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## PRESS RELEASE



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Green Energy Solutions

### DUNDEE UNIVERSITY REWARDED BY COGENERATION

Two and a half years after Dundee University took the opportunity offered by deregulation in the UK electricity industry to become self-sufficient in the generation of electrical power, the cogeneration plant installed continues to deliver the energy needs of the campus, 24 hours a day, seven days a week.

The University is one of Britain's leading teaching and research institutions featuring a city centre campus comprising over 130,000 sq. metres of buildings used for teaching, research, student residencies, recreation and sports facilities.

Under the guidance of its Director of Estates & Buildings, Peter Copeland, the University had been investigating CHP options for a number of years before deciding to commit to it in November 1995. Following competitive tender involving three companies, the contract to supply, install and commission the engines and heat recovery systems went to Clarke Energy and its Jenbacher engines.

Although Jenbacher and Clarke Energy were relatively unknown in the UK CHP market at the time, investigation showed that the product had a good pedigree with a substantial track record on the Continent and enjoyed an active research and development programme. High proven efficiency with a commitment to post-contract support assisted in the decision of the University to select the Jenbacher product.

The UK higher education sector currently has some 21 MW of CHP capacity installed. Dundee with 3 MW is the third largest installation but is unique in that it is the only multiple engine plant.

The CHP plant is fully integrated into the University's energy network, the district heating system operates all year round and requires some 50,000 MW hours of energy. The three Jenbacher engines provide roughly 50% of this requirement whilst generating some 98% of the electrical needs of the site.

The load varies dramatically as peak day demand exceeds 3 MW, but overnight and at weekends 1.2 - 1.4 MW is needed. Even in summertime, a day time load of 2.5 MW ensures that all three engines are still required. However, with close attention to detail and management of the thermal network, very

little energy is ever wasted; this is evidenced by the fact that only 3% of the available high grade heat is ever taken to dump.

In forecasting the economic benefit to the University of CHP, care was taken to recognise growth in demand resulting from developments to the estate. The £12 million Wellcome Trust building, completed in 1997 and representing the leading edge of life sciences research, is connected to the central energy networks.

This energy-intensive building, which operates 24 hours a day, relies heavily for its cost-effectiveness upon the supply of energy which is provided entirely by the CHP system.

Peter Copeland has been very proactive in the installation and subsequent operation of the cogeneration plant and all its support systems and has been delighted with the success of the project, "Having finally taken the decision to commit to this environmentally friendly combined heat and power system, the University is achieving rewards in line with predicted performance. Since going live in November 1996, the plant has run continuously, the triple engine configuration ensuring output is always available as required even whilst servicing takes place. As important as the quality of build is the support received from Clarke Energy and Jenbacher, both of whom have contributed to the success which is apparent to all concerned."

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*Clarke Energy Limited is a leading worldwide Energy Systems Company offering a wide range of green power generation solutions with offices in Australia, France, India, Nigeria, New Zealand and UK. Clarke Energy employs over 150 people worldwide and operates as part of the Clarke Group.*

*Further information about Clarke Energy and its activities is available by contacting the Public Relations and Marketing Department on 0151 546 4446 or via email at: [pr@clarke-energy.co.uk](mailto:pr@clarke-energy.co.uk)*