Domestic RHI
Annual Report 2021-2022

ofgem
Making a positive difference
for energy consumers

31 March

2022

The scheme closed to new applicants on 31 March 2022. Applicants who are accredited to the scheme and meet their ongoing obligations will continue to receive payments until their seven-year accreditation period ends.

36,834

Applications

Ofgem received 36,834 applications in the 12 months before scheme closure, 36% of which were submitted in March 2022. The annual figure is an increase of 140% from the 15,344 received in 2020-21.

24,489

New Installations

During 2021-22, 24,489 new applications were approved. This brings the total number of installations accredited since the beginning of the scheme in 2014 to 110,265.

£146m

Paid in 2021-22

More than £145.7m was paid out in the past year of the scheme, bringing the total amount of support paid up to almost £820m since the scheme began in 2014.

7.04 TWh

Heat demand

The scheme has subsidised 7.04 TWh of heat demand since 2014. This is enough to heat more than 2.5 billion hot baths.

Executive Summary

The Domestic Renewable Heat Incentive (DRHI) is a government financial incentive to promote the use of renewable heat. Switching to heating systems that use renewable energy sources can help the UK reduce its carbon emissions and meet its renewable energy targets. Applicants who are accredited to the scheme and meet their ongoing obligations receive quarterly payments for seven years for the estimated amount of clean, green renewable heat their system produces. This report summarises activity during the eighth year of the scheme (SY8) covering the period 01 April 2021 to 31 March 2022.

Applications and Accreditations

The DRHI scheme closed to new applicants on 31 March 2022.[1] In the final year of accepting applications, over 36,000 were submitted, an increase of 140% from the previous year. Application activity rose gradually throughout 2021-22 increasing significantly in the final months of the year. Alongside higher application volumes, 2021-22 also saw a 124% increase in new accreditations, rising to 24,489. This brings the total number of installations on the scheme to 110,265. Air source heat pumps (ASHP) remain the dominant technology type accounting for 85% of accreditations in 2021-22 (and 68% of accreditations since the start of the scheme).

In addition to the closure of the scheme to new applicants, the 2021-22 year marks another important milestone. As of 31 March 2022, seven years had elapsed for the 26,839 applications which received accreditation during the first year of the scheme. Once an installation has received seven years of support, they have reached the end of their support period and exit the scheme. As the scheme is closed to new applicants this means the number of installations receiving payments and the value of payments being made, will fall from here onwards, until all installations reach the end of their seven-year support period.

A key scheme objective is the replacement of domestic heating systems with lower carbon alternatives. To monitor this, DRHI applicants are required to provide details of the heating system being replaced. As of 31 March 2022 58,215 boilers have been replaced, representing 52.8% of all installations on the scheme. Almost 96% of the replaced boilers used fossil fuels such as oil, gas, coal and liquified petroleum gas (LPG). 'First heating systems' installed in

[1] Link to information on Domestic Renewable Heat Incentive (Domestic RHI) Closure <https://www.ofgem.gov.uk/environmental-and-social-schemes/domestic-renewable-heat-incentive-domestic-rhi/domestic-renewable-heat-incentive-domestic-rhi-domestic-rhi-closure>

custom builds,[2] where no heating technology was being replaced, accounted for 20,703 or 18.8% of all installations and storage heaters a further 20,190 (18.3%).

Payments and Heat Demand

In 2021-22, payments made to participants totalled approximately £146 million, taking payments since the start of the scheme to over £819 million. Payments since the start of the scheme were made against estimated renewable heat generation of 7,038 GWh and we project that carbon savings over the entire lifetime of the scheme will be in the region of 6.65Mt CO_2.

Audit and Assurance

As part of our commitment to protect and ensure the effective use of taxpayer money, Ofgem conduct an annual audit programme to make sure participants comply with scheme rules. These include "desk" audits which involve us asking participants to supply certain documents and records for inspection, and "site" audits which consist of an inspection of the heating system in addition to documents and records. Site audits are carried out by an external auditor appointed by Ofgem. In 2021-22 we conducted a total of 1,429 audits, made up of 741 desk audits and 688 site audits. Accredited installations can be selected for audit through either statistical or targeted methods. Statistical audits are randomly selected from the population of accredited installations. Targeted audits are identified through the use of referrals which can originate internally or externally, and data analytics; which allows us to identify sites that may have an increased risk of non-compliance. As well as providing assurance on payments of over £819 million to date, the audit work carried out in 2021-22 resulted in the protection of over £1,000,000 in public funds, where we prevented incorrect payments being made to participants or detected incorrect payments which had already been made.

Please note: a spreadsheet containing the data used in the production of this report is published alongside the report on our website.

[2] Link to information on custom builds on the DRHI scheme: <https://www.ofgem.gov.uk/environmental-and-social-schemes/domestic-renewable-heat-incentive-domestic-rhi/contacts-guidance-and-resources/key-terms-explained-domestic-renewable-heat-incentive>

Contents

Executive Summary **3**

Contents 5

About the Scheme **6**

Changes to the Scheme 7

1. Applications & Accreditations **9**

Applications 9

Accreditations 10

Replaced Technology 17

Registered Social Landlords (RSLs) 18

Metering and Monitoring Service Package (MMSP) 21

Applications reaching end of support 22

2. Payments & Heat Generation **23**

3. Audit & Assurance **27**

4. Our Administration **31**

5. Looking Forward **33**

Associated Documents 34

Feedback

We value your feedback on this report. Please contact us at SchemesReportingFeedback@ofgem.gov.uk with any comments or suggestions.

About the Scheme

The Domestic Renewable Heat Incentive (DRHI) was introduced in England, Scotland and Wales in April 2014 by the Department for Energy and Climate Change (DECC)[3] and is a financial incentive designed to encourage the uptake of renewable heating systems. The scheme aims to cut carbon emissions in Great Britain and to help towards meeting the UK's renewable energy targets. The DRHI closed to new applications on 31 March 2022.

The scheme is set out in legislation under The Domestic Renewable Heat Incentive Scheme Regulations 2014 ('the Regulations')[4] and subsequent amendments. Applicants must either own their own home or be a private or social landlord. Newly built properties are not normally eligible unless they are a custom build[5]. There are four eligible technologies: air source heat pumps (ASHP), ground source heat pumps (GSHP), biomass boilers and solar thermal panels, each with different eligibility requirements. The Regulations do not impose a limit on capacity, but systems must be certified by the Microgeneration Certification Scheme (MCS), which has a thermal limit of 45kW for a single renewable heating product. Products may be combined in capacity of not more than 70kW to meet larger heat demands.[6] Applications that are accredited to the scheme and meet their ongoing obligations will continue to receive payments until their seven-year accreditation period ends.

The Gas and Electricity Markets Authority (the Authority) is the statutory body responsible for administering the DRHI scheme in Great Britain (GB). The Authority's functions are performed by Ofgem, the office of the Authority. As administrator Ofgem performs a number of functions, including:

- publishing guidance,
- the review of applications to join the scheme,
- ensuring that accredited scheme participants continue to meet their ongoing obligations,
- calculate and make payments to accredited participants, and
- ensuring the scheme is guarded against fraud and error.

[3] From July 2016 the new Department for Business, Energy & Industrial Strategy (BEIS) assumed the roles and responsibilities of the Department of Energy and Climate Change (DECC)

[4] Link to The Domestic Renewable Heat Incentive Scheme Regulations 2014 <https://www.legislation.gov.uk/ukdsi/2014/9780111111192/contents>

[5] Link to information on custom builds: <https://www.ofgem.gov.uk/environmental-and-social-schemes/domestic-renewable-heat-incentive-domestic-rhi/contacts-guidance-and-resources/key-terms-explained-domestic-renewable-heat-incentive>

[6] As specified by MCS standards. Link to the MCS Standards: <https://mcscertified.com/standards-tools-library/>

The Regulations require us to publish an annual report on the scheme by 31 July following the end of each scheme year. Each scheme year covers the period 1 April to 31 March with this report covering 1 April 2021 to 31 March 2022 - also referred to as Scheme Year 8 (SY8).

The Regulations set out what should be included in this annual report. However, we also include additional information that we believe is of interest to stakeholders and the general public. We will continue to produce and publish annual reports until all applications have reached the end of their support period.

Changes to the Scheme

In October 2021, the Department for Business, Energy and Industrial Strategy (BEIS), published their response to the consultation 'Domestic Renewable Heat Incentive - ensuring a stable scheme'.[7] The response to the consultation outlined BEIS' decision to close the DRHI to new applications to the scheme and to new Metering and Monitoring Service Package (MMSP) applications on 31 March 2022. It also outlined further amendments to the scheme rules.

