

Smart Export Guarantee (SEG)

Annual Report

SEG Year 3 (1 April 2022 – 31 March 2023)

ofgem

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for energy consumers



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Executive Summary

Ofgem runs a range of environmental and social schemes on behalf of government and for the devolved administrations. Together, these are worth over £9 billion each year. Our schemes fall into three main categories: renewable electricity schemes, renewable heat schemes, and energy efficiency and social schemes.

The Smart Export Guarantee

The Smart Export Guarantee (SEG) is a government-backed initiative that enables small-scale low-carbon electricity generators in Great Britain (known as SEG generators) to receive payments from electricity suppliers (known as SEG licensees) for the electricity they export to the National Grid. Providing certain criteria are met, the SEG ensures that there is a route to market for small-scale generators to sell their exported electricity. This helps to support the deployment of low-carbon electricity generation and the transition to net zero.

The SEG is a market-led initiative: licensees are free to set their own SEG tariff rate and decide how their tariffs work (including the tariff length, as well as other relevant contractual terms). SEG licensees must offer at least one SEG tariff to any generator with a SEG-eligible installation. It is up to the SEG licensees if they offer one tariff or multiple tariffs. Tariffs offered must be at a rate greater than 0p/kWh at all times.¹

The SEG came into force on 1 January 2020, under the Smart Export Guarantee Order 2019.² The Department for Energy Security and Net-Zero (DESNZ)³ is responsible for the SEG policy, and Ofgem has been appointed to administer the SEG on its behalf in line with the policy design. Our role includes publishing guidance for SEG generators and licensees, publishing a list of SEG licensees and publishing an annual report on the SEG.

This annual report provides an update on activity under the SEG from 1 April 2022 to 31 March 2023 (SEG Year 3).

¹ Paragraph 3.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

² [Smart Export Guarantee Order 2019](https://www.legislation.gov.uk/uksi/2019/1005/contents/made) <<https://www.legislation.gov.uk/uksi/2019/1005/contents/made>>

³ From February 2023 the Department for Energy Security and Net-Zero (DESNZ) are responsible for SEG policy in GB. This responsibility was previously held by the Department for Business, Energy & Industrial Strategy (BEIS).

SEG Tariffs

In addition to a tariff a SEG licensee must offer to any generator with a SEG-eligible installation, a SEG licensee can also offer SEG tariffs that are only available if additional conditions are met. For example, if import electricity is purchased from the same supplier, or the generator purchases or uses certain products. We refer to these as bundled tariffs.

There were a total of 39 tariffs from 14 SEG licensees providing or offering support to SEG generators during SEG Year 3. This is up from the 35 tariffs available or in use during SEG Year 2. Twenty-four of the Year 3 tariffs were unbundled and 15 were bundled. The highest rate available was from Octopus with its 'Tesla Outgoing July 2022 v1' tariff at 25.48p/kWh. This bundled tariff was only available to customers with solar photovoltaic (PV) who installed a 'Tesla Powerwall'. Comparatively, the highest unbundled tariff available came from ScottishPower with their 'SMART GEN' tariff at 12p/kWh. The lowest tariff offered was from the energy supplier E, with their 'E SEG January2020v.1' at 1p/kWh. Where suppliers offered bundled tariffs in addition to their unbundled tariffs, the bundled rates were always higher. However, when looking across all suppliers the highest unbundled tariffs offered greater returns than some bundled tariffs.

Registered Installations

The third year of the SEG saw a total of 92,946⁴ installations with a combined capacity of 495,981 kW registered to one of the available tariffs. This is a significant increase from the 34,020 installations with a combined capacity of 155,755 kW registered during Year 2. Octopus had the broadest range of tariffs available and the highest number of registrations at 62,159, accounting for almost 67% of total installations on the SEG. Following Octopus, registration numbers were highest for E.ON (8,843), accounting for almost 10% of total registrations. Bulb (6,610) and British Gas (6,420) came next with each accounting for around 7% of total registrations. Registrations with the remaining ten suppliers formed around 10% of total registrations in SEG Year 3. The energy supplier E were the only supplier not to have any SEG installations registered with them, and have not registered any installations since they first became a SEG licensee in SEG Year 1.

Solar PV made up more than 99.9% of installations registered (92,916) and installed capacity (495,832 kW) on the SEG in Year 3. There were 30 installations for other technology types, 23 micro-combined heat and power (micro-CHP) and seven wind.

⁴ As we receive anonymised data from SEG licensees we are unable to identify unique installations. As such when a generator switches tariffs during the year they will be double counted.

In SEG Year 3, payments to registered installations totalled £7,193,527, and 77.3 GWh of low-carbon electricity export was recorded. This is enough to make approximately 1.85 billion cups of tea, and is a significant increase on the £1,664,969 in payments made and 24.4 GWh exported in SEG Year 2.

Licensee compliance

It is the responsibility of licensees to ensure they are meeting their obligations on time and in full, including ensuring that their reporting to Ofgem is accurate, timely and complete. This includes any licensees that join the SEG voluntarily who are bound by the same obligations as mandatory licensees.

The supplier Smart Pay Energy was a voluntary licensee at the start of SEG year 3 but contrary to the terms of the SEG policy, withdrew and were no longer participating at the end of the SEG year. They therefore did not submit data as required. As licensees are obligated to participate for the full SEG year this incident will be added to the Supplier Performance Report (SPR)⁵.

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

Feedback

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

⁵ [Supplier Performance Report](https://www.ofgem.gov.uk/environmental-programmes/environmental-programmes-ofgem-s-role-and-delivery-performance/supplier-performance-report-spr)

<<https://www.ofgem.gov.uk/environmental-programmes/environmental-programmes-ofgem-s-role-and-delivery-performance/supplier-performance-report-spr>>

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Tariffs

Fourteen SEG licensees provided or offered support to generators via 39 different tariffs during 2022-23. Fifteen of these were bundled, for example with import or conditional on the purchase or use of certain products.

92,946

Installations

A total of 92,946 installations were registered to a SEG tariff during 2022-23.⁶ This is an increase of 58,926 compared to the 34,020 reported in 2021-22.

496 MW

Capacity

The 92,946 installations registered had a combined Total Installed Capacity of 496.0 MW.⁶ This capacity of solar PV is enough to power 155,813 typical three bed houses for a year.

£7.2m

Paid in 2022-23

Payments totalling £7,193,527 were paid out to SEG generators in 2022-23. This is an increase of 77% compared to £1,664,969 payments made in 2021-22.

77 GWh

Exported

The 77.3 GWh of low carbon electricity exported during 2022-23 was enough to make approximately 1.85 billion cups of tea.

⁶ As we receive anonymised data from SEG licensees we are unable to identify unique installations. As such when a generator switches tariffs during the year they will be double counted.

1. About the SEG

Chapter summary

This chapter introduces the context and background to the Smart Export Guarantee, including the responsibilities of SEG licensees and Ofgem’s administrative duties.

