

Smart Export Guarantee (SEG) Annual Report 2020-2021 (1 January 2020 - 31 March 2021)



Foreword

It is my pleasure to introduce the first Ofgem report on the Smart Export Guarantee (SEG).

Ofgem is committed to supporting the UK's transition to net zero. In order to achieve this, we will need to change the way in which we generate and consume electricity. Ofgem delivers a number of government schemes that support both decarbonisation and some of the most vulnerable in society. These schemes are already driving the changes we need to hit net zero.

The SEG launched in January 2020 and ensures that homes and businesses with small-scale electricity generation can receive payment for the surplus lowcarbon electricity they export to the National Grid. The



SEG is a market-led mechanism and as such operates differently from previous support mechanisms such as the Feed-in Tariffs scheme (FIT)¹, which closed to new applicants in April 2019. The SEG allows the market to innovate and gives suppliers flexibility in the design of their export tariffs. Households and businesses can then benefit from this flexibility, enabling them to shop around so that they can receive a fair price for the electricity that they export. Ofgem's role in the SEG includes, amongst other things, publishing a list of the electricity suppliers that are SEG Licensees, publishing an annual report, as well as providing guidance for SEG Generators and Licensees.

This report provides an overview of the activity under the SEG since its launch in January 2020 until 31 March 2021 (the entirety of SEG Year 1). It contains analysis of how the SEG is working in practice, including: the number of export tariffs, eligible installations in receipt of SEG payments, and a breakdown of SEG payments by both capacity and the energy source generating the electricity. This provides a clear picture of the SEG export tariff market that has developed since scheme launch. To make this report as useful as possible, we are also publishing anonymised details of each installation receiving a SEG tariff. This allows readers to further understand the detailed impacts of the policy by inspecting the relevant installation-level data, should they wish to do so.

¹ Link to Feed-in Tariffs (FIT) information

<https://www.ofgem.gov.uk/environmental-and-social-schemes/feed-tariffs-fit>

Ofgem looks forward to seeing the SEG market grow and evolve in future and continue to play a part in future decarbonisation and progress towards net zero.

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Executive Summary

This is the first Smart Export Guarantee (SEG) annual report, which provides an update on activity under the SEG from its launch on 1 January 2020 through to 31 March 2021 ("SEG Year 1" or "SEG Y1").

There were a total of thirteen² Mandatory³ SEG Licensees, who had a total of twenty tariffs on offer in SEG Y1. Only one electricity supplier opted to become a Voluntary Licensee, offering a single SEG tariff. The terms "SEG Licensees" and "Licensees" are used in this report to refer to both Mandatory and Voluntary SEG Licensees.

This means that in total there were fourteen SEG Licensees offering a total of twenty-one tariffs during SEG Y1. One Licensee offered a higher tariff to customers who installed their solar panels by purchasing one of their solar packages. They were the only Licensee to apply conditions in order to qualify for a higher tariff. All SEG tariffs offered by Licensees offered a flat rate of return.

Eligible small-scale Generators signing up to one of the SEG tariffs earnt payments for each kilowatt hour (kWh) of electricity exported to the National Grid. The first fifteen months of the SEG saw a total of 4,593 Generators sign up to one of the available tariffs. Collectively, they received payments of £114,480.37 and 2,568,810 kWh of low-carbon electricity was exported.

It should be noted, however, that not all SEG Generators registering export had received SEG payment(s) within the year. This could be due to their chosen SEG Licensee's tariff terms, with the result that their SEG payment(s) will be made during SEG Y2 instead. Additionally, some Generators did not report any export. This could mean that they did not export any electricity to the grid, or alternatively this could be the result of them not being required to report their export during the relevant reporting period. This would be more likely to be the case for Generators whom are only required to submit meter readings annually, or those joining a SEG tariff towards the end of SEG Y1.

Solar PV made up approximately 99.98% of installations and capacity installed under the SEG during SEG Y1, exporting 2,567,211 kWh of low-carbon electricity to the National Grid. One micro-combined heat and power (micro-CHP) installation joined a SEG tariff; no wind, hydro or anaerobic digestion (AD) installations joined a SEG tariff in SEG Y1.

The vast majority of installations had a capacity of less than or equal to 10kW (98.95% of all installations). Of the £114,480.37 in payments made during SEG Y1, £105,124.37 (91.83%) went to solar PV installations in this capacity range.

² Green Network Energy was a SEG Licensee for part of SEG Y1, until it ceased trading. It was not a SEG Licensee at the time of data collection for the report and so has not been included.

