Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2015 to 2018

Introduction

This article shows how generation and consumption of electricity varies across the four countries of the United Kingdom. It updates and extends a previous version published in December 2018¹. The UK figures shown in this article are taken from chapters 5 and 6 of the Digest of United Kingdom Energy Statistics (DUKES) 2019² and so the definitions used are identical to those in the Digest. Tables 1 and 2 are included at the end of the main text and cover the last four years, with revised data for 2004 to 2017 available in the accompanying Excel spreadsheet.

Key points

- UK electricity generation in 2018 fell 1.6 per cent to 333 TWh, the lowest level on the published time series. This was predominantly driven by a 13 per cent drop in Welsh generation in 2018, the result of reductions in its gas and coal-fired electricity.
- The decreased generation was supplemented by net imports totalling 19.1 TWh. England received a net 19.1 TWh from France and the Netherlands, whilst Wales received 0.5 TWh from the Republic of Ireland and Northern Ireland exported 0.7 TWh to the Republic of Ireland.
- The share of electricity generation from coal fell across the UK in 2018 to a record low of just 5.1 per cent. In Northern Ireland coal-fired generation remained broadly similar to 2017 at 14.2 per cent whilst coal generation remained at zero in Scotland and dropped from 7.9 per cent to 1.5 per cent in Wales, and from 7.5 per cent to 6.1 per cent in England. The reduction in coal fired electricity is a continuing trend and is largely the result of market conditions and high carbon pricing which have reduced the profitability of coal generation relative to gas. The drop in England's generation was additionally aided by reductions in its capacity in 2018 following the closure of Eggborough Power station and the conversion of a unit at Drax to supply bioenergy.
- Renewables' share of generation rose in 2018 to 33.0 per cent, surpassing the record of 2017 by 3.8 percentage points. Scotland continued to have the highest share, where renewables were responsible for 54.9 per cent of generation. The rest of the UK also saw record shares of renewable generation, of 29.8 per cent for England (up 3.8 pp), 22.1 per cent for Wales (up 2.4 pp) and 42.3 per cent for Northern Ireland (up 8.7 pp). This jump in renewable generation came despite sub-optimal weather conditions for wind and hydro generators. The rise is subsequently the result of a 10 per cent increase in renewable capacity across the UK, which now accounts for 25 per cent of all generating capacity.

¹ Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2014 to 2017: www.gov.uk/government/publications/energy-trends-december-2018-special-feature-articles

² Digest of UK Energy Statistics (DUKES) 2019:

Generation, consumption and trade

Electricity generation within the UK decreased to 333 TWh in 2018, down 1.6 per cent on 2017 and its lowest level on the published time series. This follows a 4-year period from 2014 – 2017 where generation remained broadly stable at an average of 338 TWh. Chart 1 shows total generation of electricity in each UK country between 2015 and 2018.

