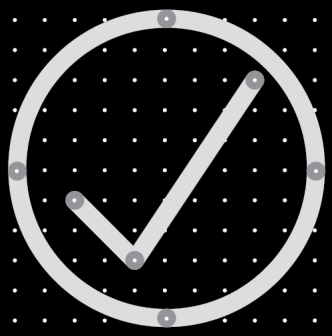
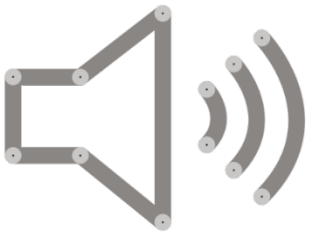
MCS Standards Update



2024 OVERVIEW NEWSLETTER

Giving everyone confidence
in home-grown energy

Introduction

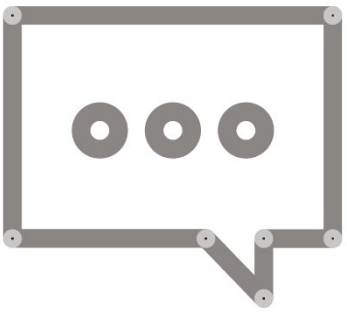


Welcome to our **MCS Standards Update** 2024 Overview Newsletter!

2024 has been another record breaking year in a row for small scale renewables, with over 260,000 MCS certified installations reinforcing the importance of the vital role MCS Standards play in ensuring the quality and safety of small-scale renewable installations. The maintenance and evolution of the MCS Standards would not be possible without the work of the industry experts that make up our technical Working Groups and because of this, we would like to extend our gratitude to all our Working Group members.

We invite you to look back on the highlights of the past year, including a spotlight on the contributions of our Working Groups, the latest updates on both published and under-review Standards, and statistics that capture the progress and growth of the Scheme.

2024 Overview



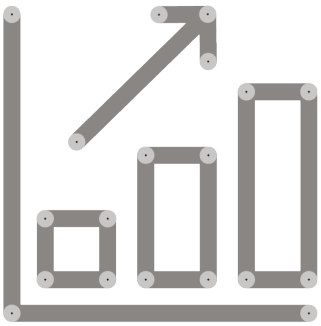
Working Group meetings:

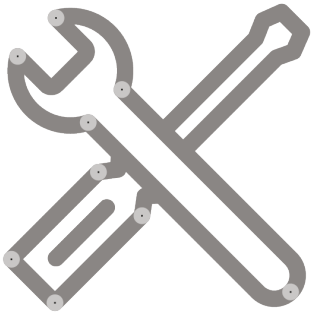
- Heat Pump Working Group Meetings = 5
- Heat Pump Subgroup Meetings = 3
- Solar PV Working Group Meetings = 2
- Battery Storage Working Group Meetings = 2
- Solar Heating Working Group Meetings = 0
- Biomass Working Group Meetings = 1
- Solar Mounting Working Group Meetings = 5
- Wind Working Group Meetings = 2
- Micro CHP Working Group Meetings = 0

- MCS Working Group Event = 1

Published Standards:

MCS 004 – The Solar Heating Product Standard
MCS 005 – The Solar PV Product Standard
MCS 006 – The Small Wind Turbine Product Standard
MCS 017 – The Bespoke Building Integrated PV Product Standard
MCS 020 – Wind Turbine Calculation Procedure
MCS 031 – Heat Pump Pre Sale Information and Performance Calculation
MCS 033 – Wind Energy Pre-sale information and Performance Calculation
MIS 3003 – The Small Wind Turbine Installation Standard
MIS 3005-D : The Heat Pump Design Standard





MCS Heat Load Calculator

In 2024 our team worked hard getting ready to launch our new Heat Load Calculator. The Heat Load Calculator is a free tool that will help MCS certified low-carbon heating installers complete a BS EN 12831-1: 2017 compliant heat load calculation, as required in The Heat Pump Design Standard (MIS 3005-D) and The Biomass Installation Standard (MIS 3004). This calculation is crucial for ensuring a heat pump or biomass system is sized correctly, helping installers to meet the requirements of MCS standards.

This new digital tool replaced the existing Excel-based Heat Loss Calculator. Whilst the Excel tool remains available, this new Heat Load Calculator will sit alongside it.

The calculator became exclusively available to MCS certified installers from December 2024 more information can be found on our website:

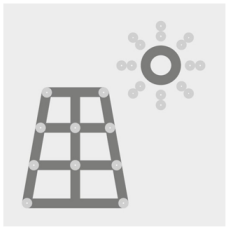
https://heatloadcalculator.mcscertified.com/

