



Renewable Heat Incentive quarterly statistical release, deployment to September 2015

22 October 2015

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This document is also available from our website at www.gov.uk/decc

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Key points

Non-domestic RHI

- As at 30 September 2015, a total of 14,439 full applications to join the scheme had been received since it launched in November 2011, with a combined capacity of 2.36 GW. Of the 14,439 applications, 12,598 have been accredited with a combined capacity of 2.02 GW, with 11,048 of these accreditations having received a payment for heat generated under the scheme.
- In quarter 3 of 2015 there were a total of 549 full applications to join the non-domestic scheme. This was 42 per cent less than in the second quarter of 2015 and a 64% decrease on the number of applications received in the first quarter of 2015. This decreasing trend is largely driven by a lower number of applications being received for small biomass boilers over time. This is likely due to the small biomass tariff having been reduced each quarter since July 2014. Tariff reduction is a means of keeping the scheme within budget over time. For more information, refer to *Degression* in the glossary.
- Since the launch of the scheme, 86 per cent of full applications and 88 per cent of accreditations have been for small biomass boilers. Small and medium biomass boilers combined are responsible for 93 per cent of full applications and 95 per cent of accreditations.
- In total, 4,759 GWh of heat has been generated and paid for under the non-domestic RHI scheme, 88 per cent of which has come from biomass installations and 11 per cent from biomethane injected into the grid.

Domestic RHI

- As at 30 September 2015 there had been 45,869 unique applications to join the scheme (17,360 from new installations installed since 9 April 2014), of which 42,289 had been accredited.
- As at 30 September 2015, 44 per cent (18,422) of all accreditations were for air source heat pumps, 25 per cent (10,646) were for biomass boilers, 17 per cent (7,140) were for solar thermal, with ground source heat pumps accounting for 14 per cent (6,081) of accreditations.
- Of the 42,289 accreditations, 15,745 were from new installations (applicants who had systems installed on or after the domestic RHI scheme launch date of 9 April 2014) and 26,544 were from legacy applications (applications for systems installed between 15 July 2009 and launch of the scheme, on 9 April 2014).
- Of the accreditations from new installations, 47 per cent (7,352) were for biomass boilers, 35 per cent (5,491) were for air source heat pumps, 12 per cent (1,819) were for solar

thermal, with ground source heat pumps accounting for 7 per cent (1,083) of accreditations.

- A 10% reduction to the biomass tariff (from 7.14p/KWh to 6.43p/KWh) came into force from 1 October 2015 which prompted an increase in new biomass applications throughout September (560). The spike in biomass applications during September was not as pronounced as those experienced before previous reductions, in June (1,053) and March (1,797). This could be evidence that the tariff reductions are causing a decline in demand.

Introduction

This quarterly publication provides a summary of the deployment of renewable heat technologies under the non-domestic Renewable Heat Incentive (RHI), which was launched in November 2011, and the domestic RHI, which was launched in April 2014.

Statistics are reported on the number of applications, accredited installations, installed capacity and heat generation. Breakdowns are provided by region, quarter and technology where appropriate.

The statistics are based on data collected as part of the application process for each scheme. Some RHI applications 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.

This statistical release contains two sections:

- Section 1 provides deployment data on the non-domestic RHI scheme;
- Section 2 provides deployment data on the domestic RHI scheme.

Feedback

The purpose of this statistical release is to provide useful information about the RHI scheme, therefore we welcome any feedback from users.

Please direct any comments on the content of the report or suggestions for improvements to:
James White – james.white@decc.gsi.gov.uk

Section 1 - Non-domestic Renewable Heat Incentive scheme

Key points

- As at 30 September 2015, a total of 14,439 full applications to join the scheme had been received since it launched in November 2011, with a combined capacity of 2.36 GW. Of the 14,439 applications, 12,598 have been accredited with a combined capacity of 2.02 GW, with 11,048 of these accreditations having received a payment for heat generated under the scheme.
- In quarter 3 of 2015 there were a total of 549 full applications to join the non-domestic scheme. This was 42 per cent less than in the second quarter of 2015 and a 64% decrease on the number of applications received in the first quarter of 2015. This decreasing trend is largely driven by a lower number of applications being received for small biomass boilers over time. This is likely due to the small biomass tariff having been reduced each quarter since July 2014. Tariff reduction is a means of keeping the scheme within budget over time. For more information, refer to *Degression* in the Glossary section.
- Since the launch of the scheme, 86 per cent of full applications and 88 per cent of accreditations have been for small biomass boilers. Small and medium biomass boilers combined are responsible for 93 per cent of full applications and 95 per cent of accreditations.
- In total, 4,759 GWh of heat has been generated and paid for under the non-domestic RHI scheme, 88 per cent of which has come from biomass installations and 11 per cent from biomethane injected into the grid.

1.1 Background to the scheme

The non-domestic Renewable Heat Incentive (RHI) is a long-term financial incentive scheme introduced in Great Britain in November 2011 to support the uptake of renewable heat in the non-domestic sector.

The scheme provides payments to industrial, commercial, public sector and not-for-profit organisations, as well as district heating schemes for domestic properties, which are generating heat from technologies including:

- Biomass boilers;
- Heat pumps;
- Solar thermal;
- Biogas; and
- Biomethane.

As of 28 May 2014 a change in the non-domestic scheme regulations came into effect. These new regulations introduced additional eligible technologies, for example air source heat pumps.

Further information on the non-domestic RHI scheme can be found at:
<https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi>.

This section provides statistics on the number of applications and accreditations from the 28 November 2011 (launch date) to 30 September 2015 based on data captured as part of the application process for the scheme.

The tables that accompany this statistical release are available at:

<https://www.gov.uk/government/collections/renewable-heat-incentive-statistics>

1.2 Applications and accreditations

As at 30 September 2015, 14,439 full applications had been received to join the scheme. Of these, 12,598 have been accepted onto the scheme, and of these 11,048 have received one or more payments for heat generated under the scheme. Small biomass boilers continue to dominate the scheme, despite applications for this technology having declined in recent months. Small biomass boilers represent 86 per cent of full applications and 88 per cent of accreditations to date.

At the end of September 2015, 141 preliminary applications had been received, 18 per cent of which were for medium solid biomass boilers, 11 per cent of which were for large solid biomass boilers, 10 per cent of which were for CHP and 59 per cent of which were for biogas. A preliminary accreditation provides applicants with reassurance that once the proposed installation is built and the owner submits a full application, the system will be accredited provided the installation is built in line with the submitted plans and all other conditions are met.

Table 1.1 below sets out the number of applications and accreditations by technology.

Table 1.1 – Number of applications and accreditations by technology, Great Britain, November 2011 to September 2015

Tariff Band ¹	Full ² applications		Accredited installations		Preliminary ³ applications and accreditations		Capacity of full applications		Capacity of accredited installations		Capacity of preliminary applications and accreditations	
	Number	% of total	Number	% of total	Number	% of total	MW	% of total	MW	% of total	MW	% of total
Small Solid Biomass Boiler (< 200 kW) ⁷	12,431	86%	11,147	88%	-	-	1,479.9	63%	1,348.1	67%	-	-
Medium Solid Biomass Boiler (200-1000 kW)	947	7%	786	6%	26	18%	558.7	24%	474.0	23%	18.2	5%
Large Solid Biomass Boiler (> 1000 kW)	37	0%	26	0%	15	11%	200.6	8%	150.8	7%	169.5	46%
Small Solar Thermal (< 200 kW)	268	2%	195	2%	-	-	4.1	0%	2.9	0%	-	-
Small Water or Ground Source Heat Pumps (< 100 kW)	414	3%	303	2%	-	-	11.1	0%	8.1	0%	-	-
Large Water or Ground Source Heat Pumps (>100 kW)	94	1%	45	0%	-	-	55.2	2%	21.6	1%	-	-
Biomethane ⁵	44	0%	30	0%	3	2%	-	-	-	-	-	-
Biogas	80	1%	27	0%	83	59%	47.2	2%	14.3	1%	36.3	10%
Air Source Heat Pumps	122	1%	39	0%	-	-	2.9	0%	0.9	0%	0.0	0%
CHP	2	0%	0	0%	14	10%	1.3	0%	0.0	0%	143.2	39%
Deep Geothermal	0	0%	0	0%	0	0%	0.0	0%	0.0	0%	0.0	0%
Total ⁴	14,439	100%	12,598	100%	141	100%	2,360.9	100%	2,020.7	100%	367.2	100%

Notes:

1. A change to the non-domestic regulations came into effect on 28 May 2014. These changes allow more technologies onto the scheme and adjust how some of the tariff bands are structured.
2. 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.
3. A preliminary application can become accredited but is removed from this column if subsequently a full application is made.
4. Duplicate, withdrawn and cancelled applications are not included in this or any other table.
5. Biomethane plants do not generate power and therefore do not have an associated capacity.
6. Heat pumps, solar thermal and small biomass boilers are not eligible to submit preliminary applications.