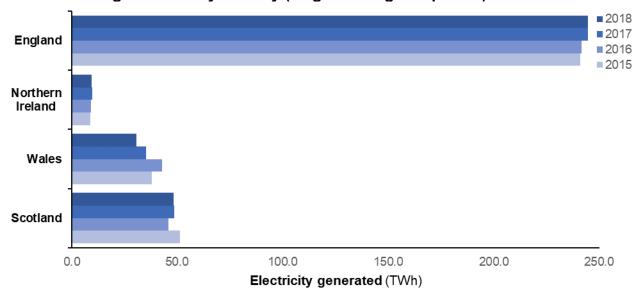


Chart 1: Total generation by country (all generating companies) 2015 - 2018

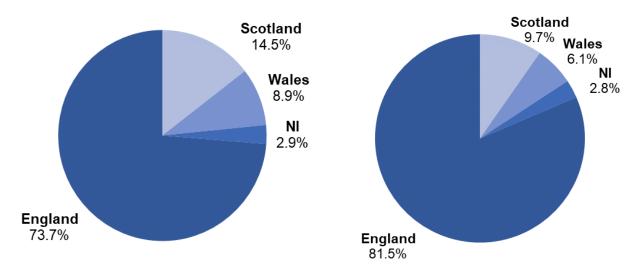
Generation within England in 2018 accounted for 73.5 per cent of the UK's total, up 1.1 percentage points (pp) on 2017 and its highest share of annual generation since 2012. This comes despite England's absolute generation remaining largely unchanged on 2017, as generation dropped in Wales (-13 pp) and Northern Ireland (-3.1 pp) and remained steady in Scotland. The rise in England's share of UK generation has been a continuing trend since 2015, when it reported its lowest generation on the published time series, 241 TWh. The large reduction in Welsh generation is the result of decreases in its coal and gas-fired generation, down 87 and 9 per cent respectively.

Shares of annual electricity consumption within the UK in 2018 did not significantly differ from 2017 with 81.5 per cent of electricity consumption occurring in England, 9.7 per cent in Scotland, 6.1 per cent in Wales and 2.8 per cent in Northern Ireland. This was similar to average shares over the 2015 – 17 period: 81.5 per cent, 9.8 per cent, 6.0 per cent and 2.7 per cent respectively. Chart 2 (below) shows the proportions of electricity supply and consumption figures in UK by region in 2018³.

Since 2010, England's electricity supply (generation minus own use at generating sites) has not met its demand (electricity consumed). Consequently, it received net positive transfers from both Scotland and Wales as well as net imports (imports minus exports) from continental Europe via the France and Netherlands interconnectors. In 2018, 16 per cent of total electricity consumed in England was provided by these sources, up 0.6pp on 2017.

³ As transmission and distribution losses are not separately available for Scotland, Wales, Northern Ireland and England, estimates have been made using the UK proportions for generation and sales. Consumption figures have then been calculated by deducting net transfers, own use, and losses figures from the electricity generated figures shown in Table 1. Separate data is collected for sales of electricity from the public supply system in Scotland, England and Wales, and Northern Ireland. This is published in monthly table ET 5.5 on the BEIS Energy Statistics website, but for this article the breakdown between England and Wales has been estimated. Because of definitional and other differences set out in the technical notes to Chapter 5 of DUKES 2019, there is a statistical difference between the calculated consumption and the sales data in Table 1. As part of its commitment to improving the quality of its statistics, BEIS continues to examine this statistical difference (-0.4 per cent for the UK in 2019) and look further at the component series to see where the differences might be arising and thus where improvements to the data might be made.

Chart 2: Electricity shares of supply (left) and demand (right) in the UK in 2018



In 2018, Scotland exported 28 per cent of its generation to consumers elsewhere in the UK (England and Northern Ireland), similar to transfers reported in 2017 of 27 percent. This comes as generation remained steady in Scotland and total consumption decreased relative to 2017. Wales exported 27 per cent of its total generation to England in 2018, the lowest proportion since 2007 and the result of drops in Welsh coal and gas fired electricity generation. Wales started trading with the Republic of Ireland in 2012 and remained a net exporter of electricity until 2015. Since then it has been a net importer of electricity which totalled 0.5 TWh in 2018, 40 per cent lower than the previous year. Northern Ireland remained a net exporter to Ireland for the second consecutive year, exporting a net total of 0.5 TWh, over four times greater than the net exports of 2017. Northern Ireland also returned to receiving net positive electricity transfers from Scotland via the Moyle interconnector in 2018, accounting for a tenth of its consumption from public supply.

Net imports from Europe totalled 19.1 TWh in 2018, 29 per cent greater than 2017 but lower than 21.1 TWh in 2015. This accounted for 6.8 per cent of consumption from public supply in the UK, up from 5.2 per cent in 2017. This was predominantly driven by a 79 per cent rise in net imports from France to 12.9 TWh following a turbulent 2017 for the UK-France interconnector after repairs to the interconnector in Q1 of 2017 and a spike in French electricity prices in Q4 of 2017.

The share of electricity supply by generators other than Major Power Producers (MPPs) has steadily increased since 2013, reaching a new high of 15 per cent in 2018. This is a marginal increase on 2017 (less than 1 pp) and is driven largely by a 24 per cent rise in non-MPP supply in Northern Ireland. In Scotland, Wales and England generation by autogenerators is fairly consistent with 2017.