Introduction

- 1.1. The Smart Export Guarantee (SEG) is a government-backed initiative that enables small-scale low-carbon generators in Great Britain (known as SEG generators) to receive payments from electricity suppliers (known as SEG licensees) for the electricity they export to the National Grid. Providing certain criteria are met, the SEG ensures that there is a route to market for small scale generators to sell their exported electricity, thereby supporting the transition to low-carbon generation and net zero.
- 1.2. The SEG came into force on 1 January 2020, under the Smart Export Guarantee Order 2019.⁷ The Department for Energy Security and Net-Zero (DESNZ)⁸ is responsible for the SEG policy and Ofgem has been appointed to administer the SEG on its behalf in line with the policy design.⁹

SEG Tariffs

- 1.3. The SEG is a market-led initiative: licensees are free to set their own SEG tariff rate and decide how their tariffs work (including the tariff length, as well as other relevant contractual terms). SEG licensees must offer at least one SEG tariff to any generator with a SEG-eligible installation. It is up to the SEG licensees if they offer one tariff or multiple tariffs. Tariffs offered must be at a rate greater than 0p/kWh at all times.¹⁰

⁷ [Smart Export Guarantee Order 2019](https://www.legislation.gov.uk/uksi/2019/1005/contents/made) <<https://www.legislation.gov.uk/uksi/2019/1005/contents/made>>

⁸ From February 2023 the new DESNZ (Department for Energy Security and Net-Zero) are responsible for SEG policy in GB. This responsibility was previously held by BEIS (Department for Business, Energy & Industrial Strategy).

⁹ [The future for small-scale low-carbon generation: part A](https://www.gov.uk/government/consultations/the-future-for-small-scale-low-carbon-generation)

<<https://www.gov.uk/government/consultations/the-future-for-small-scale-low-carbon-generation>>

¹⁰ Paragraph 3.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

Eligibility

- 1.4. SEG generators must use one or more of the following eligible technologies in their installation:
 - Anaerobic digestion (AD)
 - Hydro
 - Onshore wind
 - Solar photovoltaic (PV)
 - Micro-combined heat and power (micro-CHP).
- 1.5. To be eligible for a SEG tariff generators will be asked to demonstrate that their installation is suitably certified. For installations up to 50kW this will mean presenting a Microgeneration Certification Scheme (MCS) certificate¹¹ or equivalent.
- 1.6. Installations have a maximum permitted capacity of 5 megawatts (MW); with the exception of micro-CHP installations, which must be no more than 50kW total installed capacity (TIC).¹²
- 1.7. It should be noted that the eligible technologies on the SEG are the same as those on the Feed-in Tariffs (FIT) scheme¹³, which closed to new applicants on 1 April 2019. Under the FIT, generators receive payments for total eligible generation, as well as export to the grid. Those eligible to receive support under the FIT can choose to opt out of the export element of the FIT to join the SEG. Those that opt out can continue to receive FIT generation payments but will receive export payments via the SEG.

SEG Licensees

- 1.8. Licenced electricity suppliers participate in the SEG as either mandatory or voluntary SEG licensees:
 - **Mandatory SEG licensees** are licenced electricity suppliers with at least 150,000 domestic electricity customers. Mandatory SEG licensees must offer at least one SEG compliant tariff.

¹¹ [Information on the MCS](https://mcs-certified.com/): <https://mcs-certified.com/>

¹² Total Installed Capacity (TIC): The maximum capacity at which an installation could be operated for a sustained period without damaging it (assuming the source of power or eligible low-carbon energy source was available to it without interruption).

¹³ [Feed-in Tariffs \(FIT\) | Ofgem](https://www.ofgem.gov.uk/environmental-and-social-schemes/feed-tariffs-fit) < https://www.ofgem.gov.uk/environmental-and-social-schemes/feed-tariffs-fit>

- **Voluntary SEG licensees** are licensed electricity suppliers with fewer than 150,000 domestic electricity customers that choose to offer a SEG tariff. A voluntary SEG licensee has the same responsibilities as a mandatory SEG licensee and must comply with all SEG obligations but can withdraw at the end of a SEG year.

1.9. A list of mandatory and voluntary SEG licensees for SEG Year 3 can be found in Appendix 1.

1.10. The obligations placed on SEG licensees (summarised below) are set out in Standard Conditions 57 and 58 of the Electricity Supply Standard Licence Conditions¹⁴:

- Offering at least one SEG tariff to eligible installations
- Assessing the eligibility of installations
- Making SEG payments based on export meter readings
- Handling any complaints from SEG generators
- Providing data to Ofgem on tariff offerings, uptake and payments.

Ofgem's Role

1.11. Having been appointed to administer the SEG on behalf of government, Ofgem has several administrative functions:

- Publication of guidance for SEG generators and SEG licensees¹⁵
- Publishing an annual list of mandatory and voluntary SEG licensees¹⁶
- For AD installations, checking whether the sustainability criteria and reporting requirements are met, and notifying the relevant generator of the outcome of the assessment¹⁷
- Publishing an annual report on the SEG.

¹⁴ [Electricity Supply Standard Licence Conditions](https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf)

<[https://epr.ofgem.gov.uk/Content/Documents/Electricity Supply Standard Licence Conditions Consolidated - Current Version.pdf](https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf)>

¹⁵ [Guidance documents are available on the Ofgem website](https://www.ofgem.gov.uk/environmental-and-social-schemes/smart-export-guarantee-seg/contacts-guidance-and-resources): <<https://www.ofgem.gov.uk/environmental-and-social-schemes/smart-export-guarantee-seg/contacts-guidance-and-resources>>

¹⁶ [Appendix 1: Supplier List for SEG Year 3](#)

¹⁷ [Guidance for anaerobic digestion generators: SEG sustainability criteria and reporting requirements](https://www.ofgem.gov.uk/publications/guidance-anaerobic-digestion-generators-seg-sustainability-criteria-and-reporting-requirements) <<https://www.ofgem.gov.uk/publications/guidance-anaerobic-digestion-generators-seg-sustainability-criteria-and-reporting-requirements>>

- 1.12. This report fulfils Ofgem’s obligation under Article 7 of the Smart Export Guarantee Order 2019¹⁸ to prepare and publish a report on the SEG at least once each calendar year. Publishing this annual report helps to provide transparency to stakeholders and the general public around SEG policy outcomes. This report covers the period from 1 April 2022 to 31 March 2023 (SEG Year 3).
- 1.13. It should be noted that Ofgem does not hold a database of SEG installations. As such we require an annual submission of anonymised data from all mandatory and voluntary SEG licensees. A spreadsheet containing this data and the other data used in this report is published alongside the report on our website.¹⁹

¹⁸ [Article 7 of the The Smart Export Guarantee Order 2019:](https://www.legislation.gov.uk/uksi/2019/1005/article/7/made)
<<https://www.legislation.gov.uk/uksi/2019/1005/article/7/made>>

¹⁹ Though licensees are obligated to provide complete and accurate information, we cannot guarantee the accuracy of the information we receive. Readers should bear this in mind when viewing the published data.

2. SEG Tariffs

Chapter summary

This chapter provides an update on the SEG tariffs offered by licensees and in use during SEG Year 3. It includes information on the types of tariff on offer, including those available to all SEG eligible installations, and those only available to generators meeting additional criteria.

