



Department
of Energy &
Climate Change

Renewable Heat Incentive and Renewable Heat Premium Payments quarterly statistics, September 2013

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Executive summary

This quarterly publication provides a summary of the deployment of renewable heat technologies under the Non-Domestic Renewable Heat Incentive (RHI) and Renewable Heat Premium Payment (RHPP) householder voucher schemes. Statistics are reported on the number of full applications, accredited installations and capacity installed. The amount of heat generated is also reported for RHI installations. Figures are given by region, month and technology where appropriate.

The statistics are based on data collected as part of the application process for each scheme. Some RHI applications and RHPP issued and claimed vouchers have not been through all checks within the application process so applicants may not meet all eligibility requirements of each scheme and as such figures are subject to change.

Non-domestic RHI

- As at 30 September 2013 there were 3,274 full applications (i.e. installed renewable heating systems). Of these applications 2,395 were accredited and were eligible for tariff payment, with 1,673 of these accredited schemes having received a payment.
- Over three quarters of the applications and accreditations were for small solid biomass boilers (< 200 kW). Overall 92 per cent of full applications have been for biomass boilers.
- Total capacity for the full applications was 712 MW, of which 503 MW of capacity was for accredited systems.
- Accredited installations on the RHI scheme had generated 446 GWh of heat, 95 per cent of which was generated from biomass boilers.

RHPP householder voucher schemes

- As at 30 September 2013 16,907 vouchers had been issued under the Renewable Heat Premium Payment voucher schemes, of which 11,694 had been redeemed. Phase 1 and Phase 2 each had over 7,000 applications and over 5,000 redemptions. The Phase 2 extension has so far seen 2,418 vouchers issued and 1,149 claimed.
- Solar Thermal and Air Source Heat Pumps combined accounted for two-thirds of redeemed vouchers in Phase 1, three-quarters of redeemed vouchers in Phase 2 and three quarters of claimed vouchers in Phase 2 extension to date.
- Around 106 MW of capacity has been supported under the schemes, of which 51 MW was in Phase 1, 47 MW in Phase 2 and 9 MW in Phase 2 extension to date.
- Air source heat pumps account for just under half of the total capacity in each Phase (43 per cent, 50 per cent, and 49 per cent in Phase 1, Phase 2 and Phase 2 extension respectively).

Non-domestic Renewable Heat Incentive (RHI)

Introduction

The Non-Domestic RHI Scheme supports renewable heat installations in business, industry and the public sector as well as district heating schemes for domestic properties. It has been open for applications since 28 November 2011. The scheme supports a range of different technologies including biomass boilers, heat pumps, solar thermal, biogas and bio-methane injected into the gas grid. For further details on the RHI scheme please refer to Appendix 1.

Applications and accreditations

As at 30 September 2013 there were 3,274 full applications. Of these applications 2,395 were accredited and generating heat eligible for tariff payment. Over three quarters of the applications and accreditations were for small solid biomass boilers (< 200 kW). Overall 94 per cent of full applications have been for biomass boilers.

Preliminary applications or accreditations are a very small proportion of all applications. They make up just two per cent of all applications and nine per cent of installed capacity. A preliminary application or accreditation is only available for medium or large biomass and biogas or geothermal installations that are not yet built. An applicant may wish to apply for preliminary accreditation because it gives reassurance that once the proposed installation is built and the owner applies full accreditation would be granted so long as the installation is built in line with the submitted plans and all other conditions are met.

Table 1.1: Number of applications and accreditations by technology¹, 30 September 2013.

Tariff Band	Full applications		Accredited installations		Capacity of full applications (MW)		Capacity of accredited installations (MW)	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Small solid biomass boiler (< 200 kW)	2,498	76%	1,868	78%	274.1	38%	202.4	40%
Medium solid biomass boiler (200-1000 kW)	477	15%	365	15%	254.9	36%	195.7	39%
Large solid biomass boiler (> 1000 kW)	22	1%	15	1%	171.2	24%	99.5	20%
Small water or ground source heat pump (< 100 kW)	125	4%	64	3%	3.6	1%	1.8	0%
Large water or ground source heat pump (> 100 kW)	12	0%	7	0%	5.4	1%	2.4	0%
Solar thermal (< 200 kW)	129	4%	74	3%	2.1	0%	1.0	0%
Bio-methane	5	0%	1	0%	-	-	-	-
Biogas	6	0%	1	0%	0.9	0%	0.2	0%
Total	3,274		2,395		712.1		503.1	

¹ A full application and an accredited installation are not mutually exclusive i.e. once a system has become accredited; it is counted as both a full application and an accredited installation.

