

Preventing blackouts in a local power crisis

CUSTOMER

Hydro Tasmania

LOCATION

Tasmania, Australia

SECTOR

Utilities

KEY FACTS

1,200 MW

Tasmania's annual energy supply

60%

Dependence on hydropower

108 MW

Brought in at short notice

THE CHALLENGE

Urgent power backup in severe weather

A summer drought caused by the El Nino weather phenomenon and a breakdown in the Basslink undersea power cable that connects Tasmania to the National Electricity Market (NEM) on the Australian mainland threatened to create blackouts across the island.

Hydro Tasmania's dams were sitting at just 16.8 per cent capacity at the beginning of the year and were predicted to fall further to around 13.6 per cent.

The dams had not previously operated below 16.5 per cent

and energy experts worried the generators would suck in weeds and silt, creating the potential to damage the high-speed engines.

Hydro provides around 60 per cent of the island state's 1200 MW average annual energy needs, while the Basslink and wind generate 30 and 10 per cent respectively.

Power was needed urgently to prevent the island suffering blackouts prior to winter rains.



What we were impressed with was that Aggreko had a pedigree of working in these quick ramp up situations many times before and we definitely benefited from that.

Steve Davy
CEO, Hydro Tasmania

THE SOLUTION

108 MW of diesel-generated power

Aggreko immediately mobilised 24 MW of diesel generation equipment through Devonport in northwest Tasmania, to support the Tamar Valley plant, which was restarted to step in for the broken Basslink. While the first 24 MW was being installed, an

engineering team simultaneously designed a second 24 MW installation at Meadowbank, and worked closely with Hydro Tasmania to find suitable locations for the remaining 60 MW, bringing a total of 108 MW in the first phase.

Both installations comprised diesel-powered generators in a standard six pack with a connection voltage of 11 kV. Altogether 200 MW of diesel-generated power will produce around 12 per cent of the state's power over the autumn months.

OUR DIFFERENCE

We don't just deliver power, we're part of your team

THE IMPACT

Producing 12 per cent of the state's power during the autumn months

Hydro Tasmania wanted to prevent potential blackouts and so looked for a solution that could be implemented quickly and efficiently. Aggreko's ability to secure 108 MW of fleet to

be available at short notice and the company's flexibility to work from Hydro Tasmania's offices in the capital, Hobart, while they were designing the solution, were both factors.

Aggreko project team also had to find a new site at Catagunya when the initial location failed to obtain environmental approvals. .