



Support available to CHP developers and operators under CHP Focus

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CHPQA



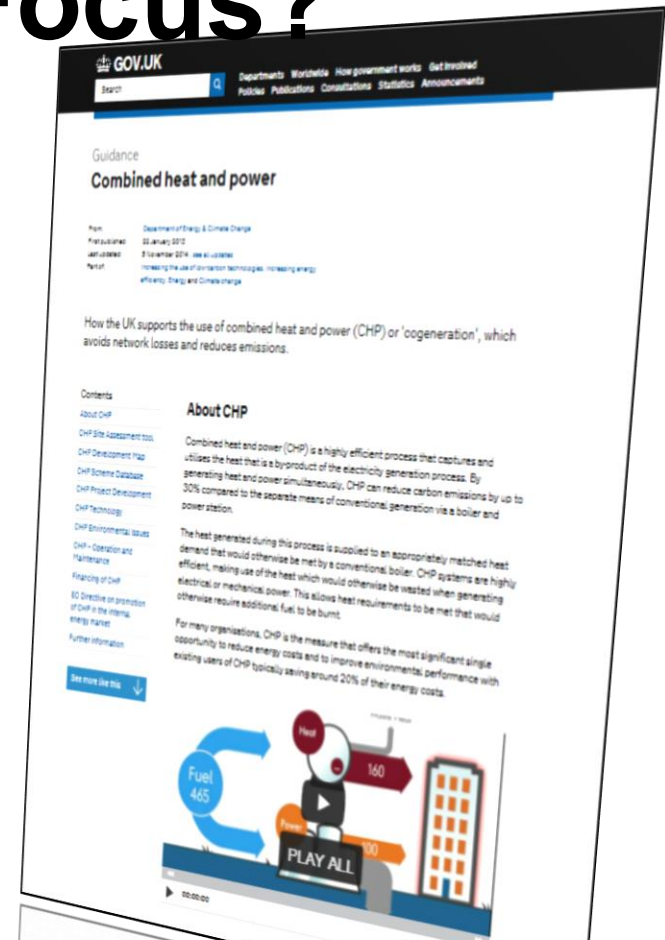
Topics Covered

- What is CHP Focus?
- What are CHP Focus activities?
- What are the benefits of CHP Focus?
- CHP Focus helpline.
- CHP Focus website.



What is CHP Focus?

- CHP Focus is a DECC funded initiative
- Free at the point of use
- Established in 2008



OBJECTIVE: TO SUPPORT DEVELOPMENT OF CHP



CHP Focus Activities

- Promotion – “CHP the flexible option”
- Education – Events, seminars & workshops
- Information – Comprehensive unbiased website
- Tools Development – Web applications & online tools



CHP Focus benefits

- Website – Significant information on CHP and accessible site on GOV.UK
- Helpline – Free expert advice

