

# FINANCING HOME ENERGY EFFICIENCY IMPROVEMENTS<sup>1</sup>

Some options for the financing of energy efficiency improvements are outlined, including 'grandfathering for citizens'.

Greenhouse gas emissions (principally Carbon Dioxide) from home energy consumption constitute around one fifth of UK emissions. These emissions are not covered by the EU emissions trading scheme, nor are they currently highly taxed.

There are a number of things necessary in order to make energy efficiency improvements.

- Carbon or energy taxation.
- Financing of energy efficiency improvements; where interest payments are linked to future price increases.
- Make energy efficiency schemes 'opt-out' not 'opt-in';
- In tenant-landlord situations, sharing of savings between principal and agent.

Here we focus on Carbon taxes and discuss options that could be politically feasible. Stronger incentives for carbon price reductions are needed. In particular, an incentive to switch from high-carbon to low-carbon supplies seems important in order to scale up low carbon electricity generation effectively. A carbon tax provides both such incentives. There appear to be political barriers to higher fuel prices expressed as fuel poverty concerns. In the UK, an earlier attempt to impose full-rate VAT on this sector was defeated politically, and domestic energy consumption currently enjoys a lower rate of VAT of 5%. This document sets out a proposal to impose a fixed carbon price that would be directly refunded by household, according to historical usage. We propose an upstream carbon price on all domestic energy consumption, proportional to carbon content. The revenues would be immediately refunded by property, proportionally to use of fuel in a historical period, likely the tax years 2008-9 & 2009-2010.

It is argued that this 'grandfathering' would be more justified in the case of taxes on domestic energy consumption than it would be in the case of emissions trading schemes, since the economic burden of carbon taxes would fall largely on individuals. The scheme would have the advantage of not making particular individual worse off, and is argued to be more politically viable than schemes that either put receipts for carbon taxes into the general purse, or those that give back taxation receipts to individuals on an equal per capita basis.

Given that the incidence is on the householder/ the landowner; we will expect a lower rate of council tax, if you move it into full council tax. Therefore an alternative to the above scheme would be a voluntary switch to a higher rate and allow people to opt in. The scheme could expand virally. How much extra you pay if you were paying the higher rate. This would give all the incentive of a high carbon tax. without paying a larger cost.

## UK Average Energy Bills:

| Payment type          | Credit  |      | Direct Debit |      | Prepayment |      |
|-----------------------|---------|------|--------------|------|------------|------|
|                       | per kWh | Bill | per kWh      | Bill | per kWh    | Bill |
| GAS Great Britain Avg | 2.63p   | £474 | 2.36p        | £424 | 2.77p      | £498 |
| ELECTRICITY UK Avg    | 10.24p  | £338 | 9.48p        | £313 | 10.88p     | £359 |

Source of Stats: <http://www.dti.gov.uk/energy/statistics/publications/prices/index.html>

**Average Size of UK Household: 2.36people**

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