

Regional renewable electricity in 2025

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Key headlines

Renewable generation in the UK increased by **5.9 per cent** from 144.4 TWh in 2024 to 152.9 TWh in 2025. This was a result of increased solar, wind and biomass and energy from waste generation. Within this:

- Generation in England was **up 7.4 per cent**
- Generation in Northern Ireland was **up 4.6 per cent**
- Generation in Scotland was **up 2.3 per cent**
- Generation in Wales was **up 6.4 per cent**

Overall capacity increased by **5.3 per cent** from 62.0 GW at the end of 2024 to 65.3 GW at the end of 2025. Within this:

- Capacity in England was **up 7.2 per cent**
- Capacity in Northern Ireland was **up 2.2 per cent**
- Capacity in Scotland was **up 1.6 per cent**
- Capacity in Wales was **up 3.4 per cent**

This article provides information and analysis on the amount of electricity from renewable sources, disaggregated below the UK level. It includes information on capacity, generation, and number of operational sites, as well as derived load factors, for the four UK countries, the nine English regions and, from 2014, UK Local Authorities. It updates the previously published figures in the September 2025 edition of Energy Trends.

Time-series data are available as Excel spreadsheets at: www.gov.uk/government/statistics/regional-renewable-statistics.

The regional tables include data for 2003 – 2025 and the Local Authority tables include data for 2014 – 2025. The spreadsheets include detailed data and additional charts for generation, capacity, number of sites, generation per GVA, and load factors.

Capacity

England has the most renewable capacity, roughly two and a half times that of Scotland. This is largely because England has 88 per cent of the UK's **bioenergy** capacity (including four biomass units at Drax and the Ferrybridge Multifuel Power Station in Yorkshire and the Humber), 86 per cent of the solar PV capacity, and 70 per cent of the offshore wind capacity. However, there was little new capacity in any region for bioenergy.

The technology with the highest growth in capacity was **solar PV** (12.8 per cent), contributing three quarters of the overall growth in the UK. An additional 2,485 MW of solar capacity has been added. Solar capacity in England grew by 13 per cent and by 14 per cent in Scotland.

Offshore wind capacity grew by 3.2 per cent, contributing 16 per cent of the total UK growth. England accounted for this additional capacity, primarily from Dogger Bank A (585 MW).

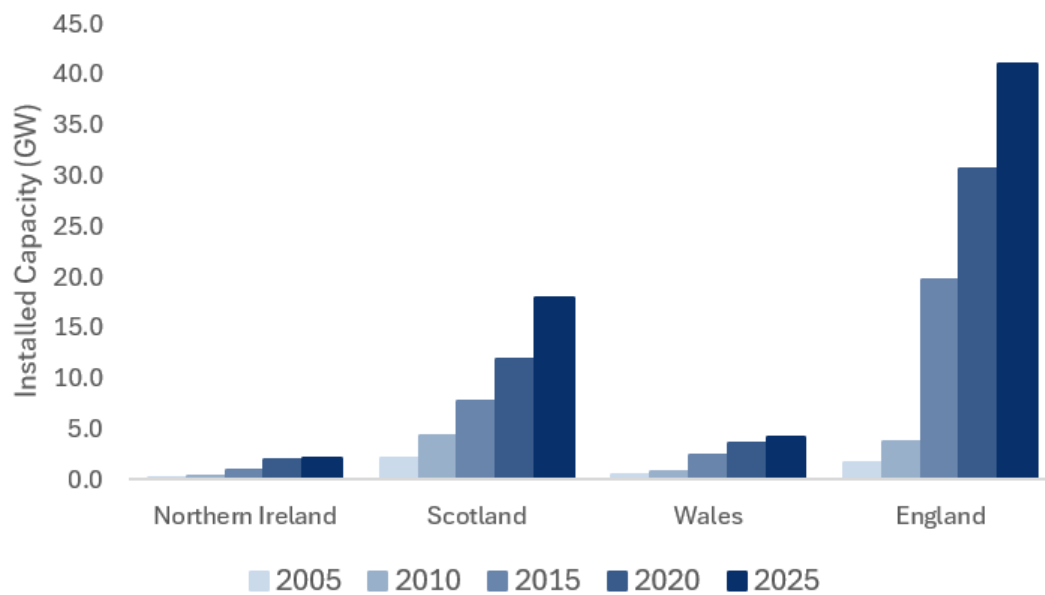
Table 1 shows the largest new sites by region.