2024 Scheme Statistics

Electricity-generating technologies

MCS set Standards for the installation of systems up to 50kWe capacity

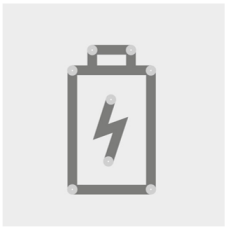
SOLAR PHOTOVOLTAIC



2024
184,511 installations

2023
198,362 installations

BATTERY STORAGE



2024
20,048 installations

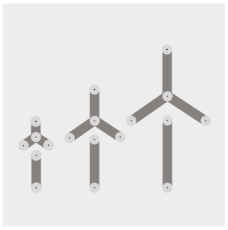
2023
4,965 installations

MICRO CHP

2024
0 installations

2023
7 installations

SMALL WIND TURBINES



2024
4 installations

2023
1 installation

Heat-generating technologies

MCS set Standards for the installation of systems up to 70kWth capacity

AIR SOURCE HEAT PUMP

2024
56,450
installations

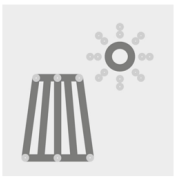
2023
37,721
installations

GROUND/WATER SOURCE HEAT PUMP

2024
1,456
installations

2023
2,703
installations

SOLAR HEATING



2024
180
installations