Source:

Ofgem

1.3 Application and accreditation rates

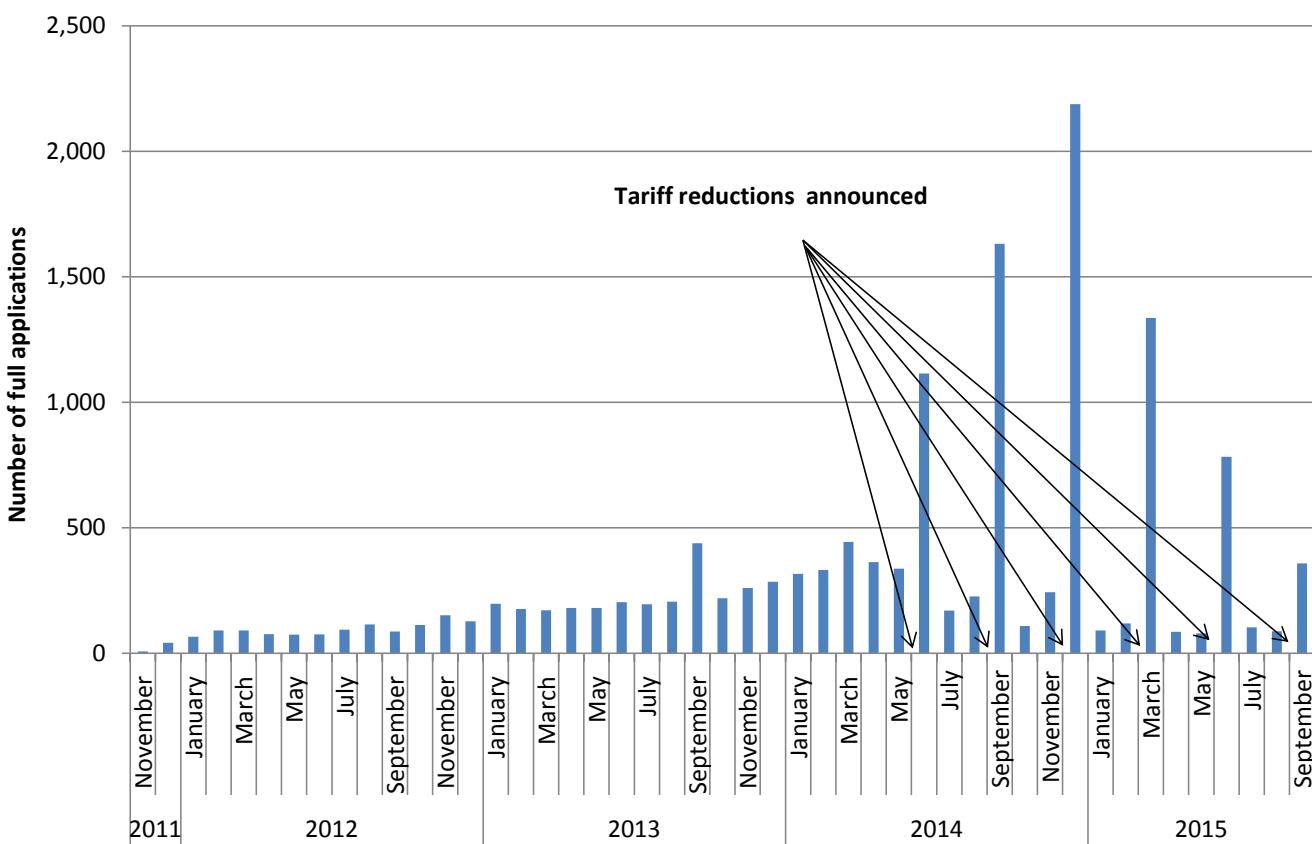
In the first 3 quarters of 2015 there has been a decrease in the total number of applications received, driven by a fall in small biomass applications. This could be evidence that the reductions to this tariff are reducing the popularity of this type of system.

The peaks in applications seen in June, September and December 2014, and March, June and September 2015, are due to announcements in their respective previous months of reductions to the small biomass tariff. These announcements prompt applicants who may be planning on submitting an application in the coming months to act earlier to ensure they received the tariff rate prior to its reduction. These peaks are visible on Figure 1.1 (below), depicting applications per month. Whilst September 2015 represents a peak compared to July and August 2015, it is smaller than previous peak following tariff reductions.

Tariffs are automatically reduced if forecast expenditure to a particular technology, or the scheme as a whole, exceeds pre-determined levels. Further information is available at:

<https://www.gov.uk/government/statistical-data-sets/rhi-mechanism-for-budget-management-estimated-commitments>

Figure 1.1 – Number of full applications per month, Great Britain



Source:

Ofgem

Table 1.2 below shows the number of applications by date of first submission and the number of accreditations by date of first approval. The increase in applications seen between Q2 and Q3 2013 was partly due to changes in air quality requirements that came into effect on the 24

September 2013, and which require applicants who install biomass boilers to submit an RHI emission certificate or an environmental permit with their application. Further details of the air quality regulations can be found on the government website at:

<https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi>.

Table 1.2 - Number of applications per quarter, Great Britain, Q4 2011 to Q3 2015

		Number of full applications (by date of first submission)	Cumulative number of full applications	Number of full accreditations (by date first approval)	Cumulative number of full accreditations	Total installed capacity (MW) (by date of first approval)	Cumulative installed capacity
2011	Q4	49	49	2	2	0.0	0.0
2012	Q1	248	297	16	18	2.3	2.4
	Q2	225	522	93	111	35.3	37.7
	Q3	296	818	210	321	39.8	77.5
	Q4	391	1,209	392	713	66.7	144.2
2013	Q1	544	1,753	472	1,185	99.2	243.4
	Q2	566	2,319	533	1,718	108.3	351.7
	Q3	839	3,158	633	2,351	131.2	482.9
	Q4	764	3,922	519	2,870	90.6	573.5
2014	Q1	1,092	5,014	851	3,721	112.5	685.9
	Q2	1,815	6,829	1,075	4,796	162.0	847.9
	Q3	2,028	8,857	1,237	6,033	186.1	1,034.0
	Q4	2,539	11,396	1,200	7,233	177.8	1,211.8
2015	Q1	1,546	12,942	1,668	8,901	265.7	1,477.5
	Q2	948	13,890	1,995	10,896	271.6	1,749.0
	Q3	549	14,439	1,702	12,598	271.7	2,020.7
Total		14,439		12,598		2,020.7	

Notes:

1. The RHI started on the 28 November 2011. Please note figures may change between monthly publications as applicants provide additional information and installation dates may change.

Source:
Ofgem

1.4 Heat generated

Heat generated is calculated by Ofgem from the meter readings of accredited scheme participants. Meter readings are collected and processed to ensure that the correct amount of support can be paid.

As at 30 September 2015, installations on the non-domestic RHI scheme had provisionally generated 4.8 TWh of eligible heat, up from 4.02 TWh at the end of June 2015. Biomass boilers dominate heat generation with 10,564 systems responsible for 88 per cent of heat generated and paid for under the scheme – small biomass boilers 42 per cent (2,015 GWh), medium biomass boilers 29 per cent (1,368 GWh) and large biomass boilers 17 per cent (806 GWh). Bio-methane was responsible for 11 per cent (510 GWh) of heat generated. Table 1.3 shows total heat generated at the end of September 2015 by technology.

