Renewable Heat Premium Payment scheme

Introduction

The Renewable Heat Premium Payment (RHPP) scheme was a Government financial support scheme which provided one-off grants to help householders and landlords with the cost of installing one of the following renewable heat technologies:

- Ground and water source heat pumps (GSHPs);
- Air source heat pumps (ASHPs);
- Solid biomass boilers; and
- Solar thermal systems.

During the lifetime of the RHPP, financial support was given through a Householder Scheme, a number of competitions for Registered Social Landlords, and a Community Scheme. The RHPP scheme closed on 31 March 2014 and support in the take-up of renewable heat technologies in the domestic sector is now provided by the Domestic Renewable Heat Incentive[1] scheme which was launched on 9 April 2014.

This one-off article provides a statistical summary of the deployment of the RHPP scheme. Statistics are reported on the number of vouchers issued, vouchers claims, installed capacity and estimated heat generated based on data available as at November 2014.

The data used in this article are available at:
www.gov.uk/government/collections/renewable-heat-incentive-renewable-heat-premium-payment-statistics

Further information on the RHPP, and the various eligibility criteria, can be found at:
http://webarchive.nationalarchives.gov.uk/20130109092117/http://www.decc.gov.uk/en/content/cms/meeting_energy/renewable_ener/premium_pay/premium_pay.aspx

RHPP Householders scheme

Vouchers issued and claimed

As at 31 March 2014, when the final phase of the Householder Scheme had concluded, 20,822 vouchers had been issued, of which 15,364 had been claimed (a voucher which has been issued and subsequently, successfully returned and exchanged for its monetary value).2 Phase 1 (1 August 2011 to 31 March 2012) and Phase 2 (1 May 2012 to 31 March 2013) of the householder scheme each had over 7,000 applications and over 5,000 redemptions; Phase 2 extension (1 April 2013 and to 31 March 2014) saw 6,333 vouchers issued and 4,819 claimed.

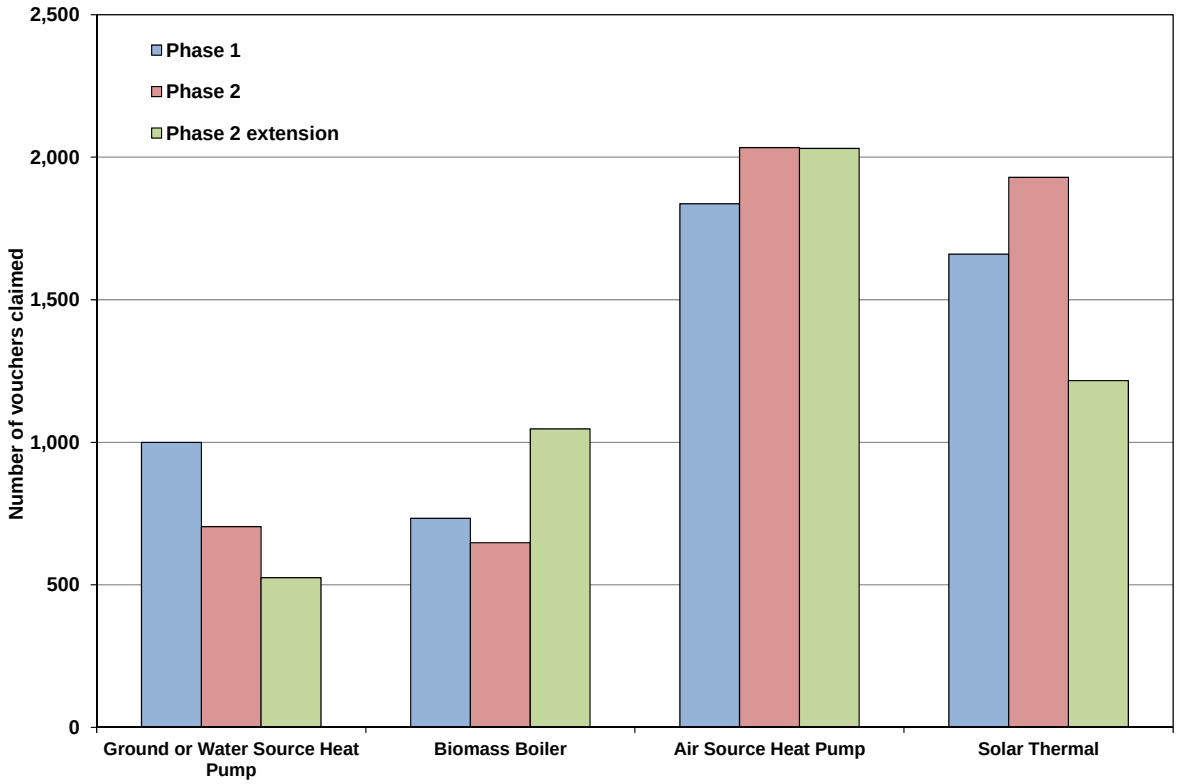
Following the increase in grant levels in May 2013 and the announcement of the domestic RHI policy in July 2013, there was an unexpected fall in numbers of approximately 10 per cent between Phase 2 extension and Phase 1 and 2. Part of this fall may be attributed to a change in eligibility criteria which required applicants to have a Green Deal Assessment before they could lodge a claim for payment.

