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Published: 2 April 2012

## Cogen technology to power Melbourne urban energy project

A natural-gas-fired engine supplied by GE will power a cogeneration (cogen) plant for an urban renewal project in Dandenong, Melbourne.



## Credit: GE

In cogen, gas-fired units generate electricity and deliver it locally, avoiding some of the high costs of transmission. The heat from electricity production is captured and used to heat and cool buildings. Cogen systems are more than twice as energy efficient and emit less than half the greenhouse gas emissions of a coal-fired power station. In countries such as Denmark and the Netherlands, more than 50 per cent of energy comes from cogen.

GE's 'Jenbacher' engine has a 2-MW capacity, but can be expanded to 6 MW. It was shipped to the Dandenong site in January 2012. Commercial operation of the cogen plant, being built by Cogent Energy (owned by Origin Energy), is set to begin later in the year.

The urban renew project, called Revitalising Central Dandenong, is a redevelopment of the retail and services district of central Dandenong and is being led by Victorian government authority VicUrban.

The cogen plant will reduce the emissions and energy use of the district by reducing its reliance on energy from the grid. The plant also will have the capacity to produce surplus hot water, which Cogent Energy will then sell back to local commercial buildings to provide cooling via building owner-supplied absorption chillers.

The plant is expected to save the equivalent of about 9900 tons of carbon emissions a year, which equals the removal of more than 5500 cars from the road.

'More customers in Australia are embracing various distributed power applications—including industrial cogeneration—to bring the sources of energy production closer to end-users,' says Rafael Santana, CEO and president

of Gas Engines for GE Energy.

Source: GE

From **ECOS** online http://www.ecosmagazine.com/?paper=EC12240