- 2.1. SEG licensees must offer at least one SEG tariff to any generator with a SEG-eligible installation. There is no prescribed tariff rate, type or length, but the tariff must be at a rate greater than 0p/kWh at all times.²⁰
- 2.2. A SEG licensee can also offer SEG tariffs that are only available if additional conditions are met. For example, if import electricity is purchased from the same supplier, or the generator purchases or uses certain products. We refer to these as bundled tariffs. A bundled offer must be in addition to a SEG export tariff available to all eligible installations.
- 2.3. A total of 39 tariffs from 14 SEG licensees²¹ provided support or were offered to generators throughout SEG Year 3. Twenty-four of these were unbundled and 15 were bundled tariffs.
- 2.4. Other variations of tariff design in the market include differing lengths of tariff term. Some tariffs run for a specific period of time, (with payments stopping after this unless a new contract is signed) while others have no fixed end date. The way tariff rates are calculated also vary with some being fixed and others variable.
- 2.5. Note that in the following sections, tariffs shown with an end date before the start of SEG Year 3 are included as generators registered on them, continued to register export and/or receive payment during SEG Year 3.
- 2.6. We are also aware that there may be other tariffs on offer in the market, some of which may be similar in design to tariffs represented here. This report is based on data provided to us by licensees in relation to their SEG tariffs.

²⁰ Paragraph 3.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

²¹ There were 15 SEG licensees obligated during SEG Year 3. However, the voluntary licensee Smart Pay Energy notified Ofgem part way through the SEG year of their intention to withdraw and subsequently did not fulfil the end of year data request. This meant that no information on tariffs or installations registered was submitted to us. Withdrawing during the SEG year is contrary to the terms of the SEG policy. For further information please refer to Chapter 5: Licensee Compliance.

Unbundled Export Tariffs

2.7. A summary of the 24 unbundled SEG tariffs (available to any SEG-eligible generator) offered or in use during SEG Year 3 is shown in **Figure 2.1** below.

Figure 2.1: Unbundled export tariffs

SEG Licensee	Tariff name	Tariff start date ²²	Tariff end date ²³	Tariff rate (p/kWh)	Flat rate/ Variable ²⁴
British Gas	Export and Earn Flex	01/01/2020	Ongoing	4.8	Flat rate
Bulb	Export Payments standard flat rate tariff	01/01/2020	31/03/2021	5.38	Flat rate
Bulb	Export Payments standard flat rate tariff	01/04/2021	31/03/2023	3.0	Flat rate
Cilleni ²⁵	Snail Export	01/09/2022	Ongoing	10	Flat rate
E	E SEG January2020v.1	01/01/2020	Ongoing	1.0	Flat rate
E.ON	Next Export v1	01/01/2020	31/12/2023	3.0	Flat rate
EDF	Export+Earn	01/05/2021	30/06/2023	1.5	Flat rate
EDF	Export Variable Tariff 2022	22/07/2022	30/11/2022	1.5	Variable
EDF	Export Variable Tariff 2023	01/12/2022	Ongoing	3.0	Variable
ESB ²⁶	So Altair – Export	16/06/2020	Ongoing	5.0	Flat rate
Octopus	Octopus Outgoing Smart Export Guarantee July 2020 v1	07/07/2020	Ongoing	4.1	Flat rate
Octopus	Octopus Energy Smart Export Guarantee November 2020 v1	11/11/2020	01/04/2023	4.1	Flat rate
Octopus	My London smart export guarantee November 2020 v1	11/11/2020	Ongoing	4.1	Flat rate

²² The first date a licensee started offering this tariff to the market.

²³ The last date a generator would have been able to register on this tariff. The subsequent length of the tariff after registration would be determined by the terms of the agreement.

²⁴ Where the rate has varied over the year the average is shown.

²⁵ Cilleni Energy Supply Limited is the licence holder, associated with the trading name of 'Rebel Energy'.

²⁶ ESB merged with So Energy in 2021. ESB remains the supplier group name, trading as So Energy.

SEG Licensee	Tariff name	Tariff start date ²²	Tariff end date ²³	Tariff rate (p/kWh)	Flat rate/ Variable ²⁴
Octopus	Affect Smart Export Guarantee November 2020 v1	11/11/2020	Ongoing	4.1	Flat rate
Octopus	Co-op Smart Export Guarantee November 2020 v1	11/11/2020	Ongoing	4.1	Flat rate
OVO Energy	OVO SEG Tariff (AET20)	01/01/2020	Ongoing	4.0	Flat rate
OVO Energy	SSE SEG Tariff (3.5)	01/01/2020	Ongoing	3.5	Flat rate
Pozitive Energy	SEG1	01/04/2022	Ongoing	5.0	Flat rate
ScottishPower	Smart Export Variable tariff	01/01/2020	30/11/2021	4.0	Variable
ScottishPower	Smart Export Variable tariff	01/12/2021	15/02/2023	5.5	Variable
ScottishPower	SMART GEN	16/02/2023	Ongoing	12.0	Variable
Shell	Smart Export Guarantee	01/01/2020	Ongoing	3.5	Flat rate
Utilita	Smart Export Guarantee	01/01/2020	Ongoing	3.0	Flat rate
Utility Warehouse	UW Smart Export Guarantee - Standard	01/01/2020	Ongoing	2.0	Flat rate

Bundled Export Tariffs

2.8. The 15 bundled tariffs offered or in use during SEG Year 3 are shown in **Figure 2.2** below. Information on the conditions required to qualify for these bundled tariffs are shown in **Figure 2.3**. All bundled tariffs offered a higher tariff rate than other tariffs on offer from the same SEG Licensee.

Figure 2.2: Bundled export tariffs

SEG Licensee	Tariff name	Tariff start date ²⁷	Tariff end date ²⁸	Tariff rate (p/kWh)	Flat rate/ Variable ²⁹
Bulb	Export Payments exclusive flat rate tariff	01/04/2021	31/03/2023	5.57	Flat rate
E.ON	Next Export Exclusive v1	01/01/2020	31/12/2023	5.5	Flat rate
EDF	EDF Export Variable Value Tariff	22/07/2022	Ongoing	5.6	Variable
Octopus	Outgoing Octopus 12M Fixed May 2019	13/05/2019	Ongoing	15.0	Flat rate
Octopus	V2G ³⁰ Export 12M Fixed December 2022	01/12/2022	01/12/2023	15.0	Flat rate
Octopus	Octopus Flux Export February 2023 v1	14/02/2023	Ongoing	22.98	Variable ³¹
Octopus	Agile Outgoing Octopus May 2019	13/05/2019	Ongoing	8.63	Variable ³²
Octopus	Tesla Outgoing October 2019 v1	28/10/2019	05/05/2021	8.0	Flat rate
Octopus	Tesla Lite Outgoing October 2020 v1	16/10/2020	05/05/2021	11	Flat rate
Octopus	Tesla Outgoing April 2021 v1	07/04/2021	28/07/2022	11.29	Flat rate
Octopus	Tesla Loyal Outgoing April 2021 v1	07/04/2021	25/11/2021	8.72	Flat rate
Octopus	Tesla Outgoing July 2022 v1	28/07/2022	14/02/2023	25.48	Flat rate

²⁷ The first date a licensee started offering this tariff to the market.

²⁸ The last date a generator would have been able to register on this tariff. The subsequent length of the tariff after registration would be determined by the terms of the agreement.

²⁹ Where the rate has varied over the year the average is shown.

³⁰ Vehicle-to-grid (V2G).

³¹ Octopus Flux tariffs have variable term and costing based on tracking wholesale trends. The 22.98p/kWh figure in **Figure 2.2** is an average figure.

