



CHP case study

Coventry District Energy Company

The Site:

The site is a conventional Energy from Waste facility thermally treating household waste to produce steam for electrical generation or process heating

Conventional incline grate technology in operation since 1975

The current CHP scheme provides low-carbon heating to buildings within Coventry City Centre most notably Coventry Cathedral

Location:

Coventry

Date Operational:

November 2013

CHP Installed Capacity:

7.7 MWe

Investment Cost:

£5.3 million

Project Objective:

Provide a low carbon and efficient energy source to Coventry City Council and local businesses

The Need:

- To assist Coventry City Council to meet their low-carbon targets
- Provide a cost saving for Coventry City Council against conventional heating
- Reduce capital and revenue costs to maintain and replace current infrastructure

Implemented Solution:

- The CHP, a 600,000-litre thermal store with heat back up and a network of 6.6km of buried pipes to consumers in the city centre operated from a sub-station at the Energy-from-Waste site.
- Heat taken as pass-out steam from an intermediate stage of a steam turbine.
- Coventry Council House, Coventry City Council Civic Buildings 1, 2, 3 & 4, Herbert Art Gallery & Museum, Coventry Sports & Leisure Centre, Coventry Cathedral

The Benefits:

- Gives customers a carbon saving of approximately 89% compared with a conventional stand-alone gas-fired system
- No mechanical plant, flues, gas etc. required on site
- Savings compared to alternative cost of heating
- Low carbon heat
- Significantly smaller plant space required compared with conventional boiler house and more flexible in terms of location

‘Combined Heat and Power provided by Energy from waste is an efficient, green and cost effective solution to traditional fossil fuel energy sources.’

Karl Starkey

Managing Director

CSWDC

