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Feed in Tariffs programme and Renewable Heat Incentive scheme



There are two significant incentives for customers to invest in renewable energy technology in the UK currently: (i) the UK Government's **Feed In Tariffs** programme to support small scale renewable electricity generation, and; (ii) the **Renewable Heat Incentive** scheme.

The Renewable Heat Incentive (RHI) scheme relates to renewable heating installations carried out as of **15th July 2009**, and will be available across England, Wales and Scotland. Further details on this scheme will be provided shortly.

UK Government Feed In Tariffs – Wind Turbines and Solar PV Systems

On April 1st 2010, the UK Government launched its Feed In Tariffs (FITs) programme, which provides support for small scale renewable electricity generation in England, Wales and Scotland.

The FITs programme effectively replaces the Low Carbon Buildings Programme (LCBP) grants, which have since been discontinued.

The following renewable energy generation technologies are eligible for support as part of the scheme:

- (i) Wind turbines;
- (ii) Solar photovoltaic (PV) systems;
- (iii) Hydro systems;
- (iv) Domestic scale combined heat and power (2 kW or less) – up to 30,000 units (Pilot Scheme);
- (v) Anaerobic digestion.

Tariff levels – Wind turbines

Technology	Size/Scale	Tariff year 1 (Pence/kWh)	Tariff length
Wind turbine	< 1.5 kW	34.5	20 Yrs
Wind turbine	> 1.5 - 15 kW	26.7	20 Yrs
Wind turbine	> 15 - 100 kW	24.1	20 Yrs
Wind turbine	> 100 - 500 kW	18.8	20 Yrs
Wind turbine	> 500 kW - 1.5 MW	9.4	20 Yrs
Wind turbine	> 1.5 MW - 5 MW	4.5	20 Yrs

Tariff levels – Solar PV systems

Technology	Scale	Tariff year 1 (Pence/kWh)	Tariff length
Solar PV – retrofit (existing property)	< 4 kW	41.3	25 Yrs
Solar PV – new build	< 4 kW	36.1	25 Yrs
Solar PV – retrofit (existing property)	> 4 - 10 kW	36.1	25 Yrs

This programme is the UK Government's new support mechanism for renewable energy generating technologies, less than 5 MW in size. As part of this scheme, "Generators":

- (i) Receive a fixed amount for each kW they generate – **Generation Tariff** – regardless of how that electricity is used;
- (ii) Receive an additional fixed payment per kW exported to the grid – **Export Tariff**;
- (iii) Benefit from savings on electricity costs when the electricity they produce is used within their own property – **Electricity Cost Savings**.

Installations carried out as of **15th July 2009**, are eligible to benefit from the full Tariff Payment Structure. Payments will be made from the Electricity Supplier to the "Generator" for every kilowatt hour (kW) of electricity generated and a guaranteed minimum payment for every kW exported to the wider electricity market.

In order to be eligible for the Feed In Tariffs programme, customers ("Generators") must ensure that the product they are installing is certified by the Microgeneration Certification Scheme (MCS), and that the installer is also MCS certified.

UK Government Feed In Tariffs – Proposed Tariff Levels

The proposed **Generation Tariffs** are presented in the tables opposite. Payments are index-linked and guaranteed for 20 or 25 years, depending on the technology. Some of the payments vary slightly over that period.

Existing microgenerators (installed **prior** to 15th July 2009) will be paid 9 pence/kWh, assuming that certain conditions have been met with regard to the installation. The Export Tariff is proposed to be set at 3 pence/kWh exported back to the grid, as standard for all installations.

Apart from the Feed In Tariffs associated with wind turbines and solar PV systems, the following Tariffs are available for Hydro and Micro CHP systems:

- (i) Hydro systems (< 15 kW) – 19.9 pence/kWh;
- (ii) Micro CHP pilot (< 2 kW) – 10.0 pence/kWh.

Renewable Heat Incentive scheme (RHI)

In its Renewable Energy Strategy (RES), published on 15 July 2009, the UK Government set out its path towards achieving its target of 15% of overall energy consumption in the UK to come from renewable sources, by 2020.

Clean Energy Cash-Back

"Clean Energy Cash-Back" (otherwise known as the Renewable Heat Incentive) encourages individuals, communities and others who are not professionals in the energy business, to play their part in bringing forward renewable energy, by providing a financial incentive to switch from using fossil fuels for electricity and heat, to renewable technologies and sources. The Energy Act 2008 provides the statutory basis for a Renewable Heat Incentive scheme to be introduced across England, Wales and Scotland.