[1] www.gov.uk/domestic-renewable-heat-incentive.
[2] The discrepancy between issued vouchers and claimed vouchers can be explained by the following three reasons:
- Vouchers expire after certain time (if this happens the applicant can apply for another voucher);
- Some will not have chosen to claim their voucher;
- Some will be ineligible.

Over the three phases of the scheme, ASHPs (5,902 claims paid over the three phases) and solar thermal (4,805) were the most popular technologies, accounting for over two-thirds of vouchers claimed. 2,428 vouchers were for biomass boilers (16 per cent of all claimed vouchers) and a further 2,229 for GSHPs (15 per cent). The proportion of ASHP vouchers claimed increased through the phases from 35 per cent of claimed vouchers in Phase 1, to 38 per cent in Phase 2 and 42 per cent in Phase 2 extension. Conversely, GSHPs decreased through the phases.

Figure 1 illustrates the changing number of claimed vouchers over the three phases by technology.

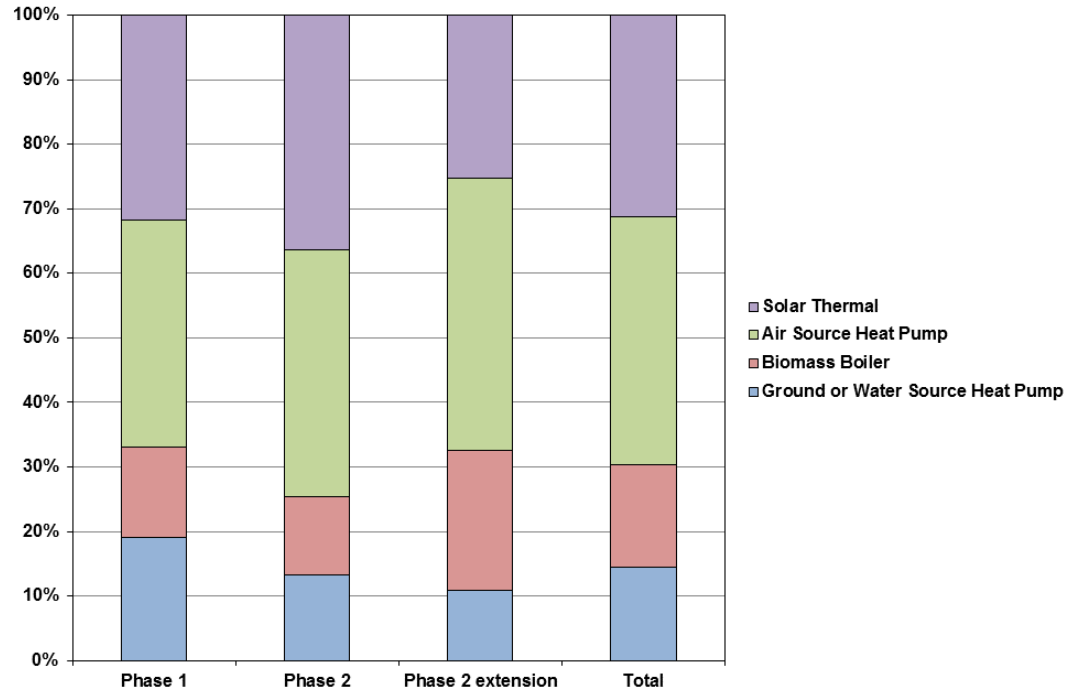
Figure 1 – Claimed vouchers by phase and technology for the Householder Scheme, Great Britain



Source: RHPP Official Statistics

Figure 2 shows the proportional break down by technology for each phase.

