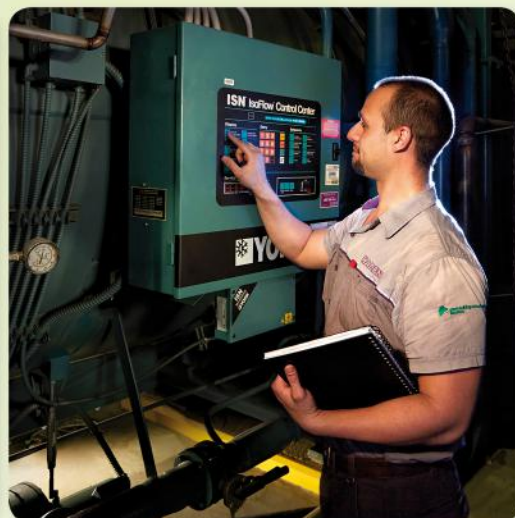


Energy Efficient Upgrade

of heating and cooling systems



Absorption chiller turns waste heat into cooling



The Crown Melbourne complex has one of the first and most successful trigeneration systems ever installed in a commercial building. Trigeneration is where gas is combusted via a generator to produce electricity, heating and cooling via absorption chillers. This results in 80% lower emissions compared to getting electricity from the grid.

During the last 2 years, Crown has focused on the energy efficiency of central plant. These works include:



Installation of variable speed drives for cooling towers



Upgrade of absorption chillers



Replacement of heat exchangers and increased running times



Optimised control strategies for electric chillers and gas boilers

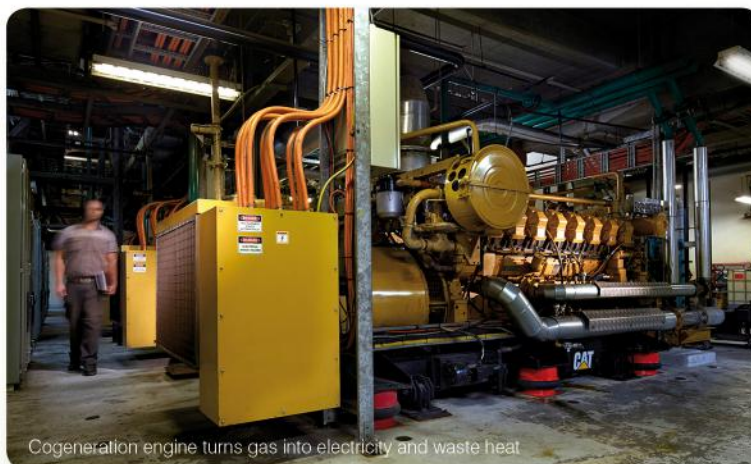


Real-time monitoring of equipment performance

The improvements in central plant together with upgrades to the lighting and HVAC systems have resulted in a reduction of more than 10% in total electricity consumption over the last 12 months for the main complex.

In 2012, Crown installed variable speed drives (VSD) on all major fan equipment across the property. It is estimated that this will reduce fan energy consumption by 25%. VSDs were also installed on the 10 central cooling towers serving the complex as well as central pumps serving the heating and hot water systems.

The total energy projects for 2012 resulted in a CO2 abatement of more than 14,000 tonnes, the equivalent to powering 1100 homes or removing 3500 cars from the streets.



Cogeneration engine turns gas into electricity and waste heat