Department of Energy & Climate Change

# Renewable Heat Incentive and Renewable Heat Premium Payments quarterly statistics

March 2013

# Renewable Heat Incentive and Renewable Heat Premium Payments deployment data March 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 may change.

## Key findings for the RHI and RHPP deployment data

### Non-domestic RHI

- As at 28 February 2013 there were 1,710 full applications (i.e. installed renewable heating systems). Of these applications 1,013 were accredited and were eligible for tariff payment, with 603 of these accredited schemes having received a payment.

- The majority of the applications (70 per cent) and accreditations (76 per cent) were for small solid biomass boilers (< 200 kW). Overall 88 per cent of full applications were for biomass boilers.

- Total capacity for the full applications was 403 MW, of which 201 MW of capacity was for accredited systems.

- Accredited installations on the RHI scheme had generated 118 GWh of heat, 99 per cent of which was generated from biomass boilers.

### RHPP householder voucher schemes

- As at 28 February 2013, 6,118 vouchers have been issued under phase 2 with 3,754 claimed. A total of 7,253 vouchers were issued under phase 1 and of these, 5,230 were redeemed.

- Solar Thermal and Air Source Heat Pumps combined accounted for two-thirds of redeemed vouchers in phase 1 and three-quarters of redeemed vouchers in phase 2 to date.

- The total capacity of installations supported by phase 1 of the scheme is 51 MW and 23 MW for phase 2 to date.

- Air source heat pumps account for just under half of the total capacity in phase 1 and phase 2 (43 per cent and 49 per cent respectively).

## Non-domestic Renewable Heat Incentive (RHI)

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

As at 28 February 2013 there were 1,710 full applications. Of these applications 1,013 were accredited and generating heat eligible for tariff payment. The majority of the applications and 70 per cent of accreditations were for small solid biomass boilers (< 200 kW). Overall 88 per cent of full applications have been for biomass boilers.

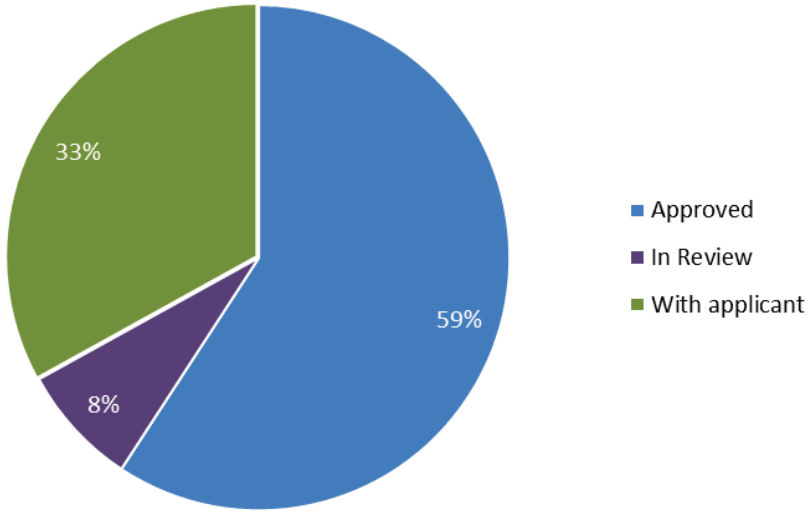
**Table 1.1: Number of applications and accreditations by technology[1], 28 February 2013.**

| Tariff Band | Full Applications | | Of which Accredited Installations | | Capacity of full applications (MW) | | Capacity of accredited installations (MW) | |
|---|---|---|---|---|---|---|---|---|
| Small Solid Biomass Boiler (< 200 kW) | 1,191 | 70% | 771 | 76% | 123.4 | 31% | 82.7 | 41% |
| Medium Solid Biomass Boiler (200-1,000 kW) | 302 | 18% | 147 | 15% | 164.8 | 41% | 80.3 | 40% |
| Small Solar Thermal (< 200 kW) | 96 | 6% | 39 | 4% | 1.3 | 0% | 0.5 | 0% |
| Small Water or Ground Source Heat Pump (< 100 kW) | 82 | 5% | 43 | 4% | 2.2 | 1% | 1.1 | 0% |
| Large Solid Biomass Boiler (> 1000 kW) | 18 | 1% | 8 | 1% | 102.6 | 25% | 35.4 | 18% |
| Large Water or Ground Source Heat Pump (> 100 kW) | 13 | 1% | 3 | 0% | 8.4 | 2% | 0.4 | 0% |
| Bio-Methane | 5 | 0% | 1 | 0% | - | - | - | - |
| Small Biogas (< 200 kW) | 3 | 0% | 1 | 0% | 0.6 | 0% | 0.2 | 0% |
| Total | **1,710** | | **1,013** | | **403.3** | | **200.8** | |

[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.

