

# CASE STUDY COMMERCIAL



## 990 LATROBE STREET, MELBOURNE

Cogent Energy has designed and installed a state of the art trigeneration plant at the new 6 star Green Star office development at Digital Harbour Development campus, Docklands, Melbourne. The trigeneration plant contributes to the building's 6 Star Green Star awarded by the Green Building Council of Australia. Whilst the building has a 5 Star National Australian Built Environment Rating System (NABERS) target, it is currently on track to achieve a 6 Star NABERS rating<sup>1</sup>

### BUILDING SPECIFICS

**Building Owner:**

Digital Harbour Holdings

**Location:**

990 Latrobe St, Melbourne

**Building Description:**

Commercial complex  
– premium offices &  
retail space

**Building Size:**

12,500 sqm Commercial

**Plant Operational Date:**

July 2012

### PLANT CAPACITIES

**Peak Electrical:**

386 kW at 0.8 power factor

**Peak Cooling:**

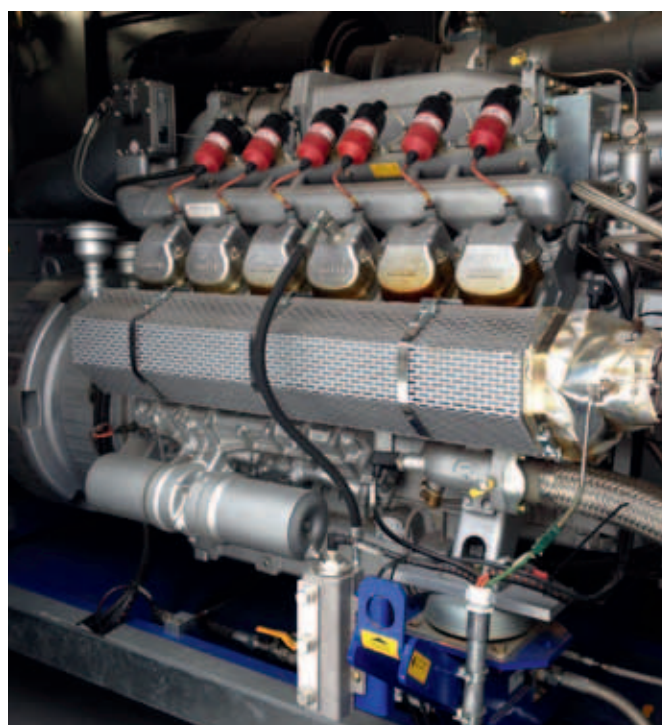
290 kW

**Peak Heating:**

230 kW

**Energy Efficiency:**

77% Overall Efficiency  
(estimated) compared to  
using grid electricity



### Trigeneration Configuration

The 990 Latrobe St trigeneration system supplies both the base building and tenant via one 386 kW natural gas generator (with 230 kWt heat recovery unit) coupled to a 290 kWt Absorption Chiller both housed in separate enclosures located on the roof level. Cogent financed, designed, installed and commissioned the system, and will continue to operate the total system for the 15 year contract duration.

The ancillary equipment for the generator and chiller includes heat recovery, dry air coolers, switchgear and controls, pumps and Building Management System (BMS) interfacing. Cogent also managed the distributor liaison and connection agreements for both gas and electricity (including fault current studies).

### BENEFITS

**Energy Efficiency:**

Increase in building energy efficiency and rating scheme improvements

**Redundancy:**

Provides back up power to meet required capacity of 140 kw during a grid failure event

**Sustainability:**

Estimated savings of up to 1400 tonnes of CO<sub>2</sub> per annum<sup>2</sup>

<sup>1</sup> Digital Harbour website – September 2013 ([www.digitalharbour.com.au](http://www.digitalharbour.com.au))

<sup>2</sup> CO<sub>2</sub> savings estimations are calculated based on information from the Australian Government's National Greenhouse Accounts Factors (June 2013). Calculation methodology externally reviewed by PAE Holmes.

## FOR MORE INFORMATION

For more information about Cogent Energy  
go to [www.cogentenergy.com.au](http://www.cogentenergy.com.au) or  
contact one of our consultants on 03 9652 5025