³² Octopus' *Agile Outgoing Octopus May 2019* tariff is a variable tariff where export prices change every 30 minutes based on wholesale costs. The 8.63p/kWh figure in **Figure 2.2** is an average figure.

SEG Licensee	Tariff name	Tariff start date ²⁷	Tariff end date ²⁸	Tariff rate (p/kWh)	Flat rate/ Variable ²⁹
Octopus	Powerloop Export June 2021 v1 ³³	23/06/2021	Ongoing	5.0	Flat rate
ScottishPower	SMART GEN +	16/02/2023	Ongoing	15.0	Variable
Utility Warehouse	UW Smart Export Guarantee - Bundle	01/05/2022	Ongoing	5.6	Flat rate

Figure 2.3: Bundled Tariff descriptions

SEG Licensee	Tariff name	Bundle description
Bulb	Export Payments exclusive flat rate tariff	Customers must purchase import electricity from Bulb.
EDF	EDF Export Variable Value Tariff	Customers must purchase import electricity from EDF.
E.ON	Next Export Exclusive v1	Customers must purchase import electricity from E.ON, or Available to customers who bought their solar installation from E.ON solar
Octopus	Agile Outgoing Octopus May 2019	Customers must purchase import electricity from Octopus.
Octopus	Octopus Flux Export February 2023 v1	Only available for installations with solar PV plus battery storage. Customers must have purchased an import Flux product.
Octopus	Outgoing Octopus 12M Fixed May 2019	Customers must purchase import electricity from Octopus.
Octopus	Tesla Outgoing October 2019 v1 Tesla Lite Outgoing October 2020 v1 Tesla Loyal Outgoing April 2021 v1 Tesla Outgoing April 2021 v1 Tesla Outgoing July 2022 v1	Designed for use in properties with solar PV and a Tesla Powerwall installed.
Octopus	Powerloop Export June 2021 v1	Customers must purchase an Octopus Powerloop product.
Octopus	V2G Export 12m Fixed December 2022	Vehicle-to-grid (V2G) tariff is bundled with the purchase of V2G products.
ScottishPower	SMART GEN +	ScottishPower's SmartGen+ tariff is available only to customers who installed solar panels and/or solar batteries through ScottishPower.

³³ Octopus' *Powerloop Export June 2021 v1* tariff is designed to export electricity stored in car batteries to the grid during times of peak demand.

SEG Licensee	Tariff name	Bundle description
Utility Warehouse	UW Smart Export Guarantee - Bundle	Customers must purchase import electricity from Utility Warehouse, plus two or more additional services to qualify.

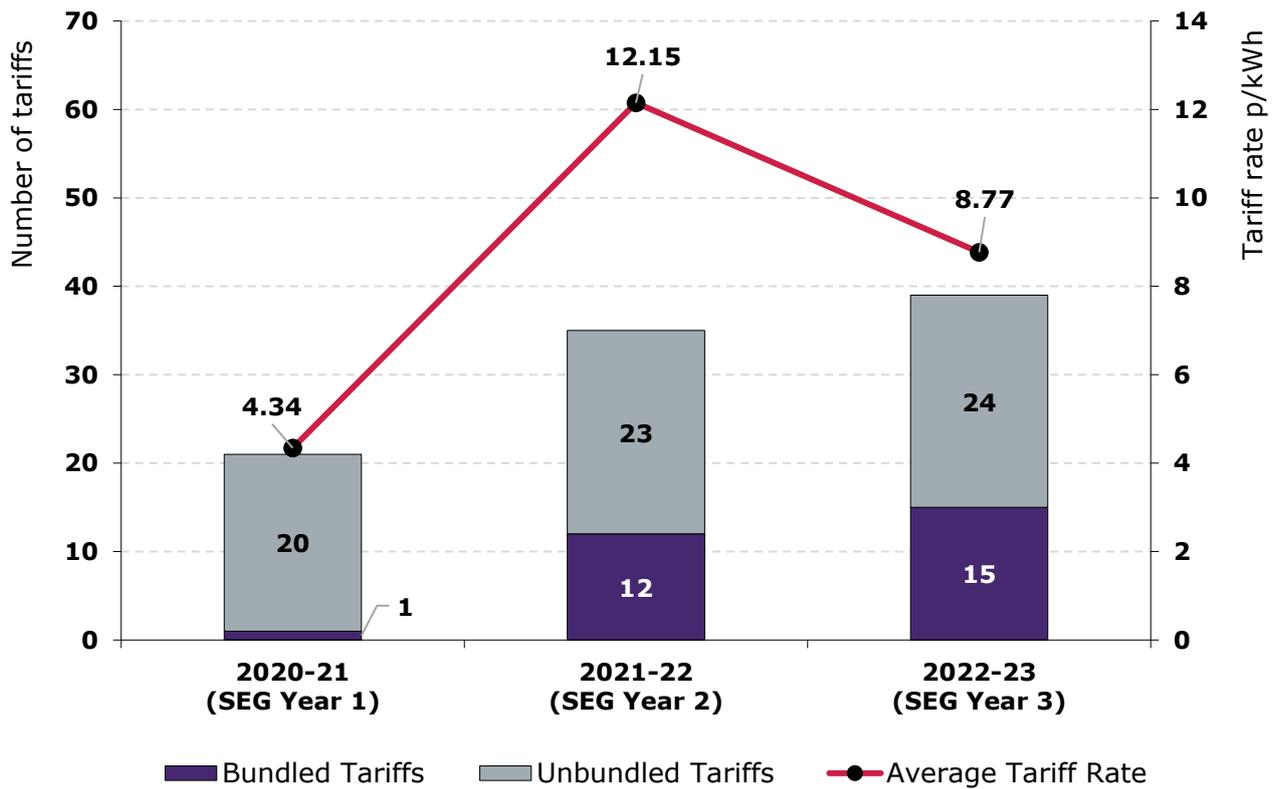
Tariff Changes Over Time

- 2.9. **Figure 2.4** shows how SEG tariffs have changed over time. The number of tariffs available in SEG Year 3 has increased by around 11% compared to SEG Year 2 and around 86% compared to SEG Year 1.
- 2.10. Similarly, the number of bundled tariffs has risen dramatically from only one in SEG Year 1 and by around 25% compared to SEG Year 2. The increase in bundled offers suggests innovation in the market and an increase in the range of tariff types available for small-scale low carbon generators.
- 2.11. When looking at how tariff rates have changed over time, the average tariff rate for installations registered during SEG Year 3 was 8.77p/kWh which is a fall of almost 28% from SEG Year 2.³⁴

³⁴ Though licensees are obligated to provide complete and accurate information, we cannot guarantee the accuracy of the information we receive. Readers should bear this in mind when viewing the report.

Figure 2.4: Tariff changes from SEG Year 1 to SEG Year 3

A graph showing how SEG tariffs have changed over time. The number of available tariffs has increased since the launch of the SEG, starting at 21 in SEG Year 1 and rising to 35 in SEG Year 2 and 39 in SEG Year 3. In line with this, the number of bundled tariffs offered by SEG licensees have also increased from one in SEG Year 1, to 12 in SEG Year 2, and 15 in SEG Year 3. Meanwhile, the average tariff rate received by SEG generators has fluctuated from 4.34p/kWh in SEG Year 1, to 12.15p/kWh in SEG Year 2 and 8.77p/kWh in SEG Year 3.³⁵



³⁵ Though licensees are obligated to provide complete and accurate information, we cannot guarantee the accuracy of the information we receive. Readers should bear this in mind when viewing the report.

