

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

25 July 2013

Renewable Heat Incentive and Renewable Heat Premium Payments deployment data June 2013

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 figures are subject to change.

Key findings for the RHI and RHPP deployment data

Non-domestic RHI

- As at 30 June 2013 there were 2,436 full applications (i.e. installed renewable heating systems). Of these applications 1,754 were accredited and were eligible for tariff payment, with 1268 of these accredited schemes having received a payment.
- The majority of the full applications (73 per cent) and accreditations (78 per cent) were for small solid biomass boilers (< 200 kW). Overall 90 per cent of full applications were for biomass boilers.
- Total capacity for the full applications was 586 MW, of which 371 MW of capacity was for accredited systems.
- Accredited installations on the RHI scheme had generated 338 GWh of heat, 96 per cent of which was generated from biomass boilers.

RHPP householder voucher schemes

- As at 30 June 2013 15,848 vouchers had been issued under the Renewable Heat Premium Payment voucher schemes, of which 10,939 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 1,359 vouchers issued and 442 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 100 MW of capacity has been supported under the schemes, of which 51 MW was in Phase 1, 46 MW in Phase 2 and 3 MW in Phase 3 to date.
- Air source heat pumps account for just under half of the total capacity in each Phase (43 per cent, 49 per cent, and 45 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 <u>Appendix 1</u>.

Applications and accreditations

As at 30 June 2013 there were 2,436 full applications. Of these applications 1,754 were accredited and generating heat eligible for tariff payment. Almost three quarters of the applications (73%) and almost four fifths (78%) of accreditations were for small solid biomass boilers (< 200 kW). Overall 90 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 five per cent of installed capacity. A preliminary application or accreditation is only available for medium and large biomass and biogas installations.

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)	1,781	73%	1,364	78%	186.6	32%	145.4	39%
Medium Solid Biomass Boiler (200-1000kW)	402	17%	254	14%	213.3	36%	136.9	37%
Small Solar Thermal (< 200 kW)	109	4%	62	4%	1.6	0%	0.8	0%
Small Water or Ground Source Heat Pump (< 100 kW)	100	4%	53	3%	2.7	0%	1.5	0%
Large Solid Biomass Boiler (> 1000 kW)	21	1%	13	1%	176.1	30%	84.0	23%
Large Water or Ground Source Heat Pump (> 100 kW)	12	0%	6	0%	5.3	1%	2.2	1%
Bio-Methane	5	0%	1	0%	-	-	-	-
Biogas	6	0%	1	0%	0.9	0%	0.2	0%
Total	2,436		1,754		586.4		370.9	

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

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 June 2013 nearly three quarters of applications (72 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, 16 applications had been rejected or excluded by Ofgem due to ineligibility, 51 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 b	by region, 30 June 2013.
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Region	Full accredited installations		Capacity of full acc	reditations (MW)
	Number	% of GB total	Number	% of GB total
England	1,318	75%	279.1	75%
South West	355	20%	53.8	14%
West Midlands	183	10%	40.5	11%
South East	157	9%	24.4	7%
Yorkshire and the Humber	152	9%	34.8	9%
North West	143	8%	48.7	13%
East Midlands	136	8%	30.3	8%
East of England	118	7%	30.4	8%
North East	62	4%	13.1	4%
London	12	1%	3.0	1%
Scotland	320	18%	66.9	18%
Wales	116	7%	25.0	7%
Great Britain Total	1,754		370.9	





Heat generated

As at 30 June 2013, installations on the RHI scheme had generated 338 GWh of heat, 96 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 37 per cent of accredited capacity and 45 per cent of the total heat produced.

	Heat generated a	nd paid for	Number of installations		
Technology	under the schen	scheme (MWh) receiving paymen			
	Number	% of total	Number	% of total	
Medium biomass boiler (200-1000kW)	146,125	44.6%	191	15%	
Small biomass boiler (<200kW)	115,186	35.2%	974	77%	
Large biomass boiler (>1,000kW)	62,093	18.9%	10	1%	
Small ground or water source heat					
pumps (< 100kW)	2773	0.8%	43	3%	
Large ground or water source heat					
pumps (>100kW)	1,364	0.4%	6	0%	
Solar thermal (<200kW)	151	0.0%	42	3%	
Total	327,692		1,266		
	Equivalent calori	fic value of	Number of installations		
	gas produced	(MWh)	receiving pa	yment	
	Number	% of total	Number	% of total	
Biogas	131	1.3%	1	0%	
Biomethane	10,253	98.7%	1	0%	
Total	10,383		2		
Overall Total	338,075		1,268		

Table 1.3: Heat generated, 30 June 2013.