³ Licenced electricity suppliers with at least 150,000 domestic electricity customers are obligated to offer at least one SEG tariff and are termed Mandatory Licensees. Licenced electricity suppliers with fewer than 150,000 domestic electricity customers may opt to become Voluntary SEG Licensees.

Context

The SEG came into force on 1 January 2020, under the Smart Export Guarantee Order 2019.⁴ The SEG is a market-led initiative: Licensees are free to set their own SEG tariff price and decide how their tariffs work (including the tariff length, as well as other relevant contractual terms). The obligations on SEG Licensees are set out in Standard Conditions 57 and 58 of the Electricity Supply Standard Licence Conditions.⁵

To be eligible for a SEG tariff, a SEG Generator 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)

All technology types 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).⁶

SEG Licensees must provide a SEG tariff that can be accessed by Generators using any of the eligible technologies. It is up to the SEG Licensees if they do this through one tariff or multiple tariffs. All tariffs offered must always be at a rate greater than 0p/kWh.⁷

The eligible technologies on the SEG are the same as those on the FIT scheme, which closed to new applicants on 1 April 2019.

Ofgem's Role

Ofgem has several administrative functions under the SEG:

- Publication of guidance to SEG Generators and SEG Licensees on the operation of the SEG
- Publishing a list of Mandatory and Voluntary SEG Licensees annually
- Publishing a report on the SEG annually

⁴ Link to Smart Export Guarantee Order 2019

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

⁵ Link to Electricity Supply Standard Licence Conditions

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

⁶ 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).

⁷ Paragraph 3.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

• For AD installations, checking whether the sustainability criteria and reporting requirements are met, and notifying the relevant Generator of the outcome of the assessment⁸

SEG Licensees' Roles

The responsibilities SEG Licensees have under the SEG are:

- 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

Scope of Annual Report

This report fulfils Ofgem's obligation under article 7 of the Smart Export Guarantee Order 2019 and covers the period from the launch of the SEG on 1 January 2020 through to 31 March 2021 (SEG Y1). As required, this report contains:

- The export tariffs that have been offered by SEG Licensees
- The number of eligible installations in receipt of SEG payments
- How much exported electricity has been the subject of SEG payments⁹
- The total amount of SEG payments that have been made
- The breakdown of SEG payments by:
 - Capacity
 - The energy source generating the electricity

Ofgem does not hold a database of SEG installations. Ofgem requires annual submission of information about installations in receipt of SEG payments during the relevant SEG year from all Mandatory and Voluntary SEG Licensees. This information is anonymised and includes no locational or otherwise personal information. Ofgem have published the full installation dataset alongside this annual report for full transparency and to aid in the development of the small-scale electricity export market.¹⁰

⁸ Link to 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>

⁹ Article 7 refers to generation and not export. We consider that the intent of the drafting of the Order was to refer to export, given SEG payments are made for export and not generation. We consider it to be appropriate to request export data only.

¹⁰ The data included alongside this report has been provided by SEG Licensees. Ofgem has taken some basic steps to guard against duplication of data but cannot guarantee the accuracy of the information presented. This should be borne in mind when inspecting the published installation-level data.

1. SEG Tariffs

- 1.1. SEG Licensees must offer at least one SEG export tariff to any generator with an eligible SEG installation. There is no prescribed tariff rate, type or length, but the tariff must offer an above-zero pence rate per kWh of export at all times.¹¹
- 1.2. At a minimum, a SEG Licensee must offer one SEG tariff that is available to all eligible installations. A SEG Licensee can also offer SEG tariffs that are bundled with other products (such as import) but a bundled offer must be in addition to a SEG export tariff that is available to all eligible installations.
- The SEG tariffs offered by SEG Licensees between 1 January 2020 and 31 March 2021 (SEG Y1) are shown in Table 1.1.¹²

Table 1.1:	Export tariffs	offered by SE	G Licensees in	SEG Y1
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SEG Licensee	Tariff name	Export only / Bundled with Import	Tariff start date ¹³	Tariff end date ¹⁴	Tariff rate (p/kWh)
Avro	Avro's Smart Export Tariff 1	Export only	01/01/2020	Ongoing	3.0
British Gas	Export and Earn Flex	Export only	01/01/2020	Ongoing	3.2
Bulb	Export Payments standard flat rate tariff	Export only	01/01/2020	31/03/2021	5.38
E	E SEG January 2020 v.1	Export only	01/01/2020	Ongoing	1.0
EDF	Export + Earn	Export only	01/01/2020	31/10/2020	3.5
EDF	Export + Earn	Export only	01/11/2020	Ongoing	1.5
EON	Fix & Export v1	Export only	01/01/2020	31/12/2020	3
EON	Fix & Export Exclusive v1	Export only ¹⁵	01/01/2020	31/12/2020	5.5
EON	Fix & Export v2	Export only	01/01/2021	Ongoing	3.0

¹¹ Paragraph 3.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

¹² Ofgem are aware of the existence of other export tariffs 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.
¹³ The first date a Licensee started offering this tariff to the market.

