

COMBINED HEAT AND POWER ASSOCIATION

A note for the PIU

This note highlights particular (or new) points affecting the achievement of the Government's CHP target and should therefore be read alongside the Association's *UK CHP Strategy*.

Overview

The Association's UK CHP strategy takes as its starting point that CHP has been identified by the Government as the most cost effective way of reducing UK CO₂ emissions.

However, the Association believes there is a significant gap between the Government's commitment to CHP and the practical delivery of policies that will achieve it.

- NETA – the Government announced at the outset of the NETA process that the resulting changes should 'encourage CHP and renewables'. The NETA development process systematically marginalised this goal, and it remains unclear exactly how the Government now intends to ensure this goal will be delivered over and above the current short term review.
- The Chancellor announced that CHP would be exempted from the Climate Change Levy. The reality is that the Levy remains payable on any power sold from a CHP system via a third party, hence denying off-site consumers the incentive to choose CHP based green power.

This also negates the principal aim of the Levy - to reward less polluting technologies. It is irrelevant where the power is used - it is only of importance how it is generated.

- DETR Ministers announced an exemption of 'good quality' CHP from business rates. The reality is that this only applies to the generation element of CHP – 'normal' rates will still apply to most of the CHP unit.
- Eligibility of 'good quality' CHP for enhanced capital allowances have been undermined due to the Treasury's reluctance to extend such arrangements to finance leasing which has been the most regularly used investment route for CHP plant.

- New costs will be applied to CHP as a result of the Renewables Obligation —costing the CHP industry well over £100 million a year. At the same time, the Government has abolished the special provision that existed for CHP plant that existed under NFFO as a result of legislative changes that the Government secured whilst in Opposition.
- The planned UK Emissions Trading Scheme will preclude CHP operators from trading the carbon and other savings achieved as a result of off site power sales. The savings achieved by local heat use have been ignored. The nature of the new *Community Energy Programme* and the Energy Efficiency Commitment may well exclude many schemes from participating in the Emissions Trading Scheme at all.
- A working group chaired by OFGEM has been established to consider issues relating to network access, management and charging in order to ensure that embedded generators have a fair and balanced access to distribution networks.

However, any practical measures to assist CHP in the medium term will be restricted by a regulatory regime that presently provides no incentive for distribution network operators to adapt their treatment of embedded generation.

None of the measures promoted by the Government deliver the unequivocal support for CHP that is long overdue.

CHP - the policy gap

*"a large proportion of consented (CHP) capacity is not likely to proceed at present, or may be built, but will be much smaller."*¹

It is widely acknowledged that "business as usual" will lead to the UK undershooting its CHP target by at least 20%. Some EU studies have suggested the amount of CHP capacity may, as a result of present market conditions, actually decline by 2010.

How has this occurred?

CHP policy lacks firm leadership within the machinery of Government.

Observers have commented that CHP tends to fall between two stools. It is formally part of energy efficiency policy - yet is very unlike

¹ Digest of UK Energy Statistics 2001

many other aspects of energy efficiency policy (which tends to focus on physical improvements such as building insulation, grants etc.). CHP's market drivers are similar to those for renewables yet are not part of renewable policy.

The situation is further undermined by the sub-ordination of environmental and social policy considerations – which in most cases would encourage more widespread use of CHP – to a position of secondary importance within the terms of reference of QEGEM. With the powerful position that the regulator enjoys within the energy industry, this arrangement has already been demonstrated to have a serious impact upon CHP following the introduction of new electricity trading arrangements.

CHP will continue to be undervalued so long as it continues to lack strong, effective and consistent leadership from within the relevant policy directorates of Government.

In Opposition the Government called for an "Office of CHP". This concept could, post energy review, be developed into an Office of Sustainable Energy, (perhaps akin to the influential Office of Power Technologies at the US Department of Energy).

It would be characterised by:

- Political leadership at Minister of State level;
- Input from a joint stakeholder team that engaged Government, OFGEM, the Environment Agency and the industry;
- A strong focus on policy development and delivery;
- Clear legislative backing;
- A mix of civil service staff and industry secondees;
- Technical underpinning from a series of dedicated support programmes.

The aim would be to achieve coherence and consistency to the achievement of the Government's twin targets for CHP and renewables.

Without such a strengthened commitment to CHP the result is likely to be:

- Less choice for consumers;

- Underachievement in the UK's climate change programme;
- Reduced competition in the energy market;
- Forgoing some £4 billion of new investment in the UK economy;
- Reduced export opportunities;
- Higher energy bills for many lower income consumers.

The challenge is to ensure that CHP ceases to be the "Cinderella" area of both the Government's climate change and energy policies.

David Green
Director

30 August 2001

The views expressed in this paper cannot be taken to represent the views of all members of the CHPA. However, they do reflect a general consensus within the Association.

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RESPONSE TO PIU QUESTIONS SPECIFICALLY RELATED TO CHP

Can we make any inferences about the extent to which changes in energy markets will serve to alter the take-up of energy efficiency, and CHP, in the longer term?

Experience over the last ten years shows that in the absence (as yet) of a mechanism for fully capturing the environmental benefits of CHP in the economic case of a given CHP plant, then the ideal conditions for CHP are where there is an expectation of rising output prices (typically electricity) and falling input prices (typically gas at present).

The relativity between gas and electricity prices (the so called 'spark spread') is notoriously difficult to predict. The move to treating electricity as traded commodity increases the volatility in the market, hence weakening still further investment in CHP.

If the introduction of emissions trading creates an effective vehicle for bringing the environmental benefits of CHP into the business case, then this may make a significant difference.

Based on the way the market has moved, the inference would be that volatile commodity based markets are unlikely to provide the investment framework needed for the long term customer focused partnerships that are at the core of most CHP schemes.

What are the prospects for the development of energy service markets in the domestic, commercial and industrial sectors?

The industrial energy services market is well developed. Well over 50% of all new CHP schemes are installed through forms of energy services contracts which take the capital investment off the balance sheet of the customer. In the case of small scale CHP this is over 75%.

Experience suggests that the commercial energy services sector is considerably less well developed, and this probably reflects the relatively low cost to most commercial tenants of their energy bills and the way in which service charges are raised to commercial tenants on an all inclusive basis.

DETR did conduct a review of the property sector in which the Energy Services Association sought to raise the scope for some pilot schemes to explore the possibility for commercially focused energy services schemes. The Department chose not to progress this.

How can we assess the longer term possibilities for further use of CHP?

The role of CHP to 2010 was assessed by ETSU for the DETR. This work indicated a potential of some 19GWe of CHP. As the current existing target is only 10GWe, this would suggest that to 2020 there is scope to almost double again the use of CHP in the UK.

In advance of this, as the Royal Commission on Environmental Pollution has highlighted, there will be a need to regard heat as a policy and market area in its own right, and, in the light of this, to construct policies designed to stimulate investment in community heating. This will open up the scope for multiple fuel schemes, particularly in relation to biomass. Significantly, in the last major Government study of the scope for such activity, some 35 towns and cities were identified as having potential for CHP. To date only some 4 of these have developed CHP, emphasising the considerable opportunities still waiting to be taken forward.

Ultimately the size and role of CHP will be heavily influenced by the public policy decisions that only Governments can take, and by effective implementation of such decisions across a broad range of policy areas.

What are the prospects for Micro-CHP, and how might that be encouraged.

The potential for domestic (micro) CHP is significant. A number of barriers will need to be addressed, particularly in relation to easing connection at the household.

The challenge for the industry will be to find routes to market that are effective and build consumer confidence in the back up service and support that will be needed.

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