We continue to work closely with BEIS to ensure the scheme is being delivered effectively and in accordance with policy, and to implement any changes made to the legislation. During the lifetime of the DRHI scheme, there have been several scheme changes and proposed changes which are summarised in the table below:

Date of change	Details of change
21 February 2022[8]	The new statutory instrument added in February 2022 closes the scheme to new applications and MMSP applications from midnight on 31 March 2022 and makes several other amendments. These include amendments for the following: - provisions relating to replacement products, annual declarations, and occupancy - provision for the Microgeneration Certification Scheme and the consumer codes to update their standards, codes of practices and other documentation mentioned in the regulations - metering requirements and MMSP arrangement

[7] Link to government response to consultation on 2022 scheme changes <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1029758/dhri-government-response.pdf>

[8] Link to The Domestic Renewable Heat Incentive Scheme and Renewable Heat Incentive Scheme (Amendment) Regulations 2022 <https://www.legislation.gov.uk/uksi/2022/159/contents/made>

	- requirement that all solid biomass used on the DRHI meets the fuel quality requirements that are being introduced to the Biomass Suppliers List
1 April 2021[9]	Government removed the rule for applicants submitting their application within 12 months of the first commissioning date of their renewable heating system. Government also revised the degression triggers to remove installations that had reached the end of their seven-year term from those calculations.
11 March 2020[10]	Government announced that the DRHI would be extended for an additional year until 31 March 2022.
22 May 2018[11]	The amendment in 2018 included metering for performance requirements for heat pumps, new MMSP payment schedules and enforcement powers, the introduction of Assignment of Rights (AoR), revised degression thresholds, as well as extending the RHI's budget management mechanism until the end of 2020-21.
20 September 2017[12]	This amendment included tariff uplifts for three of the four technology types and introduced heat demand limits which are used to cap the financial support that individual installations can receive.
03 March 2016[13]	BEIS published a consultation on the scheme. In their consultation response it was determined that the changes would be implemented in two stages which were implemented in September 2017 and May 2018.

[9] Link to information on April 2021 scheme changes <https://www.gov.uk/government/publications/changes-to-the-renewable-heat-incentive-rhi-schemes/11-january-2021-changes-to-the-domestic-rhi-regulations-government-response>

[10] Link to information on March 2020 scheme changes <https://www.gov.uk/government/publications/changes-to-the-renewable-heat-incentive-rhi-schemes/changes-to-rhi-support-and-covid-19-response>

[11] AoR applications were eligible from 27 June 2018

[12] Link to The Renewable Heat Incentive Scheme and Domestic Renewable Heat Incentive Scheme (Amendment) (No. 2) Regulations 2017 <https://www.legislation.gov.uk/uksi/2017/857/contents/made>

[13] Link to BEIS consultation response: <https://www.gov.uk/government/consultations/the-renewable-heat-incentive-a-reformed-and-refocused-scheme>

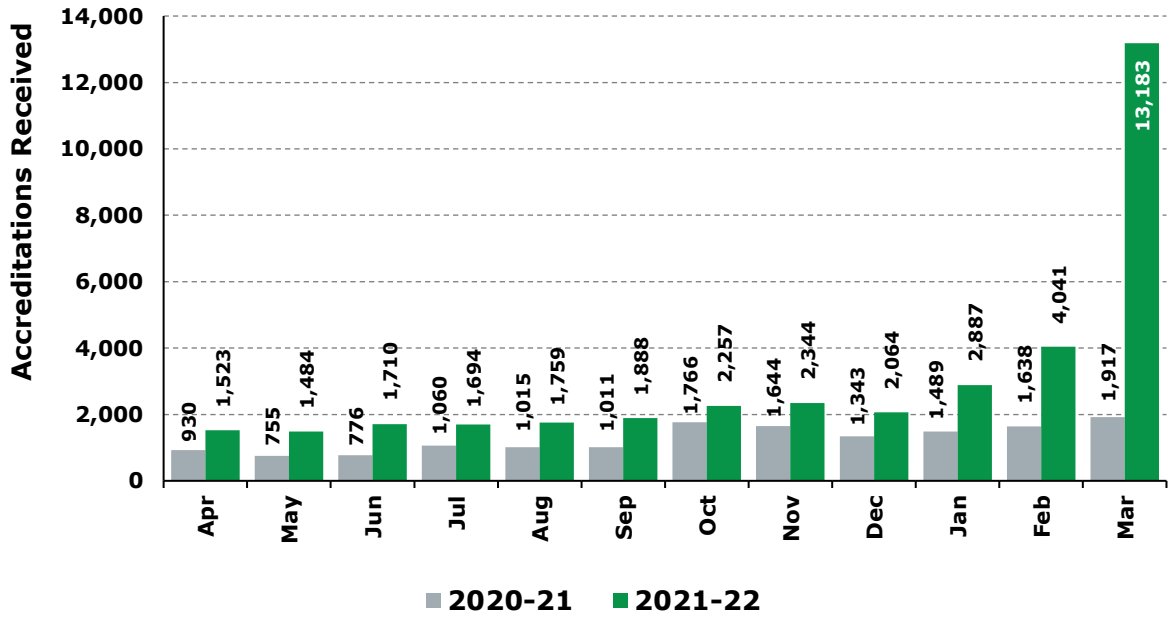
1. Applications & Accreditations

Applications

1.1. Application volumes in 2021-22 (36,834) increased by 140% compared to 2020-21 (15,344). Monthly application volumes over 2020-21 and 2021-22 can be seen in **Figure 1.1** below:

Figure 1.1: DRHI applications received during 2020-21 and 2021-22.

Bar graph data showing difference in application numbers for 2020-21 and 2021-22. Application numbers were consistently higher over 2021-22 increasing significantly at the end of the period with over 13 thousand submitted in March 2022, an increase of more than 580% compared to March 2021.

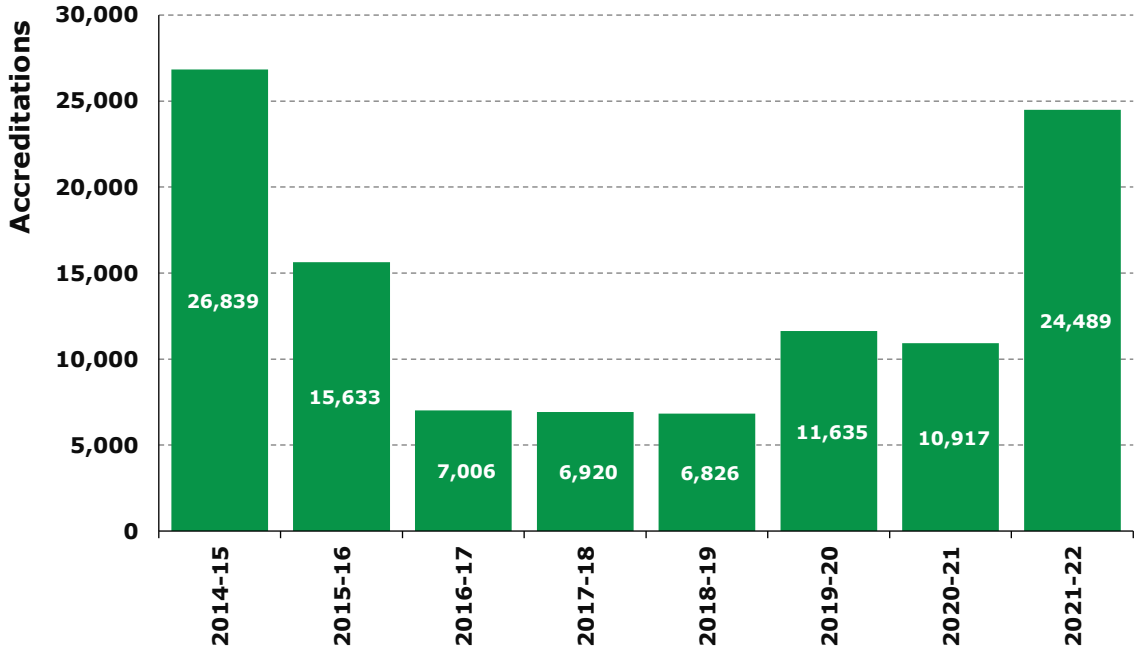


1.2. The comparatively high application numbers from January to March 2022 were expected given this was the final opportunity for prospective applicants to join the scheme before closure to new applications on 31 March 2022.

Accreditations

Figure 1.2: Annual DRHI accreditations – scheme launch to 2021-22.

Bar graph data showing accreditation numbers from 2014-15 to 2021-22. Accreditation numbers in 2014-15 and 2021-22 were significantly higher than in other scheme years, together forming 46.5% of all scheme accreditations.

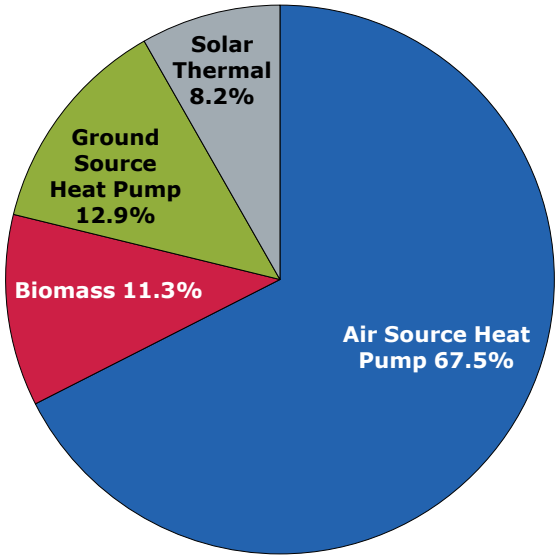


1.3. As shown in **Figure 1.2** we accredited 24,489 new applications in 2021-22. This is the second highest annual accreditation figure in the DRHI's history and brings the total number of accreditations granted since scheme launch to 110,265.

