EnAppSys
ENERGY INSIGHT

GB Electricity Market Summary

Q2-2021

April to June

Generation and Contribution by Fuel Type

Renewables:	21.3TWh (-21%)	Gas:	27.1TWh (-5%)	Nuclear:	10.8TWh (-1%)
Net Imports:	6.1TWh (-5%)	Coal:	0.6TWh (-73%)		

% changes stated with respect to values in the previous quarter

Contents

1 Executive Summary

Quarter 2 2021 saw demand recover from the effect of the Covid-19 lockdowns, renewable generation drop, and thermal generation rise. This led to tighter margins as prices continued to climb higher than in Q1, with periods of high price spikes.

Prices

The periods of tight system resulting from the relatively high demand, combined with less renewables and more requirement for dispatchable fossil-fuel fired generation meant that average wholesale prices continued to rise and there were multiple periods of extreme prices. Average APX prices reached £72.20/MWh, a 15.3% increase from Q1. System prices peaked at £1971.59/MWh in mid-April when spinning reserve became as tight as 1.3GW. The combination of several factors led to this tight period and high prices, most notably the trip of IFA2 in addition to BritNed already being offline and lower renewable generation than forecast.

The average system price was £74.85/MWh, the highest of any quarter (not just Q2s) back to the start of our dataset in Q4 2011, with the next highest being an average of £65.16/MWh in Q1 2013.

Auctions for the UK Emissions Trading Scheme launched in May 2021 with clearing prices initially higher than those for the EU scheme, seeing £48.01/te for GB compared with £42.37/te for EU. This gradually flipped as the quarter went on though, with Q2 closing at £46.51/te for GB and £48.53/te for EU[1].

Generation

Low levels of wind and cloudy weather lead to renewable generation decreasing by 25% compared to Q1 and decreasing 9% compared to Q2 2020. Gas, coal and imports all saw increases in the quarter from Q2 2020, leading gas to once more be the largest total generator in a Q2, having lost out to renewables for the first time last year. Gas contributed 41.2% to the fuel mix in the quarter, followed by renewables with 32.3%, nuclear with 16.4%, imports with 9.3% and coal with 0.8%. Coal continues its phase-out with Drax units 5 and 6 now closed for commercial generation this quarter, though remaining open for activity in the Capacity Market (CM), while the government moved forward the previous October 2025 phase-out date to October 2024. The return to high demand levels, coupled with relatively low wind generation across the quarter, meant that the system was often tight.

[1] The prevailing Bank of England daily GB: EUR FX rate is assumed.

Average margin was 26% lower than that in Q2 last year and average spinning reserve was 24% lower.

A daily auction for Short-Term Operating Reserve (STOR) was introduced at the beginning of the quarter providing a further potential revenue stream for generators with prices clearing between £0.05/MW/h and £6.50/MW/h.

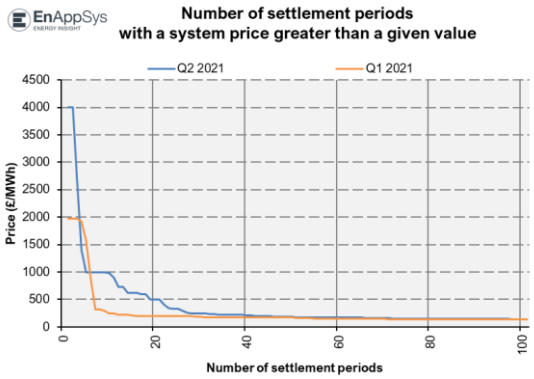
Demand

Demand recovered from the record low levels of Q2 2020 to be more in line with what is expected for this time of year, albeit slightly lower than pre-2020 Q2 levels, following the trend of gradual decrease seen in recent years. As in most Q2s, demand was lower than in the preceding Q1, reflecting underlying seasonality of demand.

2 Wholesale and System Prices

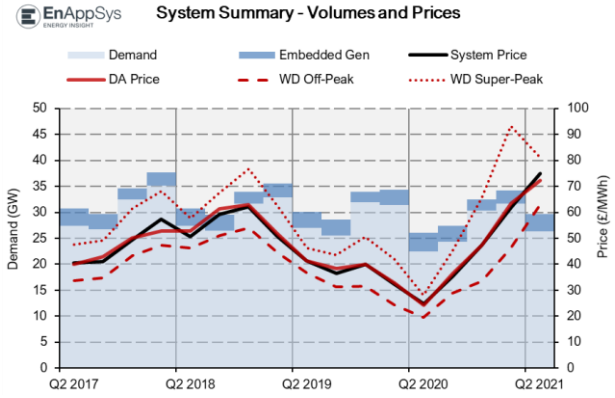
On average, system prices, day ahead prices and within day off-peak prices continued to rise, while super-peak prices decreased from Q1[2].

