

## **ENERGY EFFICIENCY AND COMBINED HEAT AND POWER**

### **Some further questions**

Date: August 2001

A paper already issued as part of the Resource Productivity study—‘Energy Productivity’ (<http://www.cabinet-office.gov.uk/innovation/2001/resource/agpaper.shtml>) poses a set of initial findings and propositions relating to energy productivity/energy efficiency. That paper had the aim both of providing an exemplification of resource productivity and dealing with prospects for, what is, a key element in energy policy in its own right.

The paper reviewed the barriers to the take up of energy efficiency. These provide the basis for the short-term policy responses that will subsequently be developed. Detailed propositions about the resource gains from energy efficiency were made for the period up to 2010. This period is, of course, already the subject of detailed work within government, as part of the climate change programme. PIU is working with DEFRA and DTI on immediate policy issues: this includes the work being done by DEFRA on the Government’s approach to Combined Heat and Power (CHP). We welcome any further comments on the existing targets for energy efficiency and combined heat and power, and on the policies in place to deliver them.

The PIU’s work will now be extended to the period beyond to fit in with the longer term vision of the development of a low carbon economy over the next 50 or so years. This means that a view needs to be taken about both the extent to which it will be possible to move closer towards the efficiency frontier during the period after 2010, and about the longer-term trend in technological improvements which will serve to improve energy efficiency.

The work which we are doing to identify energy systems which are consistent with the different Foresight Scenarios (see notes on the Resource Productivity web site), will inevitably identify some states of the world as being more propitious to the long-term development of energy efficiency and CHP than others. An important part of our work will be to work back to the present, so that we can identify current actions which are more likely to lead to long-term states of the world which best position us for achieving low carbon targets.

At this stage, the PIU does not intend to publish a further note on energy efficiency, although we expect to update the existing note in the context of the Energy Review, taking account of submissions received and subsequent analysis. We would, however, welcome guidance the approach to be taken to an examination of prospects and policies towards energy efficiency, including combined heat and power, over the longer term:

- Are there any reasons to suppose that the rate of technical change affecting energy efficiency will alter in the longer term?

- Are there any reasons to suppose that barriers to the take-up of energy efficiency which have already been identified will alter in the longer-term?
- What is the expected long-term effect of prices on energy efficiency in each sector?
- How will long term structural change in the economy, for example ‘the knowledge economy’, affect energy efficiency and energy demand?
- 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?
- Are there any policy instruments which could be used to encourage energy efficiency in each of the different sectors which might become available in the longer-term, and which do not form part of current debates?
- What are the prospects for the development of energy service markets in the domestic, commercial and industrial sectors?
- How can we assess the longer term possibilities for further use of CHP?
- What are the prospects for Micro-CHP, and how might that be encouraged. [A PIU note on Micro-CHP will be included in the update of the existing background paper]

It should be noted that there is a separate note on Transport, which deals with efficiency trends in that sector.