The Renewable Heat Incentive (RHI) will be formally launched in **June 2011**, and will remain open to new projects until at least 2020. However, eligible installations completed **after 15 July 2009**, but before the start of the RHI, will also be allowed to benefit from the scheme, as if they had been installed on the date of its introduction (June 2011).

Renewable Heat Incentive – Eligible Renewable Technologies

The following renewable technologies are eligible for the Renewable Heat Incentive:

- 1/** Heat pumps;
 - (i) Air source heat pumps
 - (ii) Ground source heat pumps
 - (iii) Water source heat pumps
- 2/** Solar thermal panels (flat plate and evacuated tubes);
- 3/** Biomass boilers such as wood pellet, wood chip and multi-fuel;
- 4/** Renewable combined heat and power (CHP);
- 5/** Technologies such as the use of biogas, biomethane and bioliquids.

A series of tables with the proposed tariffs for small, medium and large installations is presented opposite:

Renewable Heat Incentive tariffs – small installations

Technology	Scale	Proposed tariff (Pence/kWh)	Deemed or Metered	Tariff length
Solid biomass	< 45 kW	9	Deemed	15 Yrs
Ground source heat pumps	< 45 kW	7	Deemed	23 Yrs
Air source heat pumps	< 45 kW	7.5	Deemed	18 Yrs
Solar thermal	< 20 kW	18	Deemed	20 Yrs

Renewable Heat Incentive tariffs – medium installations

Technology	Scale	Proposed tariff (Pence/kWh)	Deemed or Metered	Tariff length
Solid biomass	45 - 500 kW	6.5	Deemed	15 Yrs
		2 (Fuel Tariff)	Optional: for metered kWh above deemed number of kWh	15 Yrs
Ground source heat pumps	45 - 350 kW	5.5	Deemed	20 Yrs
Air source heat pumps	45 - 350 kW	2	Deemed	20 Yrs
Solar thermal	20 - 100 kW	17	Deemed	20 Yrs

Renewable Heat Incentive tariffs – large installations

Technology	Scale	Proposed tariff (Pence/kWh)	Deemed or Metered	Tariff length
Solid biomass	> 500 kW	1.6 - 2.5	Metered	15 Yrs
Ground source heat pumps	> 350 kW	1.5	Metered	20 Yrs

Payments made as part of the RHI scheme will be claimed by, and paid to, the **Owner** of the equipment. For small and medium sized installations, both the **Product** (equipment) and **Installer** will need to be certified under the Microgeneration Certification Scheme (MCS), in order to ensure quality assurance and consumer protection.

Payments will be paid over a number of years (please refer to table on previous page); annually for installations below 45 kW and quarterly for those above this level.

Renewable Heat Incentive - Tariff Levels

The Tariff levels of the RHI scheme have been calculated to bridge the financial gap between the cost of conventional (fossil) and renewable heating systems of all scales. There is additional compensation for certain technologies for an element of the non-financial cost (e.g. the inconvenience of digging up a garden to install a ground source heat pump).

Tariff levels have been proposed to provide a rate of return of 12% on the additional capital cost of many of the renewable systems, with a lower rate of return of 6% given to solar thermal.

Renewable Heat Incentive - Payments

Payments will be calculated based on the annual amount of heat output, expressed in kilowatt hours (kWh). For small and medium installations, the amount of heat generated by the equipment will be estimated (or "Deemed"). This will allow the beneficiary of the Incentive to receive a set amount based on the deemed output, while discouraging any excess production or energy waste.

For large installations and process-heating, the heat output will be metered, and the total annual support calculated from the actual energy generated, multiplied by the tariff level.

The RHI scheme will be administered by Ofgem, including making incentive payments to recipients and taking responsibility for auditing and enforcing the scheme. The Department of Energy and Climate Change (DECC) will work with Ofgem to devise a simple process for accrediting smaller installations, to ensure that standards are met and payments can be made.

Further Updates

The details with regard to how the RHI scheme will be financed will be clarified prior to the launch of the scheme in **June 2011**. It is expected that financing measures will include the following:

- (i) Levy on fossil fuel (oil/gas) supply companies;
- (ii) Levy on fossil fuel (oil/gas) customers (domestic and/or commercial).