Figure 2 – Percentage of total claimed vouchers broken down by technology and phase for the Householder Scheme, Great Britain



Source: RHPP Official Statistics

Table 1 - Number of vouchers issued, claimed and claimed by technology for the Householder Scheme, Great Britain

Tariff Band	Number issued		Number redeemed	
	Number	% of total	Number	% of total
Ground or Water Source Heat Pump	3,115	15%	2,229	15%
Biomass Boiler	3,201	15%	2,428	16%
Air Source Heat Pump	7,864	38%	5,902	38%
Solar Thermal	6,642	32%	4,805	31%
Total	20,822		15,364	

Source: RHPP Official Statistics

A more detailed breakdown of these data can be found in the official statistics reports at: www.gov.uk/government/collections/renewable-heat-incentive-renewable-heat-premium-payment-statistics

Installed capacity

The capacity refers to the maximum power output of the system and depends on the installation's size and technical capability. Capacity relates to GSHPs, biomass boilers and ASHPs only. For solar thermal, the equivalent of capacity is estimated heat generated which is measured in MWh of heat per year. These two measurements are not comparable.

The combined total capacity of GSHPs, biomass boilers and ASHPs over all three phases based on claimed vouchers was 152.2 MW, of which 50.8 MW (33 per cent) was installed under Phase 1 of the scheme, 46.5 MW (31 per cent) under Phase 2 and 54.9 MW (36 per cent) under Phase 2 extension. Of the 152.2 MW, ASHPs contributed 69.2 MW (45 per cent), biomass boilers 56.8 MW (37 per cent) and GSHPs the remaining 26.2 MW (17 per cent). Table 2 and Figure 3 show the installed capacity for each of the three technologies, with total estimated heat generated for solar thermal.

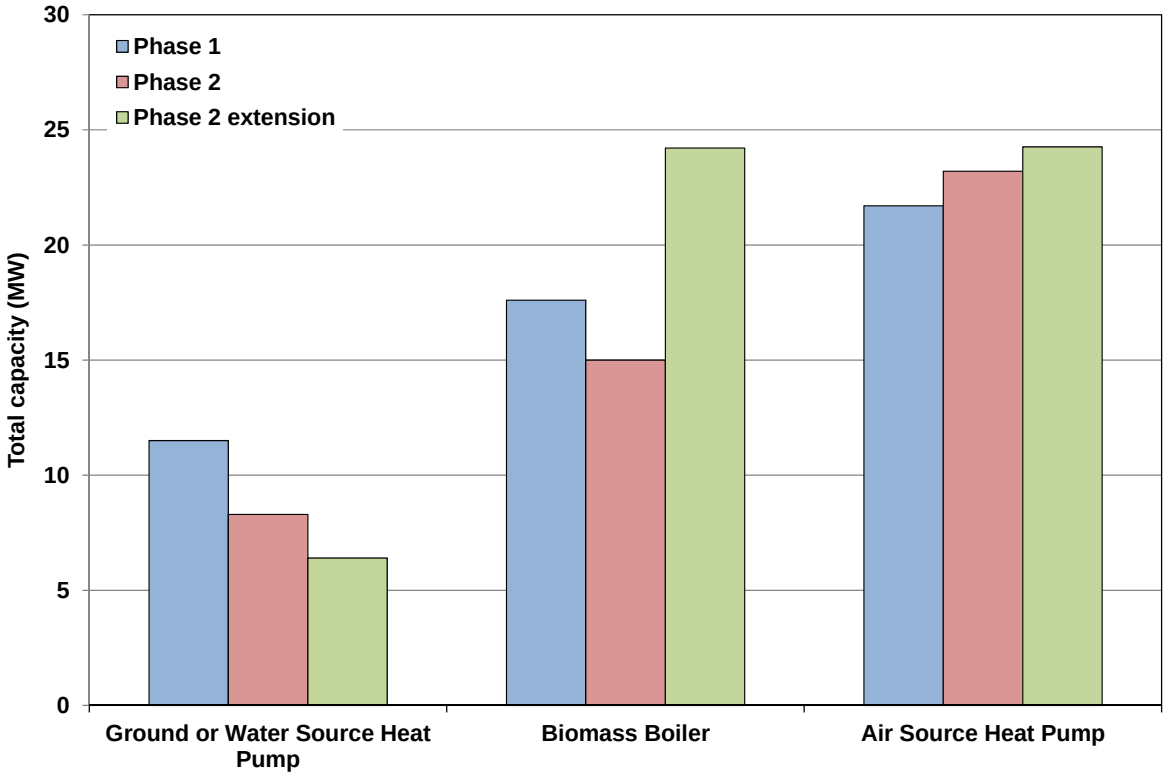
It was estimated that solar thermal systems installed under all three phases of the householder scheme are capable of providing approximately 8,650 MWh of heat per year – 3,600 MWh (42 per cent) of this was installed in phase 1, 3,250 (38 per cent) in phase 2, and 1,800 (21 per cent) in the final phase of the householder scheme.