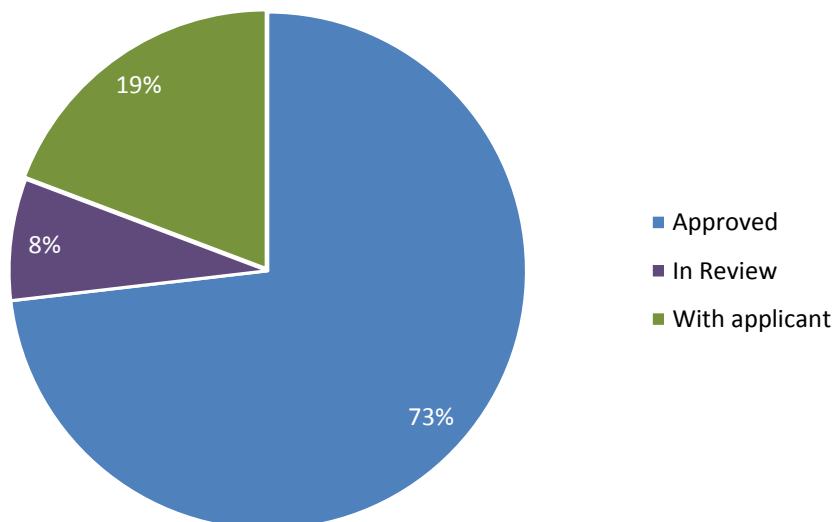
Application status

As at 30 September 2013 nearly three quarters of applications (73 per cent) had been accredited by Ofgem. One fifth of applications had been returned to the applicant as additional information was requested as part of the application process to enable the accreditation assessment to be completed. Around one in ten applications were being reviewed by Ofgem. In addition, 14 applications had been rejected or excluded by Ofgem due to ineligibility, 70 had been withdrawn and 2 had been cancelled by the applicant.

Reasons for an application being rejected or excluded were usually:

- The applicant qualified for the domestic RHI
- The applicant had received a grant for the installation already
- The technology did not meet the correct requirements.

Figure 1: Application status



Accreditations by location

A large proportion of applicants are located in regions with large rural areas such as the South West (20 per cent) and Scotland (18 per cent). It is likely this is because many rural communities are not on the gas grid and will be replacing solid fuel or oil burning systems with renewable systems.

Table 1.2: Number of accreditations by region, 30 September 2013.

Region	Full accredited installations		Capacity of full accreditations (MW)	
	Number	% of GB total	Number	% of GB total
England	1,804	75%	374.7	74%
South West	482	20%	70.2	14%
West Midlands	235	10%	52.7	10%
South East	195	8%	35.2	7%
Yorkshire and the Humber	227	9%	47.5	9%
North West	202	8%	57.0	11%
East Midlands	177	7%	40.3	8%
East of England	174	7%	45.5	9%
North East	93	4%	17.9	4%
London	19	1%	8.4	2%
Scotland	441	18%	98.8	20%
Wales	150	6%	29.6	6%
Great Britain Total	2,395		503.1	

Heat generated

As at 30 September 2013, installations on the RHI scheme had generated 446 GWh of heat, 95 per cent of which has been generated from biomass boilers. The figure for the eligible heat generated is calculated by scheme participants, and collated through Ofgem obtaining meter readings in order to make the appropriate support payments. Installations with a capacity below 1MW submit readings on a quarterly basis and those over 1MW on a monthly basis.

Medium solid biomass boilers (200-1000kW) make the largest contribution to the amount of renewable heat produced. They account for 39 per cent of accredited capacity and 43 per cent of the total heat produced.

Table 1.3: Heat generated, 30 September 2013.