Table 1.3 - Heat generated and number of installations receiving payment by technology type, Great Britain, November 2011 to September 2015

Technology	Heat generated and paid for under the scheme		Number of installations receiving payment	
	GWh	%	Number	%
Small biomass boiler (<200 kW)	2,015	42%	9,852	89%
Medium biomass boiler (200-1000 kW)	1,368	29%	690	6%
Large biomass boiler (>1000 kW)	806	17%	22	0%
Solar thermal (<200 kW)	2	0%	175	2%
Small water or ground source heat pumps (< 100 kW)	20	0%	219	2%
Large water or ground source heat pumps (>100 kW)	26	1%	38	0%
Air Source Heat Pumps	1	0%	11	0%
CHP	0	0%	0	0%
Deep Geothermal	0	0%	0	0%
Biogas	12	0%	16	0%
Total (1)	4,249	89%	11,023	100%
Equivalent heat generated by gas produced				
	GWh	%	Number	%
Biomethane (2)	510	11%	25	0%
Overall total (1) + (2)	4,759	100%	11,048	100%

Notes:

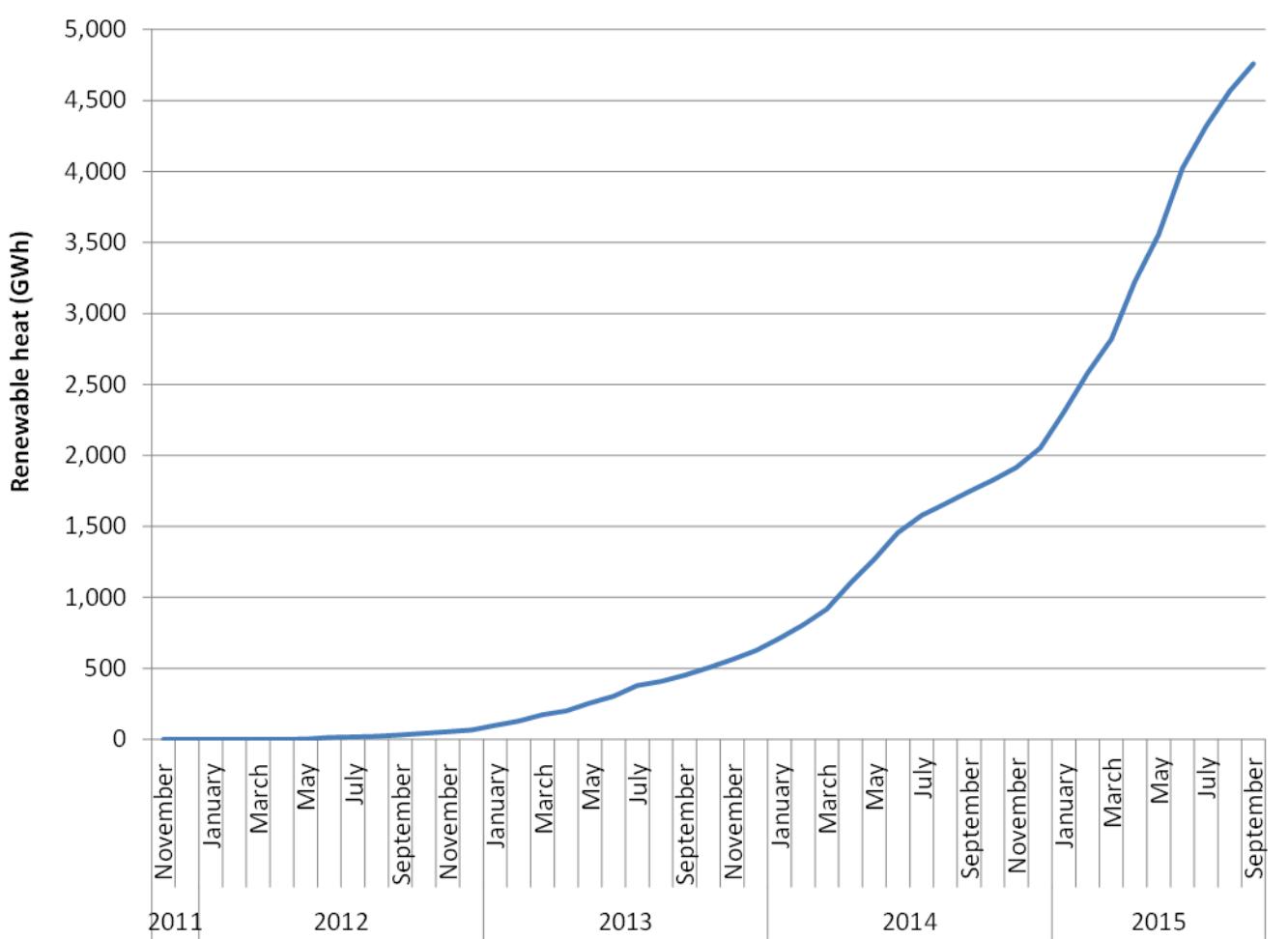
A distinction has been made between metered heat, generated on site and the equivalent energy of biomethane injected into the gas grid.

Source:

Ofgem

Figure 1.2 shows heat generated and paid for under the non-domestic RHI scheme. The amount of heat paid for in the third quarter of 2015 (736 GWh) was 39 per cent lower than the second quarter of 2015 (1,204 GWh). This decrease is likely due to lower heat demand during the summer months compared to the previous quarter (April-June).

Figure 1.2 – Cumulative heat generated and paid for, Great Britain



Notes:

These data relate to the period when the payment was made for heat generated not the period in which heat was actually generated.

Source:

Ofgem

1.5 Regional breakdown of applications

A large proportion of applicants are located in regions with large rural areas such as the South West (15 per cent) and Scotland (19 per cent). It is likely this is because many rural areas are not on the gas grid and applicants will be replacing solid fuel or oil burning systems with renewable systems.

Table 1.4 shows a regional breakdown for the number of applications, accreditations and their capacities.

Table 1.4 - Number of applications and capacity by region, November 2011 to September 2015

Region	Full applications		Accredited installations		Capacity of full applications		Capacity of accredited installations	
	Number	% of total	Number	% of total	MW	% of total	MW	% of total
England	10,269	71%	9,033	72%	1,688.1	72%	1,457.1	72%
South West	2,173	15%	1,906	15%	283.2	12%	247.3	12%
West Midlands	1,425	10%	1,256	10%	258.3	11%	228.0	11%
Yorkshire and the Humber	1,496	10%	1,301	10%	249.1	11%	204.4	10%
North West	1,342	9%	1,172	9%	210.4	9%	186.7	9%
South East	942	7%	804	6%	162.1	7%	129.7	6%
East Midlands	1,306	9%	1,171	9%	234.0	10%	206.3	10%
East of England	984	7%	906	7%	187.8	8%	171.1	8%
North East	525	4%	459	4%	78.1	3%	65.4	3%
London	76	1%	58	0%	25.1	1%	18.2	1%
Scotland	2,703	19%	2,327	18%	470.3	20%	385.7	19%
Wales	1,467	10%	1,238	10%	202.5	9%	177.8	9%
Total	14,439		12,598		2,360.9		2,020.7	