In addition to rising average prices, more price spikes were seen in this quarter than in Q1, with 796 half hourly settlement periods seeing system prices higher than £100/MWh, up from 227 periods in Q1.



This high demand combined with low wind generation to result in several tight periods in the quarter, with balancing needed to meet demand resulting **in very high system prices on occasion**.

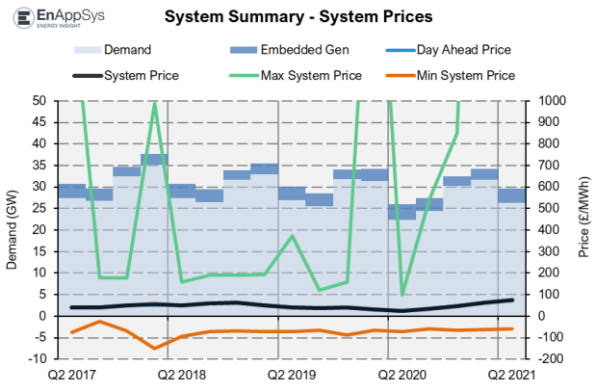
Notably high prices were seen between the 12th and 15th of April, with system prices peaking at £1971.59/MWh. The evening of 12th of April saw four consecutive settlement periods all above £1920/MWh, with three at £1971.59. During this period, spinning reserve became as tight as 1.3GW. The combination of several factors led to this tight period and high prices. The trip of IFA2 in addition to BritNed already being offline and lower renewable generation than forecast were the most important factors.



Whilst this was the peak system price event, similar conditions were seen throughout the start of the quarter, with tight system conditions resulting in the high average system prices seen.

Wholesale prices (day-ahead and system) were markedly higher in the quarter than in Q1 or in Q2 2020.

[2] Peak is 08:00 – 16:00 and 19:30 – 00:00; Super-peak is 16:00 – 19:30



The average system price was £74.85/MWh, the highest of any quarter (not just Q2s) back to the start of our dataset in Q4 2011, with the next highest being an average of £65.16/MWh in Q1 2013. Even with the five periods of prices above £1000/MWh removed, the average for this quarter is still the highest since Q4 2011, at £72.78/MWh.

After the decoupling of GB and EU markets in Q1, the two day-ahead markets, APX and Nordpool, continued with separate prices. The prices converged with each other more than in Q1, with fewer arbitrage opportunities.

On average, APX prices were up 13.5% to £72.20/MWh from Q1, while Nordpool prices increased by 15.3% to £73.02/MWh. On the whole, the two markets tend to clear at similar prices, as can be seen in the chart above, of average daily clearing prices across the quarter.

Statistics

The following table sets out key statistics relating to generation in the quarter and all previous quarters over the last two years. The wholesale and within-day prices shown are averages across the quarter, whilst the system prices are minimum, average and maximum values.