3. Registered Installations

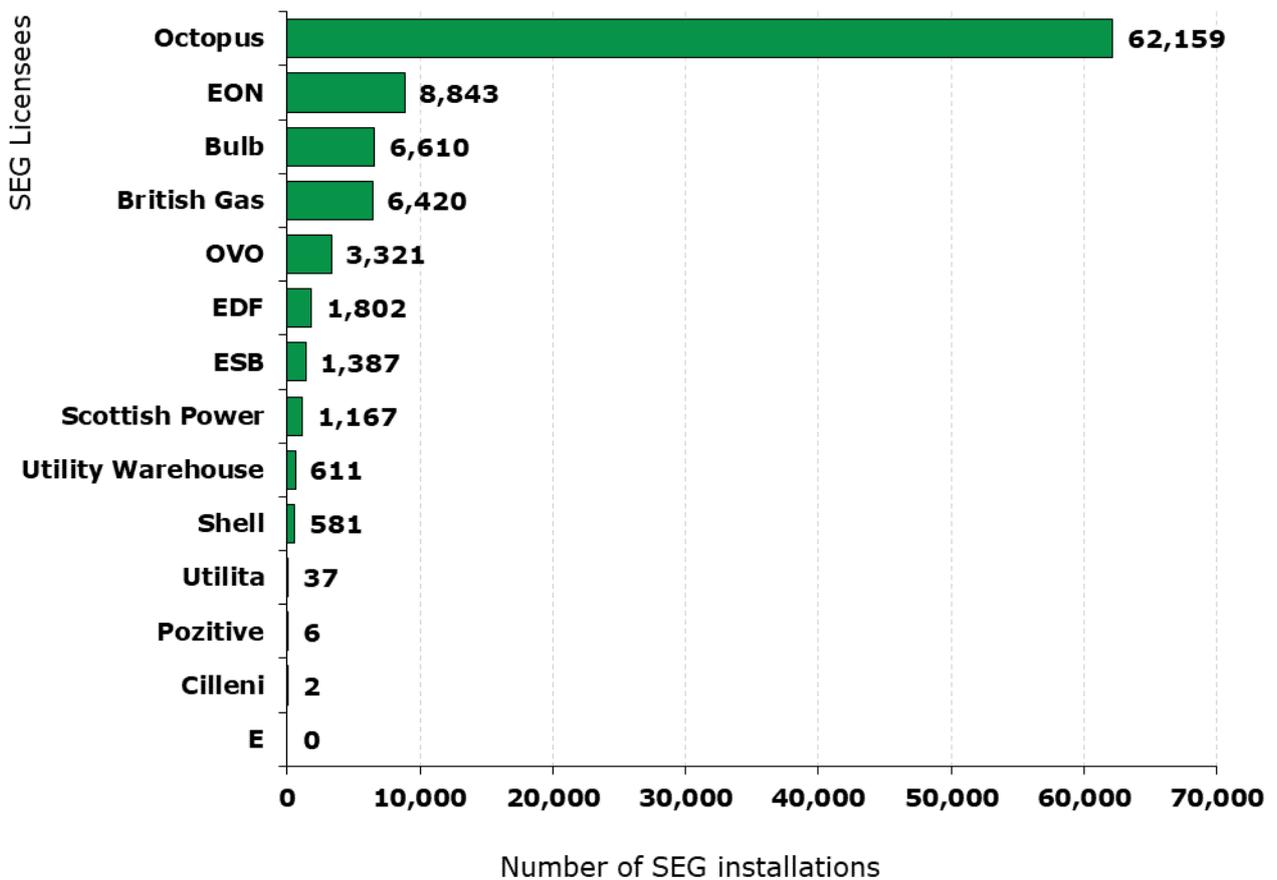
Chapter summary

This chapter provides a profile of the installations registered to a SEG tariff during SEG Year 3. This includes the number of installations registered to each SEG licensee and a breakdown of installations by region, technology type and capacity.

- 3.1. In SEG Year 3 a total of 92,946 installations were registered on a SEG tariff, a significant increase on the 34,020 registered in SEG Year 2. The number of registrations refers to any installations that have been registered, reported export or have received a payment through a SEG tariff at any point during the SEG Year. It should be noted that as we receive anonymised data from SEG licensees we are unable to identify unique installations. As such if a generator switches tariffs during the year they will be double counted.
- 3.2. As shown in **Figure 3.1** the number of installations registered varied significantly between SEG licensees. Octopus had the highest number of registrations at 62,159, accounting for 66.9% of all installations on the SEG. This is a significant increase on their SEG Year 2 registrations which stood at 22,791, when they also had the highest number of registrations.

Figure 3.1: Number of SEG registrations by licensee in SEG Year 3 (2022-23)

Bar chart showing the number of installations registered with licensees under the SEG in 2022-23. Apart from the energy supplier E (whose installations remained the same at zero), all licensees registered higher registration numbers in SEG Year 3 compared to SEG Year 2. Octopus had the most registrations with around 67% of the total during SEG Year 3. Following Octopus, registration numbers were highest for E.ON with almost 10%, and Bulb and British Gas with around 7% each. Registrations with the remaining ten suppliers formed around 10% of total registrations in SEG Year 3.



Registered Installations by Technology Type and Capacity

- 3.3. As shown in **Figure 3.2**, of the 92,946³⁶ eligible installations that were registered on a SEG tariff in SEG Year 3, 92,916 (99.97%) were solar PV installations with a total capacity of 495,832 kW. This is a significant increase on the 33,998 solar PV installations with 155,647 kW capacity registered in SEG Year 2.
- 3.4. The remaining SEG installations were seven wind and 23 micro-CHP generators with a combined capacity of 149 kW. In comparison to SEG Year 2 the number of wind and micro-CHP registrations increased from five for wind and from 13 for micro-CHP. The number of AD registrations fell from 4 in SEG Year 2 to zero, and hydro remained at zero.

Figure 3.2: Registrations and installed capacity by technology type

Technology	Installations	Installed capacity (kW)
Solar PV	92,916	495,832
Wind	7	93
Hydro	-	-
AD	-	-
Micro-CHP	23	56
Total	92,946	495,981

³⁶ As we receive anonymised data from SEG licensees we are unable to identify unique installations. As such when a generator switches tariffs during the year they will be double counted.

3.5. **Figure 3.3** provides a breakdown of solar PV installations and installed capacity by capacity band. 94.9% of the 92,916 solar PV registrations had a capacity of 10 kW or less, and these registrations accounted for 78.5% of installed solar PV capacity. **Figure 3.4** provides the same information for the other technology types where almost 86.7% of registrations had a capacity of 10 kW or less. However, if you look at just micro-CHP, the proportion in this capacity range increases to 100%.