1.4. A percentage breakdown of DRHI accreditations by technology type can be seen in **Figure 1.3**. Air source heat pumps (ASHP) are the dominant technology type with 67.5% of accreditations. In 2021-22 ASHPs accounted for 85% of accreditations highlighting this technology's increasing rate of deployment over time, relative to the other technology types.

Figure 1.3: Accreditations by technology type since scheme launch (%).

Pie chart data showing the percentage of accreditations by technology type since scheme launch. Air Source Heat Pump (67.5%), Ground Source Heat Pump (12.9%), Biomass (11.3%), Solar Thermal (8.2%).



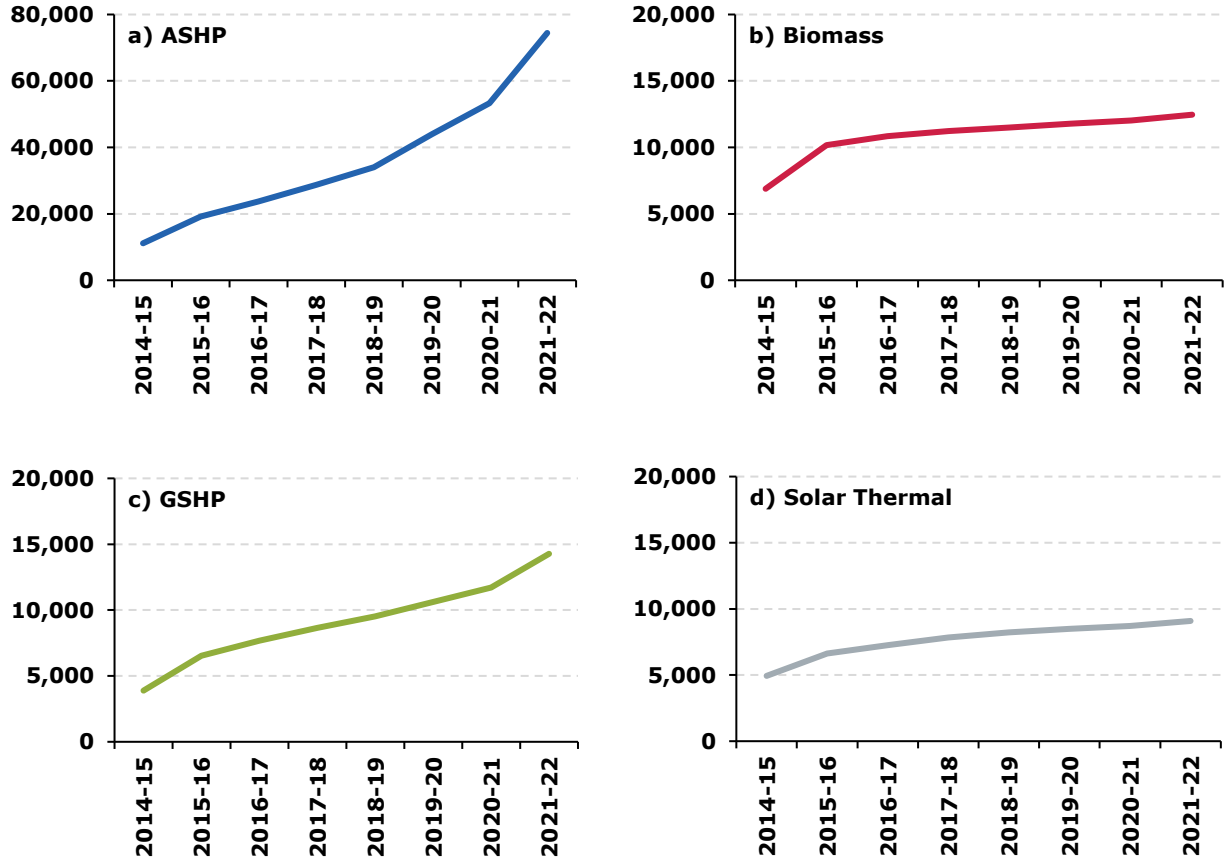
1.5. **Figure 1.4** shows the cumulative number of accreditations granted by technology type since the start of the scheme. High initial accreditation rates across all technologies reflects the processing of legacy applications, with trajectories from 2015-16 onwards reflecting non-legacy accreditations.

1.6. Legacy applications are those which commissioned prior to the launch of the DRHI scheme. The government first announced their intention to introduce a domestic renewable heat incentive on 15 July 2009.[14] From this point until scheme launch, those installing eligible technologies and meeting the other scheme eligibility requirements were promised they would be able to benefit from the scheme. This meant there was a backlog of eligible 'legacy' installations when the scheme launched on 9 April 2014. Scheme rules meant that Legacy applicants had to apply before 9 April 2015.

[14] Link to UK Renewable Energy Strategy 2009: <https://www.gov.uk/government/publications/the-uk-renewable-energy-strategy>

Figure 1.4 (a-d): Cumulative accreditations by technology type.

Line graphs showing cumulative accreditations by technology type from 2014-15 to 2021-22. ASHP totalled 74,446 in 2021-22, GSHP (14,272), Biomass (12,460) and Solar Thermal (9,087). Biomass and solar thermal show a much flatter profile than ASHP and GSHP accreditations reflecting a much slower growth rate for these technology types.



1.7. The backlog of applications resulted in the higher rate of accreditations at the start of the scheme. Following on from the higher initial accreditation rates they reduced for all technology types until 2016-17 when on 17 September 2017 a tariff uplift was applied for ASHP, ground source heat pumps (GSHP) and biomass installations.[15] At the same time heat demand limits were also imposed on all technology types except solar thermal. This restricted the payments that could be made to larger installations, with biomass in particular being affected. These measures had the effect of increasing the levels of deployment for ASHPs and reducing the decline in the deployment for other

[15] Link to The Renewable Heat Incentive Scheme and Domestic Renewable Heat Incentive Scheme (Amendment) (No. 2) Regulations 2017 < https://www.legislation.gov.uk/uksi/2017/857/contents/made >

technology types. This is reflected in the annual deployment figures shown in **Figure 1.5 and Table 1.1** below.

1.8. ASHPs and GSHPs saw a more significant increase in deployment levels from 2019-20 onwards. This increase has not been driven by a change in available tariffs or another policy amendment. It is likely to at least in part be driven by a growth in consumer awareness of heat pumps in the private retrofit sector, and by social landlords increasingly having carbon or net zero targets to meet. The increase in accreditation rates for all technology types between 2020-21 and 2021-22 is associated with the closure of the scheme to new applicants on 31 March 2022.

Figure 1.5(a-d): Annual accreditations by technology type.

These charts show the number of accreditations for each technology type per year from 2014-15 to 2020-21. ASHP and GSHP follow a comparable trajectory characterised by an initial fall in application volumes, followed by a gradual increase, before a dramatic rise in the 2021-22. Similarly biomass and solar thermal follow a similar trajectory to one another with a dramatic initial fall in application volumes followed by relatively flat levels of deployment before a modest increase in 2021-22.