¹⁴ The last date a Generator would have been able to register on this tariff. The subsequent length of the tariff after this registration date would then be determined by the Licensee.

¹⁵ Exclusively for customers who purchased their solar installation on or after 1 January 2020 directly from the EON Solar Team.

EON	Fix & Export Exclusive v2	Export only ¹⁶	01/01/2021	Ongoing	5.5
EON	SEG Tariff	Export only	01/01/2020	Ongoing	0.01
Octopus	Octopus Smart Export Guarantee July 2020 v1	Export only	01/01/2020	Ongoing	3.0
OVO	OVO SEG Tariff (AET20)	Export only	01/01/2020	Ongoing	4.0
OVO	SSE SEG Tariff (3.5)	Export only	01/01/2020	Ongoing	3.5
Scottish Power	Smart Export Variable tariff	Export only	01/01/2020	Ongoing	4.0
Shell Energy	Smart Export Guarantee v1	Export only	01/01/2020	02/01/2020	0.001
Shell Energy	Smart Export Guarantee v1.1	Export only	03/01/2020	Ongoing	3.5
So Energy	So Altair – Export	Export only	16/06/2020	Ongoing	5.0
Symbio	Symbio Smart Export Variable	Export only	12/03/2021	31/03/2021	3.6
Utilita	Smart Export Guarantee	Export only	01/01/2020	Ongoing	3.0
Utility Warehouse	Standard Variable	Export only	01/01/2020	Ongoing	2.0

- 1.4. Twenty-one tariffs were offered throughout SEG Y1, six of which stopped being available to Generators before the end of the year, and fifteen of which remained ongoing. EDF's *Export + Earn* tariff decreased from 3.5p/kWh to 1.5p/kWh as of 1 November 2020. Successful applications before this date would have received the 3.5p/kWh tariff rate for the length of the tariff, whilst the 1.5p/kWh tariff applied to all subsequent successful applications during SEG Y1. Both EON's higher-rate tariffs, *Fix & Export Exclusive v1* and *Fix & Export Exclusive v2* were only available to customers who had purchased an installation on or after 1 January 2020 directly from the EON Solar Team. EON was the only Licensee we are aware of that offered a higher SEG tariff where generators met certain requirements to qualify.
- 1.5. The timing of payments varies by Licensee. One Licensee, for instance, issues payments to Generators quarterly, on its standard flat rate tariff. In contrast, another Licensee provides a single annual payment. This consequently has had an impact on reporting, as

¹⁶ Exclusively for customers who purchased their solar installation on or after 1 January 2020 directly from the EON Solar Team.

some Licensees had little data to provide (on electricity exported, as well as SEG payments made) on some of their Generators at the end of the reporting period (31 March 2021).

1.6. Another example of SEG Licensees using their discretion in creating SEG tariffs can be seen in the differing lengths of tariff term available in the market. Some tariffs run for a specific period of time from the date which a Generator joins, with payments stopping after this time has passed – unless a new contract is signed. Other tariffs have no fixed end date, but Licensees reserve the right to vary tariff rates after giving notice.

2. Installations

- 2.1. In SEG Year 1 a total of 4,593 installations registered onto a SEG tariff.
- 2.2. The number of installations registered varied significantly between SEG Licensees. Two Licensees registered over 70% of installations: Bulb with 1,809 and EON with 1,424. It should be noted that these suppliers offered the two highest tariffs available during the year. Utilita, Symbio Energy and E, on the other hand, registered no SEG installations during SEG Y1. The number of installations registered by each SEG Licensee can be seen in **Figure 2.1** below.







2.3. As shown in **Table 2.1**, of the total 4,593 eligible installations that registered on a SEG tariff in SEG Y1, 4,592 (99.98%) were solar PV installations. The remaining SEG installation was a micro-CHP Generator. No Generators using the remaining three eligible technology types signed up to a SEG tariff during the reporting period. These registered installations have an installed capacity of 19,195kW, with 19,194kW of this being from solar PV and the remaining 0.75kW being from the single micro-CHP installation.

