The installation is excellent,” says Rob Taylor, facilities engineering consultant for News Ltd. “We needed bigger capacity gensets, and Cummins was chosen to supply the new turn-key power system.”

The system utilises three Cummins C350DS gensets complete with Cummins PowerCommand 3100 digital paralleling equipment and a Cummins DMC1000 digital master control system.

The 350 kVA gensets work in conjunction with a UPS (Uninterrupted Power Supply) system of batteries. In the event of a mains failure, the UPS system maintains power supply until the three gensets come on line and take over which is within 10 seconds.

“Two gensets were installed in 1984 and a third was added in 1994,” says Rob Taylor, facilities engineering consultant for News Ltd. “However, as the IT load has increased, if one genset failed during a power emergency, we’d lose critical supply to our data centre.

“We needed bigger capacity gensets, and Cummins was chosen to supply the new turn-key power system.”

The system utilises three Cummins C350DS gensets complete with Cummins PowerCommand 3100 digital paralleling equipment and a Cummins DMC1000 digital master control system.

The 350 kVA gensets work in conjunction with a UPS (Uninterrupted Power Supply) system of batteries. In the event of a mains failure, the UPS system maintains power supply until the three gensets come on line and take over which is within 10 seconds.

The digital master control system monitors the building load and provides load control, ensuring that the gensets running are only those that are needed to meet demand.

“The installation is excellent as has been the support from Cummins,” says Rob Taylor.

The biggest challenge was to maintain emergency power to News Ltd headquarters during removal of the old gensets and installation of the new system.

David Van Brussel and Greg Conrad headed up the turn-key project for Cummins and worked closely with News Ltd to co-ordinate the installation of a temporary 750 kVA Cummins QST30 generator.

“This allowed us to gut the plant room, install the new gensets, generator switchboard and DMC1000 and fully test the new emergency power generator system prior to it going on line,” says Van Brussel.

“The critical News Ltd equipment supplied by the emergency power system was not only backed up during the entire project, but News Ltd also witnessed the new system being installed and tested by Cummins, an exercise that took only four weeks and instilled confidence in Cummins’ product and capability.”

The new Macquarie Bank building in Sydney has an emergency power generator system that was supplied, installed, tested and commissioned by Cummins.

The new Macquarie Bank building in Sydney has become one of the city’s most recognisable commercial premises with its external steel ‘diagrid’ structural system.

The striking $350 million development by Brookfield Multiplex at King Street Wharf has won awards for engineering excellence.

The 11-storey building is also a showpiece for environmental sustainability, achieving a benchmark 6-star “Green Star” rating from the Green Building Council of Australia.

This is the highest possible rating and signifies world’s best practice.

With Macquarie Bank occupying the entire 35,000 m² building (except the ground level), it’s not surprising that an emergency power system is a critical installation – a system supplied, installed, tested and commissioned by Cummins.

“Just getting the 17-tonne generators into the fifth basement level plantroom was a challenge,” says David Van Brussel, power generation contracts manager for Cummins in Sydney.

“We had to dismantle the gensets and lower the components through a hole in the street pavement and then down through holes to the fifth basement level. The generators were then reassembled on the fifth basement level and slotted about 30 metres to their final position in the plantroom.”

The two Cummins C2250DS diesel generator sets each have a standby rating of 2250 kVA. They are powered by the 60-litre V16 Q660, an engine well proven in the mining industry at up to 3000 hp, powering the world’s biggest excavators and haul trucks.

A Cummins DMC300 digital master controller is also part of the Macquarie Bank emergency power system, providing mains paralleling control.

The mains paralleling allows seamless transfer of the building loads back to the mains supply. This means there is no power interruption from generator supply to mains supply after a power outage, so there is no impact on computer systems or building services.

In addition, the seamless transfer also allows for testing of the emergency power system on building load, including exercising the automatic transfer switches without interrupting the supply.

The DMC300 is fitted with a touchscreen which provides easy interface with the emergency power system for monitoring and control.

The fuel system supplied and installed by Cummins includes two 20,000-litre bulk storage tanks, and two 1000-litre day tanks.

The generators’ exhaust systems – fitted with catalytic purifiers – are routed to outside the building where they are cleverly disguised by sculptures.