

Nottingham BSF Renewable CHP Installation (Oakfield SEN School)

Project Details

Client – Nottingham City Council

Main Contractor – Carillion

Installation – Sept 2009

School Open – Nov 2009

Building Size – 6,300m²

CHP size – 150kWe



Project Overview

The new Oakfield School and Sports College caters for 140 pupils aged between 13-19 with severe learning difficulties and physical disabilities. The heart of the school's sustainable profile is the renewably fuelled low carbon energy centre. The LowC design incorporates several extremely innovative technologies that enabled the solution to be commercially viable within the BSF Affordability Framework. Through their exclusive relationship with Phoenix Fuels LowC were able to ensure that the fuel for the scheme was grown, harvested and crushed within a ten mile radius of the school, thus creating a robust and sustainable fuel supply strategy within the solution. Nottingham City Council set a minimum requirement of 20% onsite renewable energy for the scheme, while also aspiring to maximise carbon reductions. The LowC solution delivered more than 115% onsite renewable generation. Green electricity is exported back onto the national grid network, providing additional economic benefits. The installation delivered savings of **258 Tonnes of CO₂** per year versus conventional energy supply.

LowC Services

An affordable, renewable and low carbon solution far exceeding the Council's aspirations and all UK planning targets

- The performance specification, selection and procurement of the renewable technologies required
- Project management and construction of the site's renewable energy centre installation
- Fully accredited and sustainable fuel procurement across all schools involved
- Ongoing maintenance and management contract for the renewable administration content
- Full accreditation and compliance with CHPQa and Ofgem requirements.

LowC developed an in depth understanding of the school's occupancy profile and the operational performance of the buildings, which allowed them to achieve economic optimisation of the energy centre. The LowC energy and carbon reduction strategy enabled Oakfield to make a major contribution to Nottingham City Council's aim of becoming a carbon neutral city by 2016, as well as allowing them to meet their own CRC targets.

LowC Communities are now working with many project developers throughout the UK, and are actively leading the challenge to deliver affordable, commercially viable solutions that deliver in operation.

Key Achievements

- 115% onsite renewable energy
- 88% carbon reduction equating to 258 Tonnes of CO₂
- Cost savings of £35,000/yr compared to grid supply
- £400,000 of DCSF funding released, by exceeding threshold of 60% onsite renewable energy

For more information please contact Doug Chaplin dc@lowc.co.uk or call us on the number below.