

DOMESTIC RHI – RATE OF RETURN ASSESSMENT – DfE INTERNAL AUDIT

The IA assessment is based solely on 2009 SAP fuel prices but does not factor in the additional operational expenditure and barrier costs associated with biomass pellets. When these costs are included there is in fact no return on the initial capital outlay.

In the example quoted by IA an annual heat requirement of **22,938kWh** is used.

Background data

Oil currently £297 for 1000 litres which equates by standard conversion to 2.73 p/kWh (1 litre = 10.85kWh)

Pellets currently £250/tonne,(bagged)which equates by standard conversion to 5.21 p/kWh (1 tonne =4800kWh).

Net fuel cost = 2.43p/kWh

Net annual fuel cost £577 (22,938 x 0.0243)

Net annual operational cost difference £43, (from CEPA report)

Total additional costs for bagged pellets against oil £600 (£557 + £43)

Barrier costs of £1043 as per CEPA report also have to be factored in.

Worked Example

Annual incentive = 22,938 x 0.057 = £1,310

Annual return (net of additional biomass pellet costs) = £1,310 - £600 = £710

Upfront payment = £2,500

Barrier costs = £1,043

7 year total return

$£2,500 + (7 \times £710) - £1,043 = £6,427$

Capital outlay (biomass boiler cost less cost of comparable oil boiler) = £9,429 - £1,800^a = £7,629

Assessment

Thus when barrier costs, additional fuel and operation costs are factored in there is no rate of return on the £7,629 initial investment. This is reflective of low oil prices at present and it is recognised that this could change over the 7 year lifetime of the scheme.

^a £1,800 cost for oil boiler based on DfC figures for its Boiler Replacement Scheme