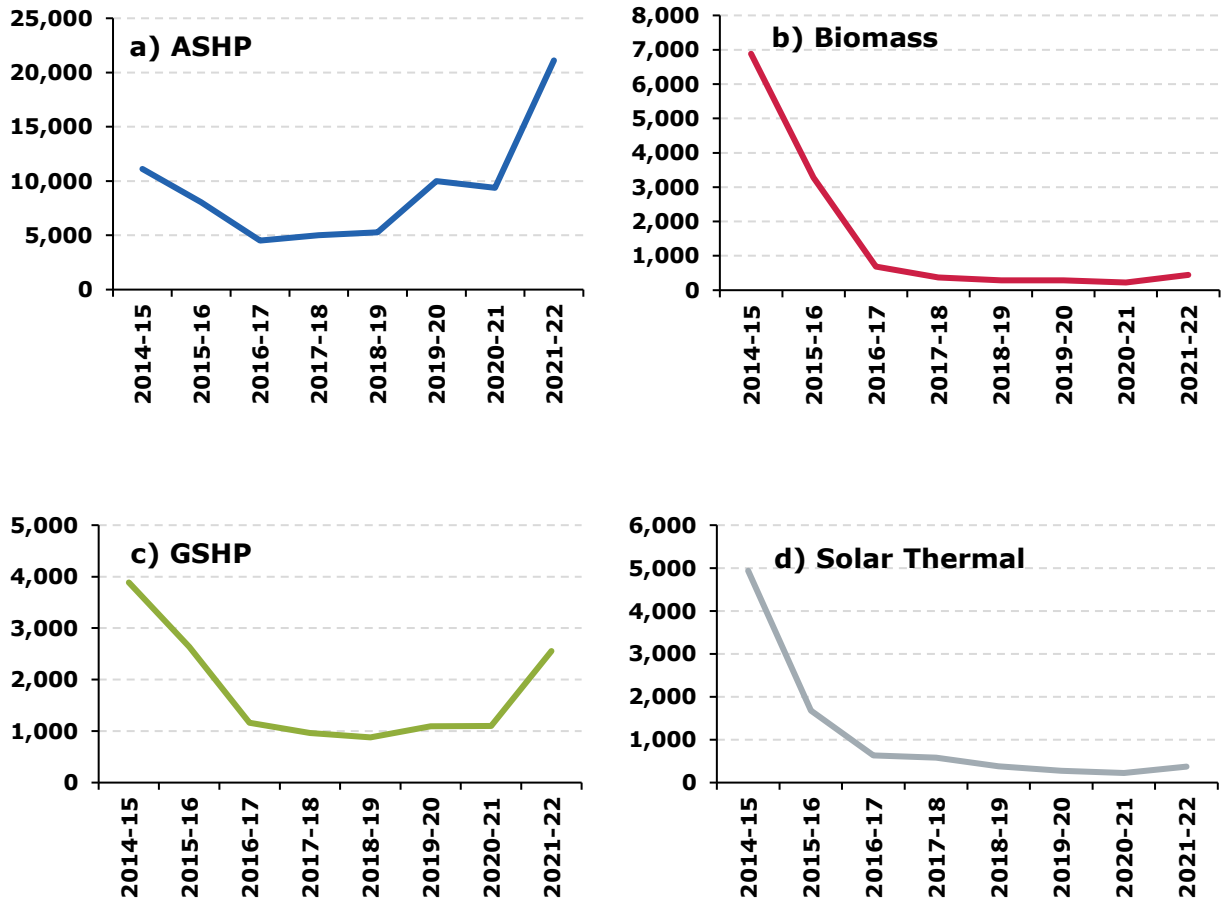


Table 1.1: Annual accreditations by technology type

	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	Total
ASHP	11,132	8,042	4,518	5,003	5,284	9,984	9,366	21,117	**74,446**
Biomass	6,883	3,275	691	371	285	288	224	443	**12,460**
GSHP	3,887	2,636	1,161	963	878	1,091	1,103	2,553	**14,272**
Solar thermal	4,937	1,680	636	583	379	272	224	376	**9,087**
Total	**26,839**	**15,633**	**7,006**	**6,920**	**6,826**	**11,635**	**10,917**	**24,489**	**110,265**

Geographical Distribution

1.9. **Figure 1.6** shows the geographical distribution of accreditations by technology type since scheme launch. The majority of accredited installations are located in England (82,684) followed by Scotland (20,075) and Wales (7,506). A breakdown of accredited installations by region and technology type in 2021-22 can be seen in **Table 1.2**.

Figure 1.6: Geographic distribution of accreditations since scheme launch.

Map of the UK showing number of accreditations by technology type in each region. The South West has the highest number of accredited installations totalling 16,643. In contrast, West Central Scotland has the lowest number of accredited installations at 798.

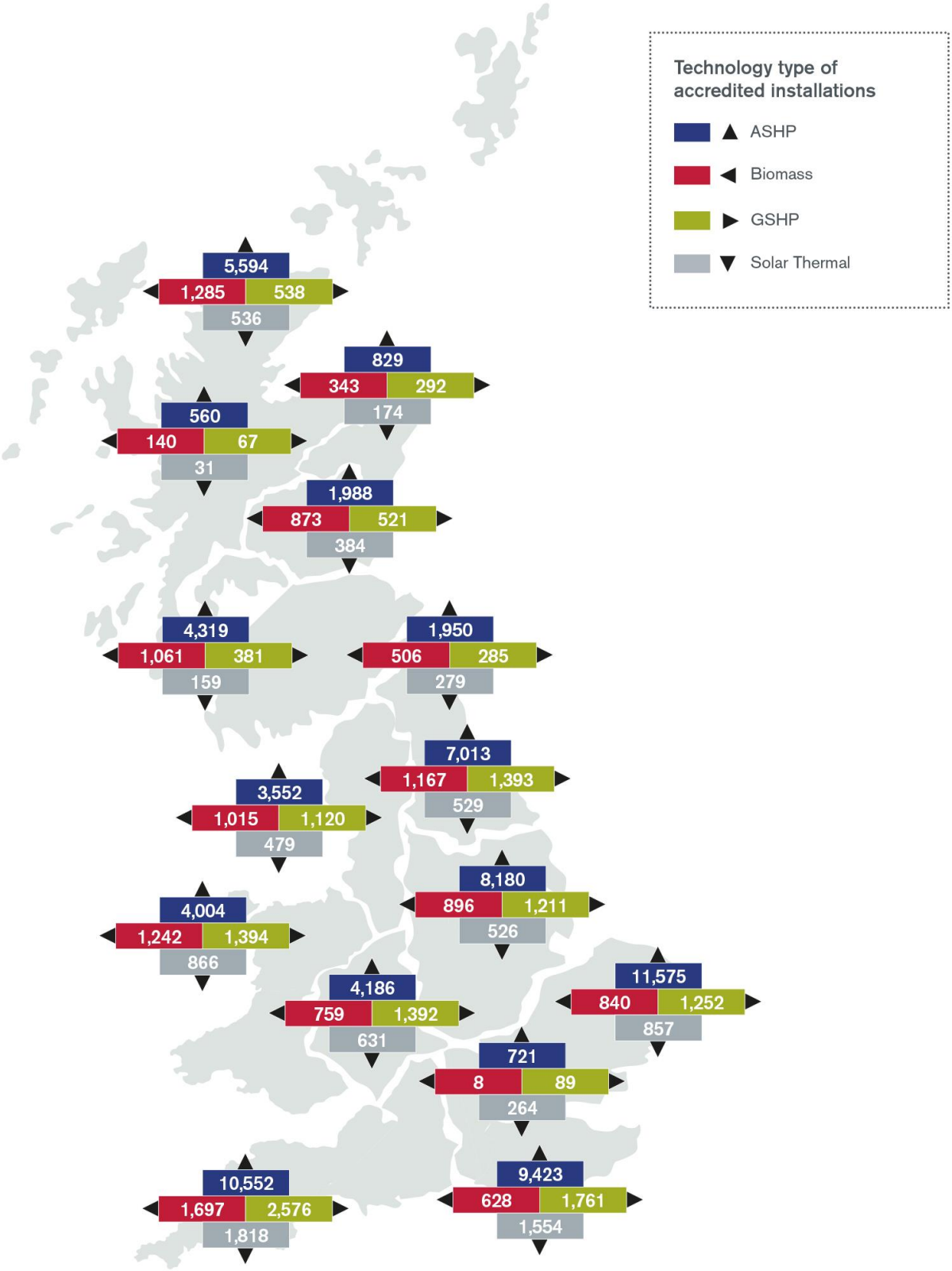
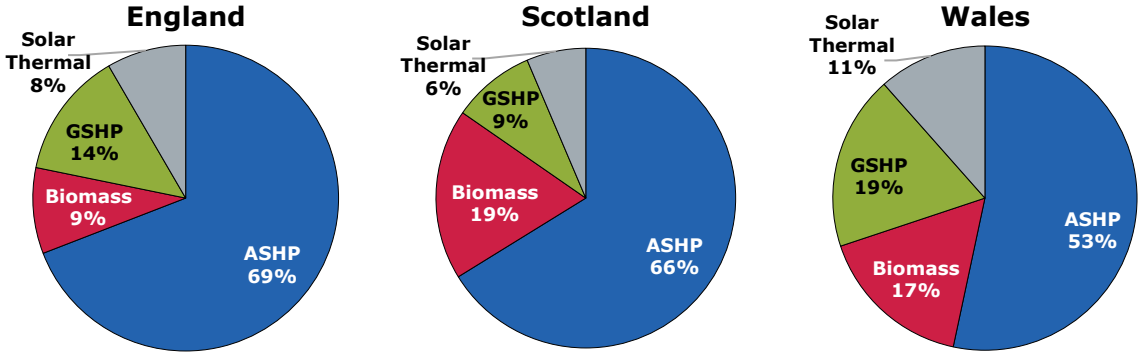


Table 1.2: Accreditations by region and technology type in 2021-22

Location	ASHP	Biomass	GSHP	Solar thermal	Grand Total
South West	3,126	100	511	76	**3,813**
East of England	3,280	20	189	21	**3,510**
South East	2,993	28	340	56	**3,417**
East Midlands	2,116	17	167	14	**2,314**
Yorkshire and The Humber	1,995	21	247	14	**2,277**
West Midlands	1,368	34	249	19	**1,670**
Highlands and Islands	1,556	17	55	29	**1,657**
Wales	1,207	92	273	57	**1,629**
North West	982	49	234	27	**1,292**
Southern Scotland	621	13	58	4	**696**
East Scotland	535	22	104	7	**668**
North East	576	14	55	19	**664**
London	357	0	24	20	**401**
North East Scotland	205	12	34	12	**263**
West Central Scotland	200	4	13	1	**218**
Grand Total	**21,117**	**443**	**2,553**	**376**	**24,489**

1.10. **Figure 1.7** shows the national differences in accreditations by technology type since scheme launch. This highlights some marked regional differences. In particular, the lower proportion of ASHPs but higher levels of GSHP and solar thermal deployed in Wales, as well as the higher proportion of biomass but lower levels of GSHP and solar thermal deployed in Scotland.

Figure 1.7: Accreditations by country and technology type since scheme launch (%).
Pie charts showing the percentage of technology types by country for England, Scotland and Wales.

