

# Renewable Heat Incentive



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March 2011

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# What, Whys and wherefores of RHI

Phase	Domestic	Non-Domestic
Phase 1 – Summer 2011	Premium Payments	RHI Tariff support
Phase 2 – Autumn 2012	RHI Tariff support and Green Deal	

- **Any eligible project commission on or after the 15<sup>th</sup> July 2009 will be able to apply for payments.**
- **Domestic projects can apply for premium payments from July 2011.**
- **Schemes granted premium payments will still be eligible for RHI support when it is introduced.**

# What, Whys and wherefores of RHI

Likely levels of Premium Payments	
Solar Water Heating	£300.00
Air Source Heat Pumps	£850.00
Biomass Boilers	£950.00
Ground Source Heat Pumps	£1250.00

# Scheme details

- Currently £860 million set aside to pay for RHI.
- Scheme to be administered by Ofgem
- To qualify for funding owner will have to apply to ofgem.
- Scheme will then be assessed for eligibility.
- Owner will have to agree to certain ongoing obligations.
- Ofgem will monitor scheme to ensure ongoing compliance.

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## Applications

- Location,
- Details of fuels to be used,
- Type of heating owner switching from.
- MCS certification of installer and equipment.
- Application to be made directly by the owner of the system.
- Preliminary accreditation route to will be available.

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## Eligibility

- A new heat requirement, or replacing an existing system.
- Acceptable heat use,
- Eligible technology or fuel,
- Metering arrangements.

## Obligations

- Fuel types,
- Regular maintenance,
- Monitoring.

# Tariffs and Financing

Levels of support					
Tariff name	Eligible technology	Eligible sizes	Tariff rate (pence/kWh)	Tariff duration (Years)	Support calculation
Small biomass	Solid biomass; Municipal Solid Waste (incl. CHP)	Less than 200 kWth	Tier 1: 7.6 Tier 2: 1.9	20	Metering Tier 1 applies annually up to the Tier Break, Tier 2 above the Tier Break. The Tier Break is: installed capacity x 1,314 peak load hours, i.e.: <b>kWth x 1,314</b>
Medium biomass		200 kWth and above; less than 1,000 kWth	Tier 1: 4.7 Tier 2: 1.9		
Large biomass		1,000 kWth and above	2.6		
Small ground source	Ground-source heat pumps; Water-source heat pumps; deep geothermal	Less than 100 kWth	4.3	20	Metering
Large ground source		100 kWth and above	3		
Solar thermal	Solar thermal	Less than 200 kWth	8.5	20	Metering
Biomethane	Biomethane injection and biogas combustion, except from landfill gas	Biomethane all scales, biogas combustion less than 200 kWth	6.5	20	Metering

- Funding is to come from general taxation and not energy companies.
- Payments made quarterly over a period of 20 years
- Fee is paid on heat generated.
- Tiered calculation for smaller systems to prevent waste heat.
- Tariff is fixed for 20 years.
- Up take of technologies to be monitored and tariffs adjusted accordingly.

# Solar Thermal

A typical solar installation of 4kW or 4m<sup>2</sup>

So a 4kW system produces 4320 kWh/year

Earns £367.20/year (4320kWh@8.5p)

Saving for fuel replaced;

Mains Gas @3p/kWh = £129.60

LPG / Oil @5p/kWh = £216.00

So total saving is; £583.20 for LPG or £496.80 for mains gas

Payback time of 8 ½ to 10 years.



# Biomass – Log Burner

25kW Log batch boiler £3769 (Thermal store 2000ltr = £2095)

RHI Allowance Under Tier 1 is 32 850kWh/yr @7.6p = £2496.60

Fuel required is approx 25m<sup>3</sup> is £1125/yr

RHI earnings = £1371.60

Savings for fuel replaced;

Mains gas @3p/kWh = £985.5

LPG / Oil @5p/kWh = £1642.5

So total saving is £2357 for Gas and £2628 for LPG

Payback time of between 2 ¼ and 2 ½ years.



# Biomass – Pellet Boiler

14kW Pellet Boiler and integral hopper £4499.00

RHI allowance Tier 1 is 18 396kWh/yr @7.6p = £1398.1

Tier 2 @1.9p/kWh = 14 454kWh = £624.15

Fuel required for 32 850kWh = 6989kg/yr = £1747/yr

RHI earnings = £275/yr

Savings for fuel replaced

Mains gas @3p/kWh = £985.5

LPG / Oil saving @5p/kWh = £1642.5

Total saving for gas is £1260 and £1917 for oil and lpg

Payback time of between 3 ½ and 2 ¼ years



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## Questions