Generation by fuel

Chart 3 shows the fuel generation mix from 2015 – 2018 for each of the four UK countries.

Coal's share of UK generation has fallen significantly over the past 6 years, from 39.2 per cent in 2012 to a record low of just 5.1 per cent in 2018. This comes as the profitability of coal generation (relative to gas) continues to fall due to market conditions and high carbon pricing. UK coal capacity also continues to fall after the closure or partial closure of multiple coal plants that opted out of the Large Combustion Plant Directive (LCPD) and its successor, the Industrial Emissions Directive (IED). In 2018, the UK's coal capacity was significantly diminished following the closure of Eggborough power station (1960 MW) and the conversion of a unit at Drax to supply bioenergy (660 MW), both located in England. As a result, England's generation decreased 2pp in 2018, following two years of consistent generation. In wales, an even larger drop was experienced (- 6pp) now providing a record low 1.5 per cent of its generation. Coal generation has remained zero in Scotland since the closure of its only remaining coal plant, Longannet, in March 2016.

The share of gas generation in the UK fell to 39.5 per cent in 2018, however there were increases in its share in Scotland (up 6.1 pp) and Wales (up 3.2 pp). In England, gas' share of generation decreased from 42.9 per cent in 2017 to 40.8 per cent, as higher renewable generation reduced the need for gas. This follows the 43 per cent jump in gas-fired generation in England between 2015 and 2016, as coal was replaced in the energy mix.

Nuclear generation fell in 2018 compared to the broadly stable levels of 2015, 2016 and 2017, providing only 19.5 per cent of the UK's annual generation. Whilst generation in England was consistent with 2017, the drop is associated with an increase in the number of maintenance outages at Scotland's two nuclear reactors. Consequently, its share of generation in Scotland dropped from 36.8 to 28.2 per cent. There has been no nuclear generation in Wales since the closure of Wylfa in December 2015.

Renewable's share of generation in the UK rose to a new high of 33.0 per cent in 2018, driven by a 14 per cent increase in generation from wind and solar compared to 2017. These increases were largely the result of increases in wind and solar capacity, up 11 and 2.6 per cent respectively. Weather conditions for solar generators were particularly favourable, with 2018 reporting the greatest average sun hours since 2003. However, conditions for wind and hydro-generators were poorer in 2018, with both windspeeds and average rainfall down slightly on 2017 and more significantly on the 10-year averages. With wind generators providing the greatest source of electricity generation, the sub optimal conditions suggest that the full potential of the UK's increasing renewable capacity is yet to be realised. Bio energy also reported a 9.4 per cent rise in generation in 2018 following a 25 per cent increase in thermal renewable capacity due to the opening of Lynemouth Biomass plant (420 MW) and the conversion of another unit at Drax to supply bioenergy (660 MW).

All four countries saw record shares of renewable generation in 2018. In Scotland, renewables accounted for 54.9 per cent of generation, up 3.4 pp on 2017, whilst Wales saw a similar rise, up 2.4 pp to 22.1 per cent and Northern Ireland registered an 8.7 pp rise to 42.3 per cent. This came as the energy mix in all these countries moved away from coal towards renewable technologies. With large rises in renewable capacity in all three countries (up 10 per cent in Scotland, 5 per cent in Wales and 20 per cent in Northern Ireland⁴), renewable generation is now able to play a significant role in filling the gap left by coal, which only in 2014 accounted for 21.2 per cent of generation in Scotland, Wales and Northern Ireland. The increase in renewables' share in England was more significant than in previous years (up 3.8 pp to 29.8 per cent), as coal's share of generation decreased, and overall generation increased relative to 2017.

