UK Business Council for Sustainable Energy

Submission to

"Microgeneration strategy and low carbon buildings programme: consultation".

On 29 July 2005, through the Council, CEOs representing many of the major energy companies in the UK, along with the Executive Directors of Greenpeace and Friends of the Earth wrote to the Secretary of State for Trade & Industry, Rt. Hon Alan Johnson MP.[1] In this letter, they called for the Government to address a number of key policy areas that would support the move to a low-carbon economy. One such area was microgeneration. The signatories of the letter wrote:

> "Moving towards a more localised energy generation system would support all of the goals in the Energy White Paper: reducing emissions, tackling fuel poverty, maintaining and enhancing security of supply, and fostering competition in energy generation and supply.[2]
>
> However, there are a number of barriers that are preventing both the individual and businesses from investing in such technologies. These range from economic barriers preventing more industries and communities getting the full benefit of CHP systems to householders facing cumbersome planning constraints on their use of a range of microgeneration technologies.
>
> The Government needs to act with consistency and determination to tackle such barriers."

The Council is believes that microgeneration can make a useful contribution to all four goals of the Government's Energy White Paper. This is particularly the case in relation to technologies that are all available in the market place. However, it is essential that the policy drivers and regulatory environment are in place to support the uptake of these and other emerging technologies if the potential for microgeneration is to be realised.

A recent amendment to the Building Regulations has ensured that all new and replacement boilers in homes should be condensing boilers. This single act alone

---

[1] The signatories were: Dr John Roberts CBE, Chairman of the UKBCSE and CEO of United Utilities; Ian Marchant, Deputy Chairman of the UKBCSE and CEO of Scottish & Southern Energy; Charles Berry, Executive Director of Scottish Power; Mark Clare, Managing Director of British Gas; Andy Duff, CEO of RWE npower; Paul Golby, CEO of E.ON UK; Vincent de Rivaz, CEO of EDF Energy; and Nick Winser, CEO of National Grid Company, along with Tony Juniper, Executive Director of Friends of the Earth, and Stephen Tindale, Executive Director of Greenpeace. A full copy of the letter is available on the UKBCSE website: www.bcse.org.uk.

[2] 'Decentralising Power: An Energy Revolution For The 21st Century', Greenpeace, 2005

will save an estimated 0.6 million tonnes of carbon every year.[3] Ultimately it is similar types of bold and practical measures that will lead to a surge in microgeneration uptake, delivering the carbon emission reductions and other objectives in the Energy White Paper.

We are, however, concerned about the stop-go-stop nature of the Government's support for existing microgeneration technologies such as solar PV. The potentially significant hiatus between Clear Skies, the Major PV demonstration programme, and the proposed Low Carbon Buildings Programme does not send the sort of confidence building message that is essential to securing the investment flows that are needed.

General Observations

The Councils understanding is that the draft strategy is aimed at providing opportunities for the introduction of low-carbon generation technologies for single householders. However we strongly believe that a 'whole community' approach must also be considered for any strategy to have a meaningful and substantial impact.

Therefore we recommend that the objective for the Microgeneration Strategy should be to deliver affordable low-carbon heat and power supplies to *communities*, including both domestic and commercial users, as outlined earlier this year in a report by Greenpeace[4], and such as the Mayor of London is committed to achieving. For example, there is significant potential for CHP in community-wide applications, and delivery here will help the Government with the achievement of its existing CHP target.

The strategy also under-emphasises the potential for heat driven applications, such as from the biomass sector. Heat accounts for approximately one-third of UK energy demand, however, there are little or no mechanisms in place as yet to ensure the efficient use of heat. This is not sustainable if the Government wishes to fulfil its ambitions of a 60% cut in carbon emissions.

Similarly, we believe that microgeneration presents a number of opportunities for the small and medium enterprise sector that is absent from the consultation. Energy use and carbon emissions from the SME sector have yet to be tackled consistently through the Government's energy policy initiatives.

The Transition to Long-term Commercial Sustainability

The Microgeneration Strategy and the Low Carbon Buildings Programme consultations are focused on how to better explore the potential for microgeneration. Therefore, the core focus of the strategy must be based around taking these technologies towards long-term commercial sustainability, and the Government's decisions should be considered in this context.