Table 2 - Installed capacity by technology and phase for the Householder Scheme

Technology	Total capacity (MW)		
	Phase 1	Phase 2	Phase 2 extension
Ground or Water Source Heat Pump	11.5	8.3	6.4
Biomass Boiler	17.6	15.0	24.2
Air Source Heat Pump	21.7	23.2	24.3
Total	50.8	46.5	54.9
	Total estimated heat generated per year (MWh)		
	Phase 1	Phase 2	Phase 2 extension
Solar Thermal	3,609	3,266	1,793

Source: RHPP Official Statistics

Figure 3 – Installed capacity by technology for the Householder Scheme, Great Britain



Source: RHPP Official Statistics

Regional breakdown

Of the total 15,364 claimed vouchers, 12,046 (78 per cent) were claimed in England, 1,933 (13 per cent) were claimed in Scotland and 1,385 (9 per cent) in Wales. These proportions were similar in each of the individual phases. Three of the four technologies were only available to people living in homes off the gas grid, consequently there were a greater number of installations in regions with larger numbers of off grid properties such as the South West where 19 per cent (2,962) of total claimed vouchers were claimed. Conversely, London was responsible for 2 per cent (283). Table 3 shows the distribution by region for all three phases. Figure 4 is a map illustrating the breakdown of all claimed vouchers by local authority.

Table 3 - Total number of vouchers claimed by region for the Householder Scheme, Great Britain

Region	Total	
	Number redeemed	% of total
England	12,046	78%
South West	2,962	19%
South East	2,362	15%
East of England	1,977	13%
West Midlands	1,027	7%
North West	980	6%
Yorkshire and the Humber	970	6%
East Midlands	1,110	7%
North East	375	2%
London	283	2%
Scotland	1,933	13%
Wales	1,385	9%
Total	15,364	

Source: RHPP Official Statistics

Heat generated

As at the 31 March 2014, when the RHPP scheme closed, the 15,364 vouchers claimed the voucher under the households scheme were estimated to be generating 233 GWh of heat per year - 28 per cent of which is being generated from biomass, 47 per cent from ASHP, 22 per cent from GSHP and 4 per cent from solar thermal.