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⁴ Renewable energy in Scotland, Wales, Northern Ireland and the regions of England in 2018 – Energy Trends September 2018, page 46:

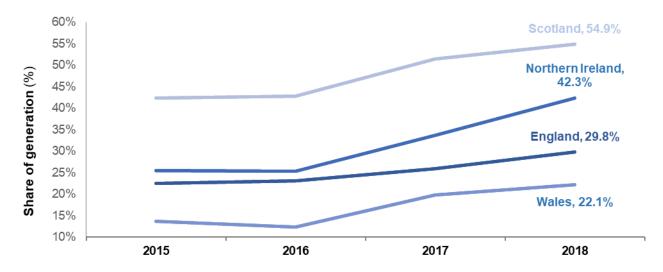
Chart 3: Generation by fuel type for each country in 2018 (all generating companies)⁵ **Scotland** Wales 50.0 50.0 ■Renewables □Renewables 40.0 12% **Generation** (TWh) 30.00 Generation (TWh) 42% 14% ■Nuclear 43% 52% ■ Nuclear 55% 20% 10% 22% 63% Gas ■ Gas 20.0 46% 35% 64% 43% Oil & Other Oil & Other 67% 4% 37% 28% 10.0 8% 8% 10.0 9% 2% ■Coal 21% Coal 17% 4% 16% 15% 9% 9% 8% 0.0 0.0 2015 2016 2017 2018 2017 2015 2016 2018 **Northern Ireland England** 10.0 250.0 ■Renewables 22% 23% 26% Renewables 30% 8.0 25% 34% 200.0 26% 42% Generation (TWh) Generation (TWh) ■Nuclear 20% 22% 21% ■Gas 150.0 21% ■ Gas 50% 49% 4.0 51% 100.0 32% Oil & Other 43% 45% 43% Oil & Other 41% 2.0 50.0 Coal 24% 23% ■ Coal 24% 14% 14% 8% 8% 6% 0.0 0.0 2015 2017 2016 2018 2017 2015 2016 2018

⁵ As the mix of generating plants varies by country, the fuel mix in individual years changes according to the competitiveness and availability of fuels and stations. 'Oil & Other' refers to oil, other fossil fuels and pumped hydro. Its share has been removed from Scotland, NI and England as it provides a relatively small and stable proportion of their generation.

Renewables

Chart 4 shows the share of renewable electricity by country for the four years from 2015 to 2018.6

Chart 4: Renewable share of generation by country, 2015 to 2018



Renewable generation reached a record high in 2018 for the UK as a whole and in Scotland, Northern Ireland and England. This is largely the result of a 10 per cent rise in renewable capacity throughout the UK, from 40 GW at the end of 2017 to 44 GW at the end of 2018.

Within this 10 per cent rise in renewable capacity, Scotland's capacity rose by 10 per cent, Northern Ireland's 20 per cent, Wales' 5.0 per cent and England's 9.9 per cent. As a result, renewable generation in Scotland, Northern Ireland and England rose by 5.9, 22 and 14 per cent respectively. Welsh generation was down on 2017, though this is thought to be the result of the lower average wind speeds in 2018 as the bulk of Wales renewable generation comes from onshore wind. Despite this, renewables share of electricity generated in Wales is up on 2017 to a record level, 22.1 per cent.

In Scotland, the renewables target to reach 100 per cent by 2020 is expressed as generation as a proportion of gross electricity consumption (defined as generation plus transfers into Scotland less transfers out of Scotland). In 2018, Scotland reached a record 76.2 per cent of the renewable target, up 6.1 pp on 2017 and now 17 pp on the 2015.

Detailed renewables statistics for 2018 on a sub-national and regional basis were published in the September 2019 issue of Energy Trends⁷.

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⁶ Note previous editions of this article included a discussion of the percentage of electricity sales accounted for by renewables eligible under the Renewables Obligation (RO). This is no longer included given that the RO closed to new generating capacity in March 2017 with the last grace period expiring in September 2018. However, for reference, the amount of electricity generated by renewables eligible under the RO is still included in Table 2.

⁷ Renewable energy in Scotland, Wales, Northern Ireland and the regions of England in 2018 – Energy Trends September 2018, page 46:

Revisions

In versions of this article before 2018, generation from small-scale biodegradable waste was not separated from non-biodegradable waste and so was classified as 'other' in the percentage shares of generation. In order to match the definitions given in DUKES, this generation has been reallocated to 'thermal renewables', with revisions made back to 2010.