Technology	Heat generated and paid for under the scheme (GWh)		Number of installations receiving payment	
	Number	% of total	Number	% of total
Small biomass boiler (<200kW)	148.5	33.3%	1,309	78.2%
Medium biomass boiler (200-1000kW)	191.3	42.9%	240	14.3%
Large biomass boiler (>1000kW)	81.8	18.3%	11	0.7%
Small water or ground source heat pumps (< 100 kW)	3.5	0.8%	51	3.0%
Large water or ground source heat pumps (>100kW)	3.1	0.7%	6	0.4%
Solar thermal (<200kW)	0.2	0.1%	54	3.2%
Total	428.4		1,671	
	Equivalent calorific value of gas produced (GWh)		Number of installations receiving payment	
	Number	% of total	Number	% of total
Bio-methane	17.5	3.9%	1	0%
Biogas	0.2	0.0%	1	0%
Total	17.7		2	
Overall Total	446.2		1,673	

A distinction has been made between the heat generated and the equivalent energy generated by gas production because biogas can either be fired on site to produce heat or can be cleaned and fed into the gas grid. The small biogas technology type refers to the case where the produced gas is burnt on site. In the installations where the gas is fed into the grid, the technology is referred to as Biomethane.

Trend in applications and accreditations

Since the scheme began there has been a steady increase in the number of full applications and accreditations received per quarter, rising from around 100 full applications per quarter at the beginning of the scheme to over 800 in the third quarter of 2013. The increase in applications between Q2 and Q3 2013 is partly due to change in air quality requirements that came into effect on the 24th September 2013, which now requires applicants who installed biomass boilers to submit an RHI emission certificate or an environmental permit with their application. Further details can be found on the government website. Table 1.4 shows the number of applications and accreditations from the date the first meter reading is submitted by the applicant. This means that installations should have started generating heat from this date.

Table 1.4: Number of full applications and accreditation by quarter.^{2,3}

	Number of full applications	Cumulative number of full applications	Number of accreditations	Cumulative number of accreditations	Accredited installed capacity (MW)	Cumulative installed capacity
Q4 2011	44	44	29	29	14.5	14.5
Q1 2012	183	227	146	175	64.6	79.1
Q2 2012	216	443	181	356	46.7	125.8
Q3 2012	333	776	304	660	54.7	180.5
Q4 2012	425	1,201	384	1,044	75.1	255.6
Q1 2013	589	1,790	521	1,565	100.9	356.5
Q2 2013	611	2,401	494	2,059	99.1	455.6
Q3 2013	873	3,274	336	2,395	47.5	503.1
Total	3,274	3,274	2,395	2,395	503.1	503.1

² All figures are subject to change following accreditation or auditing by Ofgem.

³ The RHI started on the 28 November 2011

Renewable Heat Premium Payments Householder scheme (RHPP)

Introduction

The RHPP scheme distributes vouchers as a one off grant to eligible applicants installing renewable heating systems to offset the cost of installation. The technologies supported are: ground and water source heat pumps, air-to-water heat pumps, solid biomass boilers and solar thermal systems. There have been three phases run over three financial years; Phase 1 ran from the 1 August 2011 to the 31 March 2012, Phase 2 opened on the 1 May 2012 and closed on the 31 March 2013 and Phase 2 extension opened on the 1 April 2013 and will close on the 31 March 2014. For further details on the RHPP schemes please refer to Appendix 1.

The number of vouchers issued and those redeemed is reported for Phase 1 and 2. These differ because the vouchers have an expiry date and if they are not used within this period, or are rejected for failing the eligibility criteria, they cannot be re-issued. Vouchers claimed (rather than redeemed) have been reported for the RHPP 2 extension as this represents the most accurate number of installations as at end of September 2013 due to the small time lag in processing applications.

For solar thermal installations, the annual estimated amount of heat generated, as given on the MCS certificate, is collected (rather than the capacity), whilst for air and ground source heat pumps and biomass boilers the capacity of the installations is collected. Table 2.3 reports these figures.

Installations by technology and Phase

As at 30 September 2013 16,907 vouchers had been issued under the Renewable Heat Premium Payment voucher schemes, of which 11,694 had been redeemed or claimed. Phase 1 and Phase 2 each had over 7,000 applications and over 5,000 redemptions. The Phase 2 extension has so far seen 2,418 vouchers issued and 1,149 claimed.