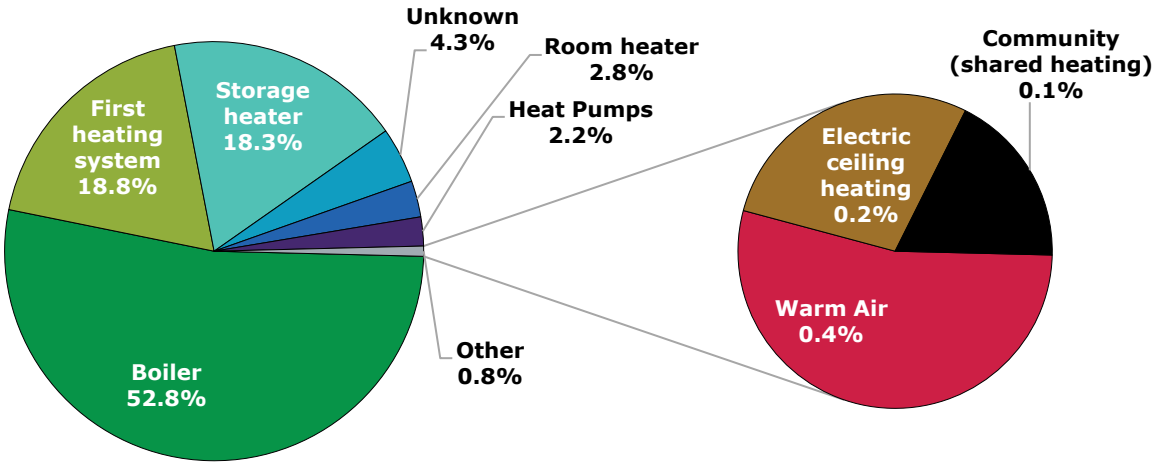


Replaced Technology

1.11. As one of the scheme's primary aims is to replace domestic heating systems with lower carbon alternatives, when applicants apply for the DRHI they are required to provide details of the heating system being replaced. **Figure 1.8** shows that boilers account for just over half of total accreditations at 58,215 or 52.8% of the total. 'First heating system' indicates that the accreditation was for a 'custom build'[16] and so there was no heating technology being replaced.

Figure 1.8: Heating technology replaced.

Chart showing a breakdown of heating technologies replaced under the scheme. Boiler (52.8%), First heating system (18.8%), Storage heater (18.3%), Unknown (4.3%), Room heater (2.8%), Heat Pumps (2.2%), Warm Air (0.4%), Electric ceiling heating (0.2%), Community (shared heating) (0.1%).

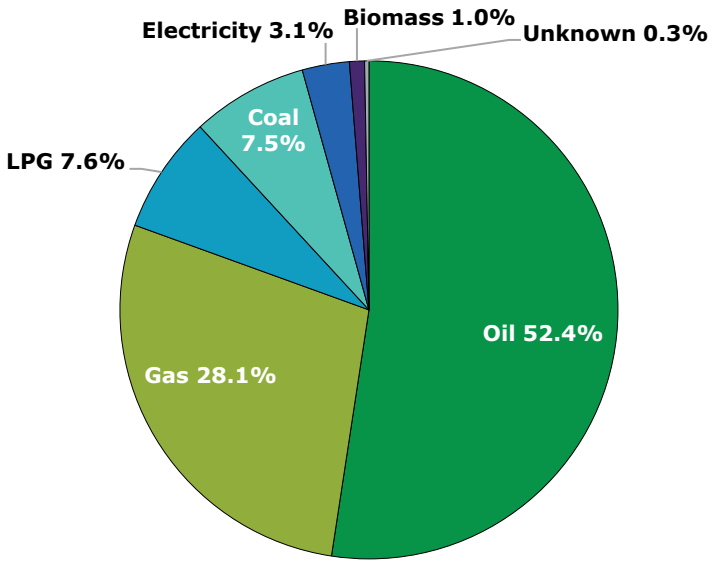


1.12. Information on the fuels being used in the replaced boilers can be found in **Figure 1.9**. Almost 96% of these boilers used fossil fuels such as oil, gas, coal and liquified petroleum gas (LPG).

[16] Link to information on custom builds: <https://www.ofgem.gov.uk/environmental-and-social-schemes/domestic-renewable-heat-incentive-domestic-rhi/contacts-guidance-and-resources/key-terms-explained-domestic-renewable-heat-incentive>

Figure 1.9: Replaced boiler fuel types.

Pie chart showing the boiler fuel types replaced under the scheme. Oil (52.4%), Gas (28.1%), LPG (7.6%), Coal (7.5%), Electricity (3.1%), Biomass (1%), Unknown (0.3%).



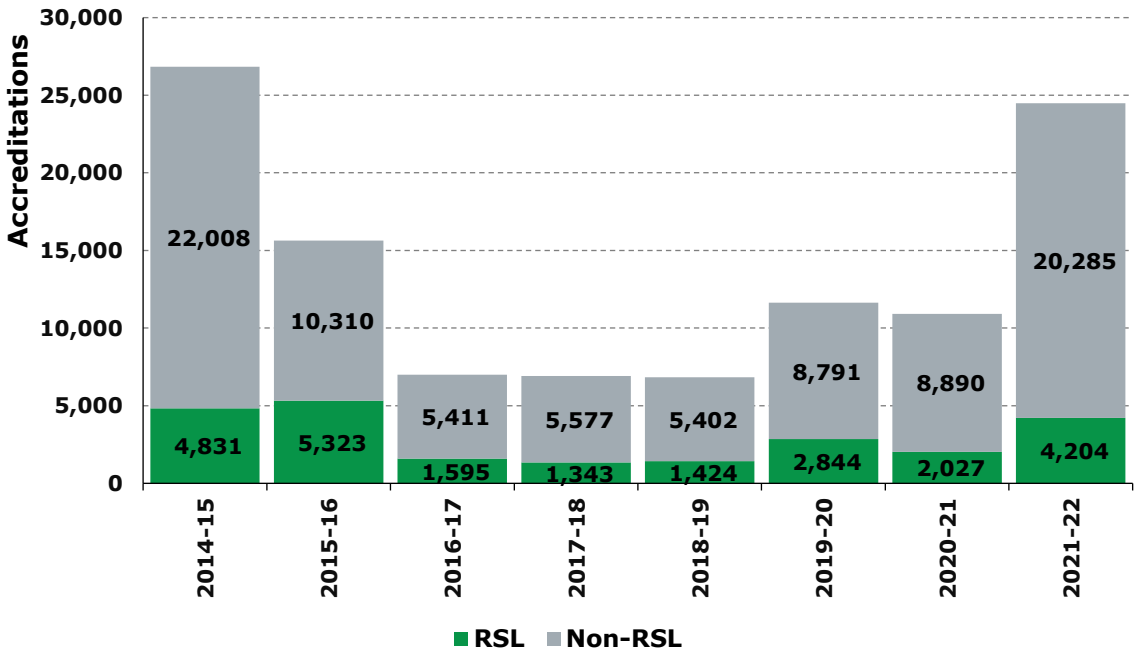
Registered Social Landlords (RSLs)

1.13. With a large number of properties under their management and the potential financial benefits for tenants (particularly those off gas-grid), Registered Social Landlords (RSLs) are one of the groups eligible to apply for the DRHI. In total, they account for 21.4% of all scheme accreditations.

1.14. Since scheme launch 23,591 RSL accreditations have been granted. **Figure 1.10** shows the total number of accreditations each scheme year, split into those from RSLs and other applicant types.

Figure 1.10: Annual RSL accreditations since scheme launch.

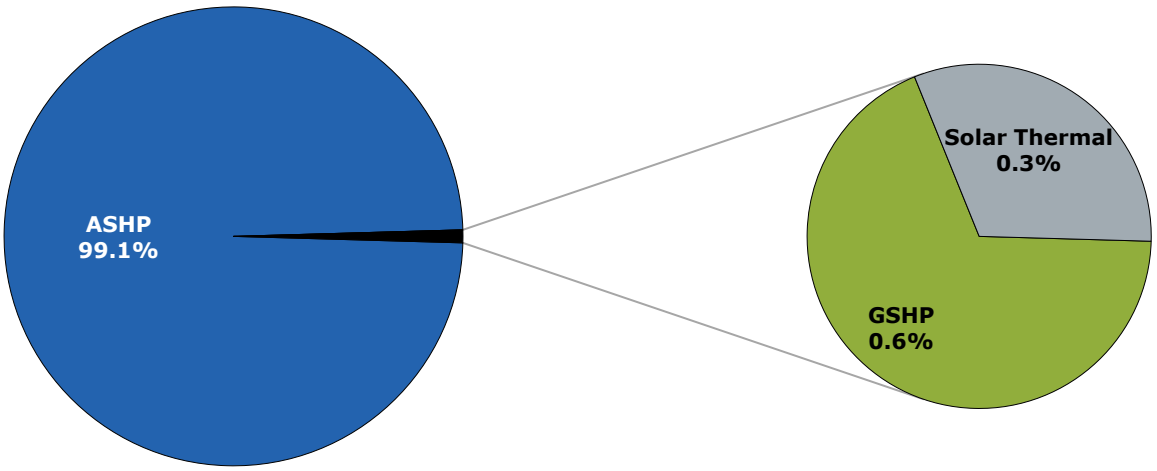
Bar graph showing RSL and non-RSL accreditations per year from 2014-15 to 2021-22. On average RSL accreditations formed 28.7% of scheme accreditations each year, with accreditation numbers being highest in 2014-15 (4,831), 2015-16 (5,323) and 2021-22 (4,204).



1.15. **Figure 1.11** shows the proportions of different technology types being installed into RSL properties. The vast majority are ASHPs which made up around 99% of RSL accreditations in 2021-22. This is an increase from the 86% of accreditations which were ASHPs in the first year of the scheme. Overall ASHPs account for 92% of RSL accreditations.