Table 1 - Largest new schemes (including capacity increases) in 2025:

Offshore wind	Dogger Bank A	Yorkshire and Humber (England)	585 MW
Onshore wind	Limekiln Wind Farm	Scotland	86 MW
	Hagshaw Hill	Scotland	47 MW
Solar PV	Cleve Hill Solar Park	South East England	373 MW
	Vicarage Drove	East Midlands	66 MW
	South Farnbridge Hall	East of England	53 MW

Chart 1 shows growth in capacity by country:

Chart 1 – Total renewable capacity by country 2005 – 2025

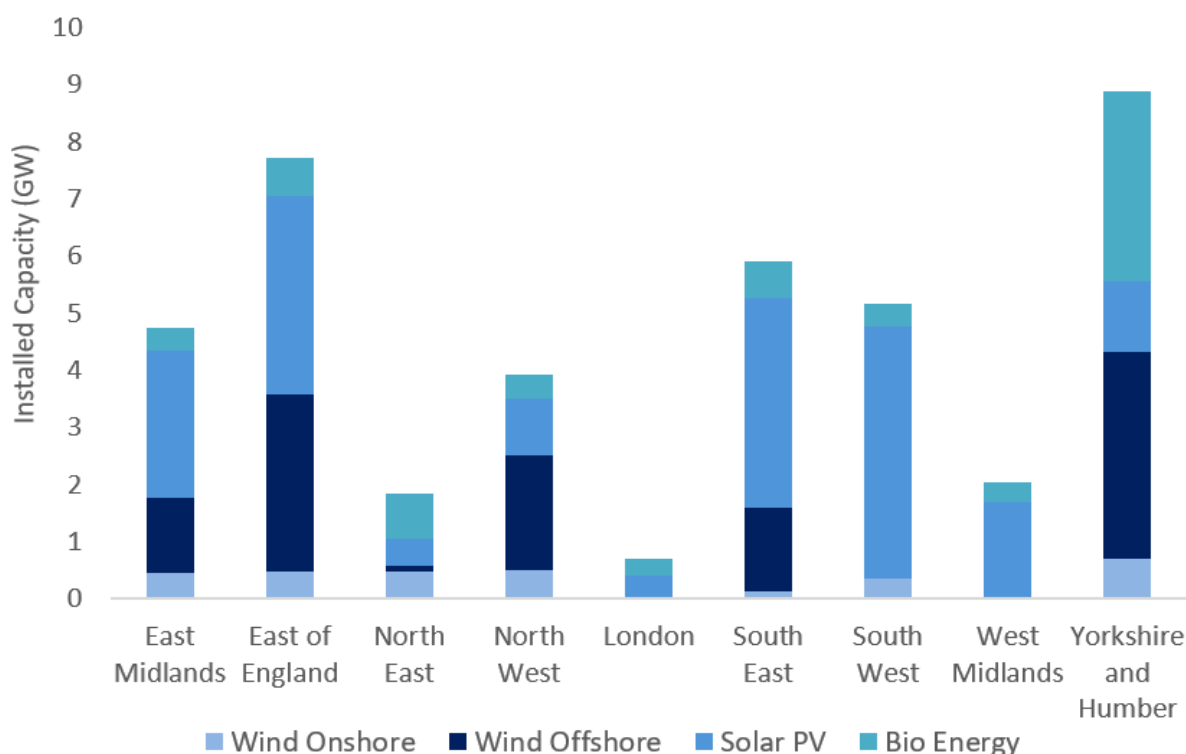


Within England, the breakdown of renewable capacity varies by region as shown in Chart 2. The regions with the highest capacity in England are:

- Yorkshire and the Humber – 8,882 MW (41 per cent from offshore wind – the largest plants being Hornsea phase 1 and 2 and 36 per cent from bioenergy - mostly from Drax).
- East of England – 7,728 MW (46 per cent from wind and 45 per cent from solar PV).
- South East – 5,918 MW (62 per cent from solar PV and 27 per cent from wind).