Solar Thermal and Air Source Heat Pumps combined accounted for around two-thirds of redeemed vouchers in Phase 1 and three-quarters of redeemed and claimed vouchers in Phase 2 and Phase 2 extension respectively. This differs to the RHI where the majority of installations are biomass boilers.

Table 2.1: Number of vouchers issued and redeemed or claimed by technology for Phase 1, Phase 2, and Phase 2 extension. 30 September 2013.

Technology	Phase 1			
	Total Vouchers issued		Number redeemed	
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	1,359	19%	1,000	19%
Biomass Boiler	977	13%	733	14%
Air Source Heat Pump	2,505	35%	1,837	35%
Solar Thermal	2,412	33%	1,660	32%
Total	7,253		5,230	
Technology	Phase 2			

	Total Vouchers issued		Number redeemed	
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	997	14%	704	13%
Biomass Boiler	893	12%	648	12%
Air Source Heat Pump	2,745	38%	2,034	38%
Solar Thermal	2,601	36%	1,929	36%
Total	7,236		5,315	
Technology	Phase 2 Extension			
	Total Vouchers issued		Number claimed	
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	338	14%	116	10%
Biomass Boiler	421	17%	170	15%
Air Source Heat Pump	983	41%	456	40%
Solar Thermal	676	28%	407	35%
Total	2,418		1,149	

As three of the four technologies are only available to people living in homes off the gas grid, there are a greater number of installations in regions with larger numbers of off grid properties.

Table 2.2: Installations by region for Phase 1. 30 September 2013.

Region	All installations (redeemed)		Heat pump and biomass installations (redeemed)		Heat pump and biomass installed capacity (MW)	
	Number	% of GB total	Number	% of GB total	Number	% of GB total
England	4,157	79%	2,800	78%	38.7	76%
South West	1,097	21%	704	20%	10.1	20%
South East	678	13%	420	12%	6.1	12%
East of England	656	13%	500	14%	6.2	12%
West Midlands	414	8%	285	8%	3.8	8%
North West	414	8%	308	9%	4.6	9%
Yorkshire and the Humber	335	6%	234	7%	3.2	6%
East Midlands	285	5%	183	5%	2.4	5%
North East	161	3%	124	3%	1.7	3%
London	117	2%	42	1%	0.4	1%
Scotland	659	13%	490	14%	8.1	16%
Wales	414	8%	280	8%	4.1	8%
Great Britain Total	5,230		3,570		50.8	

Table 2.3: Installations by region for Phase 2. 30 September 2013.

Region	All installations (redeemed)		Heat pump and biomass installations (redeemed)		Heat pump and biomass installed capacity (MW)	
	Number	% of GB total	Number	% of GB total	Number	% of GB total
England	4,249	80%	2,634	78%	35.5	76%
South West	1,011	19%	611	18%	8.1	18%
South East	768	14%	391	12%	5.2	11%
East of England	746	14%	568	17%	7.3	16%
North West	388	7%	258	8%	3.8	8%
West Midlands	367	7%	221	7%	3.1	7%
Yorkshire and the Humber	333	6%	219	6%	3.3	7%
East Midlands	320	6%	210	6%	2.8	6%
London	161	3%	49	1%	0.5	1%

North East	155	3%	107	3%	1.6	3%
Scotland	682	13%	479	14%	7.3	16%
Wales	384	7%	273	8%	3.7	8%
Great Britain Total	5,315		3,386		46.5	

Table 2.4: Installations by region for Phase 2 extension. 30 September 2013.