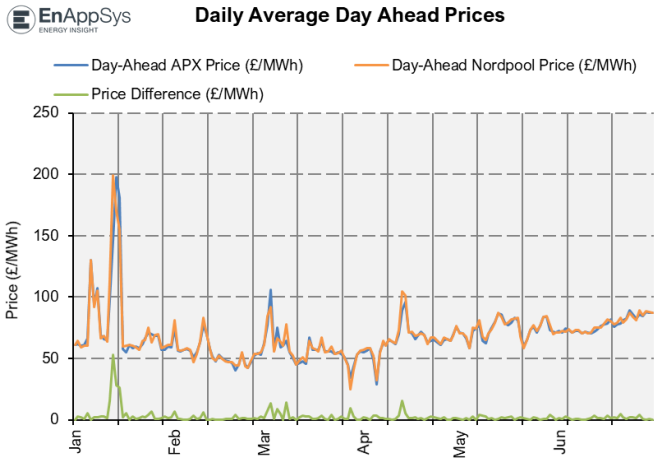


Table 1 Quarterly price summary Q2-2019 to Q2-2021

*GB Only (Excludes Northern Ireland)	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
WHOLESALE PRICES (£/MWh)									
APX Day-Ahead Price	41.18	38.49	40.09	32.70	24.25	36.42	47.51	63.59	72.20
Nordpool Day-Ahead price	41.18	38.49	40.09	32.70	24.25	36.42	47.51	63.32	73.02
Within Day Price (MIDP)	41.00	37.24	38.64	30.95	23.39	35.35	45.46	59.67	71.84
WITHIN DAY PRICE BREAKDOWN (£/MWh)									
Off-Peak Hours	36.54	31.22	31.62	24.42	19.46	28.82	33.52	46.18	62.72
Peak Hours (excl Superpeak)	42.36	39.27	39.83	32.08	24.57	36.78	47.54	58.88	75.05
Superpeak Hours	46.23	43.69	50.39	41.95	28.09	45.14	65.40	93.28	81.17
SYSTEM PRICE (£/MWh)									
Maximum	375.00	120.00	160.00	2242.31	100.00	540.22	849.82	4000.00	1971.59
Average	41.23	36.45	39.86	32.30	24.76	35.54	47.49	61.98	74.85
Minimum	-71.26	-65.93	-88.00	-66.25	-70.49	-60.00	-63.93	-61.00	-59.95

The following table sets out key statistics comparing the quarter with the same quarter in the previous eight years:

Table 2 Year-on-year comparison of Q2 prices

*GB Only (Excludes Northern Ireland)	Q2 2013	Q2 2014	Q2 2015	Q2 2016	Q2 2017	Q2 2018	Q2 2019	Q2 2020	Q2 2021
WHOLESALE PRICES (£/MWh)									
APX Day-Ahead Price	48.93	39.18	41.96	35.06	40.04	52.66	41.18	24.25	72.20
Nordpool Day-Ahead price	48.93	39.18	41.96	35.06	40.04	52.66	41.18	24.25	73.02
Within Day Price (MIDP)	48.98	39.65	40.77	34.01	39.94	51.60	41.00	23.39	71.84
WITHIN DAY PRICE BREAKDOWN (£/MWh)									
Off-Peak Hours	40.17	33.86	34.35	28.59	33.83	46.22	36.54	19.46	62.72
Peak Hours (excl Superpeak)	53.49	42.30	43.61	35.72	41.70	53.32	42.36	24.57	75.05
Superpeak Hours	52.99	43.46	45.33	40.28	47.47	57.74	46.23	28.09	81.17
SYSTEM PRICE (£/MWh)									
Maximum	160.52	152.29	132.90	480.38	1509.80	158.00	375.00	100.00	1971.59
Average	53.24	44.28	45.79	34.58	40.43	50.53	41.23	24.76	74.85
Minimum	24.00	25.06	-2.61	-100.00	-73.15	-92.38	-71.26	-70.49	-59.95

3 System Demand

Total demand (at the transmission system level) across Q2 2021 was 41.0TWh, 25% higher than the 30.6TWh in Q2 last year during lockdown, though 4% lower than Q2 2019. With Covid-19 restrictions easing throughout the quarter, demand has recovered to typical values for this time of year for the first quarter since the start of the pandemic. Demand continues its gradual decrease each year as it did before the pandemic.

Statistics

The following table sets out key statistics relating to generation in the quarter and all previous quarters over the last two years.

MW demand values are averages, whilst TWh demand values are totals across the quarter:

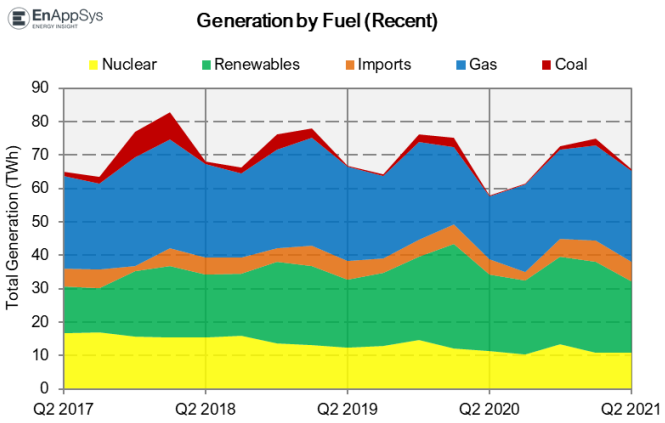
Table 3 Quarterly demand summary Q2-2019 to Q2-2021