Technology	Installations	Installed capacity (kW)
Solar PV	4,592	19,194
Wind	0	0
Hydro	0	0
AD	0	0
Micro-CHP	1	0.75
Total	4,593	19,195

Table 2.1: Installations and installed capacity by technology type

2.4. Table 2.2 gives a breakdown of solar PV installations and installed capacity, broken down into capacity bands. Installations in the first two capacity bands (installations up to and including 10kW capacity) formed the majority of solar PV registrations for SEG Y1, totalling 4,544 (98.95%), and accounting for 16,802kW (87.54%) of installed capacity. The remaining 48 (1.05%) installations came in the >10kW to <=400kW capacity range and accounted for 2,392kW (12.46%) of installed capacity.</p>

Table 2.2: Solar PV installation breakdown by capacity

Capacity	Installations	Installed capacity (kW)
<=4kW	2,649	6,880
>4kW to <=10kW	1,895	9,922
>10kW to <=50kW	40	754
>50kW to <=400kW	8	1,638
>400kW to <=1MW	0	0
> 1MW to <= 5MW	0	0
Total	4,592	19,194

3. Electricity Exported and Payments

- 3.1 Not all of the 4,593 installations registered during SEG Y1 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 Y1, the Licensee may not obtain meter readings to show this and/or make payment against this export until SEG Y2.
- 3.2 A total of 3,005 installations received payment for their exported electricity by the end of the reporting period. A further 22 reported export but had not received any payment.1,566 had not yet reported any export by the end of SEG Y1.
- 3.3 As such, the tables in this section only provide detail on those installations reporting export (**Table 3.1**), and those receiving payment (**Table 3.2**).

Capacity	Solar PV	Solar PV	Micro CHP	Micro CHP	Total	Total
	stations	Export	stations	Export	stations	export
	registering	(kWh)	registering	(kWh)	registering	(kWh)
	export		export		export	
<=4kW	1,612	1,014,143	1	1,599	1,613	1,015,742
>4kW to <=10kW	1,388	1,341,739	0	0	1,388	1,341,739
>10kW to <=50kW	24	68,418	0	0	24	68,418
>50kW to <=400kW	2	142,911	0	0	2	142,911
>400kW to $<=1MW$	0	0	0	0	0	0
> 1MW to $<=$ 5MW	0	0	0	0	0	0
Total	3,026	2,567,211	1	1,599	3,027	2,568,810

Table 3.1 SEG electricity exported by capacity and technology type

3.4 As shown in Table 3.1, 3,027 installations reported export by the end of the year totalling 2,568,810kWh. Solar PV installations in the first two capacity bands (installations with up to and including 10kW capacity) reported the majority with 2,355,882kWh (91.71%) exported. The remaining solar PV installations in the >10kW to <=400kW capacity range accounted for 211,329kWh (8.23%) of export. The one micro-CHP installation exported 1,599kWh (0.06%) of the total.

Capacity	Solar PV	Solar PV	Solar PV	Micro	Micro CHP	Micro CHP	Total	Total	Total
	stations	reported	payments*	CHP	reported	payments*	stations	reported	payments*
	receiving	export		stations	export		receiving	export	
	payment	(kWh)		receiving	(kWh)		payments	(kWh)	
				payment					
<=4kW	1,602	1,013,015	£44,247	1	1,599	£56	1,603	1,014,614	£44,303
>4kW to	1,376	1,337,418	£60,877	0	0	£0	1,376	1,337,418	£60,877
<=10kW									
>10kW to	24	68,418	£3,312	0	0	£0	24	68,418	£3,312
<=50kW									
>50kW to	2	142,911	£5,988	0	0	£0	2	142,911	£5,988
<=400kW									
>400kW to	0	0	£0	0	0	£0	0	0	£0
<=114140									
> 1MW to	0	0	£0	0	0	£0	0	0	£0
<=5MW									
Total	3,004	2,561,762	£114,424	1	1,599	£56	3,005	2,563,361	£114,480

Table 3.2 SEG payments by capacity and technology type

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

3.5 Payments made during SEG Year 1 came to a total of £114,480.37, and those payments were made to 3,005 Generators that reported total export of 2,563,361kWh. Table 3.2 contains details of the payments made, broken down by capacity band and technology type. As most installations and export were accounted for by solar PV installations in the tariff bands <=10kW, the largest proportion of payments were also made to these installations (£105,124.37 or 91.83%). Of the remaining payments (totalling £9,356.00), £9,300.04 went to solar PV installations with a capacity >10kW and <=400kW, and £55.96 went to the only registered micro-CHP installation.</p>