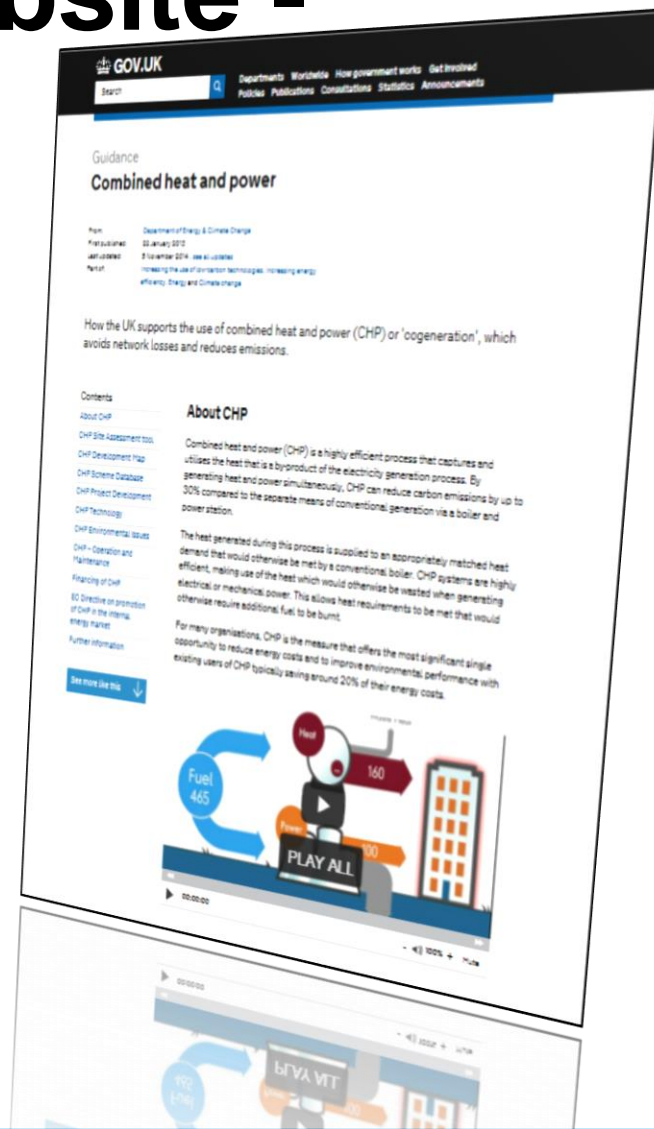




CHP Focus website -

<https://www.gov.uk/combined-heat-and-power>

- Includes sections on:
- Technologies
 - Finance
 - Project development
 - Operation and Maintenance
 - Environment





Collection

Combined Heat and Power (CHP) Developers Guides

From: Department of Energy & Climate Change
First published: 1 August 2008

A collection of guides to support the development of combined heat and power (CHP) installations.

Contents

- [CHP development guides](#)

Guides for CHP developers:

- Part 1: Project Development
- Part 2: CHP technologies
- Part 3: CHP Environmental
- Part 4: CHP Operation and Maintenance
- Part 5: CHP Finance

CHP development guides

Combined Heat and Power (CHP) Project Development

1 August 2008 Guidance

Combined Heat and Power (CHP) Technology

1 August 2008 Guidance

Combined Heat and Power (CHP) Environmental Aspect

1 August 2008 Guidance

Combined Heat and Power (CHP) – Operation and Maintenance

1 August 2008 Guidance

Combined Heat and Power (CHP) Finance

1 August 2008 Guidance

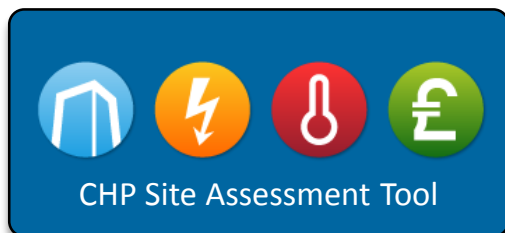




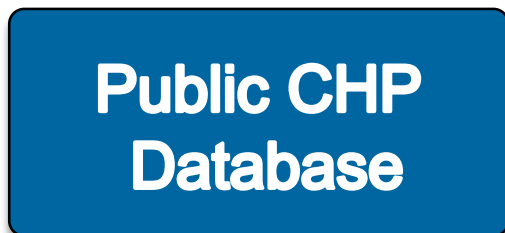
Website Tools



- Interactive, dynamic CHP Development Map



- Simple web base tool
- Can model packaged CHP systems



- Database of operational CHP
- Search by Region, CHP type, Sector



CHP Development Map

UK CHP Development Map

Select Area | Radius Search | Draw Shape | Polygon View

Map View | Satellite & Labels | Satellite

Cancel current tool
Clear map
Toggle fullscreen
Search Buffer 1 Km
Note: 20Km is maximum allowed for this search tool

Results Area

Sector Totals | Large Heat Load Sites (0)

The table below shows the sector totals within your search area.

