

An Energy Tax to Promote Green Heat

The impact of burning carbon-based fuels on climate change is now widely accepted and the need to reduce fossil fuel use has been acknowledged as a priority for Government. This paper sets out the potential contribution that Green Heat can make to the shift away from fossil fuels and summarises the case for a broadly based energy tax.

Promoting Renewable Energy

Until now, most of the Government's efforts to promote renewable energy have been focused on the electricity sector. These include the Renewables Obligation (RO), which obliges electricity suppliers to seek to supply a rising percentage of electricity from green sources. Electricity generators are awarded RO Certificates which can be traded.

However, renewable sources eligible for the RO account for 3.5 per cent of electricity generation in the UK, but less than one per cent of total energy use. This is because electricity accounts for less than a third of total energy use, the other uses, which each account for a further third of the total, being:

- a) transport and
- b) heating used in domestic and business premises (both space heating and heat used in industrial processes)

European legislation on transport fuels will begin to have some effects soon in that sector, but there has been no progress at all so far on heat. Thus efforts to achieve the UK's Kyoto targets for the reduction in carbon emissions are bound to be limited in impact.

Biomass as a Source of Green Heat

More attention is now shifting towards the use of fuels for heating as a sector where there is potential to reduce fossil fuels. The sector is currently dominated by gas and oil used in boilers. The main alternative sources of heat are:

- Biomass – burning wood and related products
- Solar and geothermal energy
- Waste heat from electricity generation

The Royal Commission on Environmental Pollution has highlighted the potential for biomass as a source of heating, which it suggested had been overlooked in Government policies focusing on renewable electricity generation.

Mechanisms for Reducing Fossil Fuels Used In Heating

The Government's main policy to reduce the use of fossil fuels for heating has been the Climate Change Levy, (CCL) introduced in 1999. This imposes a tax on energy based on the carbon content of the fuel, but there are two very significant exemptions that have limited the impact of the CCL:

- 1 it is applied to business and public-administration users of fossil fuels **but not to residential users**, and
- 2 **mineral oil is exempt**, in spite of its carbon content, on the basis that it is part of the excise duty regime. However, heating oil (as opposed to the “red diesel” used for farm tractors and some machinery) is subject to zero-rate duty.

A Green Heat Obligation?

Some of those who wish to reduce the use of fossil fuels for heating have advocated a Green Heat Obligation, broadly similar to the RO for electricity, as a way of encouraging the take up of alternative. A Heat Obligation (HO) would require suppliers of heat (gas, oil and electricity) to provide a given percentage of their heat from renewable sources by a set date.

This proposal has been supported by the Royal Commission on Environmental Pollution and taken up by a number of green groups.

There are however serious problems both of principle and of practicality in a HO.

The concern in principle is that the underlying objective is not to promote the use of Green Heat for its own sake, but to displace the use of fossil fuels. The danger with a HO is that it could encourage people to use Green Heat without reducing their use of fossil fuels or, crucially, improving the efficiency with which they use their energy. The objective should therefore be to promote the use of Green Heat while encouraging people and businesses to use all forms of energy more efficiently.

The practical problem arises because, unlike the electricity supply market, where there are a small number of companies licensed by OFGEM to whom the RO can be applied, the market for heating fuels is extremely diverse with many thousands of suppliers and millions of generators that would have to be licensed by OFGEM for these purposes. There would be significant costs of investment and policing to ensure that the heat output of these fuels in literally millions of homes and business premises was being accurately measured and reported.

A Market Based Mechanism to Promote Green Heat and Energy Efficiency

What is needed therefore is not a targeted measure to increase the use of particular forms of renewable energy, but a broad market-based mechanism

- to give incentives to people to use energy more efficiently, balancing their costs of energy against the costs of energy-saving measures, and
- to ensure that appropriate incentives apply to all forms of renewable energy – heat as well as electricity.

A broadly-based energy tax, based on the carbon content of the fuel, would meet these objectives. Such a tax could be introduced either through the VAT mechanism or by extending the existing CCL

- to include mineral oil and
- to extend it to residential users

It has to be recognised, however, that it would be difficult to secure the support of stakeholder groups and the wider public without measures to support investments in energy efficiency and to ensure that residential users, and low-income groups in particular, do not lose out.

Part of the proceeds of the energy tax could be used to reduce the capital costs of approved equipment so that consumers can install energy-efficient measures such as Green Heat devices. Another part of the proceeds could be used to make special arrangements for the fuel poor and other disadvantaged groups.

The balance of the proceeds should be recycled *per capita* to taxpayers. In the case of residential taxpayers, this could be done through the Council Tax mechanism and, for commercial businesses and industry, it should be achieved through the Business Rates mechanism.

In parallel with extending energy taxation to include mineral oils and residential users, it will be important to increase the level of taxation to ensure that it creates real incentives for people to switch energy use and to use energy more efficiently. The impact of these increases, however, will be mitigated by the recycling mechanism, support for energy-efficiency investments and relief for the fuel poor. The effect will be to rebalance people's spending priorities so as to give greater consideration to their energy consumption.