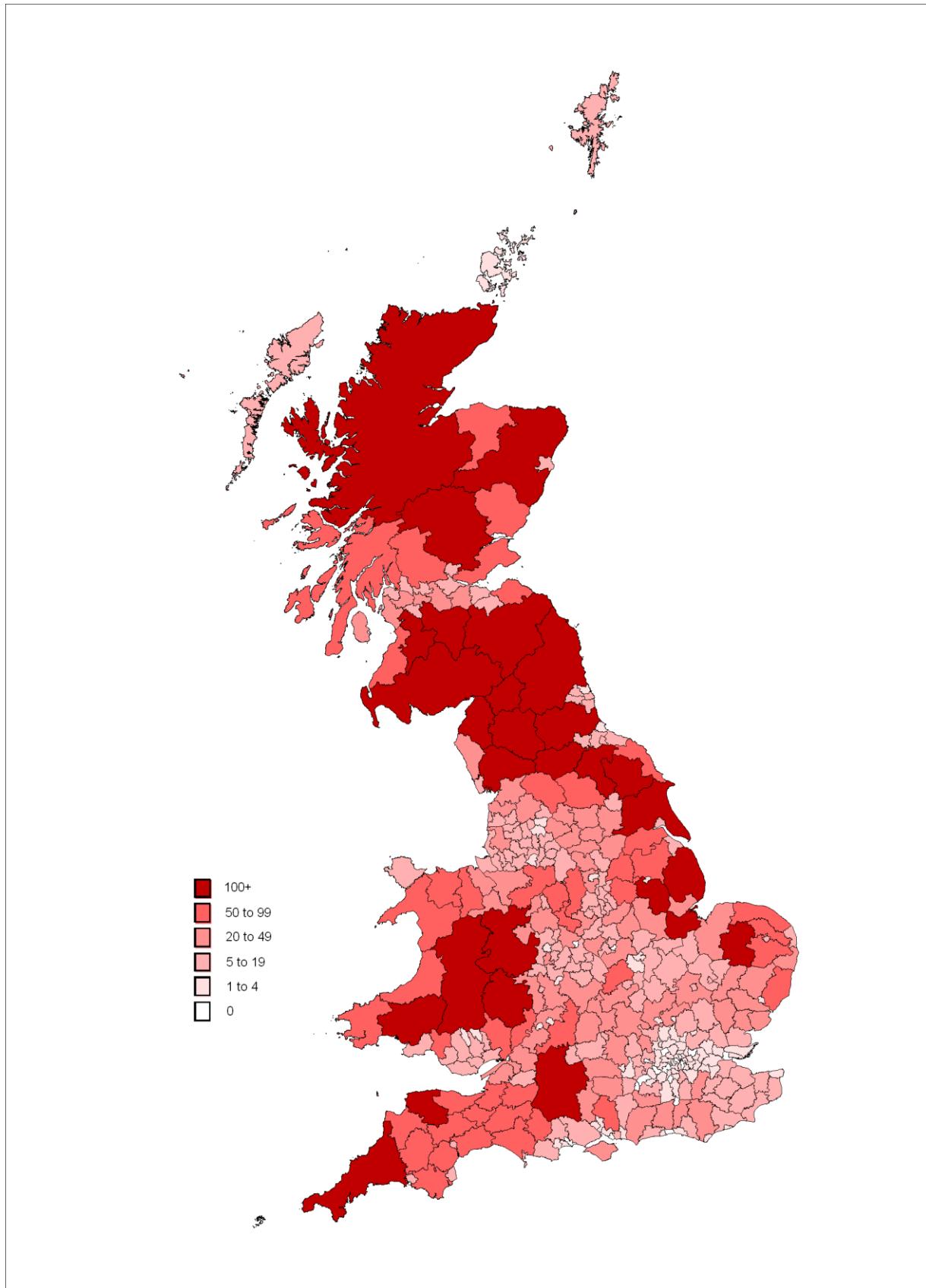
Source:

Ofgem

Notes:

The number of applications in a region may occasionally reduce in a month as applicants withdraw or are rejected from the scheme.

Figure 1.3 - Number of accredited installations by local authority, 30 September 2015

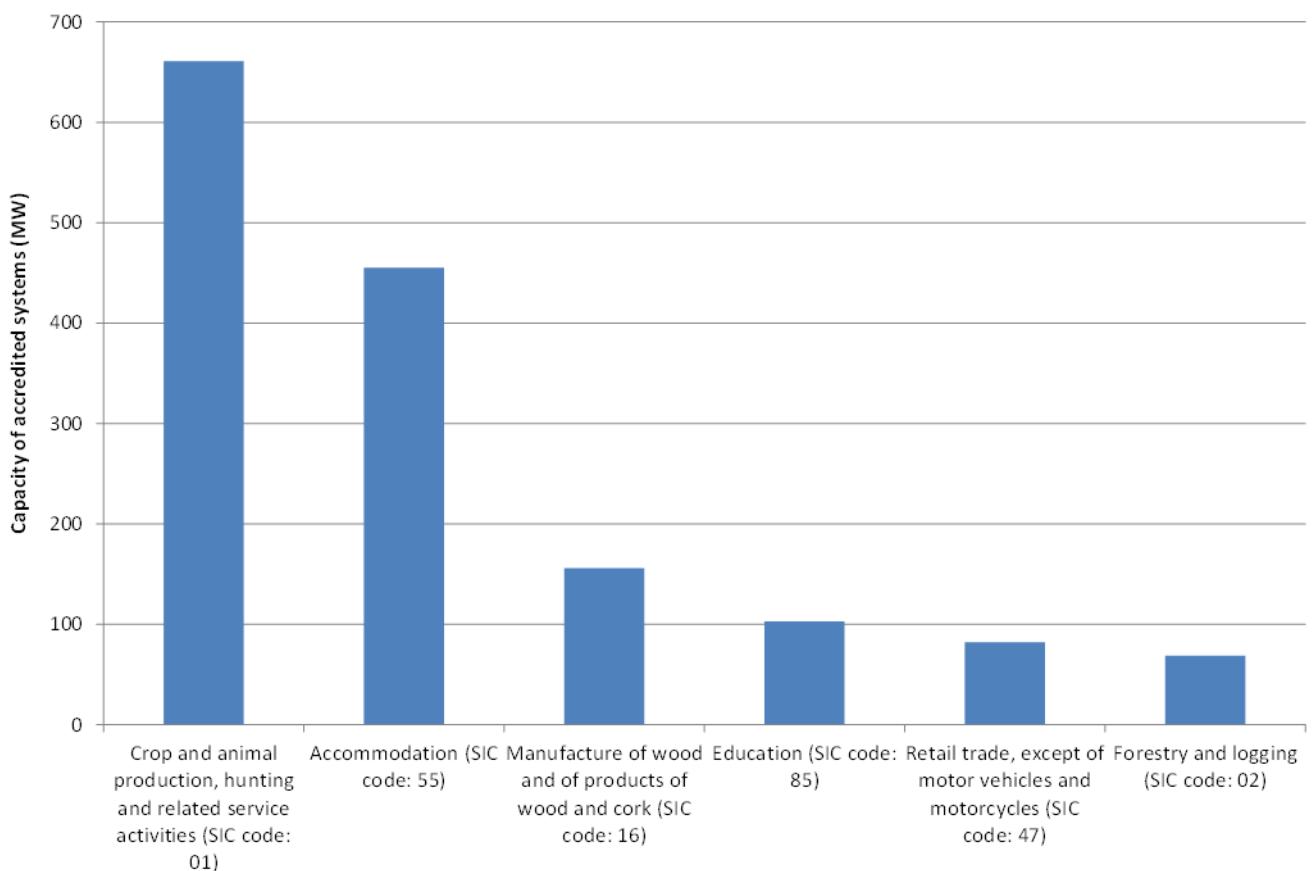


Source:
Ofgem

1.6 Installed capacity by Standard Industrial Classification (SIC) code

As at 30 September 2015, the combined capacity of all accredited installations was 2,020.7 MW. Thirty-three per cent of accredited capacity has been installed in the crop and animal production sector (SIC Code 1), and 23 per cent has been installed in the accommodation sector (SIC Code 55).

Figure 1.4 - Capacity of accredited installations by Standard Industrial Classification Code (SIC), Great Britain, November 2011 to September 2015



Source:
Ofgem

Further information on SIC codes is available at:

<http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html>

Section 2 - Domestic Renewable Heat Incentive scheme

Key points

- As at 30 September 2015 there had been 45,869 unique applications to join the scheme (17,360 from new installations installed since 9 April 2014), of which 42,289 had been accredited.
- As at 30 September 2015, 44 per cent (18,422) of all accreditations were for air source heat pumps, 25 per cent (10,646) were for biomass boilers, 17 per cent (7,140) were for solar thermal, with ground source heat pumps accounting for 14 per cent (6,081) of accreditations.
- Of the 42,289 accreditations, 15,745 were from new installations (applicants who had systems installed on or after the domestic RHI scheme launch date of 9 April 2014) and 26,544 were from legacy applications (applications for systems installed between 15 July 2009 and launch of the scheme, on 9 April 2014).
- Of the accreditations from new installations, 47 per cent (7,352) were for biomass boilers, 35 per cent (5,491) were for air source heat pumps, 12 per cent (1,819) were for solar thermal, with ground source heat pumps accounting for 7 per cent (1,083) of accreditations.
- A 10% reduction to the biomass tariff (from 7.14p/KWh to 6.43p/KWh) came into force from 1 October 2015 which prompted an increase in new biomass applications throughout September (560). The spike in biomass applications during September was not as pronounced as those experienced before previous reductions, in June (1,053) and March (1,797). This could be evidence that the tariff reductions are causing a decline in demand.

2.1 Background to the scheme

The domestic Renewable Heat Incentive (RHI) is a financial incentive scheme introduced to encourage a switch to renewable heating systems in the domestic sector. This scheme is replacing the renewable heat premium payment (RHPP) schemes as the department's main

programme of support for domestic renewable heat. Launched on 9 April 2014 in Great Britain, participants of the scheme receive tariff payments for the heat generated from an eligible renewable heating system which is heating a single dwelling. The scheme covers single domestic dwellings and is open to owner-occupiers, private landlords, social landlords and self-builders. There are four renewable heating technologies covered by the scheme:

- Air-source heat pumps (ASHP);
- Ground and water-source heat pumps (GSHP);
- Biomass-only boilers and biomass pellet stoves with integrated boilers; and
- Solar thermal panels.