*GB Only (Excludes Northern Ireland)	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
Transmission System Demand (MW average)	26,953	25,494	31,896	31,343	22,431	24,380	30,303	31,626	26,323
Demand Incl. Embedded Gen. (MW average)	30,132	28,584	33,989	34,280	26,023	27,443	32,515	34,182	29,716
Transmission System Demand (TWh total)	42.6	38.6	57.4	55.7	30.6	35.5	52.2	56.0	41.0
Demand Incl. Embedded Gen. (TWh total)	58.9	56.3	70.4	67.7	49.0	53.8	66.9	68.3	57.5

Table 4 Year-on-year comparison of Q2 demand

*GB Only (Excludes Northern Ireland)	Q2 2013	Q2 2014	Q2 2015	Q2 2016	Q2 2017	Q2 2018	Q2 2019	Q2 2020	Q2 2021
Transmission System Demand (MW average)	32,519	30,917	29,621	29,117	27,465	27,419	26,953	22,431	26,323
Demand Incl. Embedded Gen. (MW average)	34,695	32,092	31,853	31,790	30,751	30,677	30,132	26,023	29,716
Transmission System Demand (TWh total)	59.1	52.0	49.5	48.5	44.3	44.1	42.6	30.6	41.0
Demand Incl. Embedded Gen. (TWh total)	71.0	67.5	64.7	63.6	60.0	59.9	58.9	49.0	57.5

4 Fuel Activity Overview

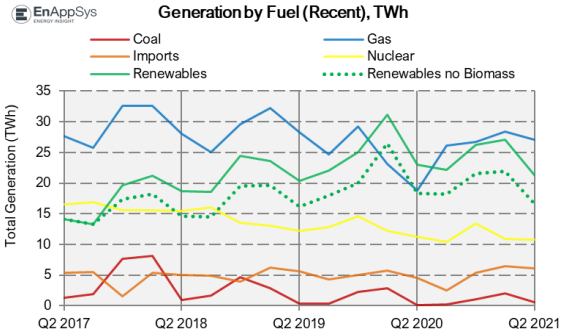


Compared to Q2 last year, generation saw increases from gas (+44%), imports (+33%) and coal (+414%), while decreases came from renewables (-7%) and nuclear (-4%). This is largely due to low levels of wind generation compared to Q2 2020, and a return to normal demand levels following the record low demand seen during Q2 last year due to the covid-19 pandemic, with total generation now at normal levels (57.8TWh in Q2 2020 and 65.8TWh in Q2 2021). In Q2 last year, renewables (including biomass) had been the greatest contributors to total generation of total output as a consequence of favourable weather resulting in 31.2TWh output which, coupled with low demand, resulting in contribution of 41%. This Q2, gas regained the top spot, with 41.2% (27.1TWh) from gas generation versus 32.3% (21.3TWh) from renewables. Despite the change in ranking, as increased demand versus last Q2 required more CCGT generation, this is the second largest proportion from renewables seen in a Q2, the largest being in Q2 2020.

Of the 32.3% renewable contribution, 53.9% was from wind, 21.7% from biomass, 21.3% from solar and 3.1% from hydro.

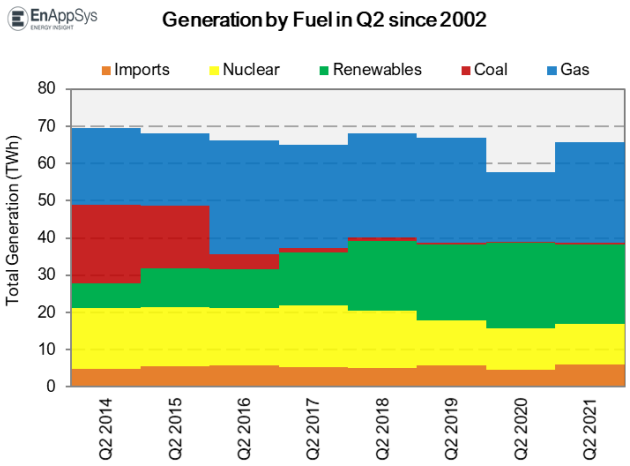
Compared to Q1 2021, decreases in generation were seen in all categories; renewables (21% decrease), gas (5%), imports (5%), nuclear (1%) and coal (73%). These seasonal decreases are expected as transmission system demand saw a decrease of 27% compared to Q1, typical of a Q2. Gas continues to gain a higher share of fossil fuel generation as coal is gradually phased out.

