



## CHP case study

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# Bath Riverside

### The Site:

44 acre brownfield site in Bath

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Located within a World Heritage Site

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Previously an industrial site but had been derelict since 1989

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Undergoing a major development that will include over 2000 homes, a riverside park, school and restaurants

Location:

**Bath**

Date Operational:

**October 2014**

CHP Installed Capacity:

**230 kWe**

Investment Cost:

**Unknown**

Annual Cost Saving:

**Unknown**

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Project Objective:

**Provide space heating and hot water, in combination with other technologies, to 800 new homes via a district heating network**

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## The Need:

- New homes in the Bath Western Riverside development require hot water and space heating
  - The developer agreed homes would be built to Code for Sustainable Homes (CfSH) level 4, leading to a 31% carbon savings requirement
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## Implemented Solution:

- 230 kW<sub>e</sub> natural gas fired CHP plant combined with a 400 kW<sub>th</sub> biomass boiler and two 2.3 MW gas boilers designed as a backup for peak loads
  - These units charge a 30 m<sup>3</sup> thermal store which heats water before it is distributed to homes via a district heating network
  - Electricity generated by the CHP unit is sold to the grid
  - The new Energy Centre is located in a refurbished Wessex Water building
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## The Benefits:

- Reduction in carbon emissions of 55 %
  - Energy savings for the development compared to business-as-usual case of 2 GWh (38 %) per annum
  - The CHP unit is responsible for half of the carbon savings required to meet CfSH level 4
  - Residents benefit from local, secure low carbon heat and hot water with 24/7 backup
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‘The opening of the Energy Centre is a significant milestone in the development of Bath Riverside. We have put a lot of careful consideration into how the development can best meet the sustainability targets set, and it is fantastic that we have been able to use one of the existing buildings for the Energy Centre, retaining an important link to the site’s history.’

**Debbie Alpin**  
Managing Director  
Crest Nicholson  
Regeneration