Further information on the domestic RHI scheme can be found at:

<https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi>

This section provides statistics on the number of applications and accreditations from 9 April 2014 (launch date) to 30 September 2015 based on data captured as part of the application process for the scheme.

The tables that accompany this statistical release are available at:

<https://www.gov.uk/government/collections/renewable-heat-incentive-statistics>

2.2 Applications and accreditations

At 30 September 2015 there had been 45,869 applications and 42,289 accreditations of which 38 and 37 per cent respectively were from new installations.

2.2.1 New installations

New installations refer to systems installed on or after the launch of the domestic RHI scheme on 9 April 2014. Such applicants have not received RHPP or any other government funding. As at 30 September 2015 there had been 17,360 applications for new installations to join the domestic RHI scheme and 15,745 of these had gone through full checks by Ofgem to ensure they comply with the relevant conditions, and had been accredited.

Since scheme launch, 47 per cent of accreditations from new installations were for biomass systems, 35 per cent for ASHPs, 12 per cent for solar thermal and 7 per cent for GSHPs.

2.2.2 Legacy installations

Legacy applicants are those who installed between 15 July 2009, when the scheme was first announced, and 9 April 2014 when the RHI scheme was first launched. The deadline for legacy applicants to apply was 8 April 2015, after which time only applicants with mitigating circumstances may apply. As at 30 September 2015, of the 45,869 applications to join the domestic RHI scheme, 62 per cent (28,509) were from legacy applicants. 26,544 (93 per cent) of the legacy applications have been accredited, with 49 per cent of accreditations for ASHP, 20 per cent for solar thermal, 12 per cent for biomass systems and 19 per cent for GSHP. Of the

26,544 accredited legacy applicants, nearly half had previously received a grant from the renewable heat premium payment scheme.

Table 2.1 below details the number of applications and accreditations by technology and by legacy and new installations.

Table 2.1 - Number of applications and accreditations by technology type, Great Britain, April 2014 to September 2015

New installations²

Tariff Band	Applications ³		Accreditations	
	Number	% of total	Number	% of total
Air source heat pump	6,242	36%	5,491	35%
Ground source heat pump	1,274	7%	1,083	7%
Biomass systems	7,829	45%	7,352	47%
Solar thermal	2,015	12%	1,819	12%
Total	17,360	100%	15,745	100%

Legacy installations⁴

Tariff Band	Applications		Accreditations	
	Number	% of total	Number	% of total
Air source heat pump	13,990	49%	12,931	49%
Ground source heat pump	5,312	19%	4,998	19%
Biomass systems	3,421	12%	3,294	12%
Solar thermal	5,786	20%	5,321	20%
Total	28,509	100%	26,544	100%

Total (New & legacy installations)

Tariff Band	Applications		Accreditations	
	Number	% of total	Number	% of total
Air source heat pump	20,232	44%	18,422	44%
Ground source heat pump	6,586	14%	6,081	14%
Biomass systems	11,250	25%	10,646	25%
Solar thermal	7,801	17%	7,140	17%
Total	45,869	100%	42,289	100%

Notes:

1. Data cover the period 9 April 2014 (launch date of the domestic RHI scheme) to 30 September 2015.
2. New installations refers to applications for systems installed after the launch of the domestic RHI scheme on 9 April 2014.
3. An 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.
4. Legacy refers to all applications for systems installed before the launch of the domestic RHI scheme on 9 April 2014, whether they claimed a RHPP voucher or not.
5. The deadline for the submission of legacy applications was 08/04/2015. Applicants installing certain products have been granted an extension to this deadline and some participants have been granted extensions due to extenuating circumstances.

Source:

Ofgem

Analysis from this point forward is based on new and legacy installations combined – unless specified.

2.3 Applications received by application status

As at 30 September 2015, 42,289 applications had received accreditation (92 per cent of all applications). There were 1,244 applications under review by Ofgem in order to determine the applicant's eligibility for accreditation onto the scheme (3 per cent of all applications). A further 2,084 applications (4 per cent of applications) either failed to meet the criteria of the online application system or were rejected by Ofgem upon the application being reviewed manually. There are 252 applications which gained accreditation and have subsequently been cancelled by the applicant.

Table 2.2 below shows applications received by technology and status of application as at 30 September 2015.

Table 2.2 - Application status, Great Britain, April 2014 to September 2015

Tariff Band		Application status					Total
		Accredited	In review ²	Rejected ^{1,3}	Failed ^{1,3}	Cancelled ³	
Air source heat pump	Number	18,422	487	1,233	23	67	20,232
	% of total	91%	2%	6%	0%	0%	100%
Ground source heat pump	Number	6,081	215	236	13	41	6,586
	% of total	92%	3%	4%	0%	1%	100%
Biomass systems	Number	10,646	379	163	12	50	11,250
	% of total	95%	3%	1%	0%	0%	100%
Solar thermal	Number	7,140	163	387	17	94	7,801
	% of total	92%	2%	5%	0%	1%	100%
Total	Number	42,289	1,244	2,019	65	252	45,869
	% of total	92%	3%	4%	0%	1%	100%

Notes:

1. Rejected applicants have been manually reviewed by Ofgem whereas failed application did not progress past the online application system.

2. The number in review will fluctuate over time as applications are processed and the status changes to one of the other categories in the table.

3. Where subsequent applications are received in place of a previously rejected, failed or cancelled application only the later is counted for our figures, as such the numbers in these categories will fluctuate over time.