2023
313
installations

BIOMASS

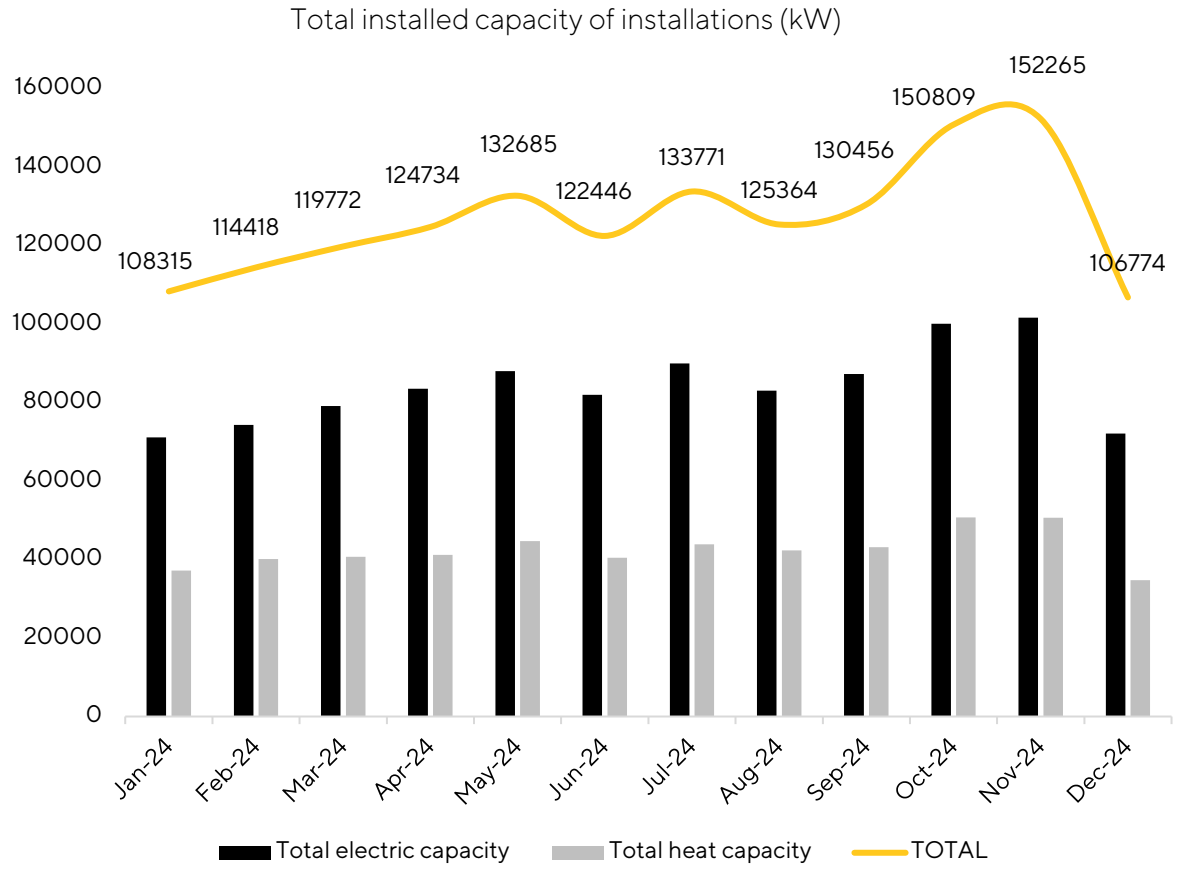
2024
183
installations

2023
203
installations

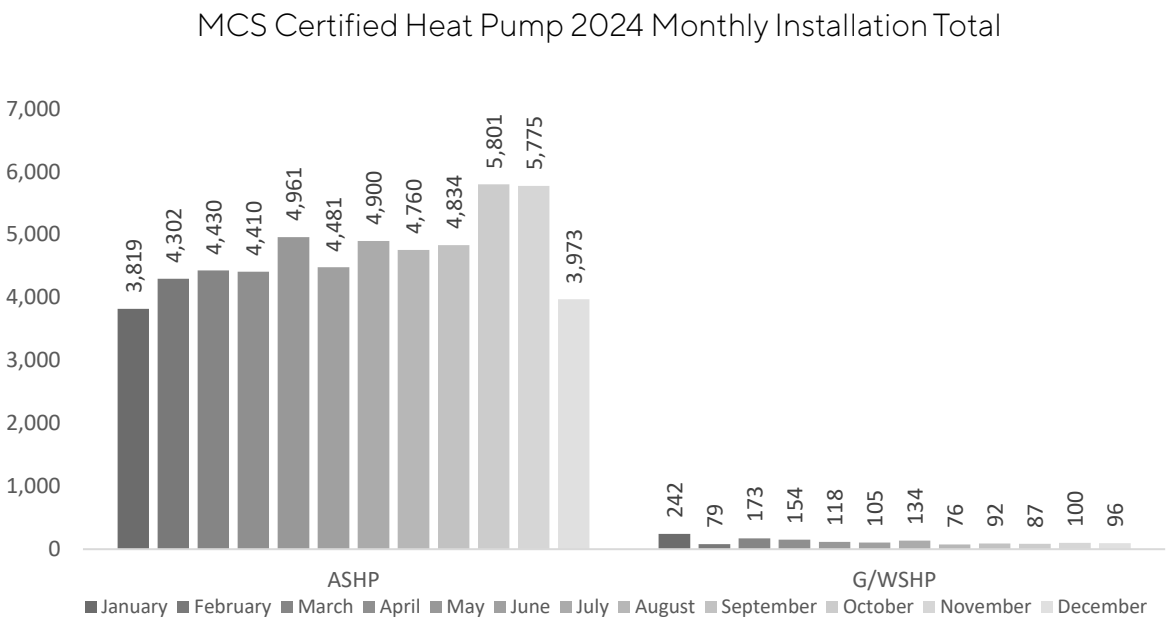
EXHAUST AIR HEAT PUMP

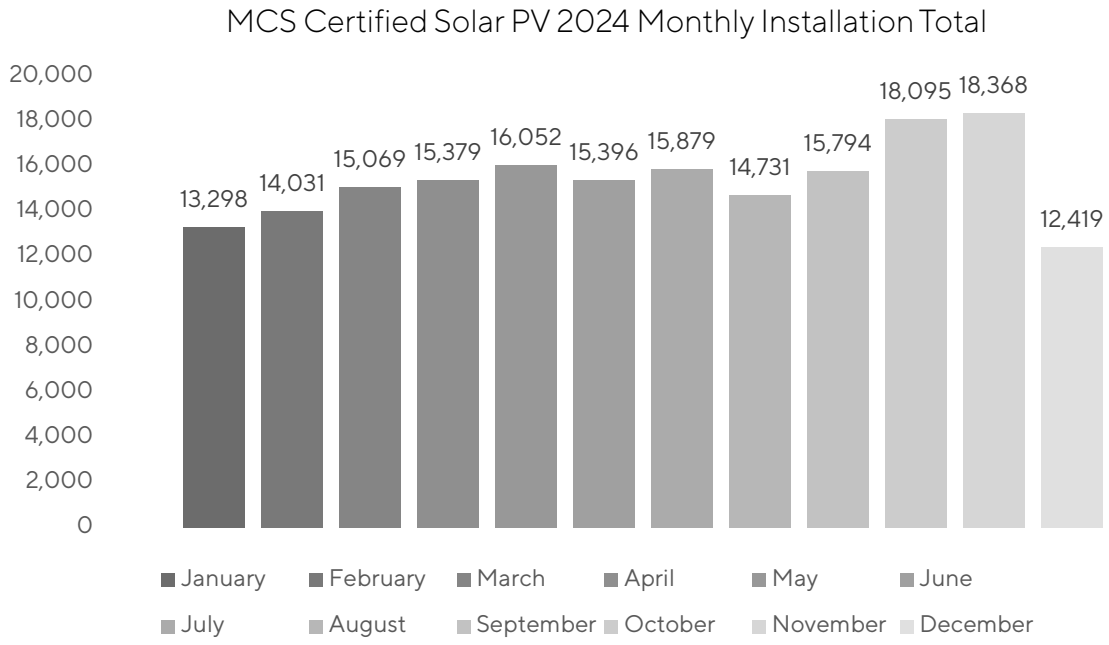
2024
12
installations

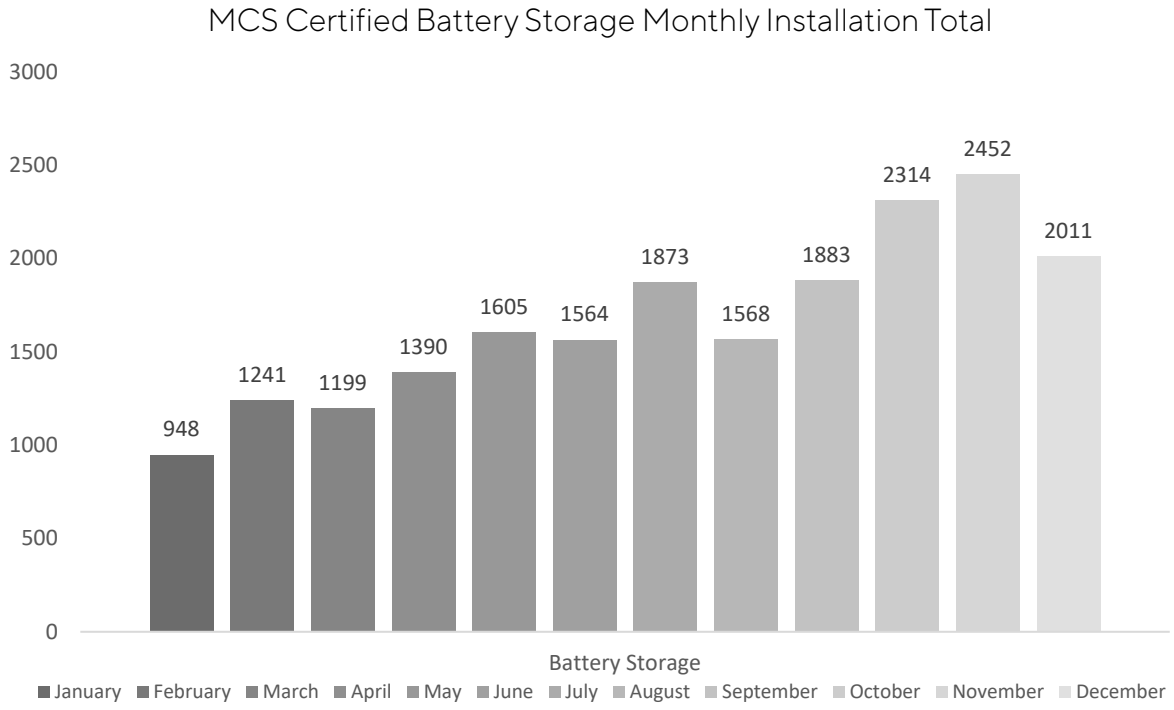
2023
2
installations



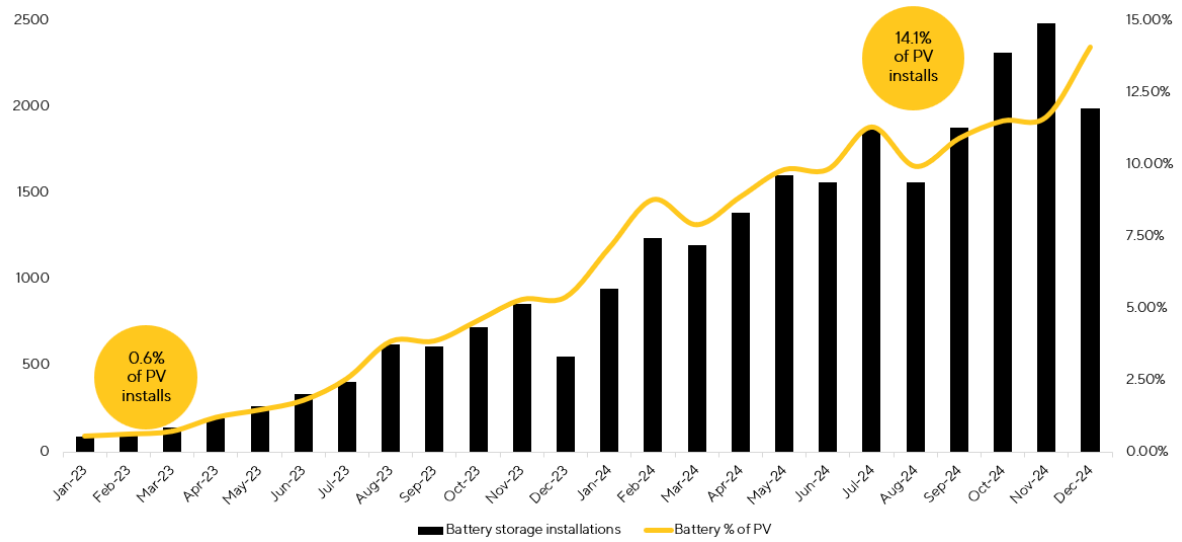
2024 Monthly Installations for all technologies



