

101 Miller Street, North Sydney

Cogent Energy has designed and installed a state of the art cogeneration plant at 101 Miller Street, North Sydney. This building is the largest commercial building in North Sydney and comprises premium office space and retail shops. This is the largest cogeneration plant in a commercial tower in Australia.

Building Owner:	Mirvac
Location:	North Sydney
Building Description:	Commercial complex – premium offices & retail plaza
Building Size:	40,000 sqm Commercial, 10,000 sqm retail
Plant Operational Date:	In operation since 1 November 2008

Plant Capacities

Peak Electrical:
2,332 kW at 0.8 power factor

Peak Cooling:
1,500 kW

Energy Efficiency:
70% Overall Efficiency (estimated) compared to using grid electricity

Cogeneration Configuration

The 101 Miller Street cogeneration plant comprises of 2 x 1,166 kW MTU Series 4000 cogeneration engines that are connected in parallel to the grid. Each engine is coupled to a 750 kW Thermax exhaust absorption chiller. The absorption chillers are fully integrated into the building's chilled and condenser water systems.

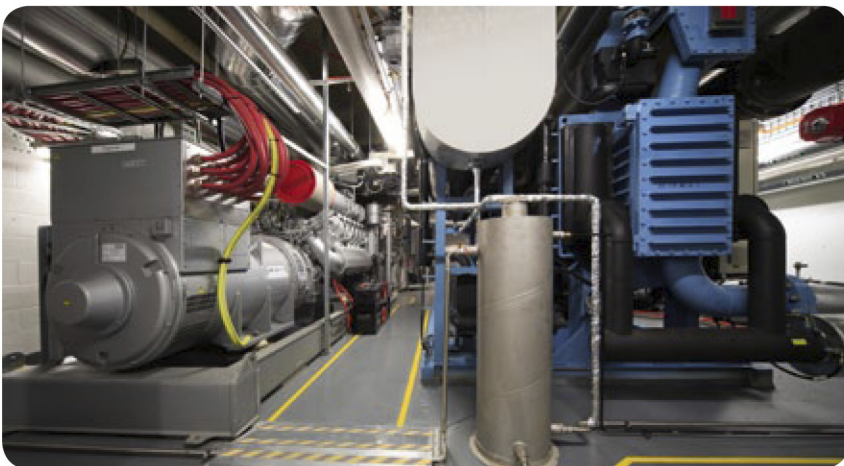
The plant is set up to operate either in grid parallel import or island mode and operates automatically during the peak and shoulder demand periods or during grid outages as emergency backup.

Benefits

Energy Efficiency:
5 star NABERS and 5 star Green Star

Backup:
Provides emergency backup if grid connection fails

Sustainability:
Estimated savings of up to 6,000 tonnes of CO₂ per annumⁱ



ⁱ CO₂ savings estimations are calculated based on information from the Australian Government's National Greenhouse Accounts Factors (June 2009). Calculation methodology externally reviewed by PAE Holmes.