Figure 1.11: RSL accreditations by technology type 2021-22.

Chart showing RSL accreditations by technology type in 2021-22. ASHP (99.1%), GSHP (0.6%), Solar Thermal (0.3%).



Metering and Monitoring Service Package (MMSP)

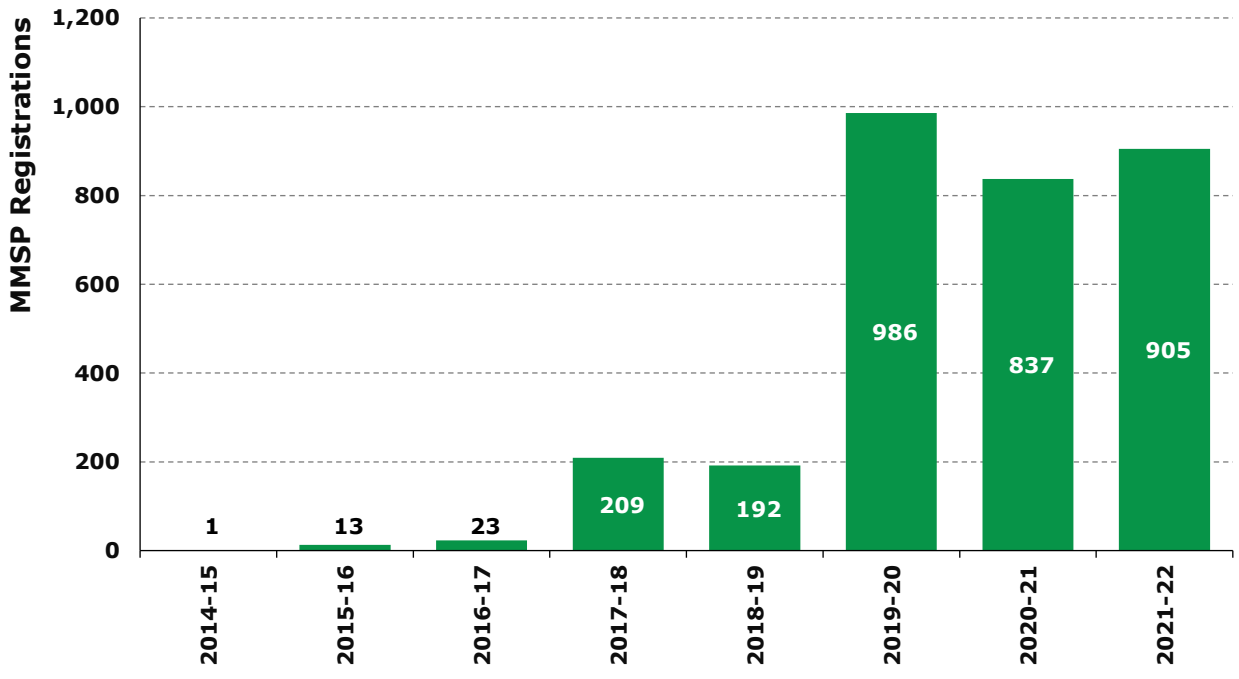
1.16. A Metering and Monitoring Service Package (MMSP) allows participants to check how their heating systems are performing. Participants who successfully register an MMSP receive financial support for its installation.

1.17. 11,255 MMSP packages were available during the lifetime of the scheme on a first-come, first-served basis.

1.18. **Figure 1.12** shows 3,166 MMSP packages (28.1%) have been allocated as of March 2022, the majority being made between 2019-20 and 2021-22. Since the DRHI closed to new applications on 31 March 2022, no more applications for MMSP's can be made.

Figure 1.12: Annual MMSP registrations since scheme launch.

Bar graph data showing the number of MMSP registrations per year from 2014-15 to 2021-22. Average registrations numbers were low at 12 per year from 2014-15 to 2016-17. Registration numbers from 2017-18 to 2018-19 then rose averaging 201, whilst numbers between 2019-20 and 2021-22 saw a dramatic increase averaging 909.



Applications reaching end of support

1.19. The 2021-22 year marks an important milestone for the DRHI. As of 31 March 2022, seven years had elapsed for the 26,839 applications which received accreditation during the first year of the scheme. Once an installation has received seven years of support, they have reached the end of their support period and exit the scheme.

1.20. As the scheme is closed to new applicants this means the number of installations receiving payments and the value of payments being made, will fall from here onwards, until all installations have reached the end of their seven-year support period.

1.21. It should be noted that in some cases (for example where ownership of an application has been transferred) payments may be paused until the changes to the application have been approved. As such the number of applications actually reaching the end of their support period in 2021-22, may be lower than the number originally accredited during the first year of the scheme.

2. Payments & Heat Generation

2.1. Domestic RHI (DRHI) payments are made quarterly for seven years. Payments for most installations are based on the annual heat demand of the property, which is taken from the properties Energy Performance Certificate (EPC). The only exceptions to this are for solar thermal; where payments are based on the estimated annual heat generation taken from the MCS certificate, and for those installations required to be metered for payment. Payments are only made to accredited installations that continue to meet scheme rules.[17]

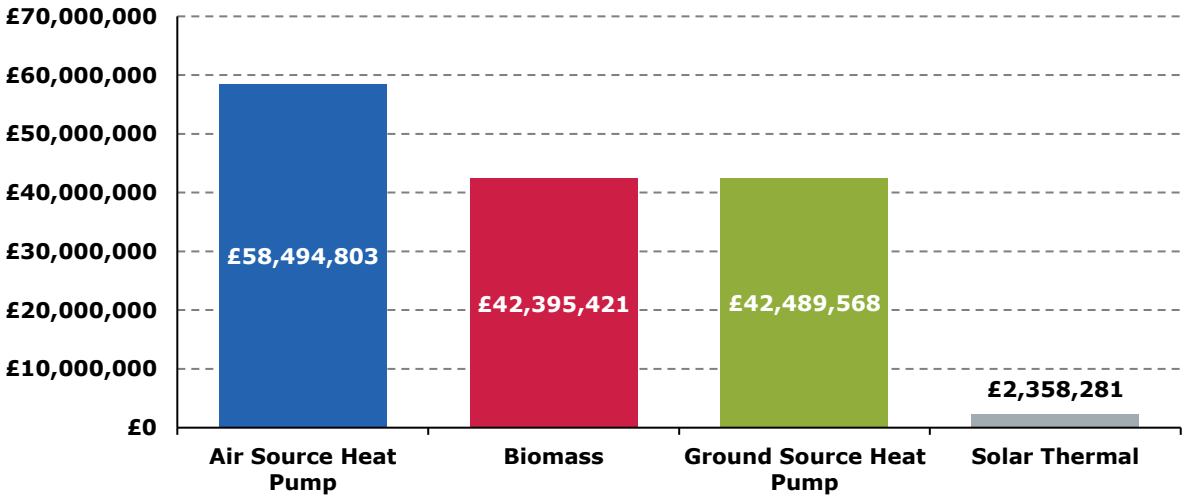
2.2. Tariff rates vary depending on technology type and when an application is received. These are set by the Department for Business, Energy and Industrial Strategy (BEIS) and are regularly reviewed. Any changes to tariffs must be announced at least one month in advance of the change.

2.3. In 2021-22 we made payments totalling £145.7 million[18] to eligible participants. This brings the total paid over the lifetime of the scheme to over £819 million. **Figure 2.1** shows that ASHPs account for the largest proportion of payments in 2021-22, followed by biomass and GSHP.

[17] Link to information on DRHI payments and tariffs: <https://www.ofgem.gov.uk/environmental-programmes/domestic-rhi/contacts-guidance-and-resources/tariffs-and-payments-domestic-rhi>
[18] Figures are based on the amount paid out to accredited installations. Payments can be delayed in some circumstances such as a being under audit and would not appear within our data until cleared.

Figure 2.1: DRHI payments made in 2021-22.

Chart showing payments made by technology type in 2021-22. Air Source Heat Pump received the highest proportion (£58,494,803) followed by Biomass (£42,395,421) and Ground Source Heat Pump (£42,489,568). Solar Thermal was responsible for the lowest proportion of payments made (£2,358,281).



2.4. **Table 2.1** shows that biomass installations accounted for 41.8% of payments made and 44.3% of estimated heat output[19] from scheme launch to 31 March 2022. This is despite accounting for only 11.3% of accreditations. In contrast, ASHPs account for 27.6% of payments made and 37.6% of estimated heat output, despite forming 67.5% of all accreditations.