As at 28 February 2013 nearly three fifths of applications (59 per cent) had been accredited by Ofgem. One third of applications were with the applicant as additional information was requested as part of the application process to enable the accreditation assessment to be completed. Around one in twelve applications were being reviewed by Ofgem. In addition, 6 applications had been rejected by Ofgem with 3 withdrawn or cancelled by the applicant.

**Figure 1: Application status**



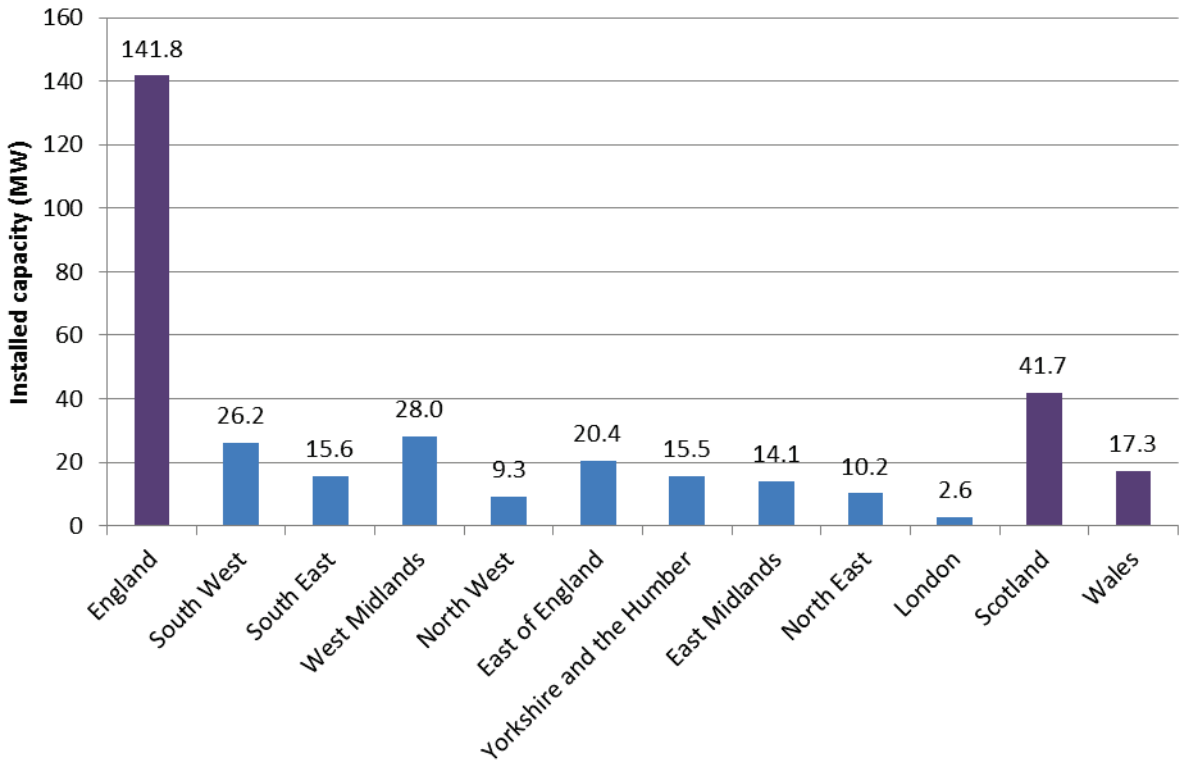

A large proportion of applicants are located in regions with large rural populations such as Scotland (17 per cent) and South West (18 per cent). It is likely this is because many rural communities are not on the gas grid and will be replacing solid fuel or oil burning systems with renewable systems.

