

New Norcia Space Station, Western Australia

CUSTOMER	ESA (European Space Agency)
LOCATION	New Norcia, Western Australia
DESCRIPTION	Penske Power Systems supplies, installs and commissions two state-of-the-art MTU Onsite Energy gensets to deliver critical emergency power to ESA's New Norcia Space Station antenna, DSA-1
OPERATIONAL DATE	July 2014



The New Norcia Space Station antenna is located in a small wheatbelt community approximately 140 km out of Perth, Western Australia, and is one of the largest space antennas in the world for telemetry, tracking and command application to spacecraft and missions that orbit far away from Earth.

The antenna known as DSA-1 allows for scientific data collected from deep space operations such as Mars Express, Rosetta and Venus Express to be reliably received at New Norcia from spacecraft that are up to 900 million km away (more than six times the distance from Earth to the sun).

To ensure that the 35-metre deep space antenna operates around the clock ESA has specified MTU Onsite Energy's best-in-class diesel generators via Penske Power Systems to deliver the critical emergency power required to maintain connectivity for its communications.

CONFIGURATION

As part of this one-source turnkey solution Penske Power Systems has installed and commissioned two state-of-the-art units from MTU Onsite Energy including the DP 650 D5C genset, featuring the 12V 1600 G20F engine and delivering 650 kVA of electrical power.

The system delivers reliable electrical supply to the station's critical infrastructure, with the intuitive module automatically kicking in with any mains failure, and then shutting down with mains return, to ensure 24/7 facility operation. All this is enhanced by a local control panel with remote stop/start facilities.

The design incorporates an integrated cooling system as well as the following accessories: redundant starting system, fuel pre-filtration, fuel-return cooler and coolant pre-heating systems.

FEATURES

The tailored package will increase the availability and reliability of the emergency standby supply. Importantly, the MTU Onsite Energy system solution will enhance serviceability to the gensets, which are fully supported by Penske Power Systems' factory-trained technicians who deliver vital service support.

Penske Power Systems also delivered a system study and training as part of its scope of supply, as well as a control system that included protection devices and provisions for future station expansion.

For more information contact our Power Generation team on 1300 688 338.