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 month, rising from around 70 full applications per month in the early months of the scheme to over 200 per month in the most recent months.

	Number of full applications	Cumulative number of full applications	Number of accreditations	Cumulative number of accreditations	Accredited installed capacity (MW)	Cumulative installed capacity
November 2011	10	10	6	6	10.9	10.9
December 2011	34	44	24	30	4.2	15.1
Q4 2011	44	44	30	30	15.1	15.1
January 2012	53	97	32	62	17.8	32.9
February 2012	76	173	56	118	8.0	41.0
March 2012	70	243	59	177	38.9	79.9
Q1 2012	199	243	147	177	64.8	79.9
April 2012	73	316	58	235	17.2	97.0
May 2012	76	392	61	296	13.2	110.2
June 2012	69	461	52	348	12.0	122.2
Q2 2012	218	461	171	348	42.4	122.2
July 2012	111	572	81	429	10.5	132.7
August 2012	119	691	114	543	21.9	154.7
September 2012	105	796	96	639	15.5	170.1
Q3 2012	335	796	291	639	47.9	170.1
October 2012	129	925	114	753	27.4	197.5
November 2012	160	1,085	139	892	24.8	222.4
December 2012	137	1,222	123	1,015	20.8	243.2
Q4 2012	426	1,222	376	1,015	73.0	243.2
January 2013	216	1,438	165	1,180	33.4	276.6
February 2013	184	1,622	157	1,337	26.5	303.0
March 2013	191	1,813	132	1,469	18.0	321.0
Q1 2013	591	1,813	454	1,469	77.8	321.0
April 2013	198	2,011	126	1,595	25.3	346.4
May 2013	205	2,216	112	1,707	17.2	363.6
June 2013	220	2,436	47	1,754	7.4	370.9
Q2 2013	623	2,436	285	1,754	49.9	370.9
Total	2,436	2,436	1,754	1,754	370.9	370.9

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

 $^{^2}$ 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 Phase 1⁴, Phase 2⁵ and Phase 2 extension⁶

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. For further details on the RHPP schemes please refer to <u>Appendix 1</u>.

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 have been reported for the RHPP 2 Extension as this represents the most accurate number of installations as at end of June 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 June 2013 15,848 vouchers had been issued under the Renewable Heat Premium Payment voucher schemes, of which 10,939 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 1,359 vouchers issued and 442 claimed.

Solar Thermal and Air Source Heat Pumps combined accounted for 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.

⁴ Phase 1 ran from the 1 August 2011 to the 31 Mach 2012

⁵ Phase 2 opened on the 1 May 2012 and closed on the 31 March 2013

⁶ Phase 2 extension opened on the 1 April 2013 and will close on the 31 March 2014

Table 2.1: Number of vouchers issued and redeemed or claimed by technology for Phase1, Phase 2, and Phase 2 extension. 30 June 2013.

Technology	Phase 1			
	Total Vouch	ners issued	Number re	deemed
	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	e 2	
	Total Vouc	hers issued	Number re	edeemed
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	997	14%	692	13%
Biomass Boiler	893	12%	645	12%
Air Source Heat Pump	2,745	38%	2,017	38%
Solar Thermal	2,601	36%	1,913	36%
Total	7,236		5,267	
Technology		Phase 2 Ex	tension	
	Total Vouc	hers issued	Number	claimed
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	220	16%	53	12%
Biomass Boiler	214	16%	66	15%
Air Source Heat Pump	555	41%	168	38%
Solar Thermal	370	27%	155	35%
Total	1,359		442	

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 rural populations.

