

Overview

HySA Infrastructure has a specialised hydrogen demonstration and test facility at Engineering Campus of the North West University in Potchefstroom.

A shipping container was converted into a mobile site office and control room for the test site. A 3.36 kW_p solar PV system including inverter and 4.8 kWh lithium-ion battery storage provides uninterrupted power supply to the office independent of the rest of the site, to ensure constant functioning of crucial hydrogen safety equipment, dedicated detection and security systems, access control and internet connection. This demonstration unit can be fitted with a hydrogen fuel cell, thanks to available renewable hydrogen infrastructure at **HySA Infrastructure** NWU, as well as with a portable petrol generator to explore renewable energy systems integration research and validation.



This fully operational site office also serves as a demonstrator in order to gauge the local market for hydrogen technologies including fuel cells and PEM electrolysis. Specialized services include advanced hydrogen system testing and demonstration of electrolyser and fuel cell infrastructure. This serves the purpose to increase awareness in hydrogen and with the required system integration research done at **HySA Infrastructure** both commercial entities and rural communities can benefit from this existing new energy carrier.

Benefits

- Quick setup
- Easy relocation
- 24/7 uninterrupted power supply
- Compact/small footprint
- Research and demonstration cluster

Applications

- Remote mine site office
- Site monitoring and control room
- Remote surveillance office - antipoaching, military
- Remote clinics with refrigeration for vaccinations