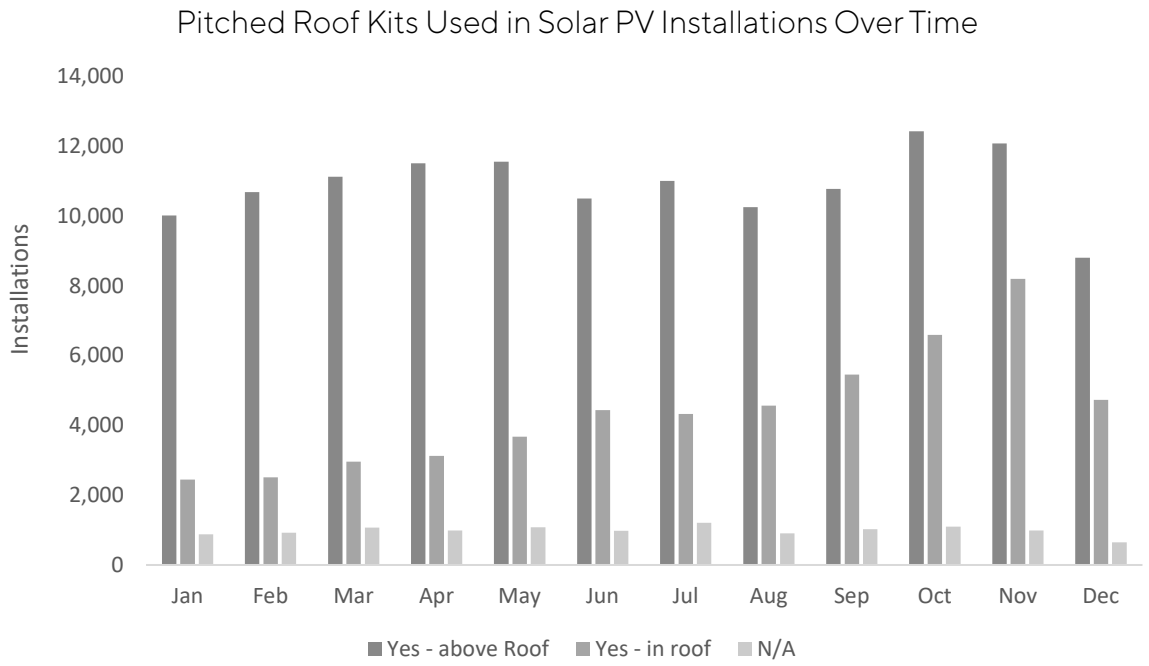

MCS Certified Solar PV 2024 Monthly Installation Total
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
13,298
14,031
15,069
15,379
16,052
15,396
15,879
14,731
15,794
18,095
18,368
12,419
January
February
March
April
May
June
July
August
September
October
November
December


MCS Certified Battery Storage Monthly Installation Total
3000
2500
2000
1500
1000
500
0
948
1241
1199
1390
1605
1564
1873
1568
1883
2314
2452
2011
Battery Storage
January
February
March
April
May
June
July
August
September
October
November
December

Battery storage with PV % (2023-2024)



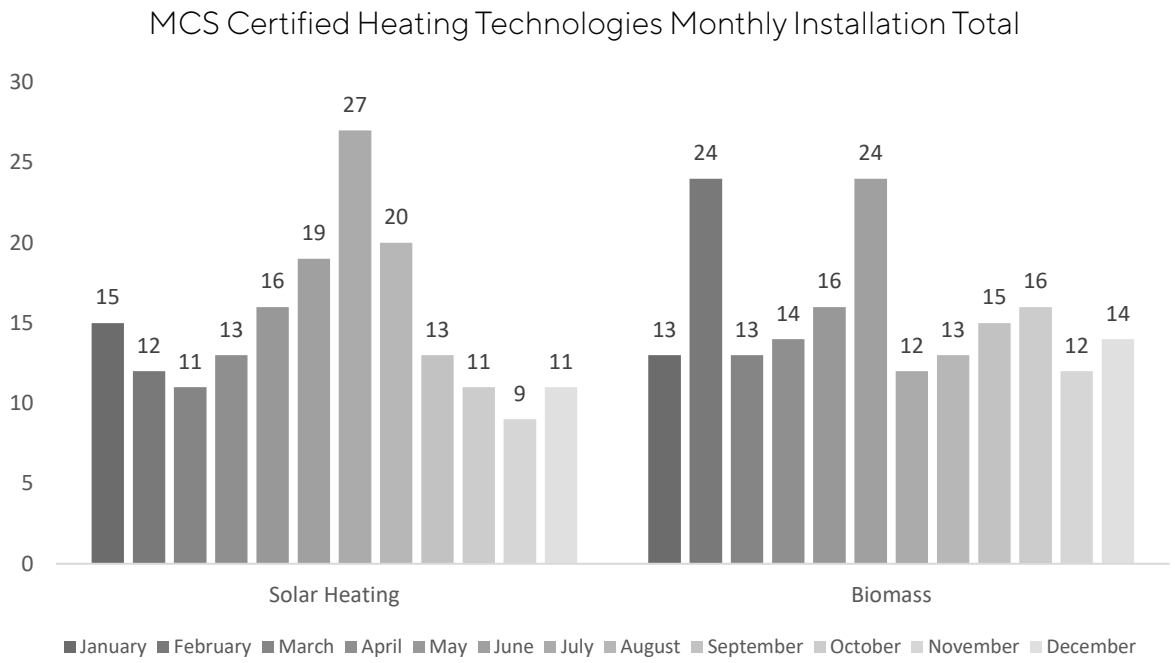
Solar Mounting Statistics



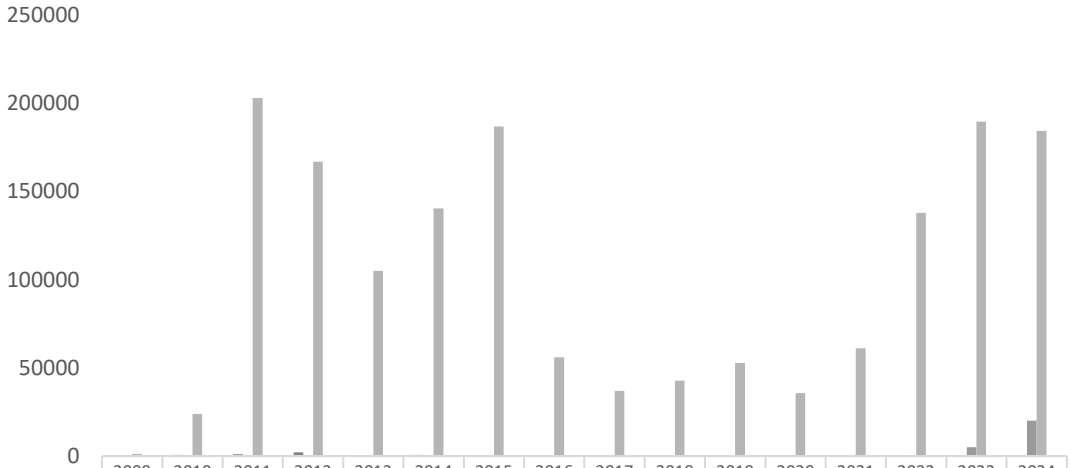
Pitched Roof Kit Used?	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
Not applicable	877	928	1075	986	1082	979	1212	910	1028	1095	990	650	11812
Yes - above roof	10022	10689	11131	11512	11565	10502	11010	10257	10778	12436	12086	8812	130800
Yes - in roof	2447	2508	2962	3129	3676	4441	4331	4566	5457	6594	8202	4737	53050