Previous versions of the figures remain available online for comparison at: www.gov.uk/government/collections/energy-trends-articles

References

Digest of UK Energy Statistics 2019 (DUKES); available on BEIS's energy statistics website at: www.gov.uk/government/statistics/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes

Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2014 to 2017:

www.gov.uk/government/publications/energy-trends-december-2018-special-feature-articles

Capacity of, and electricity generated from, renewable sources (Energy Trends 6.1): www.gov.uk/government/statistics/energy-trends-section-6-renewables

Renewable energy in Scotland, Wales, Northern Ireland and the regions of England in 2018 – Energy Trends September 2019, page 46:

www.gov.uk/government/publications/energy-trends-september-2019-special-feature-articles

Energy Trends monthly table 5.5:

www.gov.uk/government/statistics/electricity-section-5-energy-trends

Energy Trends: weather

www.gov.uk/government/statistics/energy-trends-section-7-weather

Chart 5: Electricity generation and consumption flow chart, 2018

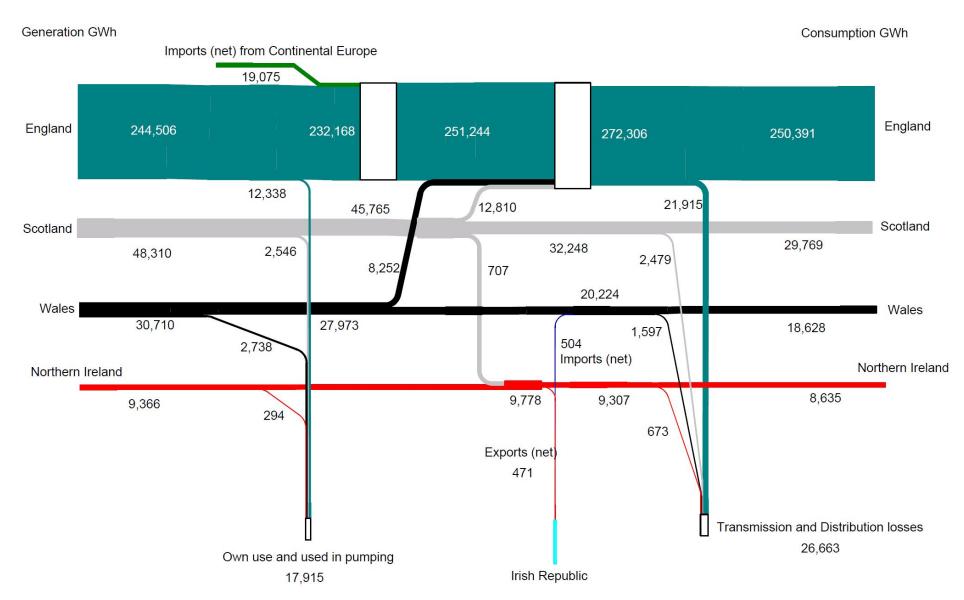


Table 1: 0	Seneration and supply of electricity	in Scotla	nd, Wale	s, Nor	thern Ir	eland ar	nd Englan	d, 2015 &	2016		GWh
				2016							
		UK total	Scotland	Wales	Northern Ireland	England	UK to	al Scotland	Wales	Northern Ireland	England
Generated by	Major power producers	295,991	43,714	34,457	7,066	210,754	292,94	3 38,138	39,302	7,358	208,146
	Other generators	42,885	7,622	3,469	1,695	30,099	46,24	7,636	3,513	1,817	33,281
Total generated		338,875	51,335	37,926	8,761	240,853	339,19	1 45,774	42,814	9,175	241,428
Own use by Oth	er generators	2,834	343	206	57	2,227	2,92	2 340	185	87	2,311
Electricity suppli	ied (net) by Other generators	40,051	7,278	3,263	1,637	27,872	43,32	5 7,296	3,328	1,731	30,970
Used in pumping	g at pumped storage and other own use by MPPs	17,529	2,836	4,430	192	10,070	16,30	1 2,624	4,241	195	9,302
Electricity suppli	ied (net) by MPPs	278,462	40,877	30,027	6,874	200,684	276,58	2 35,514	35,061	7,163	198,844
Electricity transf	Electricity transferred to England (net of receipts)		14,598	13,372	-	-27,970		- 9,639	18,523	-	-28,162
Electricity transfe	Electricity transferred to Northern Ireland (net of receipts)		191	-	-191	-		252	-	252	-
Electricity transfe	erred to Europe (net of receipts)	-21,106	-	1,065	-334	-21,837	-17,74	5 -	-313	-399	-17,034
Transfers from c	other generators to public supply	19,057	3,463	1,553	779	13,262	20,40	0 3,435	1,567	815	14,582
Transmission los	sses	7,234	630	376	179	6,049	6,23	3 553	357	155	5,168
Distribution loss	es and theft	20,063	1,834	1,082	515	16,632	19,8	5 1,902	1,168	512	16,272