Coal generation has continued its general decline with only a 0.8% share of the fuel mix, the only commercial coal generation coming from West Burton and Ratcliffe-on-Soar. For Drax, its two remaining coal units (Drax 5 and 6) ended their commercial generation at the end of Q1, but they will remain available to meet Capacity Market obligations until September 2022. Despite gradual reduction in coal output as the October 2024 phase out date approaches, combined with the seasonal dip, levels in Q2 (0.55TWh)



were higher than those of Q2 2020 (0.11TWh) and Q2 2019 (0.36TWh). Most of this activity was from Ratcliffe 1, 2, 3 and 4, which were utilised more than in historical Q2s, with some brief activity from West Burton 4.

Nuclear generation has also seen a Q2-on-Q2 decline since Q2 2017. This means there has been a steady reduction in low-C power from this source. The main reason for the reduction from last Q2 is that Sizewell B1 and B2, Hunterston Generator 8 and Heysham 2-7 were offline for long periods in Q2 2021. The closure of Dungeness B1 and B2 (T_DNGB21 and T_DNGB22), which have been out of operation since Q3 2018, was announced by EDF Energy on the 7th of June.



The tight system in the quarter meant that **imports were required more than they had been in Q2 last year**, when higher wind meant the system was less tight. Imports accounted for 6.09TWh this quarter, up from 4.59TWh in Q2 2020. In addition, as a proportion of the total generation, imports accounted for 9.3% of generation in the quarter, up from to 7.9% in Q2 last year.

Statistics

The following table sets out key statistics relating to generation in the quarter and all previous quarters over the last two years:

Table 5 Quarterly generation summary (TWh)

*GB Only (Excludes Northern Ireland)	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
TOTAL GENERATION BY FUEL (TWh)									
Coal	0.36	0.41	2.32	2.92	0.11	0.27	1.06	2.05	0.55
Gas	28.27	24.66	29.26	23.15	18.85	26.18	26.67	28.42	27.10
Imports	5.67	4.33	5.02	5.80	4.59	2.51	5.40	6.44	6.09
Nuclear	12.27	12.77	14.61	12.17	11.22	10.43	13.43	10.85	10.79
Renewables (Biomass, Wind, Solar & Hydro)	20.35	22.01	25.06	31.17	23.00	22.14	26.21	27.10	21.29
FOSSIL FUELS	28.63	25.07	31.57	26.07	18.96	26.44	27.72	30.46	27.65
TOTAL	**66.91**	**64.18**	**76.26**	**75.21**	**57.76**	**61.52**	**72.76**	**74.85**	**65.82**
Fossil Fuel Percentage	43%	39%	41%	35%	33%	43%	38%	41%	42%
Clean Percentage (Renewable & Nuclear)	49%	54%	52%	58%	59%	53%	54%	51%	49%
Renewable Share of Clean Power	62%	63%	63%	72%	67%	68%	66%	71%	66%
SHARE OF GENERATION (%)									
Coal	0.5%	0.6%	3.0%	3.9%	0.2%	0.4%	1.5%	2.7%	0.8%
Gas	42.3%	38.4%	38.4%	30.8%	32.6%	42.5%	36.7%	38.0%	41.2%
Imports	8.5%	6.8%	6.6%	7.7%	7.9%	4.1%	7.4%	8.6%	9.3%
Nuclear	18.3%	19.9%	19.2%	16.2%	19.4%	16.9%	18.5%	14.5%	16.4%
Renewables (Biomass, Wind, Solar & Hydro)	30.4%	34.3%	32.9%	41.4%	39.8%	36.0%	36.0%	36.2%	32.3%

Table 6 Quarterly generation summary (Average GW)

