



Case Study  
Commercial Office

# 200 Victoria Street, Melbourne

Cogent Energy has designed and installed a state of the art trigeneration plant at 200 Victoria Street, Melbourne. This building is the old CUB laboratory site that has been fully refurbished by the owner to house premium office space with small boutique retail shops.

**Building Owner:** Drapac  
**Location:** Melbourne  
**Building Description:** Premium offices & retail tenancies  
**Building Size:** 8,500 sqm NLA  
**Plant Operational Date:** December 2009

## Plant Capacities

**Peak Electrical:**  
386 kW at 0.8 power factor

**Peak Cooling:**  
290 kW cooling / 230kW heating

**Energy Efficiency:**  
80% Overall Efficiency (estimated)  
when compared to grid electricity

## Cogeneration Configuration

The 200 Victoria Street trigeneration plant comprises of a 386kW MTU Series 400 natural gas fired engine that is connected in parallel to the grid. The engine is coupled to a 290 kW Thermax exhaust absorption chiller and a 230kW heating water heat exchanger. The facility is fully integrated into the building's chilled, heating and condenser water systems.

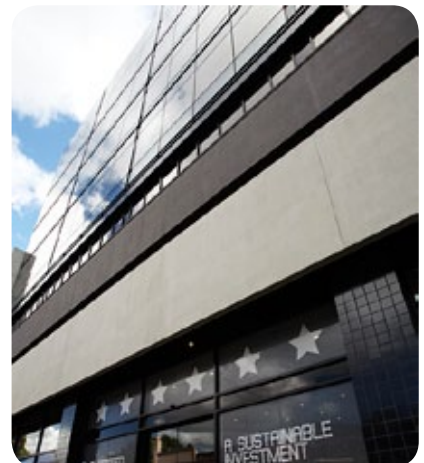
The plant is set up to operate either in grid parallel export or island mode and operates automatically during the peak demand periods or during grid outages as emergency backup.

## Benefits

**Energy Efficiency:**  
Building Targets - 5 star NABERS  
and 6 star Green Star

**Backup:**  
Provides emergency backup if grid  
connection fails

**Sustainability:**  
Estimated savings of up to 950  
tonnes of CO<sub>2</sub> per annum<sup>i</sup>



<sup>i</sup> CO<sub>2</sub> 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.