**Table 1.2: Number of applications by region, 28 February 2013.**

| Region | Full applications | | Capacity of full applications (MW) | |
|---|---|---|---|---|
| **England** | **1,307** | **76%** | **296.4** | **74%** |
| South West | 316 | 18% | 51.5 | 13% |
| West Midlands | 178 | 10% | 42.7 | 11% |
| South East | 173 | 10% | 30.6 | 8% |
| North West | 167 | 10% | 57.4 | 14% |
| East of England | 148 | 7% | 40.0 | 10% |
| Yorkshire and the Humber | 125 | 7% | 25.6 | 6% |
| East Midlands | 108 | 6% | 25.7 | 6% |
| North East | 72 | 4% | 17.2 | 4% |
| London | 20 | 1% | 5.9 | 1% |
| **Scotland** | **298** | **17%** | **84.2** | **21%** |
| **Wales** | **105** | **6%** | **22.6** | **6%** |
| **Total** | **1,710** | | **403.3** | |

The total capacity for applications is 403 MW, of which 201 MW of capacity has been installed in accredited installations.

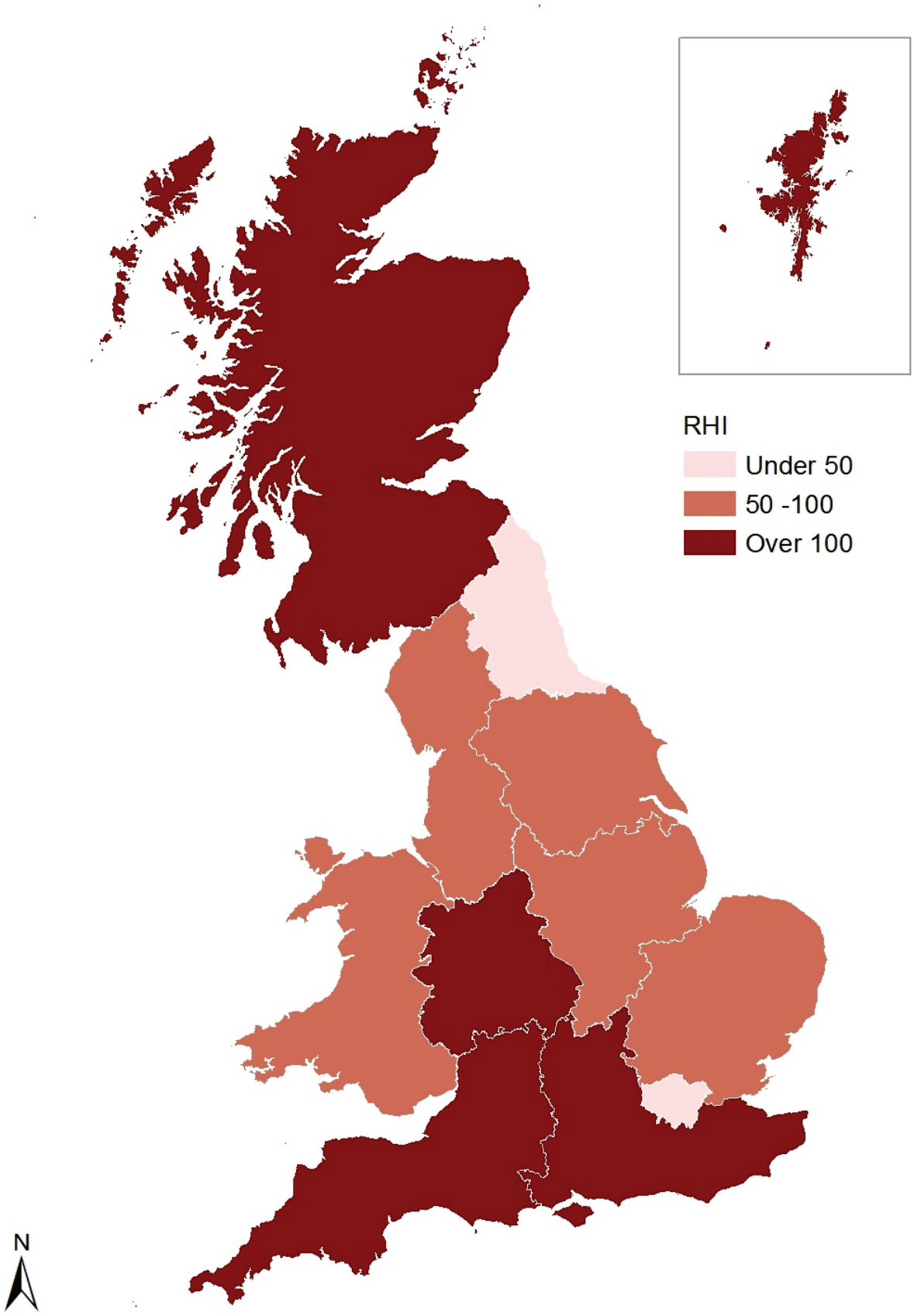
**Figure 2: Installed capacity for accredited installations by region, 28 February 2013.**




As at 28 February 2013, installations on the RHI scheme had generated 118 GWh of heat, 99 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 collecting 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.

