



ENGIE

Chichester Power Ltd

Flexible gas supply and power purchase contracts from ENGIE optimise cost efficiency for new CHP plant





Requirement

Chichester Power Ltd (CPL) purchased nine ageing 1MW combined heat and power (CHP) engines at Tangmere Airfield Nursery (TAN), with the aim of investing in new more efficient gas-fired systems to provide electricity, heat and, crucially, CO₂ to the greenhouses. TAN is the UK's largest sweet pepper grower, using heat and CO₂ from the CHP flue gases to enhance plant growth and improve yields. Whilst some of the electricity generated is also used by the nursery, the majority is exported to earn an income for CPL.

CPL needed to find a suitable provider of CHP technology and energy contracts to supply an efficient solution for the Tangmere project.

Solution

CPL approached FEC Energy (FEC), the UK's leading greenhouse CHP energy consultant, to develop their energy and financial model and put in place all the necessary energy purchase/sales contractual arrangements. Another key element was drawing on FEC's knowledge of energy compliance schemes such as EU Emissions Trading Scheme (EUETS), CHP Quality Assurance programme (CHPQA) and Climate Change Agreement (CCA) to ensure maximum financial benefit and minimum ongoing compliance cost.

FEC worked closely with CPL to devise and source suitable new CHP technology for the project. The solution was three highly efficient, low-carbon CHP engines incorporating the latest technology, each with a capacity of 2.65MW.

To set up the contracts that would enable the new plant to be financed, supplied with gas and to allow surplus electricity to be sold, FEC called on business energy specialist ENGIE. Its expertise in devising flexible and innovative energy contracts enabled the electricity generated by the CPL plant to be matched with demand from specific industrial sites supplied by ENGIE. By demonstrating that the electricity generated was being supplied to named businesses, rather than to the general market, ENGIE enabled the CPL project to qualify for Enhanced Capital Allowances (ECA) to support the initial investment.

ENGIE also provided a contract to supply the plant with gas to power the CHP engines, as well as the power purchase agreement to buy all electricity exported from the site. Having a single supplier for both gas supply and electricity offtake contracts provided significant efficiencies and simplified the whole project for both FEC and CPL.

Tim Pratt, Technical Director at FEC, says: "When putting the whole investment package together, ENGIE provided support and industry insights that were essential to getting the whole project off the ground. In devising competitive gas supply and power export contracts, they were supportive, quick to respond and easy to deal with."

Once the CHP plant was operational, CPL began using the Julesmart online trading platform to inform its decisions about when to run the CHP engines and optimise the earning potential of the new assets. Using the online platform helps CPL to achieve the greatest returns on its exported electricity.

Herman van den Ende, Director, CPL, says: "The knowledge and can-do attitude of everyone involved in this project was second to none. I wouldn't hesitate to recommend any of these organisations to anybody looking to install efficient CHP technology."

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