Source:
Ofgem

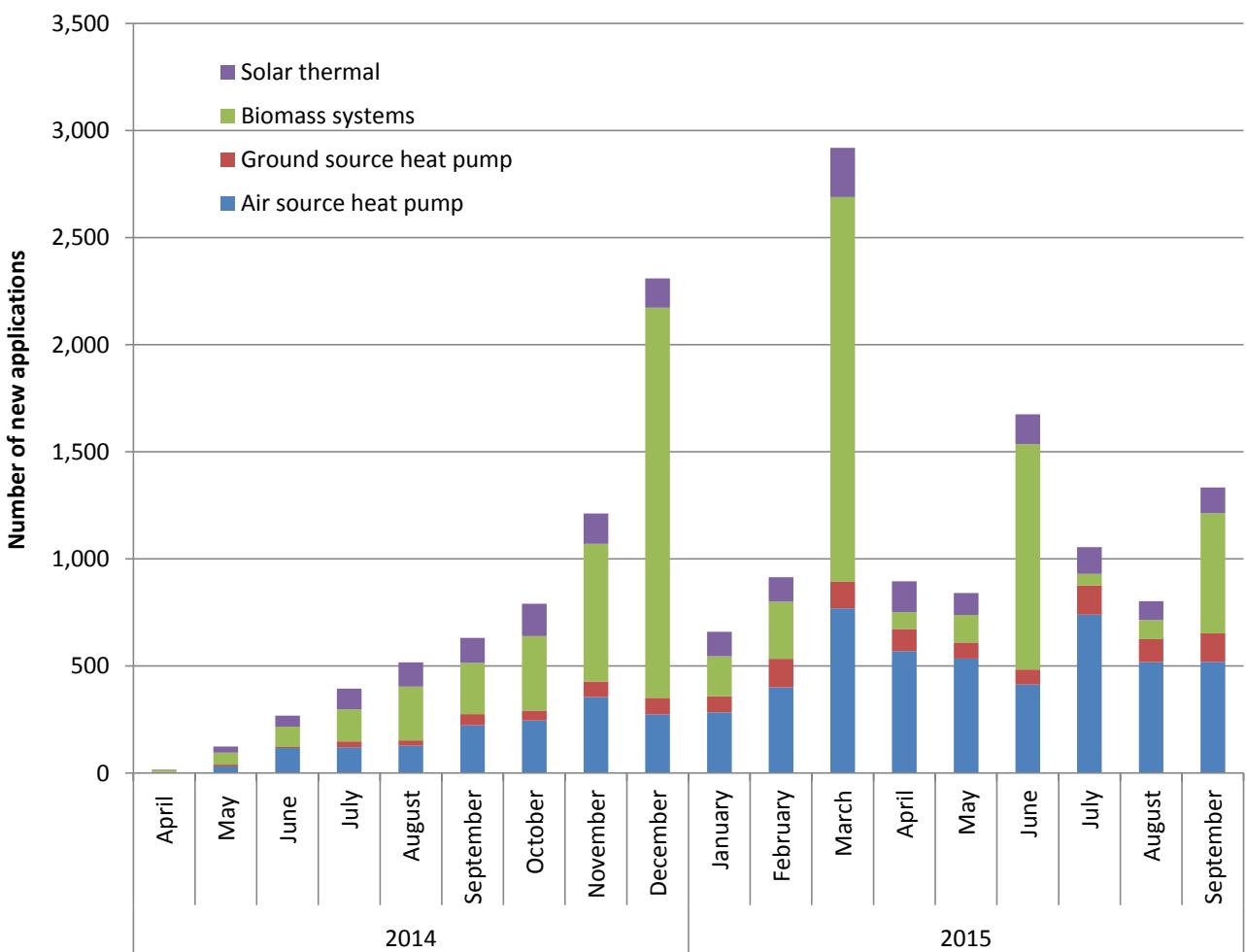
2.4 Application and accreditation rates

Since the scheme began there have been fluctuations in the number of applications received per month. There were specific increases in application rates during July, October and December 2014 and March, June and September 2015. The July and October 2014 peaks are largely due to two groups of RHPP recipients being eligible to apply; the first group became eligible on 9 July 2014 and the second on 9 October 2014. The increased application rate in December 2014 was likely due to new biomass applicants submitting applications prior to the 10 per cent biomass tariff reduction which came into effect from 1 January 2015.

The large spike in applications in March 2015 was predominantly due to legacy applicants joining the scheme before the deadline for participation arrived on 8 April 2015. There was also an increase in new biomass applicants due to a 20% reduction to the biomass tariff affecting new participants applying after 1 April 2015. Out of these two contributing factors, legacy applicants had the greater impact, accounting for 66 per cent of applications in March.

The increase in applications in September 2015 was due to an influx of new biomass applications as a 10% reduction to the tariff will affect all applications submitted from 1 October 2015. The increase in new biomass applications in September was not as pronounced as the previous spikes caused by tariff reductions in March 2015 and December 2014. This could be evidence that the reduction in tariffs is decreasing the demand previously seen for this technology.

Figure 2.1 – New applications per month by technology, Great Britain, April 2014 to September 2015



Source:

Ofgem

Table 2.3 below shows the number of applications by date received and the number of accreditations onto the scheme by date accredited. In the last quarter (Q3 2015), 3,433 applications to the domestic RHI scheme were received, and 5,011 applications were granted accreditation. The third quarter of 2015 is a decrease from the previous quarter. The decrease is because the deadline for legacy participants to apply to the domestic RHI was 8 April 2015 – the only legacy applicants allowed to apply after this date are those with mitigating

circumstances. During the first year of the domestic RHI, legacy applicants have accounted for 66 per cent of participants.

Table 2.3 - Number of applications and accreditations per month, Great Britain, April 2014 to September 2015

		Number of applications	Cumulative number of applications	Number of accreditations	Cumulative number of accreditations
2014	April	760	760	364	364
	May	974	1,734	730	1,094
	June	1,052	2,786	1,120	2,214
	July	3,572	6,358	2,513	4,727
	August	2,551	8,909	2,494	7,221
	September	2,331	11,240	2,523	9,744
	October	4,075	15,315	3,260	13,004
	November	2,862	18,177	2,725	15,729
	December	3,657	21,834	3,201	18,930
2015	January	2,022	23,856	2,502	21,432
	February	3,304	27,160	2,850	24,282
	March	8,716	35,876	6,018	30,300
	April	3,907	39,783	2,441	32,741
	May	862	40,645	1,688	34,429
	June	1,791	42,436	2,849	37,278
	July	1,204	43,640	2,375	39,653
	August	843	44,483	1,276	40,929
	September	1,386	45,869	1,360	42,289
2014	Q1	-	-	-	-
	Q2	2,786	2,786	2,214	2,214
	Q3	8,454	11,240	7,530	9,744
	Q4	10,594	21,834	9,186	18,930
2015	Q1	14,042	35,876	11,370	30,300
	Q2	6,560	42,436	6,978	37,278
	Q3	3,433	45,869	5,011	42,289
Total		45,869		42,289	

Note:

Monthly application figures may change due to participants cancelling and re-submitting applications in order to change certain details of the application.

Source:

Ofgem

2.5 Heat generated

As at 30 September 2015, 437 GWh of heat had been paid for under the domestic RHI scheme. 117 GWh of heat was generated by air source heat pumps (27 per cent), 67 GWh by ground source heat pumps (15 per cent), 245 GWh by biomass systems (56 per cent) and 8 GWh by solar thermal (2 per cent). Payments are calculated using either estimates of annual heat demand (determined via green deal assessment) or meter readings provided by the applicant.

Whilst 56 per cent of heat generated to date is from biomass systems, they account for only 26 per cent of installations to have received one or more payments. This discrepancy is partly due to biomass systems typically being more powerful and therefore more likely to be installed within larger households. Conversely, solar thermal accounts for 18 per cent of the installations receiving payment yet just 2 per cent of the heat generated. This is because solar thermal is a complimentary heating technology not typically capable of producing heat in the volumes seen from the other technologies.

Accredited applicants will not receive their first payment until at least 3 months after they originally applied to the scheme. This is the reason for the discrepancy between the number of accredited applications and the number receiving payment.

Table 2.4 - Heat generated and number of installations receiving payment by technology, Great Britain, April 2014 to September 2015

Tariff Band	Heat paid for under the domestic scheme		Number of installations receiving payment	
	MWh	%	Number	%
Air source heat pump	117,294	27%	16,790	42%
Ground source heat pump	66,732	15%	5,737	14%
Biomass systems	244,758	56%	10,205	26%
Solar thermal	8,065	2%	6,944	18%
Total	436,849	100%	39,676	100%

Note:

Figures may not add up due to rounding.

Source:

Ofgem

The heat figures above are calculated using the data on tariff payments made as at 30 September 2015 to both new and legacy applicants.

2.6 Regional breakdown of applications and accreditations

A large proportion of applicants are located in regions with large rural areas such as the South West (17 per cent) and Scotland (19 per cent). It is likely this is because many rural areas are not on the gas grid and will be replacing solid fuel or oil burning systems with renewable systems.

Table 2.5 below shows applications and accreditation by region.

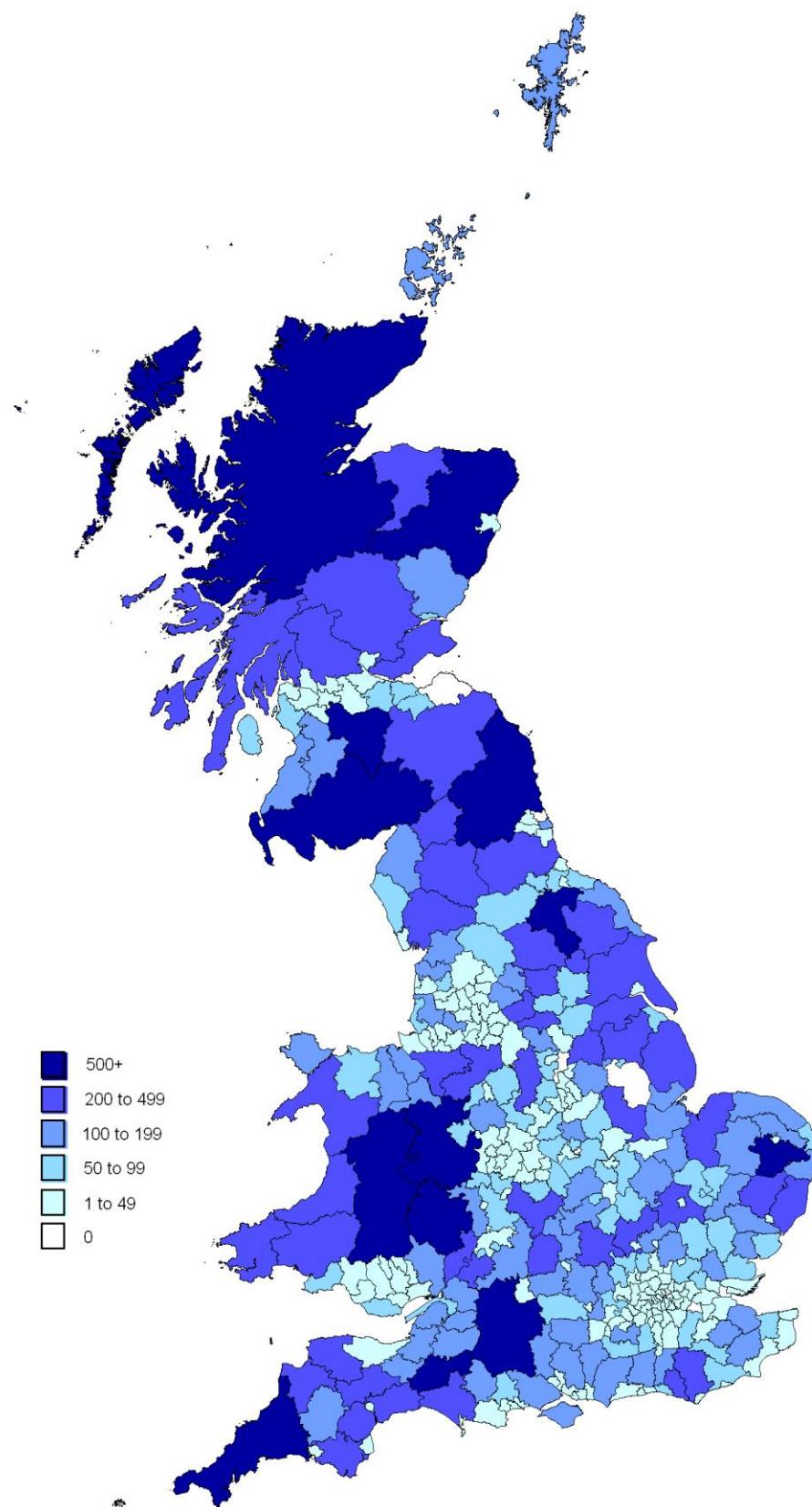
Table 2.5 - Number of applications and accreditations by region, April 2014 to September 2015