MCS Certified Solar Mounting Products	End of 2022	End of 2023	End of 2024	% change from 2023 - 2024
Solar PV	124	123	118	-4.06%
Solar heating	9	9	9	0.0%

Pitched Roof Kit used?	Solar Photovoltaic installations proportions	Solar Thermal installations proportions
Not applicable	6%	39%
Yes - above roof	67%	49%
Yes - in roof	27%	12%

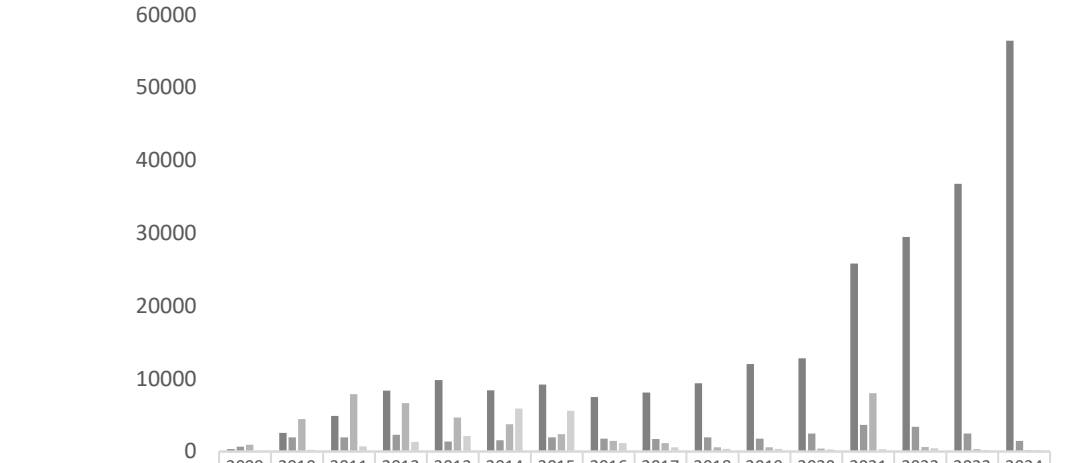


MCS Certified Electricity Generating Technology Installations Over Time



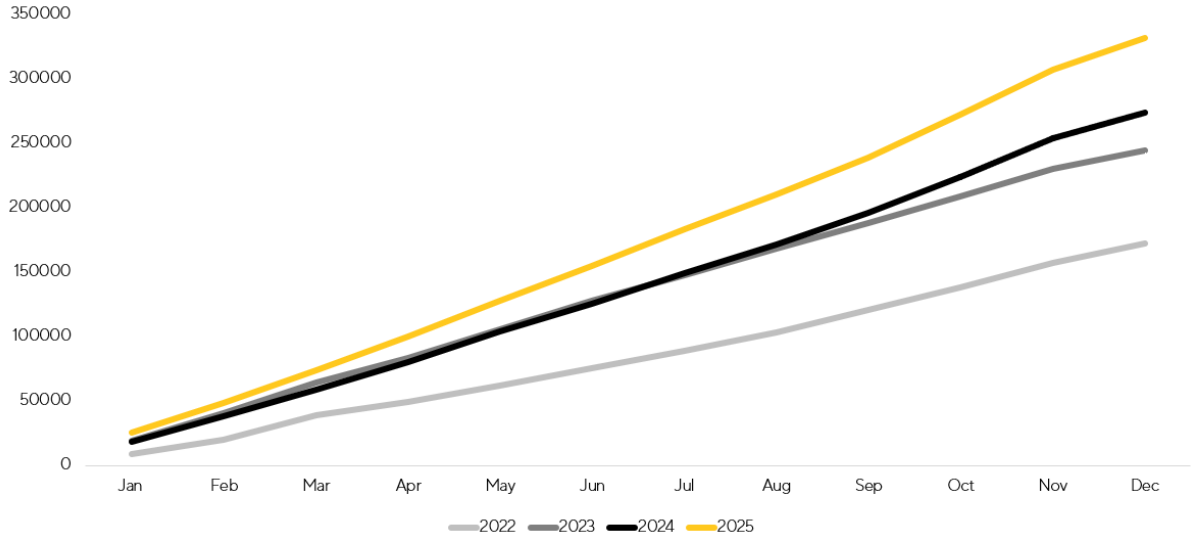
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Small Wind Turbine	92	573	944	2130	411	558	132	105	15	17	59	1	0	3	1	4
Battery Storage														269	4913	20048
Solar PV	1239	23879	203129	167071	105008	140557	187029	56020	36983	42783	52801	35680	61202	138020	189826	184511
mCHP	0	125	330	115	34	25	18	47	9	21	47	3	7	15	7	0