Region	All installations (claimed)		Heat pump and biomass installations (redeemed)		Heat pump and biomass installed capacity (MW)	
	Number	% of GB total	Number	% of GB total	Number	% of GB total
England	929	81%	588	79%	7.1	78%
South West	202	18%	125	17%	1.7	19%
East of England	189	16%	147	20%	1.7	18%
South East	175	15%	93	13%	1.0	11%
West Midlands	104	9%	61	8%	0.7	7%
North West	79	7%	52	7%	0.8	8%
Yorkshire and the Humber	65	6%	41	6%	0.5	5%
East Midlands	56	5%	38	5%	0.4	5%
North East	33	3%	23	3%	0.3	3%
London	26	2%	8	1%	0.1	1%
Scotland	148	13%	115	15%	1.6	18%
Wales	72	6%	39	5%	0.4	5%
Great Britain Total	1,149		742		9.1	

Installed capacity

The greatest contributor to the capacity installed comes from air source heat pumps which accounted for 43 per cent of the total in Phase 1 and 50 per cent in Phase 2 and is currently 49 per cent in Phase 2 extension. When compared with the number of vouchers redeemed for air source heat pumps (35 per cent in Phase 1 and 38 per cent in Phase 2) it shows that the average capacity of installed air source heat pumps is greater than that of the other technologies.

Table 2.5: Installed capacity by technology, 30 September 2013.

Technology	Total capacity (MW)		
	Phase 1	Phase 2	Phase 2 extension
Ground or Water Source Heat Pump	11.5	8.3	1.2
Biomass Boiler	17.6	15.0	3.4
Air Source Heat Pump	21.7	23.2	4.5
Total	50.8	46.5	9.1
	Total estimated heat generated per year (MWh)		
	Phase 1	Phase 2	Phase 2 extension
Solar Thermal	3,609	3,266	542

Trend in installations

Table 2.6 shows the numbers of vouchers redeemed per quarter for Phase 1, Phase 2 and those claimed for Phase 2 Extension to the end of September 2013. There was a large increase in the number of vouchers being redeemed and paid in March 2012 and April 2013. This is because these dates relate to the final month of operation of Phase 1 and Phase 2 of the RHPP schemes and this caused a surge in the number of claims before the deadline, some of which were processed in April 2012 and into September 2013.

Figures between quarters are not directly comparable between the schemes because they each scheme started at different points within the year and therefore have run for different lengths of time. Phase 2 Extension also had additional eligibility requirements, such as the mandatory Green Deal assessment, so that there was a stronger link with the forthcoming domestic RHI requirements. Figures for the number of vouchers redeemed are also not available for Phase 2 Extension, due to time lags within the application process, so vouchers claimed are shown as a proxy.

Table 2.6: Vouchers redeemed or claimed by quarter and Phase.

Phase	Quarter	Vouchers redeemed	Cumulative number of vouchers redeemed
1	Q3 2011	283	283
	Q4 2011	1,274	1,557
	Q1 2012	3,484	5,041
	Q2 2012 ⁴	189	5,230
	Total Phase 1	5,230	5,230
Phase	Quarter	Vouchers redeemed	Cumulative number of vouchers redeemed
2	Q2 2012	110	110
	Q3 2012	403	513
	Q4 2012	630	1,143
	Q1 2013	958	2,101
	Q2 2013 ⁴	3,147	5,267
	Q3 2013 ⁴	67	5,315
	Total Phase 2	5,315	5,315
Phase	Quarter	Vouchers claimed	Cumulative number of vouchers claimed
2 ex.	Q2 2013	442	442
	Q3 2013	707	1,149

⁴ Dates relate to when payments were made. As claims could be made right up to the closing date payments could fall into the following quarter.

Renewable Heat Premium Payments Social landlord scheme (RHPP)

DECC launched phase 1 of the social landlord competition in August 2011 to accelerate the deployment of renewable heating technologies in the social housing sector. Bids from Registered Providers of social housing were invited for grants to support value for money proposals for projects installing biomass boilers, solar thermal systems, ground source heat pumps, air to water source heat pumps and water to water source heat pumps.

37 social landlords, representing 38 projects, secured funding from the competition to the total value of £3.7 million. Collectively, the 37 social landlords installed 961 renewable heating technologies in 927 homes. The total installed capacity for biomass boilers, air source heat pumps and ground source heat pumps is 6.5 MW and 121.7 MWh of estimated heat generated per year from solar thermal installations.