Regions	Total			
	Applications		Accreditations	
	Number	% of total	Number	% of total
England	33,768	74%	31,048	73%
South West	7,570	17%	6,918	16%
West Midlands	2,998	7%	2,663	6%
Yorkshire and the Humber	4,069	9%	3,795	9%
North West	2,810	6%	2,607	6%
South East	5,715	12%	5,220	12%
East Midlands	3,608	8%	3,374	8%
East of England	5,193	11%	4,818	11%
North East	1,394	3%	1,300	3%
London	411	1%	353	1%
Scotland	8,943	19%	8,314	20%
Wales	3,158	7%	2,927	7%
Total	45,869	100%	42,289	100%

Source:

Ofgem

Figure 2.2 - Number of accredited installations by local authority, 30 September 2015



Source:
Ofgem

2.7 Fuel types displaced

As part of the application process, applicants are asked what fuel type they have replaced with their renewable system. Of the total accreditations, Oil was the most common system being replaced, however across the different technologies there are different factors effecting which fuels are likely to be being replaced.

58 per cent of biomass systems are replacing oil boilers, this is likely because biomass systems are easily retro-fitted to work with conventional central heating systems. Nearly half (46 per cent) of GSHP installations fall into the other/NA category, it is anticipated that the majority of these systems are being installed in self built properties so are not replacing a previous system. GSHPs are probably more likely to be installed in self built properties because of the difficulties associated with retrofitting. ASHPs are replacing a mix of oil (26 per cent), electricity (30 per cent) and other/NA (25 per cent). Unlike the other technologies, solar thermal panels are complimentary heating systems and will be installed alongside another conventional or renewable heating system. Because of this, a high proportion are displacing heat previously generated by mains gas.

Table 2.6 provides a breakdown of fuel type displaced by technology for accredited installations.

Table 2.6 – Accreditations by previous fuel type, April 2014 to September 2015

Tariff Band		Fuel type displaced							Total
		Oil	Biomass	LPG	Coal	Electricity	Gas	Other / NA ¹	
Air source heat pump	Number % of total	4,787 26%	25 0%	593 3%	1,211 7%	5,617 30%	1,553 8%	4,636 25%	18,422 100%
Ground source heat pump	Number % of total	1,627 27%	11 0%	240 4%	163 3%	950 16%	283 5%	2,807 46%	6,081 100%
Biomass systems	Number % of total	6,225 58%	177 2%	850 8%	674 6%	1,374 13%	492 5%	854 8%	10,646 100%
Solar thermal ²	Number % of total	1,631 23%	37 1%	229 3%	169 2%	786 11%	3,065 43%	1,223 17%	7,140 100%
Total	Number % of total	14,270 34%	250 1%	1,912 5%	2,217 5%	8,727 21%	5,393 13%	9,520 23%	42,289 100%

Notes:

1. The 'Other / NA' category covers any application that is replacing a fuel type which is not covered by one of the six fuels in the table. It also covers accredited systems installed in new properties so no previous system was replaced.
2. Solar thermal panels are a complimentary technology that will be used in conjunction with another heating system.

Source:
Ofgem

2.8 Accreditations by tenure

At the end of September 2015, 75 per cent of systems accredited onto the domestic RHI were attributable to Owner Occupiers. A further 23 per cent were from Social Landlords, and 3 per

cent from Private Landlords. ASHPs are by far the most popular technology for social landlords, accounting for 81 per cent of systems installed by this demographic.

The proportion of applications from social landlords has increased for the third consecutive quarter, from 21 per cent in the second quarter of 2015 to 23 per cent in the third quarter of quarter of 2015. The original cause for this increase in applications from social landlords is probably in part the removal of their obligation to have green deal assessments for all the properties for which they apply.

Table 2.7 provides a breakdown of tenure by technology for accredited installations.

Table 2.7 - Accreditations by tenure, Great Britain, April 2014 to September 2015

Tariff Band	Private Landlord		Social Landlord		Owner Occupier		Total	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Air source heat pump	485	44%	7,794	81%	10,143	32%	18,422	44%
Ground source heat pump	204	18%	834	9%	5,043	16%	6,081	14%
Biomass systems	313	28%	279	3%	10,054	32%	10,646	25%
Solar thermal	102	9%	659	7%	6,379	20%	7,140	17%
Total	1,104	100%	9,566	100%	31,619	100%	42,289	100%

Notes:

- Rejected applicants have been manually reviewed by Ofgem whereas failed application did not progress past the online application system.

Source:

Ofgem

2.9 Accreditations by property type

As at 30 September 2015, 49 per cent of installations to have gained accreditation onto the domestic RHI scheme are situated within detached houses. A further 24 per cent of installations are situated within bungalows, 16 per cent are installed in semi-detached houses, 8 per cent are situated within Terraced houses, and 3 per cent are situated within a flat or maisonette.

Air source heat pumps are popular across all property types as their requirements and variety of size mean they are suitable for most types of dwelling. Ground source heat pumps are far more likely to be installed within a detached house than any other property type as they often need outside space to install ground loops or drill bore holes. 66 per cent of accredited GSHPs have been installed within detached houses and 19 per cent in bungalows. Biomass boilers are more likely to be installed in a detached or semi-detached house as these systems are more economical for larger properties with higher heat demands and often also require outside space to store fuel. Only 3 per cent of domestic RHI installations are used to heat either a Flat or Maisonette despite such properties accounting for approximately a fifth of households in Great Britain.

2.10 On/off gas split of accredited installations

The majority of accredited RHI installations on the domestic scheme are within households located off the gas grid (73 per cent). This is likely due to the financial incentive appealing more to off-gas recipients where installations will be replacing typically more expensive heating sources such as solid fuel or oil burning systems. The split is most pronounced for biomass systems, where 84 per cent are situated within households located off gas grid.

Table 2.9 shows a breakdown of the number of applications received from households on and off the grid, by country. The split is more pronounced in Scotland and Wales than England, where 87 per cent and 85 per cent respectively of applications received are from households located off the gas grid, compared with 68 per cent in England.

Solar thermal is the only technology to be installed in more on gas grid than off gas grid households (58 per cent within on gas grid households). This is likely due to solar thermal being installed to run in tandem with the primary heating units being used within households, as opposed to being installed to replace them.