The region with the largest growth was South East, total capacity grew by 14 per cent, within this, solar capacity grew by a quarter. The new capacity added in 2025 includes Cleve Hill, the largest solar farm in the UK. Chart 2 shows the breakdown of capacity by region of England and technology.

Chart 2 – Renewable capacity at the end of 2025 by English region and technology



Generation

For similar reasons to capacity, generation from renewable sources in England was around two and a half times that for Scotland. However, this gap has narrowed from three times higher in 2021 as Scotland's wind generation increased more rapidly than England's over this period. The breakdown of renewable capacity and generation is different in each nation, England has a lot of bioenergy while Scotland has a lot of onshore wind capacity. Bioenergy tends to have higher load factors (see below) than wind, but this is offset by England having more solar PV capacity which has a lower load factor.

Generation of **solar PV** was up sharply in all countries and regions of the UK in 2025; being up by 48 per cent in Scotland, 34 per cent in England, 32 per cent in Wales and 24 per cent in Northern Ireland. This was driven by new capacity and average sun hours being up on the previous year, 2025 was the sunniest year in our time series.

Scotland has the highest **onshore wind** generation at 22.0 TWh, 64 per cent of the UK total. While England has the highest **offshore wind** generation, 79 per cent of the UK total at 41.1 TWh.

Number

Excluding solar PV, England continues to have the largest number of renewable generating sites (6,063) followed by Scotland (4,722), Northern Ireland (1,354), and Wales (1,200). Wales has more sites than Northern Ireland when solar PV is included.

Excluding solar PV, regions with the most sites in England are the South West, East of England, and Yorkshire and the Humber which each have over 1,000 installations. When solar PV is taken into consideration, the South East has the highest number of sites followed closely by the South West and the East of England.

Generation per GVA

Economic activity in each country or region is measured in terms of Gross Value Added (GVA)¹. Yorkshire and the Humber shows the largest generation from renewables per £ of GVA followed by Scotland, North East, Wales, East of England and Northern Ireland.

Load Factors

Load factors are the ratio of how much electricity was generated as a proportion of the total generating capacity. A summary by country is given in Table 2:

Table 2 - Load factors by country and technology - 2025:

	Onshore Wind	Offshore Wind	Solar PV	Hydro	Biomass and Waste
England	24.1%	41.3%	11.2%	38.4%	61.3%
Northern Ireland	22.0%	n/a	9.4%	30.0%	60.5%
Scotland	24.1%	23.5%	11.1%	33.3%	55.8%
Wales	26.0%	31.9%	11.2%	22.2%	56.8%
UK average	24.1%	36.2%	11.1%	32.4%	60.8%

Wales has the highest **onshore wind** load factor (26.0 per cent), followed by Scotland and England (24.1 per cent). Load factors can be affected by differences in regional average wind speeds as well as curtailments and planned maintenance.

England continues to have the highest load factor for **offshore wind** (41.3 per cent), followed by Wales (31.9 per cent). The load factors for solar PV are very close between England (11.2 per cent), Wales (11.2 per cent) and Scotland (11.1 per cent).

¹ GVA as published in Regional Gross Value Added (Income Approach), December 2015 at:
<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/regionaleconomicactivitybygrossdomesticproductuk/1998to2022>
<https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregion>

Background

These data are consistent with those published in the Digest of United Kingdom Energy Statistics 2026 (DUKES)², and use similar categories³. The UK totals for 2025 published here are consistent with the figures published in Energy Trends. In addition, data for 2020 through to 2024 have been revised to reflect the DUKES publication. The UK totals published here are consistent with the figures published in Energy Trends.

Furthermore, generation from **liquid biofuels** (biodiesel) is not included here. This is because there are a relatively small number of sites that generate from biodiesel and publishing their totals would be disclosive. In total there are:

- 55 sites that generate from biodiesel, with 53 in England
- Their total capacity is 35.5 MW
- In 2025, they generated 85 GWh in total (less than 0.1 per cent of total renewable generation).

In addition, there are small differences between the totals published for England, Northern Ireland, Scotland and Wales published here and those published in ET 6.1. This is because some sites cannot be allocated to local authorities where it would disclose the electricity generated by individual scheme.



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² <https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes>

³ On occasion, it has been necessary to combine some renewable sources into categories so that information about individual sites provided in confidence to DESNZ is not disclosed.