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 2.2: Installations by region for Phase 1. 30 June 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	4,217	80%	2,612	78%	35.3	76%
South West	1,001	19%	602	18%	8.0	17%
South East	762	14%	389	12%	5.1	11%
East of England	747	14%	569	17%	7.4	16%
North West	382	7%	253	8%	3.7	8%
West Midlands	360	7%	217	6%	3.0	7%
Yorkshire and the Humber	331	6%	217	6%	3.2	7%
East Midlands	316	6%	206	6%	2.7	6%
London	164	3%	52	2%	0.5	1%
North East	154	3%	107	3%	1.6	3%
Scotland	676	13%	476	14%	7.3	16%
Wales	374	7%	266	8%	3.6	8%
Great Britain Total	5,267		3,354		46.2	

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

Table 2.4: Installations by region for Phase 2 extension. 30 June 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	346	78%	225	78%	2.5	75%
South West	86	19%	63	22%	0.6	19%
South East	74	17%	49	17%	0.5	16%
East of England	63	14%	32	11%	0.4	11%
North West	31	7%	22	8%	0.2	6%
West Midlands	30	7%	19	7%	0.2	7%
Yorkshire and the Humber	23	5%	18	6%	0.3	8%
East Midlands	16	4%	10	3%	0.1	4%
London	12	3%	10	3%	0.1	3%
North East	11	2%	2	1%	0.01	0.3%
Scotland	64	14%	46	16%	0.7	21%
Wales	32	7%	16	6%	0.1	4%
Great Britain Total	442		287		3.3	





⁷ Excludes RHPP2 extension.

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. 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.

Technology	Total capacity (MW)					
	Phase 1	Phase 2	Phase 2 extension			
Ground or Water Source Heat Pump	11.5	8.2	0.4			
Biomass Boiler	17.6	15.0	1.4			
Air Source Heat Pump	21.7	23.1	1.5			
Total	50.8	46.2	3.3			
	Total estimated heat generated per year (MWh)					
	Phase 1	Phase 2	Phase 2 extension			
Solar Thermal	3,609	3,277	188			

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

Trend in installations

Table 2.6 shows the numbers of vouchers redeemed per month for Phase 1, Phase 2 and those claimed for Phase 2 Extension to the end of June 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 June 2013.

Figures between months are not directly comparable between the schemes because they each stared 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 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.

Phase	Quarter	Month	Vouchers redeemed	Cumulative number of vouchers redeemed
1		August 2011 September 2011	80 203	80 283
	Q3 2011		283	283
		October 2011 November 2011 December 2011	330 497 447	613 1,110 1,557
	Q4 2011		1,274	1,557
		January 2012 February 2012 March 2012	621 607 2,256	2,178 2,785 5,041
	Q1 2012		3,484	5,041
		April 2012	189	5,230
	Total Phase 1		5,230 Vouchers	5,230 Cumulative number of
Phase	Quarter	Month	redeemed	vouchers redeemed
2		May 2012 June 2012	16 94	16 110
	Q2 2012		110	110
		July 2012	122	232
		August 2012 September 2012	133 148	365 513
	Q3 2012		403	513
		October 2012 November 2012 December 2012	160 246 224	673 919 1,143
	Q4 2012		630	1,143
		January 2013 February 2013 March 2013	426 251 281	1,569 1,820 2,101
	Q1 2013		958	2,101
		April 2013 May 2013 June 2013	2,714 383 69	4,815 5,198 5,267
	Q2 2013		3,166	5,267
	Total Phase 2		5,267	5,267
Phase	Quarter	Month	Vouchers claimed	Cumulative number of vouchers claimed
2 ex.		April 2013 May 2013 June 2013	129 180 133	129 309 442
	Q2 2013		442	442

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

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

Any enquiries or comments in relation to this statistical release should be sent to Vicky Thompson in DECC's Heat Statistics Team at the following email address: <u>Victoria.Thompson@decc.gsi.gov.uk</u> Contact telephone: 0300 068 5815 The statistician responsible for this publication is Julian Prime.

Further information on energy statistics is available at <u>https://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics</u>

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 22 August 2013.

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 <u>Microgeneration Certification Scheme (MCS)</u> 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 <u>DECC RHI</u> webpage in relation to the policy or the <u>Ofgem E-serve</u> 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 <u>consultation response</u>.

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 <u>RHPP pages</u> of their website.

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