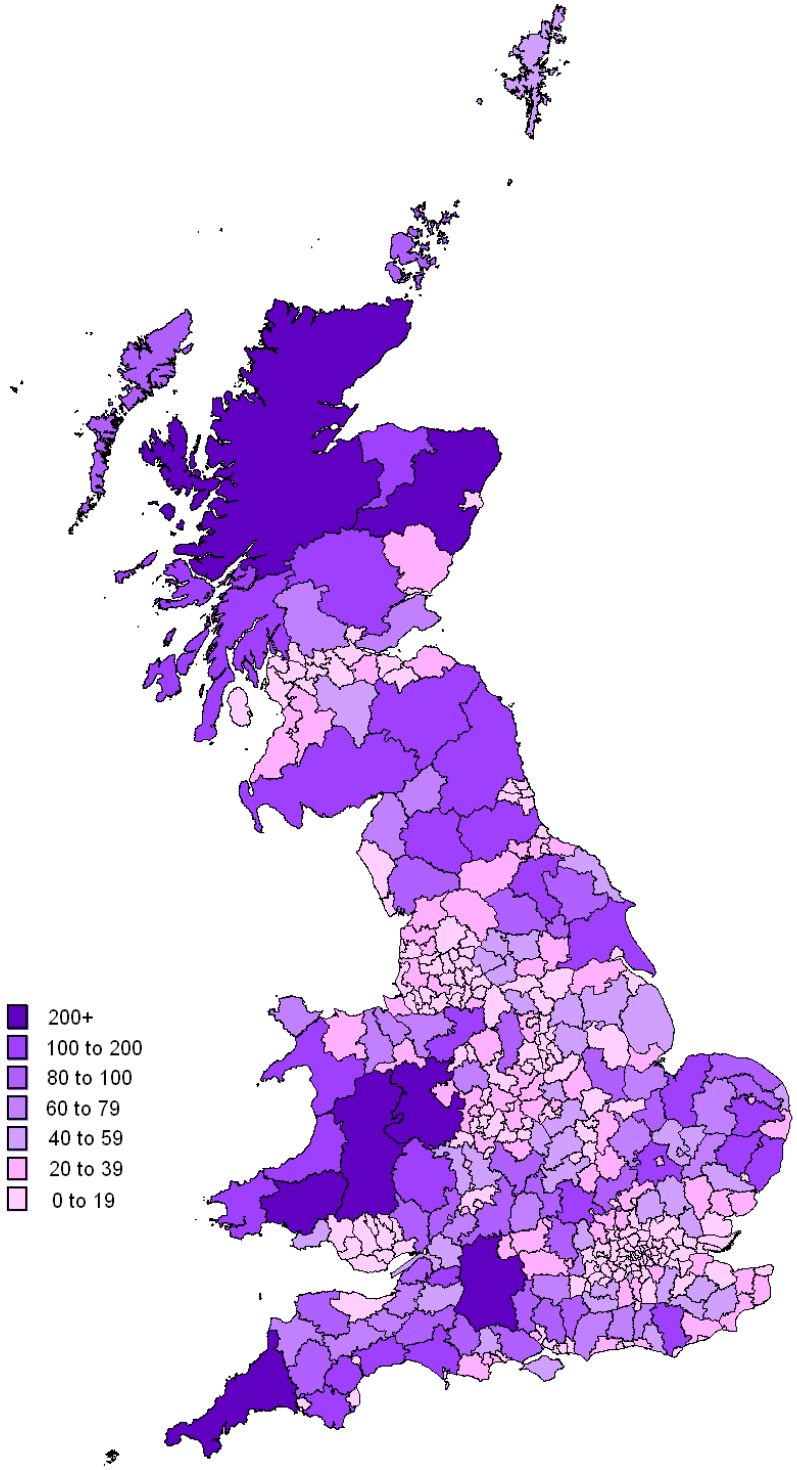
Solar thermal accounts for 31 per cent of the installations receiving payment yet just 4 per cent of the heat paid for. This is because solar thermal is a complimentary heating technology not typically capable of producing heat in the volumes seen from the other technologies.

Table 4 - Forecast annual heat generation by technology for the Householder Scheme, Great Britain

Tariff Band	Estimated annual heat generation		Number of installations	
	MWh	%	Number	%
Air source heat pump	109,115	47%	5,902	38%
Ground source heat pump	50,493	22%	2,229	15%
Biomass systems	64,684	28%	2,428	16%
Solar thermal	8,668	4%	4,805	31%
Total	232,959		15,364	

Source: DECC analysis
Note: In order to estimate the heat generated by RHPP systems, average load factors were calculated for each technology using the annual heat demand of RHPP recipients which have subsequently applied for the domestic RHI.