MCS Certified Heat Generating Technology Installations Over Time

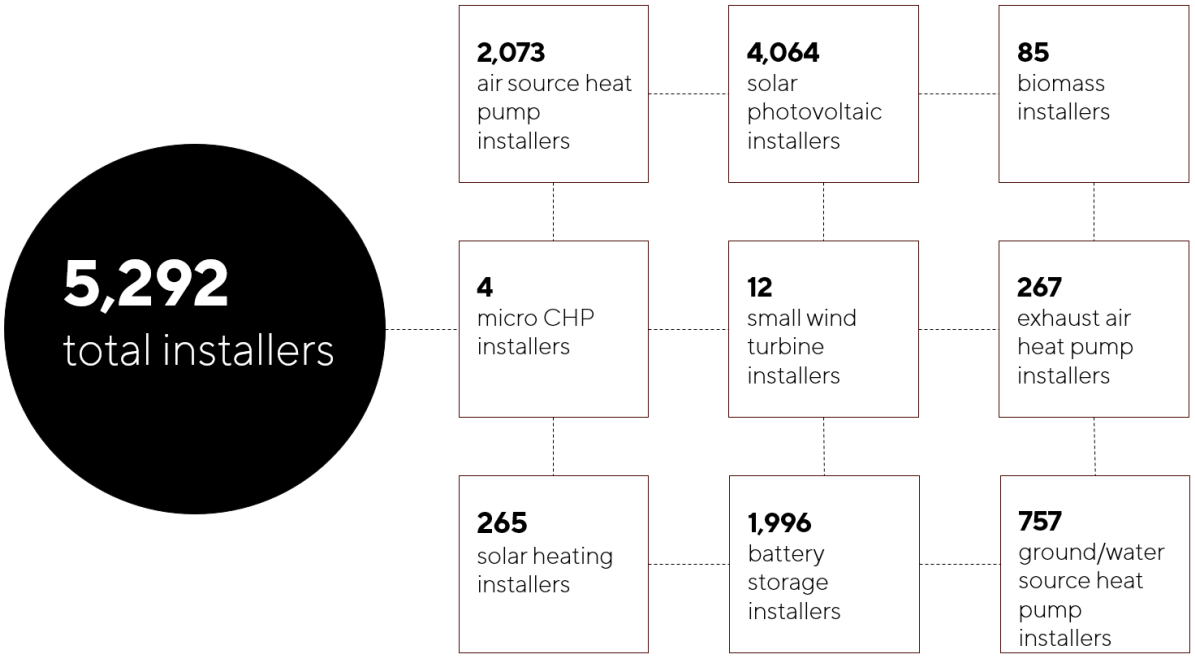


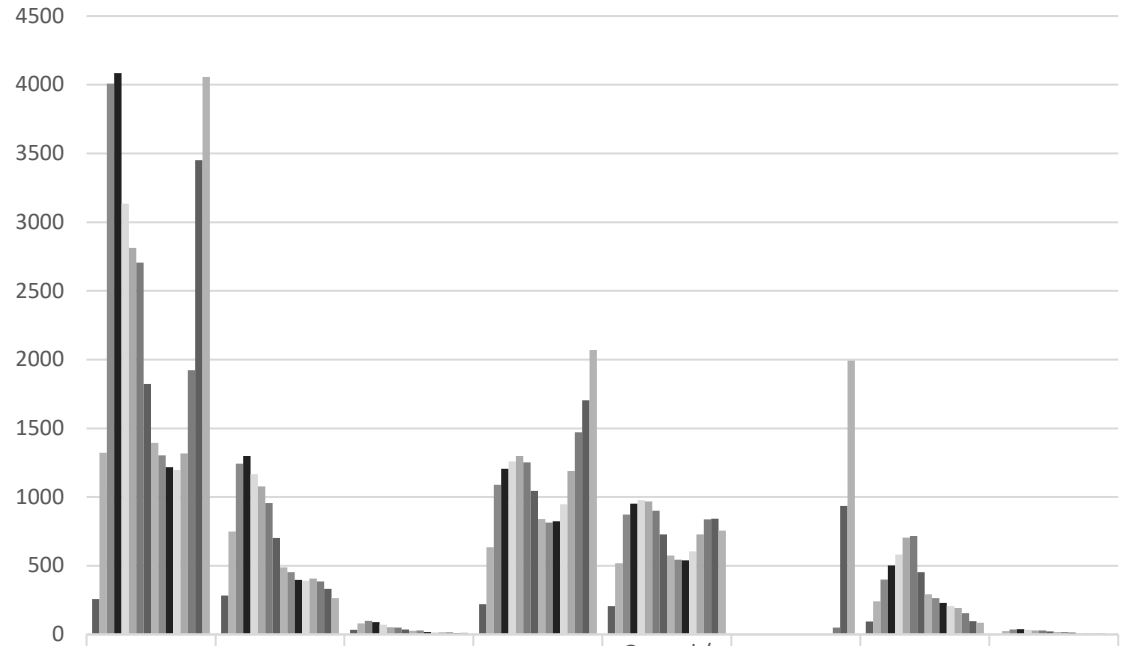
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Air Source Heat Pumps	324	2561	4881	8371	9822	8427	9222	7483	8124	9400	12000	12789	25847	29490	36799	56446
Ground/Water Source Heat Pumps	678	1946	1938	2317	1387	1538	1962	1786	1714	1934	1786	2483	3660	3420	2469	1456
Solar Heating	942	4467	7890	6670	4656	3732	2408	1448	1139	600	565	407	8002	615	311	180
Biomass	66	241	719	1339	2116	5909	5595	1140	588	358	364	278	318	454	203	183