4. Instances of Non-Compliance

- 4.1. Ofgem is responsible for monitoring Licensee compliance with their SEG obligations as set out in the Standard Electricity Supply Licence Conditions.¹⁷ 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.
- 4.2. Depending on the nature of the non-compliance, Ofgem may deem it appropriate to add details to the Supplier Performance Report (SPR).¹⁸ The SPR documents incidents where energy suppliers have not complied with their obligations under the environmental, energy efficiency and social programmes which Ofgem administer.
- 4.3. A summary of non-compliances observed on the SEG in Year 1 follows.

Half-Hourly Settlement

- 4.4. Licensees must have the necessary arrangements in place to be able to accept SEG Generators onto their SEG tariff. This includes being able to settle export half-hourly, as per a requirement of the Balancing and Settlement Code.¹⁹
- 4.5. One Licensee did not have suitable arrangements in place to be able to settle export half-hourly for SEG Generators. They reported this issue to Ofgem and engaged constructively to ensure a timely resolution and bring themselves into compliance. They reported that no prospective SEG Generators were denied a SEG tariff because of this issue. The Licensee was not added to the Supplier Performance Report for this non-compliance.

Double Payment

4.6. A Generator in receipt of one Licensee's SEG tariff was found to also be in receipt of Feed-in Tariff (FIT) export payments from another electricity supplier. Generators must not be in receipt of an export tariff under the FIT scheme if they intend to claim SEG payments.²⁰ The onus is on the SEG Licensee to have adequate checks in place to ensure

¹⁷ Link to Electricity Supply Standard Licence Conditions

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

¹⁸ Link to Supplier Performance Report

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

¹⁹ The Balancing and Settlement Code is administered by Elexon and governs the balance of supply and demand in the National Grid. <u>Link to the Balancing and Settlement Code</u> https://www.elexon.co.uk/knowledgebase/about-the-bsc/

²⁰ Paragraph 3.1.1 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

an installation is not in receipt of FIT export payments when they assess a SEG application.

4.7. The Licensee reclaimed the SEG payments made during the period in question and have since tightened their checks to ensure this does not happen again. They have been added to the Supplier Performance Report for this non-compliance.

Eligible Technology Types

- 4.8. SEG Licensees are obligated to support all five SEG technology types. This can be done in one tariff, or across multiple tariffs catering to different technology types. A Licensee failed to meet this obligation during SEG Y1 and subsequently were unable to publicise SEG tariffs covering all technology types, as they are required to.²¹
- 4.9. The Licensee has ensured that they now offer SEG tariffs that accommodate the relevant SEG technologies. They have been added to the Supplier Performance Report for this non-compliance.

Failing to offer a SEG tariff

4.10. One Licensee did not offer a SEG tariff or publish their SEG status on their website until 12 March 2021, a little over two weeks before the end of SEG Y1. SEG Licensees must publish their status and rates such that this information is easily accessible to the public.²² Whilst there is no deadline set for this, there is a requirement that Licensees must cooperate to contribute to the full and timely implementation of the SEG.²³ This Licensee failed to meet Ofgem's expectations with regard to these requirements and has consequently been added to the Supplier Performance Report for this non-compliance.

Metering Requirements

4.11. During SEG Y1, several SEG Licensees published information that was unsatisfactory when describing the metering requirements of the SEG. The SEG requires an eligible installation to include an export meter that is capable of measuring export at half-hourly intervals.²⁴ It is expected that in most cases this will be a smart meter, but this is not necessarily always the case. For example, there are some export meters that can measure half-hourly export that are not smart meters.

²¹ Paragraph 1.2 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

²² Paragraph 1.2 of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

²³ Standard Licence Condition 58.2 of the Standard Conditions of Electricity Supply Licence.

²⁴ Paragraph 2.1.3(a) of Schedule A to Standard Licence Condition 57 of the Standard Conditions of Electricity Supply Licence.

4.12. Several Licensees had information published on their websites (and had stated in their responses to enquiries from prospective SEG Generators) that a smart meter is a prerequisite to receiving a SEG tariff. Ofgem will engage further with Licensees to ensure the accuracy of communication in this area, building on existing engagement that occurred in SEG Y1.

Feedback

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