Table 2.1: Lifetime DRHI payments made and heat output

Technology Type	Total Payments to Date (£)	Percentage (%)	Estimated heat output (GWh)	Percentage (%)
ASHP	£226,020,887.40	27.6%	2,648.9	37.6%
Biomass	£342,714,665.05	41.8%	3,116.8	44.3%
GSHP	£233,463,843.16	28.5%	1,182.9	16.8%
Solar thermal	£17,122,092.21	2.1%	89.4	1.3%
TOTAL	**£819,321,487.82**	**100%**	**7,037.9**	**100%**

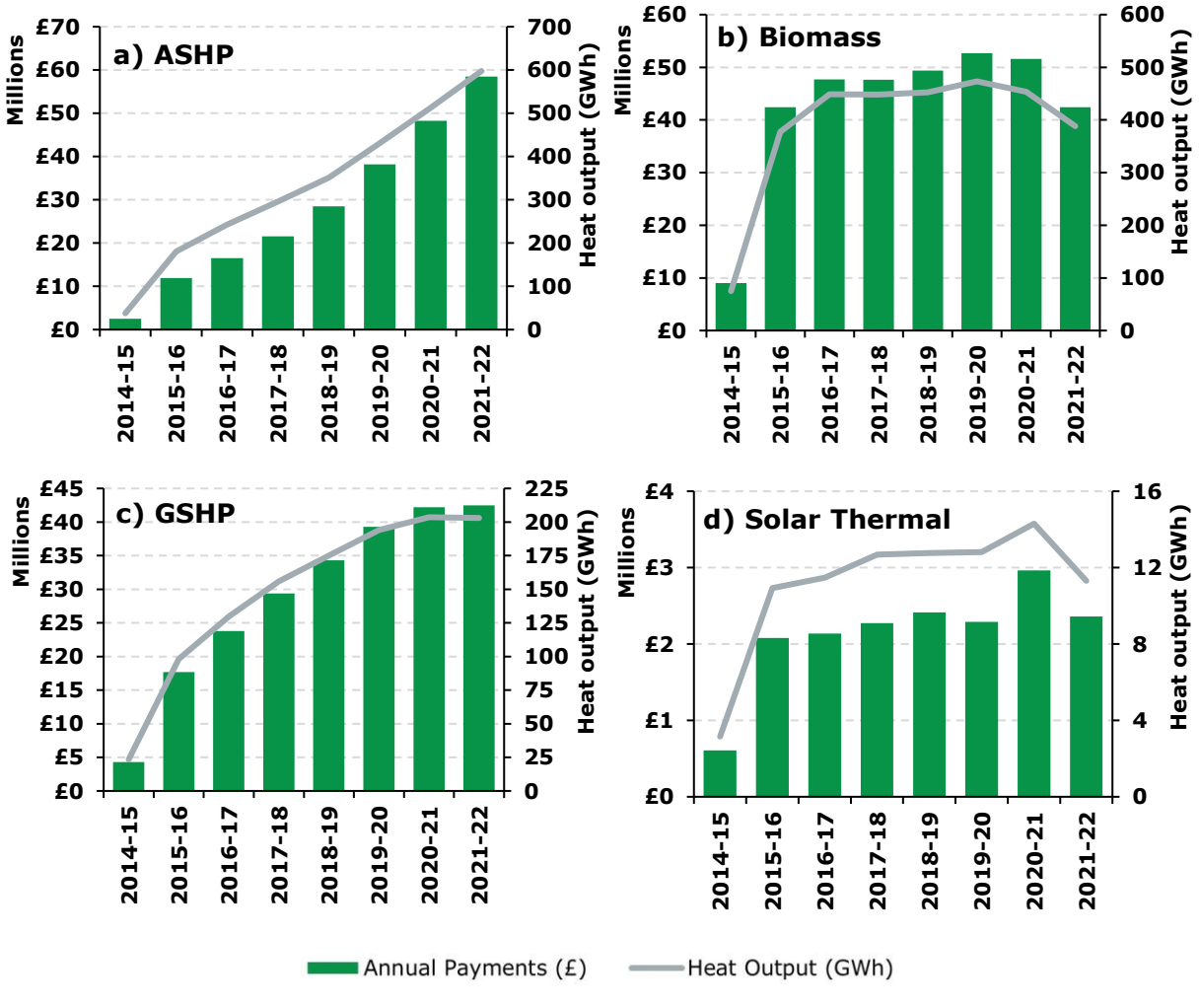
[19] Estimated heat output is equivalent to the heat demand used to calculate payments. For most installations this is the heat demand taken from the EPC certificate. In the case of solar thermal it is taken from the MCS certificate or for those installations metered for payment, from the meter readings provided to us.

2.5. The high proportion of biomass payments and heat demand despite lower accreditation numbers is likely due to biomass installations tending to heat larger properties with higher heat demands. This was particularly true in the early years of the scheme before heat demand limits were introduced.

2.6. Also shown in **Table 2.1**, the estimated amount of heat on which the £819 million in payments have been made, stands at around 7,038 GWh. We estimate that the carbon savings from installations currently accredited will, over the entire lifetime of the scheme, amount to around 6.65 Mt CO_2.

2.7. An annual breakdown of payments and estimated heat output by technology type can be seen in **Figure 2.2** below.

Figure 2.2(a-d): Annual payments and estimated heat output by technology type.
Combined line and bar graph data showing payments and estimated heat output by technology type per year. ASHP payments and estimated heat output continually rose from 2014-15 to 2021-22. GSHP also rose to 2020-21 before levelling off in 2021-22, whilst Biomass and Solar Thermal see smaller rises from 2015-16 onwards, falling in 2021-22.



2.8. Compared to last year, ASHPs payments saw a 21.2% (£10,224,256) increase during 2021-22, whilst GSHP payments rose by 0.7% (£286,045). In comparison, biomass payments fell by -17.8% (£9,187,389) and solar thermal fell by -20.5% (£607,196). The significant fall in biomass and solar thermal payments is due to the large number of installations of these types, that joined the scheme in the first year and have subsequently now exited the scheme. Large numbers of ASHP and GSHP installations have also now exited the scheme, but these have been offset by the significant numbers being newly accredited.

2.9. The next seven years will see a gradual decline in payments being made, as new applications are no longer accepted and current accreditations gradually come to the end of their support period under the scheme. Applications following a change of ownership can still be made.

3. Audit & Assurance

3.1. In order to protect the public purse and ensure we are meeting requirements to only pay subsidies for eligible heat generation, our audit programme is designed to check compliance with the regulations and identify non-compliances. Our audit strategy has been developed in line with best practice from the National Audit Office (NAO). The strategy is reviewed annually and updated to account for emerging risks, changes to the scheme and new trends in non-compliance. Following each audit year, we conduct Root Cause Analysis on the types of non-compliance identified and implement changes to drive down the chance of those non-compliances happening in future.

3.2. We undertake both statistical and targeted audits. Statistical audits are randomly selected to provide a representative view of the scheme population at a 90% confidence level. This provides us with assurance that the results of audits will reflect the level and types of non-compliance within the population. Targeted audits are identified via internal and external referrals, and data analytics; which we use to identify applications that have an increased risk of non-compliance.

3.3. Statistical audits comprise both an initial desk audit and a site audit. However, in some cases the site audit is not required if we identify eligibility issues during the desk audit that result in revocation of an accreditation. Targeted audits comprise of a desk audit, or a site audit.

3.4. **Table 3.1** below gives an overview of the 2021-22 audit programme and shows the overall participant compliance rating for those audited. As a number of investigations are ongoing at time of writing, this data is correct as of May 2022.[20]

3.5. The table shows a higher number of statistical desk audits to site audits. This, as discussed above is a result of eligibility issues being discovered during the desk audit stage, meaning that a site audit was not required.

Table 3.1: DRHI audit results 2021-22

Audit Type	Closed Audits	Open Audits	Compliant Audits	Non-Compliant Audits	Compliance Rate (%)
Statistical (desk)	609	0	463	146	**76.03**
Statistical (site)	498	3	452	46	**90.76**
Targeted (desk)	132	0	77	55	**58.33**
Targeted (site)	181	6	137	44	**75.69**

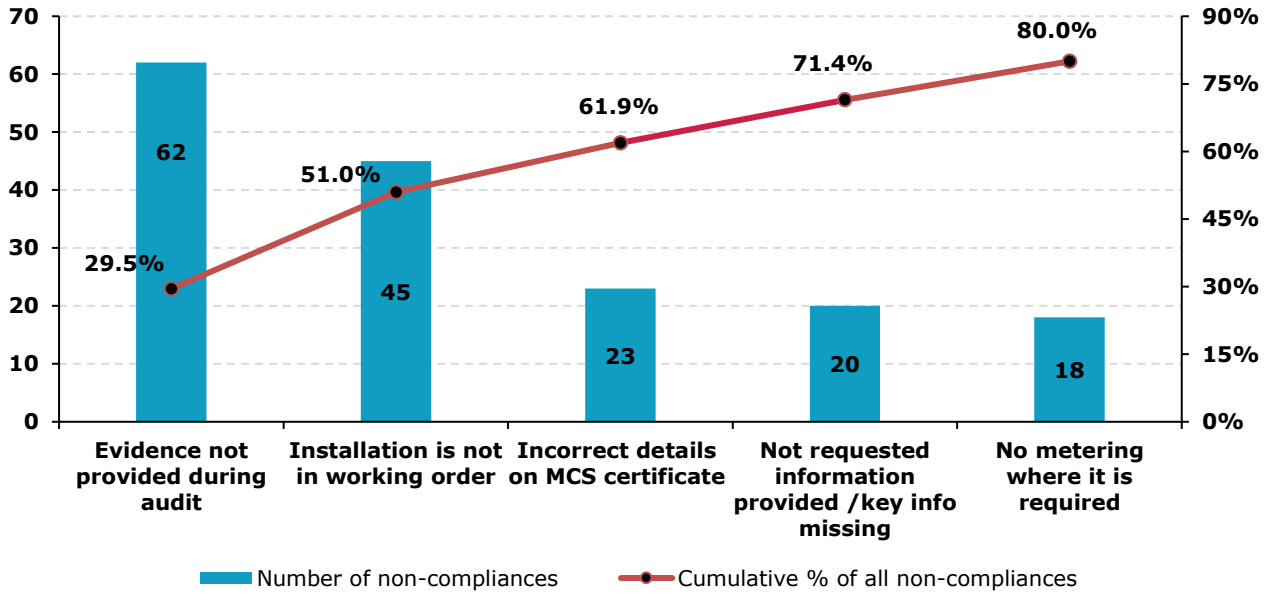
[20] The compliance rate is based on closed audits only. A small number of audits remain open as some site visits were conducted in late March 2022.