Consumption fro	om public supply [A]	291,328	27,088	15,683	7,485	241,072	288,63	9 27,107	16,892	7,458	237,182
Consumption by	autogenerators	20,993	3,815	1,711	858	14,610	22,9	5 3,861	1,761	916	16,388
Total electricity of	consumption	312,321	30,903	17,394	8,343	255,681	311,50	4 30,968	18,653	8,374	253,570
Electricity sales	(public supply) [B]	290,039	26,508	15,642	7,446	240,442	288,3	1 27,771	16,970	7,312	236,277
Statistical difference consumption [A]	ence between calculated and sales [B]	1,289	579	41	39	630	30	8 -664	-78	146	905

Table 1: 0	Generation and supply of electricity	ı in Scotlaı	nd, Wale	s, Nor	thern Ir	eland ar	nd England,	2017 &	2018		GWh
		2017						2018			
		UK total	Scotland	Wales	Northern Ireland	England	UK total	Scotland	Wales	Northern Ireland	England
Generated by	Major power producers	287,745	39,937	31,343	7,182	209,283	281,356	39,613	26,830	6,279	208,634
	Other generators	50,428	8,566	3,972	2,480	35,410	51,536	8,623	3,880	3,087	35,946
Total generated		338,172	48,503	35,315	9,662	244,693	332,893	48,236	30,710	9,366	244,580
Own use by Oth	ner generators	3,760	474	264	123	2,899	4,335	649	331	154	3,202
Electricity suppli	ied (net) by Other generators	46,668	8,092	3,708	2,357	32,510	47,201	7,974	3,550	2,933	32,744
Used in pumping	g at pumped storage and other own use by MPPs	15,520	2,478	3,703	163	9,176	13,580	1,881	2,407	140	9,152
Electricity suppli	ied (net) by MPPs	272,225	37,459	27,640	7,019	200,107	267,776	37,733	24,423	6,138	199,483
Electricity transferred to England (net of receipts)		-	13,013	11,490	-	-24,503	0	12,810	8,252	0	-21,062
Electricity transferred to Northern Ireland (net of receipts)		-	-145	-	145	-	0	707	0	-707	0
Electricity transf	ferred to Europe (net of receipts)	-14,760	-	-831	110	-14,039	-19,108	0	-504	471	-19,075
Transfers from o	other generators to public supply	21,544	3,736	1,712	1,088	15,008	22,245	3,758	1,673	1,382	15,431
Transmission lo	sses	6,497	557	384	153	5,403	6,497	548	378	144	5,427
Distribution loss	es and theft	20,021	1,785	1,219	528	16,488	20,166	1,930	1,219	528	16,488
Consumption from	om public supply [A]	282,011	25,985	17,089	7,171	231,766	282,466	25,495	16,750	7,084	233,136
Consumption by	/ autogenerators	25,124	4,356	1,996	1,269	17,502	24,956	4,216	1,877	1,551	17,312
Total electricity	consumption	307,134	30,341	19,085	8,440	249,268	307,422	29,711	18,627	8,635	250,449
Electricity sales	(public supply) [B]	281,641	24,899	17,123	7,389	232,230	281,612	23,552	16,760	8,034	233,266
Statistical difference between calculated consumption [A] and sales [B]		370	1,085	-34	-218	-464	854	1,943	-9	-950	-130

Figures in this table do not sum exactly to the UK totals shown because of rounding.

