leaks and drips, and a Fuelfix emergency shower and eyewash station. Built and tested offsite, the facility was safely installed and commissioned by Fuelfix's hydrocarbons technicians and electricians.

Fuelfix arranged for the hire tanks to be internally cleaned prior to use, and installed filtration systems on both the tanks and dispensing systems to ensure the highest fuel quality. Fuelfix also developed a specific procedure to control the trial of different renewable diesel blends to ensure the integrity of the analysis undertaken following the trial.



Strict controls on the heavy vehicles that used the product during the trial and accurate measurement of the fuel used, was achieved by Fuelfix integrating the company's specified fuel management system into the hire solution, and the installation of specific refuelling nozzles and receivers on the fuel facility and heavy vehicles respectively. This integrated approach gave them the confidence that only specific vehicles were able to refuel and accurate fuel usage captured.

Although a highly bespoke solution, Fuelfix was able to offer their customer a short-term hire arrangement. This enabled them to avoid the upfront capital outlay, keep the facility for as long as they required, with accessibility to the technical, maintenance and backup support of the Fuelfix team for the duration of the trial. As part of the trial scope, Fuelfix also provided specialised engineering expertise, full project documentation and drawings, and undertook a mid-trial maintenance and inspection check on the facility.

## VERDICT

Upon completion of the trial period, the mining company acknowledged Fuelfix's safe execution and high level of responsiveness throughout the planning and implementation phases of the project.

Ultimately, their aim is to have fully electric trucking fleets at their sites, but alternative fuels like HVO may help with emissions reductions in the meantime while the electrification transition takes place.

Simon Fracaro, General Manager WA, said Fuelfix were really pleased to be involved in this project and assist with this significant

trial in the renewable energy space. "It leveraged off our hydrocarbons expertise and complements Fuelfix's strategy to help its customers in their energy transition journey," he said.

“ Helping customers take actions now to mitigate, eliminate, and offset their carbon emissions, whilst reducing energy costs, is at the core of all our work in the industry and is one of the pillars of our Two Pathways, One Goal Strategy.

Simon Fracaro, General Manager WA  
Fuelfix & Tanks2Go