Large solid biomass boilers (>1000 kW) make the largest contribution to the amount of renewable heat produced. They account for 18 per cent of accredited capacity and 32 per cent of the total heat produced, but only currently make up 1 per cent of the number of accredited installations.

**Map 1: Number of accredited installations, 28 February 2013.**



### Table 1.3: Heat generated, 28 February 2013.

| Technology | Heat generated and paid for under the scheme (MWh) | | Number of installations receiving payment | |
|---|---|---|---|---|
| Medium Biomass boiler (200-1000 kW) | 45,397 | 39% | 89 | 15% |
| Large biomass boiler (>1000 kW) | 37,804 | 32% | 6 | 1% |
| Small biomass boiler (<200 kW) | 32,862 | 28% | 453 | 75% |
| Small Water or Ground Source Heat Pump (< 100 kW) | 1,322 | 1% | 28 | 5% |
| Large Water or Ground Source Heat Pumps (>100 kW) | 120 | 0% | 1 | 0% |
| Solar thermal (<200 kW) | 51 | 0% | 25 | 4% |
| **Total** | **117,556** | | **602** | |
| | | | | |
| | **Equivalent energy generated by gas production (MWh)** | | **Number of installations receiving payment** | |
| Small Biogas | **78** | | **1** | |
| | | | | |
| **Overall total** | **117,633** | | **603** | |

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 will be referred to as Biomethane.

After a slightly slower initial period during December 2011 and January 2012, the number of applications received by month has remained fairly consistent from February to June 2012. There was a notable increase in applications in July to over 100 applications a month, since when the number of applications has grown steadily to reach 220 applications in January 2013, with a small fall to 193 in February.

### Table 1.4: Number of full applications by month.[2]

| Month | Number of full applications | Cumulative number of full applications |
|---|---|---|
| November 2011 | 10 | 10 |
| December 2011 | 43 | 53 |
| January 2012 | 63 | 116 |
| February 2012 | 84 | 200 |
| March 2012 | 76 | 276 |
| April 2012 | 79 | 355 |
| May 2012 | 83 | 438 |
| June 2012 | 74 | 512 |
| July 2012 | 111 | 623 |
| August 2012 | 123 | 746 |
| September 2012 | 113 | 859 |
| October 2012 | 131 | 990 |
| November 2012 | 169 | 1,159 |
| December 2012 | 138 | 1,297 |
| January 2013 | 220 | 1,517 |
| February 2013 | 193 | 1,710 |

[2] The RHI started on the 28 November 2011

## Renewable Heat Premium Payments Householder scheme Phase 1[3] and Phase 2[4]

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 Appendix 1.

During phase 1, a total of 7,253 vouchers were issued and of these, 5,230 were redeemed. In addition, a further 107 applications for vouchers were rejected prior to a voucher being issued.

As at 28 February 2013, 6,118 vouchers have been issued under phase 2 with 3,754 claimed to date. Solar Thermal and Air Source Heat Pumps combined accounted for two-thirds of redeemed vouchers in phase 1 and three-quarters of redeemed vouchers in phase 2 to date. This differs to the RHI where the majority of installations are biomass boilers.

**Table 2.1: Number of vouchers issued and redeemed or claimed by technology for phase 1 and 2, 28 February 2013.**

| | Phase 1 | | | | Phase 2 | | | |
|---|---|---|---|---|---|---|---|---|
| Technology | Total Vouchers issued | | Number redeemed | | Total Vouchers issued | | Number claimed | |
| Ground or Water Source Heat Pump | 1,359 | 19% | 1,000 | 19% | 857 | 14% | 452 | 12% |
| Biomass Boiler | 977 | 13% | 733 | 14% | 730 | 12% | 407 | 11% |
| Air Source Heat Pump | 2,505 | 35% | 1,837 | 35% | 2,188 | 36% | 1,260 | 34% |
| Solar Thermal | 2,412 | 33% | 1,660 | 32% | 2,343 | 38% | 1,635 | 44% |
| **Total** | **7,253** | | **5,230** | | **6,118** | | **3,754** | |

The number of vouchers issued and those redeemed differs 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 redeemed and then re-issued. Vouchers claimed have been reported for RHPP 2 as this represents the most accurate number of installations as at end of February 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.

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.