3.6. We conducted a total of 741 desk audits and 679 site audits during 2021-22. This is a decrease from the 867 desk audits in 2020-21 and the 719 site audits in 2020-21. The level of non-compliance in the DRHI population (or error rate as determined by the annual statistical audit programme) in the previous year is used to determine the statistical audit sample size. There was a decrease in the level of non-compliance in 2020-21 leading to a decrease in the statistical audit sample size. We also found that installations included in our statistical programme reaching the end of their eligibility period during 2021-22, had a higher incidence of failing to engage with the process, or in some cases reached the end of their support period before a site visit could be carried out. In response we have adjusted the way we select sites for our statistical programme to exclude those due to exit the scheme during the year, though such cases could still have a targeted audit if there was a compliance concern.

3.7. In March 2022, the DRHI scheme closed to new applications. Based on our experience from other renewable incentive schemes, we developed a scheme closure audit strategy focusing on applications submitted in the run up to closure. This strategy aims to mitigate against an increased risk of non-compliance and fraud. Of the 200 targeted site audits, 86 focused on applications submitted in the final four months of the scheme. Further scheme closure audits are planned for the 2022-23 audit year.

Figure 3.1: Top five non-compliance reasons from statistical audits, 2021-22.

Chart showing the top five reasons for non-compliance and their cumulative contribution to non-compliance on the scheme. Evidence not being provided was the most frequent cause of non-compliance with 62 instances (29.5%) followed by 45 instances (21.5%) of installations not being in working order. Remaining causes included 23 instances (10.9%) of MCS issues, 20 (9.5%) instances of unrequested information not provided or key information missing and 18 (8.6%) instances of metering being required.



3.8. Some non-compliance cases will be resolved by participants providing relevant information after an audit. Others will result in recoupment of overpayments or, in the worst cases of non-compliance, revocation of accreditation. We have revoked or will revoke 128 accreditations from the 2021-22 programme (based on 115 desk audits and 13 site audits). Of these, 30% were installations that came to the end of their seven years of support during the year and failed to engage with the audit process.

3.9. **Figure 3.1** shows the top five most common reasons for non-compliance by instance and the cumulative percentage of all non-compliance in 2021-22. These top five causes of non-compliance are all examples of material non-compliance. This means that the instance of non-compliance may affect eligibility and/or result in DRHI payments being recouped by Ofgem as detailed in the essential scheme guide.[21]

[21] Link to Domestic RHI: Essential Scheme Guide <https://www.ofgem.gov.uk/publications/domestic-rhi-essential-guide>

3.10. We track instances where non-compliance effects payments that installations are eligible to receive. These instances are defined as either a prevented or detected error. A prevented error refers to any payment which we have prevented from being paid out because of our work. A detected error is any payment which has been paid out to a participant for which they were not eligible.

3.11. **Table 3.2** shows the monies we have protected (prevented and detected error) based on the audits carried out from 2018-19 to 2021-22. Although at the time of writing the proportion recovered for 2021-22 is lower than that for 2020-21, at the same point last year the proportion recovered for 2020-21 stood at 32%. Similarly, we anticipate the proportion recovered for 2021-22 will rise as we continue taking steps to recoup the outstanding debt from participants.

Table 3.2: Money protected from DRHI audits 2018-19 to 2021-22

Scheme year	Prevented Error	Detected Error	Total Error	Detected Error (Recovered %)
2018-19	£959,668	£673,654	**£1,633,323**	43.5%
2019-20	£935,147	£877,844	**£1,812,991**	59.5%
2020-21	£562,579	£634,035	**£1,196,615**	62.3%
2021-22	£531,760	£530,749	**£1,062,509**	56.5%

3.12. In total this year's audit programme has resulted in the identification of £1,062,509 in prevented and detected error. This is in addition to the protection of public funds provided though our other control measures, such as robust eligibility assessments prior to accreditation and annual participant declarations.

4. Our Administration

4.1. Ofgem performs several functions as administrator of the scheme, including review of applications and amendments, calculating and making payments, responding to enquiries and ensuring ongoing participant compliance with scheme regulations.

4.2. To ensure that we are providing a good service, we track our performance each month and publish details on the Ofgem website.[22] **Table 4.1** provides a summary of this year's performance in comparison to last year.

Table 4.1: DRHI delivery performance

	2020-21	2021-22	Change
No. of applications processed	14,841	32,016	+115.7%
Applications processed within 6 months	99%	99%	0%
No. of telephone enquiries	17,738	30,344	+71.1%
Abandoned call rate	8.3%	9.6%	+1.3%
No. of email enquiries	9,996	9,883	-1.1%
Emails responded to in 10 WD	99%	99%	0%
Payments made	317,896	335,143	+5.4%
Payments made within 30 WD	98%	98%	0%
No. of amendments processed	7,551	8,266	+9.5%
Amendments processed within 6 months	95.9%	92.7%	-3.2%

4.3. The closure of the DRHI scheme to new applications on 31 March 2022 led to a significant increase in application and enquiry numbers as applicants tried to gain accreditation. We anticipated this increase in volumes based on experience administering other renewable incentive schemes. As such we prepared by taking on additional staff who we ensured were fully trained in time to ensure delivery performance remained efficient.

4.4. The number of applications processed in 2021-22 (32,016) was more than double that of 2020-21 (14,841), 99% of which were processed within our target of six months.

4.5. In response to COVID-19 we restricted our phone line hours during 2020-21. This resulted in a reduction of telephone enquiries and an increase in email traffic, this being a more accessible means of reaching us. Moving forward to 2021-22 the phone line restrictions were lifted resulting in a larger proportion of enquiries being received via

[22] Link to information on DRHI performance: <https://www.ofgem.gov.uk/environmental-programmes/environmental-programmes-ofgem-s-role-and-delivery-performance>

telephone. This coupled with an overall increase in volumes saw a small drop in email enquiries from 9,996 in 2020-21 to 9,883, whilst telephone enquiries increased by 71% to 30,344. The abandoned call rate rose from 8.3% in 2020-21 to 9.6% in 2021-22, though this was still below our maximum target of 15%. Email enquiry responses made within ten working days remained at 99%.

4.6. The number of amendments to applications processed rose from 7,551 in 2020-21 to 8,266. 92.7% of these were processed within six months marking a slight decrease from the 95.9% processed within six months last year.

4.7. Finally, there was a 5.4% increase in the volume of payments made during 2021-22 and delivery performance was maintained as 98% of payments were made within the target of 30 working days.

5. Looking Forward

5.1. The DRHI closed to new applicants and MMSP applications on 31 March 2022. Although closed, a significant amount of work is still required to process the outstanding applications that were submitted in the run up to scheme closure. The DRHI provides payments over a seven-year period meaning that we will continue to service participants up until 31 March 2029. Over this period we will continue to ensure that the processes supporting the scheme remain effective and we will continue to publish this report annually. We will also continue to process amendments to accredited installations, such as changes of ownership.

5.2. To ensure that only those that continue to meet scheme rules receive payments we will be actively monitoring participant compliance. In part, this is achieved through a requirement for annual declarations to be submitted by participants, and our extensive audit programme. This, along with the counter fraud measures that we continue to implement, ensures that we only pay subsidies on eligible heat generation, thereby ensuring fair and effective use of public funds.

5.3. Following on from the closure of the DRHI, the new Boiler Upgrade Scheme (BUS)[23] was launched on 23 May 2022 to continue the support of the deployment of low carbon heat technologies. This scheme provides up front capital grants to support the installation of heat pumps, and in certain circumstances biomass boilers, in homes and some small non-domestic buildings. Ofgem is the administrator for the BUS scheme. For further information on the BUS scheme BEIS' consultation on 'Future support for low carbon heat' sets out the overall scheme design.[24]

[23] Link to information on the BUS: <https://www.ofgem.gov.uk/environmental-and-social-schemes/boiler-upgrade-scheme-bus>
[24] Link to information on future support for low carbon heat: <https://www.gov.uk/government/consultations/future-support-for-low-carbon-heat>

Associated Documents

- The legislation which underpins the Domestic Renewable Heat Incentive (DRHI) scheme can be viewed on the legislation.gov.uk website:

  Link to the DRHI section of the legislation.gov.uk website
  <https://www.legislation.gov.uk/primary+secondary?title=Domestic%20renewable%20heat>

- Guidance and resources in relation to the DRHI including annual reports for all previous scheme years along with other DRHI scheme data is published on our website:

  Link to DRHI Guidance and resources
  <https://www.ofgem.gov.uk/environmental-and-social-schemes/domestic-renewable-heat-incentive-domestic-rhi/contacts-guidance-and-resources>

- The Department for Business, Energy & Industrial Strategy (BEIS) publish DRHI statistics on the gov.uk website:

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