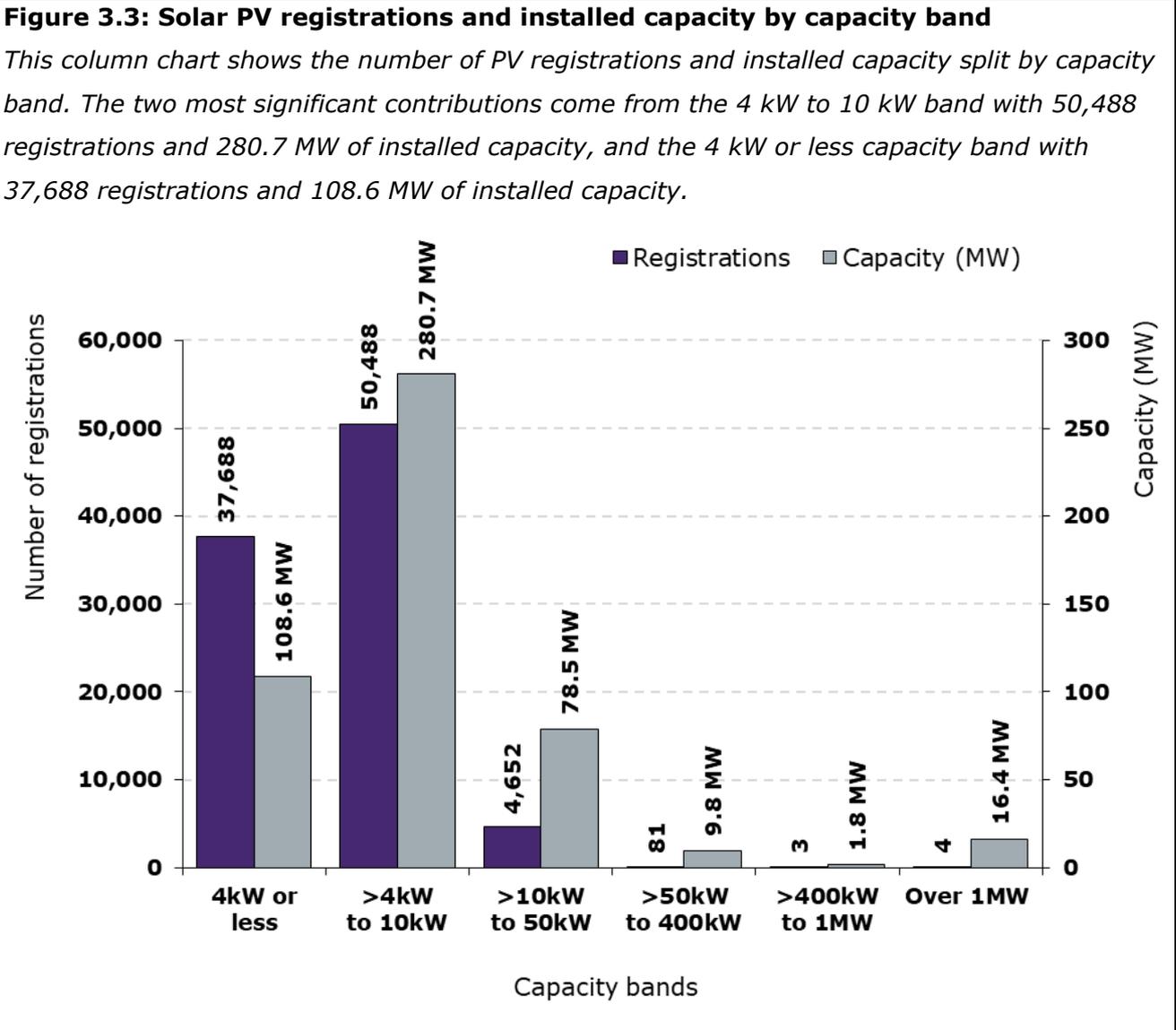


Figure 3.4: Other technologies - registrations and installed capacity by capacity band

Capacity	Wind installations	Wind installed capacity (kW)	Micro-CHP installations	Micro-CHP installed capacity (kW)
<=4kW	-	-	19	38
>4kW to <=10kW	3	18	4	18
>10kW to <=50kW	4	75	-	-
>50kW to <=400kW	-	-	-	-
>400kW to <=1MW	-	-	-	-
>1MW to <=5MW	-	-	-	-
Total	7	93	23	56

Geographical Distribution

3.6. **Figure 3.5** and **Figure 3.6** show the geographical distribution of installations by technology type registered to a SEG tariff in Year 3. We did not receive geographical information for 23 of the 92,946 installations and therefore the location of these installations is unknown. Almost 90% of installations are located in England, almost 6% in Scotland and over 4% in Wales. When looking at the proportion of households in each country benefiting from the SEG, it was highest in England with 0.4% of households, followed by Wales with 0.3% and then Scotland with 0.2%³⁷.

³⁷ Household data for 2021 taken from the Office for National Statistics: [Households by type of household and family, regions of England and GB constituent countries](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/datasets/householdsbytypeofhouseholdandfamilyregionsofenglandandukconstituentcountries)
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/datasets/householdsbytypeofhouseholdandfamilyregionsofenglandandukconstituentcountries>

Figure 3.5: Geographic distribution of SEG generators by technology type

Map of Great Britain showing number of registrations by technology type in each region. The South East has the highest number of registered installations with 19,152. In contrast, the North East has the lowest number of registered installations at 2,552.