Figure 4 - Number of vouchers claimed for Phase 1, Phase 2 and Phase 2 extension by local authority for the Householder Scheme, 31 March 2014



Grants

Table 5 below shows the voucher incentive that was paid out for each technology. In May 2013 the grant value nearly doubled. Table 6 shows the value of total vouchers issued and total claims paid.

Table 5 – RHPP grant rates for the Householder Scheme

Technology	Grant value before 20 May 2013	Grant value after 20 May 2013
GSHPs	£1,250	£2,300
ASHPs	£850	£1,300
Solid biomass boiler	£950	£2,000
Solar thermal systems	£300	£600

Table 6 – RHPP claims paid for the Householder Scheme

	Financial year	Vouchers issued (£ million)	Claims paid (£ million)
Phase 1	2011/12	£5.5	£4.0
Phase 2	2012/13	£5.2	£3.8
Phase 2 extension	2013/14	£8.3	£6.3
Total		**£18.9**	**£14.1**

Note: Individual components do not add to the total due to rounding.

RHPP Registered Social Landlord Competition

Vouchers issued and claimed

There were 8 social landlord competitions in all and for the purposes of this report they will be grouped according to the financial year in which they were run:

- 2011/12: Phase 1;
- 2012/13: Phase 2, Phase 2 top up, Phase 3, Phase 3 top up;
- 2013/14: Fast Track, Fast Track top up and Reach Out.

In Phase 1, run during 2011/12, 37 social landlords, representing 38 projects, installed 960 renewable heating technologies in 927 homes. The total installed capacity for biomass boilers, ASHPs and GSHPs from phase 1 was 6.5 MW, with solar thermal systems installed estimated to be capable of providing 121.7 MWh of heat per year.

In 2012/13, 4 competitions were run (some of which ran concurrently) - Phase 2, Phase 2 top up, Phase 3 and Phase 3 top up. These are collectively referred to as Phase 2 competitions. Through these competitions, 79 social landlords, representing 113 projects installed 3,763 renewable heating technologies in 3,591 homes. The total installed capacity for biomass boilers, ASHPs and GSHPs was 20.2 MW and it is estimated that the solar thermal systems installed are capable of providing 833.5 MWh of heat per year.

In 2013/14, 3 competitions were run, some of which ran concurrently – Reach Out, Fast Track and Fast Track top up. Through these competitions 91 social landlords representing 111 projects installed 2,706 renewable heating technologies in 2,519 homes.

In Phase 1 of the social landlord scheme 748 of the 960 (78 per cent) installed renewable technologies were ASHPs, 109 (11 per cent) were GSHPs, 70 (7 per cent) solar thermal and 33 (3 per cent) were biomass boilers.

The distribution of installed renewable technologies for the four competitions run in 2012/13 were different to Phase 1, the distribution was still dominated by ASHPs (70 per cent of install renewable technologies), but followed by solar thermal (20 per cent), biomass boilers (9 per cent) and GSHPs (1 per cent).

In the competitions run during the 2013/14 financial year the distribution of installed technologies was slightly different again. Air source heat pumps accounted for 74 per cent of installations, followed by solar thermal with 17 per cent then GSHPs with 8 per cent and biomass boilers represented just 1 per cent of installations.

Table 7 shows installed renewable systems by technology for each financial year in which competitions were run.

Table 7 - Installations by technology and phase for the Social Landlord Competition, Great Britain

Technology	Phase 1		Phase 2, 2 top-up, 3 and 3 top-up		Reach out, Fast track and Fast track top-up	
	Number	% of total	Number	% of total	Number	% of total
Air source heat pump	748	78%	2,630	70%	2,009	74%
Ground source heat pump	109	11%	37	1%	229	8%
Biomass boiler	33	3%	356	9%	21	1%
Solar thermal	70	7%	740	20%	447	17%
Total	960		3,763		2,706	

Source: RHPP Official Statistics

Table 8 shows the number on installations broken down by region.

The regional spread of installations varies between competitions run in the 3 financial years. The most notable difference is that installations in the South West accounted for over a quarter of installations in 2012/13 and 2013/14 competitions but less than a twentieth of installations in 2011/12.