Cumulative installations - forecast for 2025



Installer base breakdown (2024 year-end)





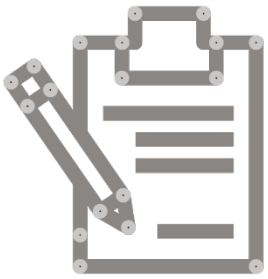
	Solar PV	Solar Heating	Small Wind Turbine	Air Source Heat Pump	Ground / Water Source Heat Pump	Battery Storage	Biomass	mCHP
2009	257	283	33	220	205		94	0
2010	1,322	750	80	635	519		240	25
2011	4,009	1,242	98	1,089	872		399	37
2012	4,085	1,298	90	1,205	952		501	39
2013	3,134	1,166	70	1,259	977		582	33
2014	2,814	1,077	53	1,298	969		704	28
2015	2,705	957	49	1,253	900		716	28
2016	1,823	702	36	1,045	728		454	22
2017	1,395	488	27	839	575		293	17
2018	1,304	454	28	815	544		265	17
2019	1,217	396	17	824	539		229	13
2020	1,196	390	15	946	604		207	10
2021	1,318	407	14	1,189	727		191	9
2022	1,922	386	15	1,470	838	50	156	6
2023	3,451	332	10	1,705	842	935	96	6
2024	4057	265	12	2070	757	1993	85	4

Installer Scheme Redevelopment

In 2024 MCS worked hard to achieve UKAS accreditation for the Redeveloped Installer Scheme and we have now released the new Scheme documents, updated Standards and associated processes early in 2025. Following a period of transition we expect the Scheme to be fully rolled out in 2026.

Publishing the core documents and updated structure for the Redeveloped Installer Scheme marks a key milestone in our journey to enhance standards for small-scale renewables. These changes simplify and clarify the certification process for Installers while maintaining robust technical and consumer protection standards. The main elements of the redeveloped scheme for installers include:

- Reduce the focus on paper work in favour of delivered quality
- Risk of non-compliance will determine assessment frequency
- Standardised assessments
- Centralised customer complaint management
- A more direct relationship with MCS
- Consumer Code Membership no longer mandatory



2025

Standards under review:

- MIS 3005 D: The Heat Pump Design Standard
- MIS 3005 I: The Heat Pump Installation Standard
- MIS 3004 – Biomass Installation Standard
- MCS 008 – Biomass Product Standard
- MCS 040 – Biomass Maintenance Standard (NDRHI)
- MCS 012 – Solar Mounting Product Standard
- MCS 031 – System Performance Estimate
- MCS 026 – SCOP and SSHEE Calculator
- PV Self-Consumption Guidance
- MIS 3002 – Solar Mounting Installation Standard
- MIS 3012 - Battery Storage Installation Standard

In development:

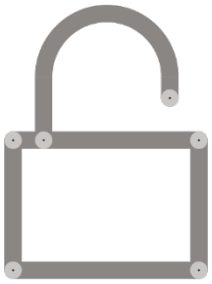
- TESS Installation Standard and System Performance Estimate Standard
- Battery Storage Product Standard

Heat Pump Performance Monitoring Project

MCS is starting a project to better understand factors that define and influence heat pump performance. To inform best practice within industry, evidence must be collected and challenged to support consumer confidence in heat pumps and MCS standards development.

This will support the industry's expansion as it advances towards the UK Government's ambitious targets for domestic heat pump installations.

We kickstarted the project with a meeting in London in February which included presentations from DESNZ, Catapult, Open Energy Monitor and UCL.



Latest News

To keep up to date with the latest news stories and events from MCS and to subscribe to our email updates, read more here.

For access to the MCS Data Dashboard, the most comprehensive tool for near-real-time updates on the MCS Installations Database (MID) data, click here.

LinkedIn

In 2024 MCS set up an exclusive LinkedIn Group for Working Group Members, we have been busy recruiting are proud to say there are currently 144 Members from across all Working Groups.

Our purpose for setting up this group was to create a space for our Standards community to engage and strengthen collaboration, stay informed about upcoming meetings and the outputs (including minutes, actions, and statistics updates), and to keep up to date with the latest information from MCS including news articles and consultations.

To join the exclusive LinkedIn page for MCS Working Group Members please email @MCS Meetings & Events

Once you have been accepted into the group please ensure you turn on notifications for group posts using the icon indicated below: