

# Renewable Heat Incentive (RHI)

## Media Briefing

01 February 2010

Consultation proposals were launched today. The scheme will start in April 2011.

### How will the RHI work?

The RHI will pay a fixed amount per year to those who install renewable heat equipment, such as solar water heating panels, heat pumps or woodfuel boilers. Payments will be made either on the exact amount of heat produced, or on the amount it is anticipated the installation will provide. The former requires the heat production to be metered (this can easily be done, just as electricity and gas are metered). The latter pays according to an estimated or “deemed” output.

The payment will be fixed and will last between 10 – 23 years, depending on the technology. See the table below.

Unlike the FIT, for which the maximum size of installation is 5 megawatts, the RHI will apply to heat installations of any size. There is no upper limit.

Tariff Levels for Renewable Heat Incentive			
Technology	Scale	Tariffs (pence/kWh)	Tariff lifetime (years)
Small Installations			
Solid biomass	Up to 45kW	9	15
Biodiesel	Up to 45kW	6.5	15
Biogas on-site combustion	Up to 45kW	5.5	10
Ground source heat pumps	Up to 45kW	7	23
Air source heat pumps	Up to 45kW	7.5	18
Solar thermal	Up to 20kW	18	20
Medium Installations			
Solid biomass	45kW-500kW	6.5	15
Biogas on-site combustion	45kW-200kW	5.5	10
Ground source heat pumps	45kW-350kW	5.5	20
Air source heat pumps	45kW-350kW	2	20
Solar thermal	20kW-100kW	17	20
Large installations			
Solid biomass	500kW and above	1.6 -2.5	15
Ground source heat pumps	350kW and above	1.5	20
Biomethane injection	All scales	4	15

### What Payment Rates are Proposed and what technologies qualify?

The payments under the RHI should result in a 12% rate of return. This is higher than for feed in tariffs for the following reasons:-

- The UK needs high growth rates for renewable heat technologies
- There can be a “hassle factor” involved in fitting some technologies (e.g. digging up a trench in the garden for the heat exchanger for a ground source heat pump) – the payment covers these costs and compensates users for overcoming any of these “non-financial barriers”.



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It does not support domestic woodburning stoves or open fires. While there is no limit on the size of installations for renewable heat, heat needs to be locally generated as it cannot be cost-effectively transported long distances.

The UK's huge organic waste resource (over 100 million tonnes) can be transformed into valuable revenue, and turn landfill disposal costs (currently £50 per tonne) into income for local councils.



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## Renewable gas

An alternative way of delivering renewable heat to users, is to convert biomass such as food wastes, other wastes or energy crops, into "biomethane" and put it into the gas mains. This will mean that the UK's gas supply can be increasingly decarbonised.

Biomethane is chemically identical to fossil fuel gas (such as North Sea Gas or imported natural gas from Russia, for example).

This biomethane can be produced from biomass materials, either through anaerobic digestion which produces biogas, which can then be cleaned up to produce biomethane; or by cleaning up "syngas" from gasification units running on biomass.

Biomethane producers will be paid 4p for every kilowatt hour that is injected into the gas mains, for 15 years. The payment level for larger schemes is not yet determined.

## How much renewable heat will the RHI deliver and who pays?

The UK's renewable heat industry currently makes up just 0.6% of the UK's heat market. Under our European renewable energy target of 15% renewable energy by 2020, the RHI proposals launched today anticipate delivering 12% of the UK's heat from renewables by 2020. Electricity is expected to contribute around 30% and transport biofuels 10%.

The UK faces the most challenging renewable energy target in Europe and cannot afford delays.

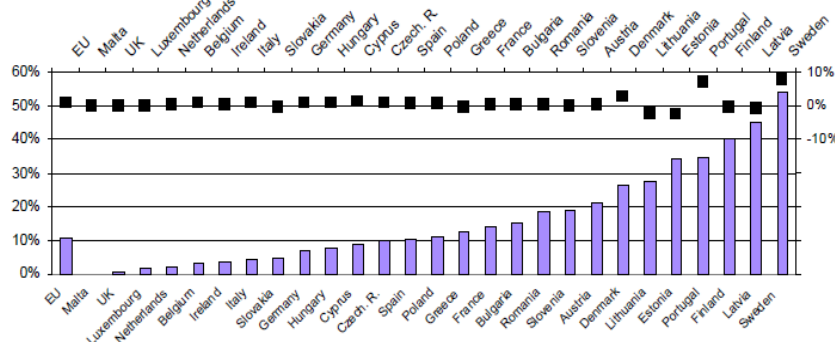
It is proposed that the scheme will be paid for either through general taxation or by raising a levy from sales of gas and other fuels used for heating. This will be consulted upon.

Fuel poverty is concentrated in rural off-grid areas, meaning that these homes stand to benefit most from a far greater choice in affordable heating sources.

## What is the purpose of the RHI?

For the first time, the RHI will offer a comprehensive framework of support for renewable heat in the UK. This is urgently needed as heat is the biggest use of energy in the UK, supplied predominantly by fossil gas. Heat accounts for 47% of the UK's CO2 emissions. Across Europe the UK has the lowest contribution of renewable heat of all EU countries except Malta (on zero). By comparison over half of Sweden's heat energy is supplied by renewables. The EU average is over 10%. (Eurostat).

The share of renewable energy in the heating sector in 2006 (columns and left hand axis) and the (stagnant) growth between 2004 and 2006 for all but three Member States (points, right hand axis).



Source: Eurostat

See the European Commission Renewable Energy Progress Report, 24/04/2009 - follow this link.

The UK may have made little progress on renewable heat so far, but the RHI proposals are an exciting world first. Such tariff payments are not developed in other countries, and are strongly supported by the UK renewable industry and heat users. The policy should for the first time give a long-term stable framework, giving the industry confidence to expand so that renewable heat becomes a mainstream option for all types of heating requirement.

## Many UK benefits of a strong RHI

Renewable heat means greater energy security for the UK at a time when a business-as-usual scenario will leave the UK dependent on imports for 80% of its natural gas requirement by 2020. The UK's entire Renewable Energy Strategy, covering heat, electricity and transport is estimated to reduce fossil gas imports by 20-30% by 2020. Renewable heat will play a major role in this reduction. The technologies involved are proven and available, and in most cases have been used for many years. The great diversity of renewable heat technologies means that renewable heat can work in almost any situation, making it an attractive option for the 2 million homes off the gas grid, where heating options are more limited and more expensive.

Renewable heat avoids emissions associated with the generation of heat energy from fossil fuels. Organic waste streams offer the greatest environmental benefit of all renewables by transforming problematic wastes that can give off methane if left untreated, into energy<sup>1</sup>, including heat.

The increasing demand for sustainable woodfuel will also provide an incentive for active investment and management of UK woodlands, allowing for greater biodiversity.

Ambient technologies like solar thermal are already popular and make up the great majority of micro renewable installations in the UK today. The RHI will make these technologies more affordable, bringing down costs over time.



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<sup>1</sup> Methane is a greenhouse gas 23 times more powerful than CO<sub>2</sub>. The UK produces over 100million tonnes of organic materials every year that can be used to produce biogas. Sources include agricultural slurry (90 million tonnes), food wastes and sewage.