Table 2.8 - Accreditations by property type, Great Britain, April 2014 to September 2015

Tariff Band	Detached house		Semi-detached house		Terraced house ¹		Bungalow ²		Flat or Maisonette ³		Total	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Air source heat pump	6,021	29%	3,671	54%	2,158	62%	5,585	55%	987	87%	18,422	44%
Ground source heat pump	4,003	19%	677	10%	206	6%	1,142	11%	53	5%	6,081	14%
Biomass systems	6,930	34%	1,334	20%	518	15%	1,834	18%	30	3%	10,646	25%
Solar thermal	3,727	18%	1,109	16%	576	17%	1,659	16%	69	6%	7,140	17%
Total	20,681	100%	6,791	100%	3,458	100%	10,220	100%	1,139	100%	42,289	100%

Notes:

1. Terraced house includes: Enclosed-end-terrace house, Enclosed-mid-terrace house, Mid-terrace house, End-terrace house.

2. Bungalow includes: Mid-terrace bungalow, Detached bungalow, End-terrace bungalow, Semi-detached bungalow and park homes.

3. Flat or Maisonette includes: Basement flat, Basement maisonette, Ground-floor flat, Mid-floor flat, Top-floor flat, Top-floor maisonette.

Source:

Ofgem

Table 2.9 - Number of accredited installations on/off the gas grid by country, Great Britain, April 2014 to September 2015

Tariff Band	England		Scotland		Wales		Great Britain	
	On grid	Off grid	On grid	Off grid	On grid	Off grid	On grid	Off grid
Air source heat pump	3,992	9,784	291	3,461	130	764	4,413	14,009
Ground source heat pump	1,152	3,638	91	685	58	457	1,301	4,780
Biomass systems	1,231	5,594	330	2,574	104	813	1,665	8,981
Solar thermal	3,617	2,040	357	525	153	448	4,127	3,013
Total (excluding solar thermal)	Number	6,375	19,016	712	6,720	292	2,034	7,379
	% of total	25%	75%	10%	90%	13%	87%	21%
Total	Number	9,992	21,056	1,069	7,245	445	2,482	11,506
	% of total	32%	68%	13%	87%	15%	85%	27%
								73%

Notes:

This table was created using a list of off-gas postcodes generated by xoserve:

<http://www.xoserve.com/wp-content/uploads/Off-Gas-Postcodes.xlsx>

Source:

Ofgem

xoserve

Glossary

Accreditation (domestic and non-domestic)	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.
Air source heat pump	An air source heat pump (ASHP) is a central heating system which uses refrigerants, compressors and condensers to absorb heat from the outside air and transfer it to heat the inside of a building
Application (domestic)	All attempted online applications, including both successful and unsuccessful submissions.
Application effective date	The date from which an applicant can claim RHI payments for the renewable heat generated by their system.
Biomass system	Is a central heating boiler system fuelled by biomass (wood pellets, chips or logs)
Biogas	Biogas is a mixture of combustible gases produced by biological feedstock/ fuel which are burnt to generate heat.
Biomethane	Instead of burning biogas to generate heat on site, it can be processed to bring the calorific value of the gas to the same as that of natural gas and then injected into the gas network to be used elsewhere.
Capacity	The capacity of the system is the maximum power output. It depends on the installations size and technical capability.
Combined heat and power (CHP)	A system which generates electricity whilst also capturing usable heat generated in the process
Date of approval	The date on which Ofgem approved the eligibility of the application and accredited the installation.
Date of first submission	When the application was first registered with Ofgem.
Deep geothermal	Refers to the heat generated through radioactive decay below the surface of the earth.
Degression	The reduction of a tariff offered to new applicants to the scheme due to high demand. Existing recipients of the scheme retain their original tariff. Further information is available at: https://www.gov.uk/government/statistics/domestic-rhi-mechanism-for-budget-management-estimated-commitments
Failed (domestic)	One or more of the fields on the online application were invalid or did not meet the eligibility criteria meaning that the application could not be submitted to Ofgem.
Full application (non-domestic)	A completed application submitted to Ofgem E-serve with a relevant system already installed.
Ground source heat pump	A ground source heat pump (GSHP) is a central heating system which uses a ground heat exchanger to absorb heat from the ground and transfer it to heat the inside of a building
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.
Legacy	Refers to all applications for systems installed before the launch of the domestic RHI scheme on 9 April 2014, whether they claimed and RHPP voucher or not.
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.
MW	MW stands for megawatt. A watt is a unit of power and a megawatt is a million watts.
MWh	MWh stands for a megawatt hour and is a unit of energy. It is equal to the amount of energy a system will generate in an hour whilst running at a megawatt power output.
New installations (non-Legacy)	Refers to applications for systems installed after the launch of the domestic RHI scheme on 9 April 2014.
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.
Rejected (domestic)	An application which has not met one or more of the eligibility criteria after being manually reviewed by Ofgem.
Renewable Heat	Heat energy that comes from a natural source.
Solar thermal	Solar thermal panels use heat from the sun to provide hot water.
Seasonal performance factor (SPF)	A seasonal performance factor (SPF) is a seasonally adjusted coefficient of performance (COP). A COP is a measure of efficiency based on the proportion of useful energy given out compared with the amount taken to run the system. Therefore a system with a COP of 2 will produce twice the amount of thermal energy than electrical energy that it takes to run. Because the COP is calculated under laboratory conditions, seasonal adjustments are made to give its average performance across all times of the year to give us the SPF.
Tariff band	The different rates paid per kWh of heat produced or bio-methane injected depending on the size and type of installation.
Under review	An application that is currently being considered for accreditation.

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. The non-domestic phase of the RHI opened in November 2011.

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).

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).

Change to Non-Domestic Regulations

Amendments to the Non-domestic RHI regulations came into force on the 28th April 2014. The changes to the regulations include, but are not limited to: alterations to some tariff rates, changes to some tariff banding structures and the addition of several other technologies to the scheme.

Domestic RHI

The domestic RHI is an incentive scheme where participants receive tariff payments for the heat generated from an eligible renewable heating system which is heating a single dwelling. Payments are made over a 7 year period and tariff levels for each eligible technology have been calculated to bridge the financial gap between the cost of renewable and off-gas heating systems.

The eligible technologies are air source heat pumps, ground source heat pumps, biomass boilers and biomass stoves with integrated boilers and solar thermal panels. All systems must be installed under the Microgeneration Certification Scheme (MCS) or an equivalent scheme. MCS is an independent mark of quality assurance for microgeneration products and their proper installation.

In most cases, the amount of renewable heat generated will be estimated ('deemed'). However, in some cases involving heat pumps and biomass systems, it will be assessed on meter readings, for example, where there is a secondary heating system in place. For heat pumps

and biomass systems, the deemed heat generation is estimated using values from the Energy Performance Certificate (EPC) of the relevant residence. An EPC contains values for the space heating and hot water demands of the property which have been calculated based on the physical characteristics of the dwelling. For solar thermal systems, the deemed amount is based on a calculation done by the MCS installer. In cases where metering is required, readings are used as the basis for working out RHI payments, capped at the deemed amount for that dwelling. In all cases, payment is calculated by multiplying the heat demand for the property by the tariff rate (pence per kWh).

Before applying for the RHI, applicants must have a Green Deal Assessment done on their property, with the exception of social landlords. They must also install loft and cavity wall insulation where these measures are recommended by their EPC, unless there are valid reasons not to. An updated EPC will be needed as evidence of their installation.

The scheme opened on 9 April 2014 and applicants may claim for eligible systems which were installed after 15 July 2009. Anyone who installs their heating system after 9 April 2014 can apply at any point, provided it is within 12 months of that installation. In order to control the flow of applications being received, Ofgem took a phased approach to those who installed their system between 15 July 2009 and 9 April 2014 (legacy applicants).

The approach was as follows:

- if the heating system was commissioned before 9 April 2014, but did not receive Renewable Heat Premium Payment (RHPP) funding, an application could submit from any time
- if RHPP funding was applied for before 20 May 2013 applicants were permitted to apply three months after scheme launch, i.e. from 9 July 2014
- if RHPP funding was applied for on or after 20 May 2013 applicants were be permitted to apply six months after scheme launch, i.e. from 9 October 2014
- legacy applicants had to apply before 9 April 2015. Recipients of public grants (including RHPP) will have their RHI payments adjusted accordingly.

Further information and feedback

Any enquiries or comments in relation to this statistical release should be sent to Max Enoch in DECC's Heat Statistics Team at the following email address: max.enoch@decc.gsi.gov.uk

Contact telephone: 0300 068 8027

The statistician responsible for this publication is James White.

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 19 November 2015. The next quarterly publication will be at 9:30am on 21 January 2016.

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