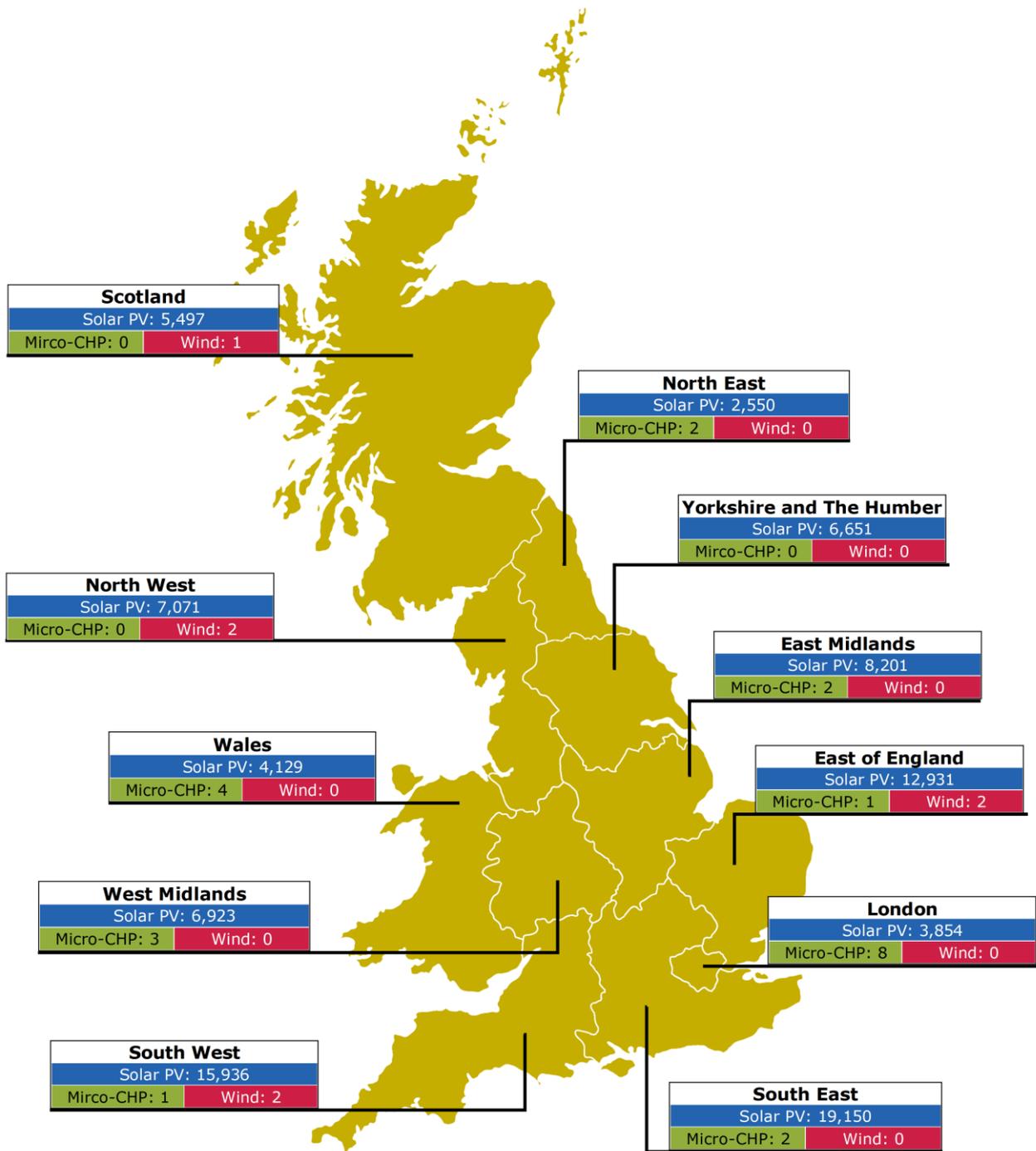


Figure 3.6: Registrations by region and technology type

Location	Solar PV	Micro-CHP	Wind	Region total
South East	19,150	2	-	19,152
South West	15,936	1	2	15,939
East of England	12,931	1	2	12,934
East Midlands	8,201	2	-	8,203
North West	7,071	-	2	7,073
West Midlands	6,923	3	-	6,926
Yorkshire and The Humber	6,651	-	-	6,651
Scotland	5,497	-	1	5,498
Wales	4,129	4	-	4,133
London	3,854	8	-	3,862
North East	2,550	2	-	2,552
Unknown	23	-	-	23
Total	92,916	23	7	92,946

4. Electricity Exported and Payments

Chapter summary

This chapter provides a breakdown of export reported and payments received by SEG installations by technology type and capacity band during SEG Year 3.

- 4.1 Not all of the 92,946³⁸ installations registered during SEG Year 3 reported export during the year. Of those that did, not all received payment for their export by the end of the year. SEG licensees obtain meter readings and make payment in line with their SEG contract terms and conditions. These terms and conditions vary between licensees, meaning that although export may have occurred during SEG Year 3, the licensee may not obtain meter readings to show this and/or make payment against this export until SEG Year 4. Similarly, a proportion of the payments included below will relate to export that was reported during SEG Year 2.
- 4.2 A total of 82,431 registrations received payment for their exported electricity by the end of the reporting period. A further 19 reported export but had not received any payment. 10,496 had not yet reported any export or received payment within SEG Year 3.³⁹
- 4.3 The following figures (**Figure 4.1, 4.2 and 4.3**) show details for the registered installations reporting export and/or receiving payments within SEG Year 3, split by technology type.

³⁸ As we receive anonymised data from SEG licensees we are unable to identify unique installations. As such when a generator switches tariffs during the year they will be double counted.

³⁹ Though licensees are obligated to provide complete and accurate information, we cannot guarantee the accuracy of the information we receive. Readers should bear this in mind when viewing the published data.

Figure 4.1: Solar PV – breakdown of reported export and payments

Capacity band	Solar PV stations registering export	Solar PV Export (kWh)	Solar PV stations receiving payment	Solar PV payments*
<=4kW	31,950	23,079,905	31,947	£1,940,228
>4kW to <=10kW	45,882	45,514,701	45,871	£4,345,179
>10kW to <=50kW	4,523	7,303,240	4,518	£837,465
>50kW to <=400kW	62	1,292,737	62	£62,702
>400kW to <=1MW	-	-	-	-
>1MW to <=5MW	4	4,472	4	£165
Total	82,421	77,195,055	82,402	£7,185,739

*Payments have been rounded to the nearest pound (£)

Figure 4.2: Wind – breakdown of reported export and payments

Capacity band	Wind stations registering export	Wind Export (kWh)	Wind stations receiving payment	Wind payments*
<=4kW	-	-	-	-
>4kW to <=10kW	3	6,931	3	£1,028
>10kW to <=50kW	4	20,412	4	£3,315
>50kW to <=400kW	-	-	-	-
>400kW to <=1MW	-	-	-	-
>1MW to <=5MW	-	-	-	-
Total	7	27,343	7	£4,343

*Payments have been rounded to the nearest pound (£)

Figure 4.3: Micro-CHP – breakdown of reported export and payments

Capacity band	Micro-CHP stations registering export	Micro-CHP Export (kWh)	Micro-CHP stations receiving payment	Micro-CHP payments*
<=4kW	18	21,725	18	£2,639
>4kW to <=10kW	4	8,874	4	£806
>10kW to <=50kW	-	-	-	-
>50kW to <=400kW	-	-	-	-
>400kW to <=1MW	-	-	-	-
>1MW to <=5MW	-	-	-	-
Total	22	30,599	22	£3,445

*Payments have been rounded to the nearest pound (£)

4.4 In total 77,253 MWh of export was reported by 82,450 generators across all technology types during SEG Year 3. In line with the proportion of registrations accounted for by solar PV, 99.9% of this total came from solar PV installations, of which 88.9% came from solar PV installations with an installed capacity of 10 kW or less. Collectively the other technology types made up 0.08% of export.

4.5 Payments made during SEG Year 3 to 82,431 generators came to a total of £7,193,527. Again, as expected the vast majority of payments (99.9%) went to solar PV installations, with 87.4% going to solar PV installations with an installed capacity of 10 kW or less. The remaining £7,788 or around 0.1% of payments went to the 29 wind and micro-CHP stations that received payments.

5. Licensee Compliance

Chapter summary

This chapter provides detail on SEG licensees compliance and Ofgem’s activity monitoring licensee compliance during SEG Year 3. This includes information on incidents of non-compliance and the action taken as a result.

- 5.1. It is the responsibility of licensees to ensure they are meeting their obligations on time and in full, including ensuring that their reporting to Ofgem is accurate, timely and complete. This includes any licensees that join the SEG voluntarily.
- 5.2. Licensee obligations regarding the SEG scheme are set out in the Standard Electricity Supply Licence Conditions.⁴⁰ Mandatory and voluntary SEG licensees have the same obligations under the SEG and are subject to the same compliance regime.
- 5.3. Where a non-compliance is identified, Ofgem works with licensees to resolve the issue. This helps to ensure that the SEG is being delivered in accordance with the regulations and that consumers are not being disadvantaged by any issues identified.
- 5.4. Depending on the nature of the non-compliance, we may deem it appropriate to add details to the Supplier Performance Report (SPR).⁴¹ The SPR documents incidents where energy suppliers have not complied with their obligations under the environmental, energy efficiency and social programmes we administer. We publish this data to provide transparency of the delivery and administration of these government schemes. This helps to hold suppliers to account for non-compliance which can impact the effectiveness of the schemes and increase the costs that are passed on to consumers.
- 5.5. A summary of non-compliances observed on the SEG in Year 3 follows.