Glossary

Heat Pumps	A heat pump is a device that transfers thermal energy from a heat source to a heat sink (e.g. the ground to a house). There are many varieties of heat pump but for the purposes of the policies they fall into 3 categories: air, ground and water source heat pumps. The first word in the title refers to the heat source from which the pump draws heat. The pumps run on electricity, however less energy is required for their operation than they generate in heat, hence their status as a renewable technology.
Renewable Heat	Heat energy that comes from a natural source.
Full application	A completed application submitted to Ofgem E-serve with a relevant system already installed.
Accreditation / Accredited installation	A system that has submitted an application and has gone through full checks by Ofgem E-serve to make sure that it complies with the relevant conditions.
Tariff band	The different rates paid per kWh of heat produced or bio-methane injected depending on the size and type of installation.
Redeemed voucher	A voucher which has been issued and subsequently, successfully returned and exchanged for its monetary value.
Claimed voucher	A voucher issued following self-certification by the applicant which is then submitted to EST post-installation for final eligibility checks before payment.
Microgeneration Certification Scheme (MCS)	The Microgeneration Certification Scheme (MCS) is an industry-led and internationally recognised quality assurance scheme, which demonstrates compliance to industry standards.
Ofgem (Office of the Gas and Electricity Markets)	Ofgem is the regulator of the gas and electricity industries in Great Britain. Ofgem E-Serve is Ofgem's delivery arm that administers the RHI scheme.
Energy Savings Trust (EST)	The Energy Saving Trust Foundation gives impartial advice to communities and households on how to reduce carbon emissions. Their main activities include testing low carbon technologies, providing certificates and assurances to businesses and consumer goods and collecting and energy data. EST are responsible for the delivery of the RHPP scheme on behalf of the department.

Further information and feedback

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Further information on energy statistics is available at

<https://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics>

Next release

The data contained in this publication are updated on a monthly basis, with the next data scheduled for web release at 9.30am on 21 November 2013. The next quarterly publication will be at 9:30 on 23rd January 2014.

Appendix 1: Scheme Background

Non Domestic RHI

RHI payments are made to the owner of the heat installation, or producer of bio-methane for injection to the gas grid, over a 20 year period and tariff levels have been calculated to bridge the financial gap between the cost of conventional and renewable heat systems.

Currently applicants may apply to receive payments on systems installed and commissioned any time after 15 July 2009 and for heat generated for a prescribed purpose such as space, water or process heating (not for electricity production). Producers of bio-methane for injection can also apply for registration. Installations below 45kW capacity must be certified under the Microgeneration Certification Scheme (MCS) which is the independent mark of quality assurance for microgeneration systems and installation.

All heat generating systems must be fitted with a meter which measures the eligible heat output of the installation. Payment is calculated by multiplying the metered heat output (kWh) by the tariff rate (pence per kWh).

The scheme is administered by Ofgem E-serve. For more information please see the DECC RHI webpage in relation to the policy or the Ofgem E-serve webpage for how to apply, and scheme eligibility and guidance.

The non-domestic Phase of the RHI opened in November 2011 and the domestic Phase was announced on the 12 July 2013. Further details can be found in the consultation response.

RHPP Phase 1, Phase 2 and Phase 2 Extension

The RHPP scheme was introduced as an interim measure in the absence of the domestic RHI. It was designed to support the uptake of domestic renewable heat and maintain the supply chain, to learn about renewable heat technologies and the way consumers use them to better shape the domestic RHI policy and contribute to the renewable energy target.

Phase 1 of the scheme ran from 1 August 2011 until 31 March 2012. Phase 2 opened on 1 May 2012 and closed on 31 March 2013. The phase 2 extension open on 1 April 2013 and will close on 31 March 2014.

Vouchers are issued to home owners with basic energy efficiency measures in place including loft insulation up to 250mm and cavity wall insulation where practical. Vouchers can be redeemed only upon the installation of an MCS accredited system and meter. The value of the vouchers is fixed for each type of technology and has been calculated to equal approximately 10 per cent of the cost of installation.

Applicants that are not on the gas grid are able to claim vouchers when installing: heat pumps, solid biomass boilers or solar thermal systems.

Applicants on the gas grid are eligible to receive vouchers for solar thermal systems only.

The scheme is administered by the Energy Saving Trust (EST); more details on the eligibility criteria and the scheme in general can be found on the RHPP pages of their website.

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