Table 8 - Installations by region for the Social Landlord Competition, Great Britain

Region	Phase 1		Phase 2, 2 top-up, 3 and 3 top-up		Reach out, Fast track and Fast track top-up	
	Number	% of total	Number	% of total	Number	% of total
England	858	89%	3,243	86%	2,377	88%
South West	35	4%	1,015	27%	709	26%
South East	110	11%	545	14%	352	13%
East of England	87	9%	706	19%	366	14%
West Midlands	174	18%	270	7%	448	17%
North West	100	10%	262	7%	113	4%
Yorkshire and the Humber	106	11%	148	4%	140	5%
East Midlands	177	18%	161	4%	47	2%
North East	68	7%	32	1%	182	7%
London	0	0%	104	3%	20	1%
Scotland	50	5%	473	13%	176	7%
Wales	53	6%	47	1%	153	6%
Total	960		3,763		2,706	

Source: RHPP Official Statistics

Heat generated

As at the 31 March 2014, when the RHPP scheme closed, households funded under the Social Landlord scheme were estimated to be generating 67 GWh of heat per year - 2 per cent of which is being generated from biomass biolers, 85 per cent from ASHPs, 11 per cent from GSHPs and 2 per cent from solar thermal.

Solar thermal accounts for 17 per cent of the installations receiving payment yet just 2 per cent of the heat paid for. This is because solar thermal is a complimentary heating technology not typically capable of producing heat in the volumes seen from the other technologies.

Table 9 - Forecast annual heat generation by technology for the Social Landlord Competition, Great Britain

Tariff Band	Estimated annual heat generation		Number of installations	
	MWh	%	Number	%
Air source heat pump	56,970	85%	5,387	73%
Ground source heat pump	7,323	11%	375	5%
Biomass systems	1,424	2%	410	6%
Solar thermal	1,628	2%	1,257	17%
Total	67,345		7,429	

Source: DECC analysis
Note: In order to estimate the heat generated by RHPP systems, average load factors were calculated for each technology using the annual heat demand of RHPP recipients which have subsequently applied for the domestic RHI.

Grants

Due to the competitive nature of the Social Landlord schemes, different amounts were paid to different projects. Over the course of the Social Landlord scheme, payments totalling £18.6 million were made.

- During Phase 1, £3.7m was paid;
- During Phase 2, Phase 2 Top-up, Phase 3 and Phase 3 Top-Up combined £7.4m was paid;
- During Reach out, Fast track and Fast track top up £7.5m was paid.

RHPP Community Scheme

Installations

The RHPP2 Communities Scheme, launched on 24 July 2012, resulted in participation from twenty-eight community groups, representing 31 projects. These groups managed the installation of 365 renewable heating technologies into 323 homes.

The total installed capacity for biomass boilers, ASHPs and GSHPs is 3.9 MW and it is estimated that the solar thermal systems installed are capable of generating 0.1 MWh of heat per year. Unlike the other RHPP schemes, biomass was the most popular space heating technology with substantially fewer GSHPs installed under the communities scheme than the other eligible technologies (see Table 10).

Table 10 - Installations by technology for the Communities Scheme, Great Britain

Application status	Installations	
	Number	% of total
Air source heat pump	89	24%
Ground source heat pump	5	1%
Biomass boiler	133	36%
Solar thermal	138	38%
Total	365	100%

Source: RHPP Official Statistics
Note: Disaggregated capacity data for installations under the Community Scheme are not available; consequently, estimates for forecast heat generation have not been produced.

Table 11 - Installations by region for the Communities Scheme, Great Britain

Region	Installations	
	Number	% of total
England	250	68%
South West	118	32%
South East	56	15%
East of England	7	2%
West Midlands	3	1%
North West	6	2%
Yorkshire and the Humber	36	10%
East Midlands	18	5%
North East	3	1%
London	4	1%
Scotland	61	17%
Wales	53	15%
Total	365	

Source: RHPP Official Statistics

Grants

Payments totalling £910,089 were paid out over the course of the scheme.

User Feedback

Please send any comments or queries regarding these statistics to the contact details below:

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