Data Submission

- 5.6. SEG licensees are required to submit data to Ofgem by 30 June after the end of the relevant SEG year.⁴² This data facilitates production of this annual report which helps to

⁴⁰ [Electricity Supply Standard Licence Conditions](https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf)

<[https://epr.ofgem.gov.uk/Content/Documents/Electricity Supply Standard Licence Conditions Consolidated - Current Version.pdf](https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf)>

⁴¹ [Supplier Performance Report](https://www.ofgem.gov.uk/environmental-programmes/environmental-programmes-ofgem-s-role-and-delivery-performance/supplier-performance-report-spr)

<<https://www.ofgem.gov.uk/environmental-programmes/environmental-programmes-ofgem-s-role-and-delivery-performance/supplier-performance-report-spr>>

⁴² Guidance for SEG licensees, 5.3

provide transparency to stakeholders and the general public around SEG policy outcomes. All active licensees submitted their data on time.

- 5.7. The supplier Smart Pay Energy were a voluntary licensee at the start of SEG year 3 but contrary to the terms of the SEG policy, withdrew and were no longer participating at the end of the SEG year. They therefore did not submit data. As licensees are obligated to participate for the full SEG year this incident will be added to the Supplier Performance Report.

SEG Licensee Insolvency

- 5.8. When a SEG licensee becomes insolvent, generators registered onto a SEG tariff with them are responsible for seeking a new SEG export tariff from another SEG Licensee. Any electricity exported between when support from the insolvent SEG licensee comes to an end, and when a contract is agreed with a new SEG licensee, is not supported under the SEG.
- 5.9. No SEG licensee exited the electricity market due to insolvency during SEG Year 3.
- 5.10. Bulb became insolvent during SEG Year 2. Due to its size it was placed into a Special Administration Regime meaning that it continued to trade and is therefore included in this report.⁴³ Octopus took over operations for Bulb after the close of SEG Year 3 and were responsible for supplying the data featured in this report.

Enforcement

- 5.11. All licensees are required to comply with their licence conditions and SEG obligations. We may take enforcement action in cases of non-compliance. Decisions on whether to take action and what enforcement action is appropriate are made on a case-by-case basis, in line with Ofgem's Enforcement Guidelines⁴⁴. Within SEG Year 3, we did not take any enforcement action in respect of suppliers on the SEG.

⁴³ [Information on Bulb's Special Administration Regime](https://www.gov.uk/government/news/bulb-customers-protected-as-energy-provider-enters-special-administration): <https://www.gov.uk/government/news/bulb-customers-protected-as-energy-provider-enters-special-administration>

⁴⁴ [Ofgem's Enforcement Guidelines](https://www.ofgem.gov.uk/publications/enforcement-guidelines): <https://www.ofgem.gov.uk/publications/enforcement-guidelines>

Appendix 1: Supplier List for SEG Year 3

Mandatory SEG licensees are licenced electricity suppliers with at least 150,000 domestic electricity customers. Voluntary SEG licensees choose to participate in the SEG and are licenced electricity suppliers with fewer than 150,000 domestic electricity customers.

Mandatory licensees

British Gas

Bulb

E

EDF

E.ON

ESB⁴⁵

Octopus

OVO Energy

ScottishPower

Shell

Utilita

Utility Warehouse

Voluntary licensees

Cilleni⁴⁶

Pozitive Energy

Smart Pay Energy⁴⁷

⁴⁵ ESB merged with So Energy in 2021. ESB remains the supplier group name, trading as So Energy.

⁴⁶ Cilleni Energy Supply Limited is the licence holder, associated with the more common trading name of 'Rebel Energy'.

⁴⁷ Smart Pay Energy were a voluntary licensee at the start of SEG year 3 but contrary to the terms of the SEG policy, withdrew and were no longer participating at the end of SEG year 3. Refer to Chapter 5: Licensee Compliance for more information.

Appendix 2: Related Documents

- The **Smart Export Guarantee Regulations 2019** can be viewed on the legislation.gov.uk website.

[Smart Export Guarantee regulations:](#)

<<https://www.legislation.gov.uk/ukxi/2019/1005/contents/made>>

- **SEG Guidance documents for licensees** can be viewed on the Ofgem website.

[Guidance for SEG licensees:](#)

<<https://www.ofgem.gov.uk/publications/guidance-seg-licensees>>

- **SEG Guidance documents for generators** can also be viewed on the Ofgem website.

[Guidance for SEG generators:](#)

<<https://www.ofgem.gov.uk/publications/smart-export-guarantee-guidance-generators>>

- Further **information on the policy background** to the SEG can be found by referring to the 'Future for small-scale low carbon generation' consultation.

[Consultation on the 'Future for small-scale low carbon generation':](#)

< <https://www.gov.uk/government/consultations/the-future-for-small-scale-low-carbon-generation>>

- You can also find **further information** on the SEG by visiting the SEG pages on the Ofgem website.

[SEG information on the Ofgem website:](#)

<<https://www.ofgem.gov.uk/environmental-and-social-schemes/smart-export-guarantee-seg>>

Appendix 3: Glossary

Many of the terms included in this glossary are defined in the SEG Regulations and those definitions should be consulted for their legal meaning for the purposes of the Regulations.

A

Anaerobic digestion (AD) – Natural process in which micro-organisms break down organic matter (e.g., animal manure or waste food) within a contained environment. This produces biogas which can then be used as fuel to generate electricity.

B

BEIS – The department for Business, Energy and Industrial Strategy (BEIS). In February 2023 the energy policy responsibilities of BEIS were transferred to the newly formed Department for Energy Security & Net Zero (DESNZ).

D

DESNZ - The Department for Energy Security & Net Zero (DESNZ) is responsible for UK energy policy, including the SEG policy in Great Britain (GB).

F

Feed-In-Tariffs (FIT) scheme – The FIT scheme is a government scheme (now closed to new applicants) designed to promote the uptake of small-scale renewable and low-carbon electricity generation technologies.

G

GW– Gigawatt, equal to one billion watts.

K

kW – Kilowatt, equal to one thousand watts.

kWh – Kilowatt hour, equivalent to one-thousand-watt hours of heat output.

M

Micro-CHP– Micro combined heat and power (micro-CHP) is a technology that generates heat and electricity simultaneously, from the same energy source, in individual homes or buildings.

Microgeneration Certificate Scheme (MCS) – The MCS is a certification scheme for microgeneration installation companies, products and installations.

MW– Megawatt, equal to one million watts.

MWh– Megawatt hour, equivalent to one-million-watt hours of heat output.

S

Solar PV (Photovoltaic) –A renewable technology that converts energy from the sun into electricity.

Supplier Performance Report (SPR) – The Supplier Performance Report (SPR) is published by Ofgem to document incidents where energy suppliers have not complied with their obligations under the environmental, energy efficiency and social programmes Ofgem administers on behalf of the government.

T

Total Installed Capacity (TIC) – The maximum capacity an installation can be operated at over a sustained period without damaging it (assuming the source of power used by it to generate electricity was available to it without interruption).