[3] Phase 1 ran from the 1 August 2011 to the 31 Mach 2012
[4] Phase 2 opened on the 1 May 2012 and will close on the 31 March 2013

**Table 2.2: Installations by region for phase 2, 28 February 2013.**

| Region | All installations (claimed) | | Heat pump and biomass installations (claimed) | | Heat pump and biomass installed capacity (MW) | |
|---|---|---|---|---|---|---|
| **England** | **3,068** | **82%** | **1,648** | **78%** | **17.1** | **76%** |
| South West | 691 | 18% | 363 | 17% | 4.1 | 18% |
| South East | 573 | 15% | 260 | 12% | 2.6 | 12% |
| West Midlands | 259 | 7% | 136 | 6% | 1.2 | 5% |
| North West | 289 | 8% | 170 | 8% | 1.8 | 8% |
| East of England | 542 | 14% | 381 | 18% | 3.7 | 16% |
| Yorkshire and the Humber | 224 | 6% | 128 | 6% | 1.3 | 6% |
| East Midlands | 237 | 6% | 133 | 6% | 1.3 | 6% |
| North East | 121 | 3% | 77 | 4% | 0.9 | 4% |
| London | 132 | 4% | 27 | 1% | 0.3 | 1% |
| **Scotland** | **438** | **12%** | **283** | **13%** | **3.3** | **15%** |
| **Wales** | **248** | **7%** | **161** | **8%** | **2.1** | **9%** |
| **Total** | **3,754** | | **2,119** | | **22.6** | |

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 49 per cent in phase 2 to date. When compared with the number of vouchers redeemed or claimed for air source heat pumps (35 per cent in phase 1 and 34 per cent in phase 2) it shows that the average capacity of installed air source heat pumps is greater than that of the other technologies.

**Table 2.3: Installed capacity by technology, 28 February 2013.**

| Technology | Total capacity (MW) | |
|---|---|---|
| | Phase 1 | Phase 2 |
| Ground or Water Source Heat Pump | 11.5 | 4.0 |
| Biomass Boiler | 17.6 | 7.6 |
| Air-to-water Source Heat Pump | 21.7 | 11.0 |
| **Total** | **50.8** | **22.6** |

| | Total estimated heat generated per year (MWh) | |
|---|---|---|
| | Phase 1 | Phase 2 |
| Solar Thermal | 3,609 | 2,399 |

Table 2.4 shows increases in the numbers of vouchers claimed per month for both phase 1 and phase 2 to the end of February 2013. There was a large increase in the number of vouchers being claimed in March 2012. This is because this was the final month of operation of phase 1 of the RHPP scheme and this caused a surge in the number of claims before the deadline, some of which were processed in April.

Figures between months are not directly comparable between the two schemes because they each stared at different points within the year and therefore have run for different lengths of time.

