

HEAT IS THE NEW FRONT IN THE WAR ON CLIMATE CHANGE

The Government will today publish its consultation on a new renewable energy strategy, highlighting the important role that low-carbon heat technologies can play in national efforts to tackle climate change and improve our energy security.

Until recently, opportunities to cut carbon emissions in heat supply had been overlooked by both governments and the energy industry. But now the Government is looking to renewable heat technologies to meet a significant proportion of the target for 15% of energy to be supplied from renewable sources by 2020. Combined heat and power (CHP) has a particularly important role to play, with the ability to meet demands for heat, cooling and power from a limited resource of biomass, biogas and liquid biofuels. As a result CHP can deliver additional carbon savings, as compared to independent supply of heat and power.

Graham Meeks, Director of the Combined Heat and Power Association, welcomed today's publication of the Renewable Energy Strategy:

"No-one is suggesting that reaching our renewables target will be straightforward – indeed it will demand action and innovation across a broad range of technologies in new sectors and with a different cast of actors. The Strategy is a clear step in this direction.

"Heat accounts for almost half of our energy consumption and 47% of our national carbon emissions, so it is vital that attention is now focussed upon the early deployment of renewable and low-carbon heat technologies. We welcome the new attention that the Government is placing on the heat sector and the proposals to consider new incentives for investment and operation of CHP and other heat technologies.

"But we could still be doing more. The commercial realities of our energy markets and the need for diverse and secure energy supplies mean that we will continue to consume significant quantities of fossil fuels in the decades ahead. By extending this new focus on heat to include low-carbon technologies such as CHP we can optimise our use of these fuels, helping to build a low-carbon economy without compromising either the competitiveness of UK industry or our efforts to eradicate fuel poverty."

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Notes to Editors:

1. The Combined Heat and Power Association is one of the leading industry bodies active in the sustainable and clean energy sector. The Association is a representative body supported by member subscription. It has over 80 members active across a range of technologies and markets, from microCHP

to major utility-scale energy plants serving industrial processes and city-wide district heating systems. Our aim is to support our members' interests through the development and maintenance of positive market conditions for CHP.

2. CHP works by recovering heat from the power generation process and putting it to work in industry, buildings and homes. Making the most efficient use of scarce and expensive fossil-fuel, CHP can mitigate our dependency on gas and help maintain the viability of our strategic energy and industrial installations.
3. On 19 June 2008, energy consultants Pöyry published a report that projected a technical potential for additional major CHP capacity in UK industry of 13.9GWe +/- 2.5GWe. The report outlines 9 case studies of industrial clusters where the authors believe there is significant potential for CCGT CHP to meet local heat demand, as well as providing electrical capacity to the grid. The report finds that CHP on these sites could save up to 10 million tonnes of carbon (36 million tonnes of CO₂) emissions each year, whilst cutting energy costs. The report can be downloaded from the [Greenpeace website](#).
4. The Government has a target to see 10 GWe of CHP capacity installed by 2010. The latest Government estimate of installed CHP capacity is 5.5 GWe ([DUKES 2007](#)) On 19 October 2007, DEFRA published a [study](#) 'Analysis of the UK Potential for Combined Heat and Power', demonstrating the economic potential for an additional 8.2 GWe of capacity by 2010 and 10.6 GWe by 2015. The report noted that 'in practice, decisions on CHP will be influenced by a number of site-specific issues, which tend to reduce cost effectiveness and slow decision making on CHP development'.
5. CHP can be configured for a range of scales and applications, from micro CHP units replacing a conventional domestic boiler, to gas engines in commercial buildings and utility-scale plant serving major industrial loads and city-wide district heating schemes. The larger CHP schemes are based upon combined cycle gas turbine (CCGT) technology that is already commonplace in the power generation sector.
6. The UK's largest CHP is located at ConocoPhillips' Humber Refinery, and is proof-of-concept of the approach proposed in the Pöyry report. The project had an original electrical capacity of 734 Megawatts (MWe), which is currently being extended to 1,180 MWe.
7. Although the technology is essentially similar, CHP development typically incurs greater costs and presents greater risks to investors than a conventional 'power only' development. Additional costs arise through greater sophistication of the generating plant, costs of heat recovery infrastructure, and some loss of economies of scale. Additional commercial risks can be presented through the additional requirement for heat sale contracts. In a competitive market, investors require incentives to absorb these additional costs and risks.
8. Out of all the members of the European Union the UK's current CHP capacity is the fourth lowest.
9. The report 'Benchmarking Study of the UK against our countries in terms of CHP policies and impact' has been prepared by Delta Energy and Environment for the CHPA and can be downloaded from the CHPA website at

www.chpa.co.uk. The report compares support regimes and investment conditions for CHP in Belgium, Germany, Portugal, Spain and the UK. The report finds that:

- A comparison of EU Member States reveals the evidence that many Member States are pursuing proactive policies that not only deliver significant increases in CHP capacity, but represent a major renewal of their energy supply infrastructures.
- The UK support is the least generous of the countries considered, with the payback periods with all support included remaining extended beyond acceptable levels, especially for industrial companies.

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