The sector total results below are from:
Birmingham D47, Birmingham D49, Birmingham D50, Birmingham D53, Birmingham D59, Birmingham D60, Birmingham D68

| Sector Name | Share | Total KW |
|--------------------------------|--------|-------------------|
| Communications and Transport | 0.94% | 3,570 KW |
| Commercial Offices | 11.11% | 42,140 KW |
| Domestic | 44.22% | 167,668 KW |
| Education | 3.55% | 13,457 KW |
| Government Buildings | 8.31% | 31,515 KW |
| Hotels | 6.41% | 24,288 KW |
| Health | 7.55% | 28,621 KW |
| Other | 2.63% | 9,961 KW |
| Small Industrial | 3.38% | 12,816 KW |
| Prisons | 0.82% | 3,102 KW |
| Retail | 4.64% | 17,584 KW |
| Sport and Leisure | 1.72% | 6,517 KW |
| Warehouses | 4.73% | 17,931 KW |
| Total heat load in Area | | 379,169 KW |

Download this search result data as a Microsoft Excel File

- CHP Development map has UK wide coverage
- Tool allows CHP developers to search for heat loads in specific areas

CHP Map includes:

- Refined and updated heat load data;
- Greater zoom resolution;
- Radius and Area Search tools;
- Ability to search on local authority level and middle and low level output layers providing greater search resolution.



CHP Site Assessment Tool

Building Name: AEA
 User Name: Ben Sang
 Today's Date: 16 November 2011
 Building Sector: Leisure Centre
 Building Floor Area (m²): 10,000
 Building Region: North West

Technically Feasible: **YES**
 Cost Effective: **YES**

| Units | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|
| Technology | Reciprocating Engine | Reciprocating Engine | Reciprocating Engine | Reciprocating Engine | Reciprocating Engine |
| CHP Capacity | 500 | 150 | 175 | 125 | 100 |
| Electricity Generated | 2,490 | 789 | 800 | 695 | 609 |
| Useful heat Recovered | 1,270 | 1,200 | 1,242 | 1,116 | 917 |
| CHP Fuel consumption | 7,152 | 2,459 | 2,580 | 2,248 | 2,032 |
| Primary Energy Savings | 1,094 | 1,218 | 1,181 | 1,068 | 796 |
| CHP Capital Costs | £491,000 | £176,000 | £201,000 | £151,000 | £125,000 |
| Annual Cost Savings | £137,000 | £66,000 | £66,000 | £58,000 | £50,000 |
| NPV | £6873,000 | £396,000 | £384,000 | £344,000 | £297,000 |
| Payback Period | 3.6 | 2.7 | 3.0 | 2.6 | 2.5 |
| CO ₂ Saving against all fossil fuels | 566 | 362 | 356 | 321 | 280 |
| | 31 % | 19 % | 19 % | 17 % | 14 % |
| CO ₂ Saving against all fuels including renewables and nuclear | 195 | 238 | 231 | 212 | 165 |
| | 12 % | 15 % | 15 % | 13 % | 10 % |
| CO ₂ Saving against modern CCGT | 60 | 196 | 167 | 175 | 132 |
| | 4 % | 13 % | 13 % | 12 % | 9 % |

Note: For entries shown in red and marked as not viable in the table above, this is due to them having a negative NPV at the discount rate you selected and they are therefore not cost effective on this basis. However the payback period should also be considered.

Download as CSV

- Simple and intuitive to use
- Allows users to assess the viability of CHP
- For a given site it provides the 5 best options showing their:
 - CHP capacity,
 - Capital cost,
 - Payback period,
 - Net Present Value,
 - Cost savings &
 - Primary energy savings
- Login facility allows registered user to save scenarios



CHP Focus helpline

- Specific Expert Advice
- Local call rate number
- Referral to appropriate contacts for more detailed information where necessary.



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Contact us

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