Table 2: Ger	neration of electricity	by fuel i	n Scotla		s, North	<u>ern Irelai</u>	nd and	England,	, 2015 &			GWh
				2015						2016		
		UK total	Scotland	Wales	Northern Ireland	England		UK total	Scotland	Wales	Northern Ireland	England
Major power	Coal	75,812	8,275	8,153	2,102	57,283		30,613	1,806	7,316	2,107	19,384
producers:	Oil	683	188	163	42	290		606	156	180	68	20
producero.	Gas	88,461	126	16,859	4,187	67,289		131,972	1,523	26,092	4,489	99,868
	Nuclear	70,345	17,763	3,887	0	48,696		71,726	19,630	0	0	52,096
	Thermal renewables	17,694	789	7	0	16,898		17,400	756	33	0	16,61
	Other thermal	689	0	0	0	689		968	0	0	0	96
	Hydro natural flow	4,907	4,605	273	0	28		3,951	3,692	235	0	2
	Hydro pumped storage Non-thermal	2,739	523	2,217	0	0		2,959	486	2,474	0	_
	renewables	34,662	11,445	2,899	735	19,582		32,748	10,089	2,972	694	18,993
	Total	295,991	43,714	34,457	7,066	210,754		292,943	38,138	39,302	7,358	208,146
Other	Coal	66	0	0	38	28		56	0	0	36	20
Generators:	Oil	1,354	693	30	40	592		1,285	527	36	42	679
	Gas	11,415	1,793	693	115	8,814		11,384	1,618	804	108	8,854
	Thermal renewables ¹	11,563	1,075	748	270	9,471		12,549	1,142	691	456	10,26
	Other thermal	2,054	207	594	0	1,252		2,834	432	544	7	1,85
	Hydro natural flow Non-thermal	1,391	1,209	78	29	74		1,443	1,248	86	24	8
	renewables Non-biodegradable	13,148	2,620	1,193	1,204	8,131		14,926	2,644	1,238	1,145	9,89
	wastes	1,894	26	132	0	1,735		1,771	25	113	0	1,63
	Total	42,885	7,622	3,469	1,695	30,099		46,247	7,636	3,513	1,817	33,28
Total generation		338,875	51,335	37,926	8,761	240,853		339,191	45,774	42,814	9,175	241,42
•	enewables Hydro natural flow	6,297	5,814	352	29	103		5,394	4,939	321	24	110
	Wind, wave, solar	47,810	14,065	4,092	1,939	27,714		47,674	12,734	4,210	1,839	28,89
	Thermal	29,257	1,864	755	270	26,369		29,950	1,898	724	456	26,87
	Total	83,364	21,743	5,199	2,237	54,185		83,017	19,570	5,255	2,318	55,87
Renewables eligible	under the renewables obligation	68,134	17,078	4,212	2,116	44,728		63,241	14,098	4,060	1,937	43,14
Percentage	Coal	22.4%	16.1%	21.5%	24.4%	23.8%		9.0%	3.9%	17.1%	23.4%	8.0%
shares of	Oil	0.6%	1.7%	0.5%	0.9%	0.4%		0.6%	1.5%	0.5%	1.2%	0.49
generation:	Gas	29.5%	3.7%	46.3%	49.1%	31.6%		42.3%	6.9%	62.8%	50.1%	45.09
	Nuclear	20.8%	34.6%	10.2%	0.0%	20.2%		21.1%	42.9%	0.0%	0.0%	21.69
	Hydro natural flow	1.9%	11.3%	0.9%	0.3%	0.0%		1.6%	10.8%	0.7%	0.3%	0.0
	Other renewables	22.7%	31.0%	12.8%	25.2%	22.5%		22.9%	32.0%	11.5%	25.0%	23.19
	Other	2.2%	1.5%	7.8%	0.0%	1.5%		2.5%	2.1%	7.3%	0.1%	1.89
	Total	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.09