[3] www.defra.gov.uk/corporate/ministers/speeches/b030623.htm
[4] Decentralising Power: An Energy Revolution For The 21st Century, Greenpeace July 2005

A sustainable energy investment framework can perhaps be characterised in three stages: R&D; Market-based Incentives; and, Long-Term Commercial Sustainability.

i) **R&D** – A number of the technologies have moved beyond this phase, although companies continue to invest in R&D to further enhance the performance of existing technologies.

ii) **Market-based Incentives -** These are geared to moving the technology beyond the development phase and to achieving economies of scale. With these incentives, transparent and long-term 'exit strategies' need to be clearly articulated ahead of time to enable business and investors to plan for the transition to long-term commercial sustainability.

iii) **Long-term Commercial Sustainability** – This is the eventual goal, and therefore transparency and clarity about how incentive mechanisms will develop over the long-term is essential. Importantly, the manner of transition from each of the first two stages to the final stage needs to be understood from the outset.

The central point remains that business will invest and innovate in a sustainable energy future provided the Government ensures appropriate incentives and long-term stable and consistent policy frameworks.

Clearly different technologies are at different stages of that transition, and the Strategy and Programme must be sympathetic to this. However, there are some common issues and opportunities, be it at the regulatory, planning, or broader energy policy level, which are faced by all the technologies. Some of these areas are outlined below.

Diversity of delivery

The consultation document omits to consider ways ahead for the deployment of microgeneration (and other localised forms of sustainable energy generation such as CHP) through the medium of private wire networks such as those developed in Woking.

Specifically, the Council understand that DEFRA is due to commission some work in this area shortly, and that this is supported by DTI. One outcome might then be the raising of the local supply level – this itself could be a significantly boost to the viability of micirogeneration by enabling it to it to gain value in the domestic supply market.

Demonstration Effect and Government Procurement

In addition to the obvious benefits in reducing carbon emissions, microgeneration also has an important 'demonstration effect', increasing public awareness of climate change issues, and their energy consumption.

We note that the Government's 'Building Schools for the Future' programme is the biggest single Government investment in improving school buildings for over 50 years.[5] If a range of sustainable and energy efficiency technologies were incorporated into each one of these new school buildings, they would act as a powerful tool in educating future generations about energy use, climate change and science as well as giving today's communities potent symbols of the Governments commitment to tackling climate change.

This would be in addition to the subsequent benefits of reducing energy consumption in those buildings and the incentive it would give to technologies as distinct building controls; to CHP to Solar PV and small wind schemes.

It is essential that the Government demonstrates leadership in tackling climate change by incorporating such approaches, as part of a more wide ranging approach to reducing energy consumption, in the Government Estate and all public buildings. This could start a virtuous circle of increasing volumes that will reduce price and create market confidence, helping to establish a robust supply chain.

Similarly, noting that the Code for Sustainable Buildings will apply to all publicly procured buildings, we believe it is essential that some form of requirement for the full range of sustainable energy technologies needs to be incorporated into the code.

Planning Permission

We believe that the time and costs associated with gaining planning permission for individual installations represent a significant barrier.

One key opportunity to overcome these would be for Permitted Development Order (PDO) status to be granted to appropriate technologies that currently require planning permission. Some local authorities allow certain technologies to qualify, whereas for other authorities, what some feel to be a burdensome process needs to be repeated for every planning permission application.

In addition to applying PDO status, there is an urgent need for improved access to information for planners and policy-makers. We would therefore support the publication and dissemination of a national planning and micro-renewables guide for Local Planning Authorities and homeowners. This could build on the well-received Renewables Toolkit for planners that the Mayor of London's Energy Partnership has produced.

Energy Services

We believe there is much greater potential for energy services, and for microgeneration to become a key component of this offering. Energy is not simply a commodity to be consumed but a service that provides warmth and light. The Council believes that there is still considerable scope for the development of commercial propositions for energy services.