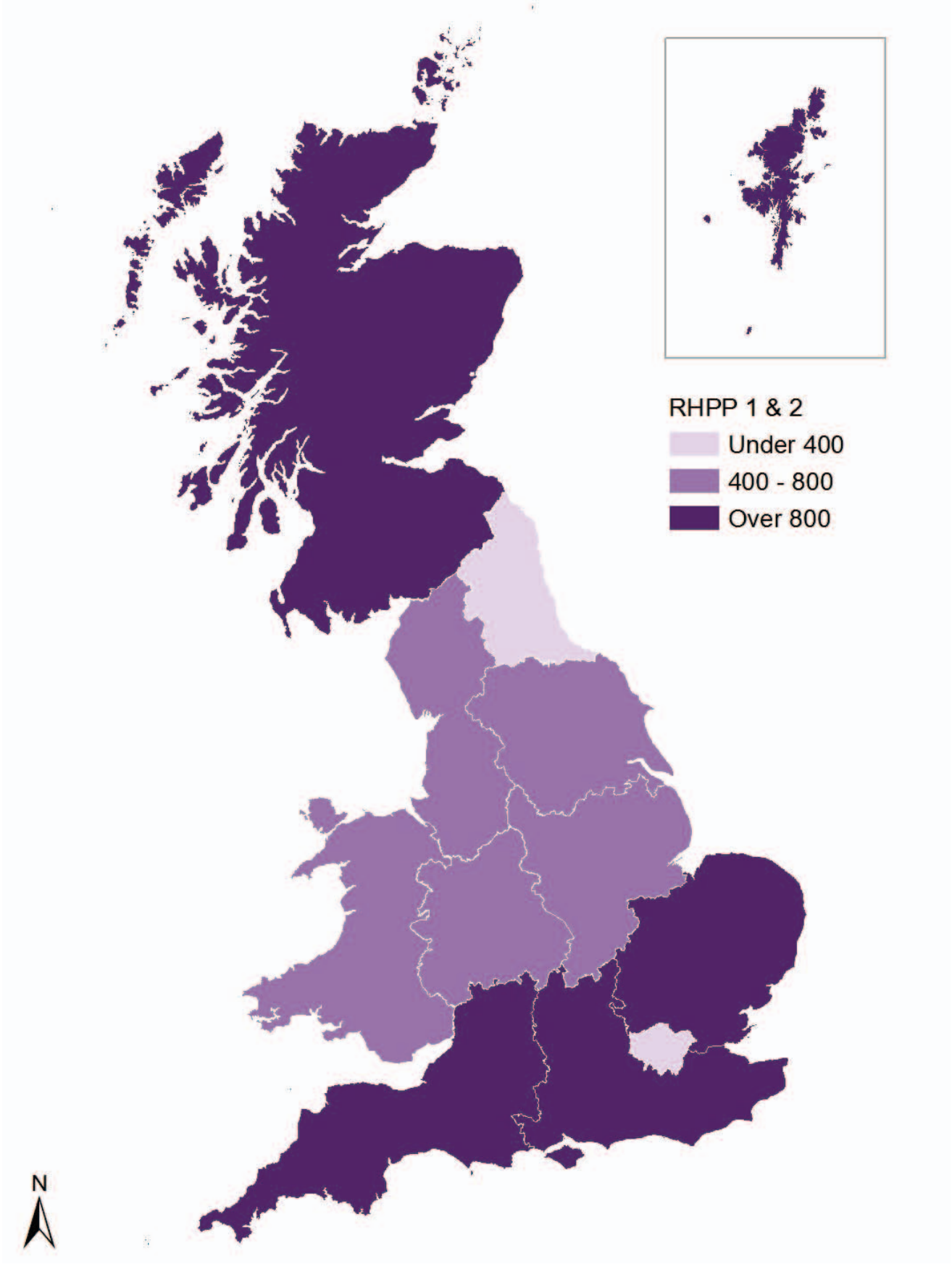
Data on for the number of vouchers redeemed are also not available for Phase 2 of the scheme yet, due to time lags within the application process.

**Table 2.4: Vouchers redeemed or claimed by month and phase.**

| Phase | Month | Vouchers redeemed | Cumulative number of vouchers redeemed |
|---|---|---|---|
| 1 | August 2011 | 80 | 80 |
| | September 2011 | 203 | 283 |
| | October 2011 | 330 | 613 |
| | November 2011 | 497 | 1,110 |
| | December 2011 | 447 | 1,557 |
| | January 2012 | 621 | 2,178 |
| | February 2012 | 607 | 2,785 |
| | March 2012 | 2,256 | 5,041 |
| | April 2012 | 189 | 5,230 |
| **Phase** | **Month** | **Vouchers claimed[5]** | **Cumulative number of vouchers claimed** |
| 2 | May 2012 | 133 | 133 |
| | June 2012 | 183 | 316 |
| | July 2012 | 251 | 567 |
| | August 2012 | 327 | 894 |
| | September 2012 | 315 | 1,209 |
| | October 2012 | 463 | 1,672 |
| | November 2012 | 518 | 2,190 |
| | December 2012 | 415 | 2,605 |
| | January 2013 | 557 | 3,162 |
| | February 2013 | 592 | 3,754 |

[5] The number of vouchers claimed are reported for RHPP 2 as this represents the most accurate number of installations as at the end of February 2013, due to the small time lag in the application process.

**Map 2: Vouchers redeemed and claimed for RHPP Phases 1 and 2 by region, 28 February 2013.**



## 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** | 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 and Industry Statistics Team at the following email address: Victoria.Thompson@decc.gsi.gov.uk

Contact telephone: 0300 068 5815

The statistician responsible for this publication is Julian Prime.

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 18 April 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 Microgeneration Certification Scheme (MCS) which is the independent mark of quality assurance for microgeneration systems and installation.

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

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

The non-domestic phase of the RHI opened in November 2011 and the domestic phase is due to open in 2013.

## RHPP Phase 1 and Phase 2

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 will close on 31 March 2013.

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

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

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

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

Department of Energy & Climate Change
3 Whitehall Place
London SW1A 2AW
**www.decc.gov.uk**

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