Table 2:	Generation of electricity	by fuel	in Scotla	and, Wal	es, North	nern Irela	nd and England,	2017 & 2	2018		GWh
				2017					2018		
		UK total	Scotland	Wales	Northern Ireland	England	UK total	Scotland	Wales	Northern Ireland	England
Major power	Coal	22,481	0	2,780	1,361	18,339	16,778	0	473	1,303	15,003
producers:	Oil	390	120	54	59	156	625	121	34	43	426
•	Gas	124,512	2,547	21,707	4,815	95,445	119,632	5,234	19,724	3,868	90,806
	Nuclear	70,336	17,827	0	0	52,509	65,064	13,611	0	0	51,453
	Thermal renewables	17,766	880	19	0	16,866	19,965	691	1	0	19,273
	Other thermal	1,276	0	0	0	1,276	1,132	0	0	0	1,132
	Hydro natural flow	4,179	3,890	276	0	12	3,826	3,597	208	0	21
	Hydro pumped storage	2,872	573	2,299	0	0	2,498	454	2,045	0	0
	Non-thermal renewables	43,933	14,099	4,207	948	24,679	51,836	15,905	4,345	1065	30,522
	Total	287,745	39,937	31,343	7,182	209,283	281,356	39,613	26,830	6,279	208,634
Other	Coal	49	0	0	28	21	53	0	0	32	21
Generators:	Oil	1,225	543	42	39	601	438	183	49	39	167
	Gas	12,233	1,786	768	106	9,573	11,857	2,028	816	116	8,898
	Thermal renewables ¹	14,013	1,568	858	548	11,039	14,794	1,443	996	635	11,720
	Other thermal	1,903	79	569	0	1,255	2,289	96	501	0	1,692
	Hydro natural flow	1,723	1,439	141	30	113	1,663	1,406	124	30	103
	Non-thermal renewables Non-biodegradable	17,180	3,115	1,464	1,729	10,872	17,935	3,431	1,119	2,235	11,150
	wastes	2,102	37	129	0	1,936	2,507	37	276	0	2,194
	Total	50,428	8,566	3,972	2,480	35,410	51,536	8,623	3,880	3,087	35,946
Total generation	on	338,172	48,503	35,315	9,662	244,693	332,893	48,236	30,710	9,366	244,580
within which:	Renewables Hydro natural flow	5,902	5,330	417	30	125	5,490	5,003	333	30	124
	Wind, wave, solar	61,113	17,214	5,672	2,677	35,551	69,771	19,336	5,463	3,300	41,672
	Thermal	31,778	2,448	877	548	27,906	34,758	2,134	997	635	30,993
	Total	98,793	24,991	6,966	3,254	63,582	110,019	26,472	6,793	3,964	72,788
Renewables el	ligible under the renewables obligation	17,631	4,552	1,404	602	11,073	17,631	4,552	1,404	602	11,073
Percentage	Coal	6.7%	0.0%	7.9%	14.4%	7.5%	5.1%	0.0%	1.5%	14.2%	6.1%
shares of	Oil	0.5%	1.4%	0.3%	1.0%	0.3%	0.3%	0.6%	0.3%	0.9%	0.2%
generation:	Gas	40.4%	8.9%	63.6%	50.9%	42.9%	39.5%	15.1%	66.9%	42.5%	40.8%
	Nuclear	20.8%	36.8%	0.0%	0.0%	21.5%	19.5%	28.2%	0.0%	0.0%	21.0%
	Hydro natural flow	1.7%	11.0%	1.2%	0.3%	0.1%	1.6%	10.4%	1.1%	0.3%	0.1%
	Other renewables	27.5%	40.5%	18.5%	33.4%	25.9%	31.4%	44.5%	21.0%	42.0%	29.7%
	Other	2.4%	1.4%	8.5%	0.0%	1.8%	2.5%	1.2%	9.2%	0.0%	2.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figures in this table do not sum exactly to the UK totals shown because of rounding.