[5] http://www.bsf.gov.uk

However, a business model for the delivery of these services needs to be supported by an enabling regulatory framework. The pilot removal of the 28-day rule is a first step towards this. However, we would urge the DTI and Ofgem to work closely with suppliers to ensure that the existing regulatory provision for 'energy conservation good and services' to appear on the bill to be made full use of...In this way the upfront costs can be paid back through bills over a long period and potentially be offset by tariffs that fully recognise the real value of exported electricity.

Metering

New metering technologies have a key role to play in facilitating the uptake and benefits of microgeneration technologies. In addition to enabling individuals to make informed choices about their energy usage and subsequently to reduce their energy bills, they are an important tool for rewarding the generation and export of electricity from microgeneration.

Such metering options already exist in the suite of 1200 small scale CHP systems that have been deployed across the UK, Their use now needs to spread to smaller embedded technologies.

The Strategy must embrace this opportunity, and deliver steps to fully take advantage of smarter metering technologies.

Low Carbon Buildings Programme

Whilst the Council welcomes this programme, we are concerned that its current lack of definition in the programme could confuse consumers. For instance;

- An effective energy survey is the first requirement for any building in order to assess how best to reduce its carbon footprint – will this be an eligible cost?

- Energy measures may then be needed to reduce the building primary energy demand. Again - will this be an eligible cost?

- If a mixed package of funding is used to cover different aspect of the building (which is quite likely) how will the public programme and public/private split of any resulting carbon savings is split? (See below re EEC).

It may be that the DTI will wish to consider either a broader programme which has clearly packaged measures that are also supported by DEFRA (with a 'one stop shop' delivery agency).

The Energy Efficiency Commitment

We believe that the Government should explore expanding later phases of the Energy Efficiency Commitment (EEC) to include microgeneration technologies.

Microgeneration is a clear demand-side measure contributing to lower energy consumption. Providing the option for suppliers to deliver microgeneration as part of EEC would play an important role in creating market demand and eventually lowering the costs of the technologies.

DTI and DEFRA will need, early on, to ensure that the 'ownership' of the carbon saving that accrues between EEC and any new programmes is clear for the outset. The two-year delay in resolving this important matter (and the delay to schemes that resulted) under the Governments Community Energy Programme must be avoided.

Local Authorities

Local Authorities such as Woking Borough Council and Merton Borough Council have set strong targets for the integration of microgeneration. Given these 'trailblazers', we believe more should be done to share and disseminate the experiences of these Councils so that others can replicate the model. Furthermore, the Government must positively encourage these initiatives, enabling Local Authorities to consider the role of the full suite of local sustainable energy option including microgeneration, and giving them the power to set and deliver local targets.

Accreditation Systems and Databases

Despite the plethora of technologies available, there is no one clear and simple database setting out the microgeneration technologies available and the relevant delivery organisations. Similarly, an accreditation system both for technologies and installers would provide reassurance to consumers purchasing microgeneration technologies.

Although initiatives such as these should be Industry-led, there is a clear responsibility on Government, and agencies such as the Energy Saving Trust, to offer support and expertise so that energy services can take-off and develop.

Cost reductions for DNOs.

As well as reducing the requirement for the central generation of energy and associated carbon emissions, distributed generation like microgeneration has the added benefit of reducing transmission and distribution losses by creating the energy at the point of demand.

A report by the Green Alliance refers to work by the DTI which concludes that micro-generation also overwhelmingly drives network costs down. Although some one-off expenditure by DNOs on optimising network management will be required, the report argues that this is far outweighed by the avoided costs of energy losses from centralised plant, and of reinforcing the network to carry increasing power loads to meet demand.[6] However, DNOs will need to manage their networks

[6] 'A micro-generation manifesto', Green Alliance, 2004

actively, like transmission networks, to accommodate two-way power flows and variable generator infeeds, and we would urge the DTI to work with Ofgem and the DNOs to explore this possibility.

Conclusion

The Council believes that a suite of microgeneration technologies has the potential to make an important contribution to delivering a number of the Governments targets and wider policies.

We are, however, concerned about the lack of clarity in the relationship between the proposed Low Carbon Buildings Programme and other programmes such as EEC and the Community Energy Programme.

We look forward to working with the Government to deliver effective outcomes in this area.