

Consultation Response: EEDO Call for Evidence: Energy Efficiency

The Energy Intensive Users Group (EIUG) represents manufacturing sectors such as steel, chemicals, paper, mineral products, glass, ceramics and industrial gases that depend on access to secure, internationally competitive energy supplies to remain in business. Since energy accounts for a high proportion of operating costs in these industries, they naturally have a keen commercial interest in maximising energy efficiency in order to remain competitive. Many products and materials arising from energy intensive processes enable energy and efficiency improvements to be achieved in their end use in other sectors of the economy. EIUG is keen therefore to establish a constructive dialogue with the new EEDO office in pursuit of shared objectives.

Where would you prioritise further Government focus and why?

There is scope for stronger financial support for industrial energy efficiency measures, reducing the payback period which remains the principal yardstick for assessing such expenditure. Subject to state aid constraints, the costs of this could be offset by revenues from environmental taxation. Deployment of existing technologies may be supported by extending capital allowances for energy efficient plant and equipment – additional measures may be needed to support accelerated demonstration of innovative technologies.

How large is the potential for further energy efficiency gains?

Energy intensive industry has progressively improved its energy efficiency over many decades – more so than most other sectors of the economy. It is likely therefore that the scope and scale of significant further improvements in industrial energy efficiency is relatively low compared with what might be achieved in non-intensive manufacturing, service industries and the household sector. Most energy intensive businesses are direct participants in the EU Emissions Trading Scheme (ETS) and/or Climate Change Agreements – others are subject to the Carbon Reduction Commitment – all are subject to the Climate Change Levy. Due to the risk of carbon leakage, many energy intensive sectors have been benchmarked for EU ETS phase III. Much of the potential for further efficiency gains might therefore appear to have been identified, although some of this work has been relatively crude and does not identify what might realistically be achieved for individual products. Opportunities for further savings, based on current technology, are relatively limited and vary from sector to sector. Account should be taken of reductions in consumption from the use of energy saving products, as well as the energy used in their production, when determining the net benefit of energy efficiency measures to the economy as a whole.

What are the costs and other constraints on realising that potential?

Intensive industries have already done much of what can realistically be achieved with existing assets. Opportunities to realise significant further efficiency gains depend on investment cycles, which vary within and between

industries. For some furnaces and other long-lived, capital-intensive plant, this may only arise at intervals of 10-15 years – for others (e.g. blast furnaces, ceramic kilns, etc.) 30 years may be a more representative figure.

Within the context of the existing and forthcoming UK policy framework, what lessons do you think we can learn from other countries to help us further overcome these barriers?

UK energy and climate policy to date has been overly focussed on measures that raise the price of energy to consumers – including energy intensive industries highly exposed to international competition. Whatever the theoretical merits of internalising the social cost of carbon emissions, whether through tax or carbon trading, rising UK energy costs are now increasing seen as a deterrent to industrial investment, rather than a spur for achieving greater energy efficiency. Policies which directly or indirectly add to the global increase in fuel prices are now merely reducing UK manufacturing industry's ability to invest in research and development and new technology.

Government should take heed of the measures taken in Germany and elsewhere in Europe to ensure national climate and energy policies do not compromise the competitiveness of their energy intensive manufacturing. Revenues raised from energy taxation could offset the cost of accelerating the uptake of industrial energy efficiency measures and in longer term research and development of more innovative technologies. It is vital that there is a constructive relationship between industry and government if such interventions are to succeed, and there are examples from elsewhere in Europe (e.g. Germany) which may usefully be studied. In particular, industrial policy should recognise the importance of supply chains and the interdependence of intensive and less intensive industries.

Can you provide examples of barriers to further uptake of third party finance solutions and examples of third party finance solutions, internationally or in the UK, that overcome the barriers to further uptake?

Funding opportunities could arise in such areas as cogeneration or district heating schemes, where obvious barriers would be the local planning process and environmental legislation.

Of what empirical evidence are you aware that looks at the effectiveness of specific interventions relating to energy behaviours in the domestic and non-domestic sectors?

There is some evidence of useful intervention in industrial energy efficiency through the Carbon Trust, although the record is mixed. It is important that support for industrial projects is available right through to commissioning, not simply confined to assessment and project identification.

A number of EIUG members strongly support the recent changes to Building Regulations (Part L) promoting energy efficiency for new build and major

refurbishment. Grants to encourage the use of energy efficient loft and cavity wall insulation have proved effective and there could be scope for these and similar initiatives to be widened.

What if anything should DECC do to incentivise such process efficiency?

Resources in industry may be freed up by reducing the administrative burden of staff complying with environmental legislation, allowing time to work on energy efficiency implementation measures. Consideration should be given for a more formal link between support measures for industrial energy efficiency and revenues from taxes such as the Climate Change Levy and the auction of EU ETS allowances (where state aid allows). We note that there is, as yet, no 'green deal' for manufacturing.

What else should DECC do to deliver permanent, additional reductions in UK electricity demand to enable cost-effective achievement of carbon targets? Why should DECC do this?

Deployment of onsite renewable generation is possible at some industrial sites, however high capital outlay, payback periods, limited supply and intermittency are barriers for onsite use. Obtaining planning permission may also be a problem in some instances. More could be done to ensure that support for renewables is also of benefit to industry. Changes to environmental legislation (e.g. the Industrial Emissions Directive) may actually lead to increases in onsite energy consumption.

What methods might be used to achieve this?

Evidence could be gathered comparing unit production costs in of companies that have successfully deployed energy reduction measures with those that have not. However, gathering such commercially confidential information may prove problematic.