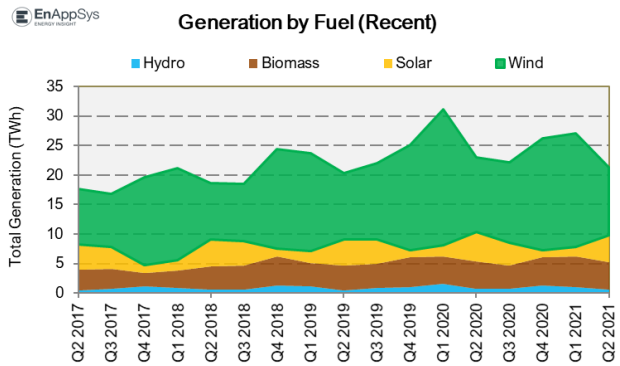
*GB Only (Excludes Northern Ireland)	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
AVERAGE GENERATION BY FUEL (GW)									
Coal	0.2	0.2	1.0	1.4	0.0	0.1	0.5	0.9	0.3
Gas	12.9	11.2	13.2	10.7	8.6	11.9	12.1	13.2	12.4
Imports	2.6	2.0	2.3	2.7	2.1	1.1	2.4	3.0	2.8
Nuclear	5.6	5.8	6.6	5.6	5.1	4.7	6.1	5.0	4.9
Renewables (Biomass, Wind, Solar & Hydro)	7.4	8.1	9.1	12.3	8.4	8.3	9.7	10.2	7.6
FOSSIL FUELS	13.1	11.4	14.3	12.1	8.7	12.0	12.6	14.1	12.7
TOTAL	**28.7**	**27.2**	**32.3**	**32.6**	**24.3**	**26.1**	**30.8**	**32.3**	**28.0**

The following table sets out key statistics comparing the quarter with the same quarter in the previous eight years:

Table 7 Year-on-year comparison of Q2 generation output (TWh and %)

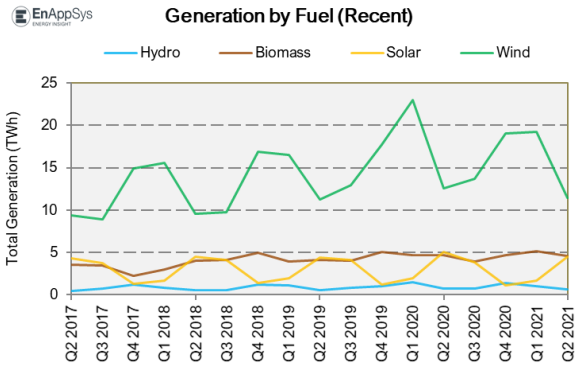
*GB Only (Excludes Northern Ireland)	Q2 2013	Q2 2014	Q2 2015	Q2 2016	Q2 2017	Q2 2018	Q2 2019	Q2 2020	Q2 2021
TOTAL GENERATION BY FUEL (TWh)									
Coal	27.88	21.11	16.60	4.05	1.30	0.92	0.36	0.11	0.55
Gas	20.49	20.67	19.63	30.58	27.65	27.99	28.27	18.85	27.10
Imports	3.20	4.78	5.48	5.67	5.40	5.06	5.67	4.59	6.09
Nuclear	14.55	16.30	15.81	15.57	16.59	15.48	12.27	11.22	10.79
Renewables (Biomass, Wind, Solar & Hydro)	10.95	8.56	12.78	14.22	17.61	18.66	20.35	23.00	21.29
FOSSIL FUELS	48.38	41.77	36.22	34.63	28.95	28.91	28.63	18.96	27.65
TOTAL	**77.07**	**71.41**	**70.30**	**70.09**	**68.55**	**68.11**	**66.91**	**57.76**	**65.82**
Fossil Fuel Percentage	63%	58%	52%	49%	42%	42%	43%	33%	42%
Clean Percentage	33%	35%	41%	43%	50%	50%	49%	59%	49%
Renewable Share of Clean Power	14%	12%	18%	20%	26%	27%	30%	40%	32%
SHARE OF GENERATION (%)									
Coal	36.2%	29.6%	23.6%	5.8%	1.9%	1.3%	0.5%	0.2%	0.8%
Gas	26.6%	28.9%	27.9%	43.6%	40.3%	41.1%	42.3%	32.6%	41.2%
Imports	4.1%	6.7%	7.8%	8.1%	7.9%	7.4%	8.5%	7.9%	9.3%
Nuclear	18.9%	22.8%	22.5%	22.2%	24.2%	22.7%	18.3%	19.4%	16.4%
Renewables (Biomass, Wind, Solar & Hydro)	14.2%	12.0%	18.2%	20.3%	25.7%	27.4%	30.4%	39.8%	32.3%

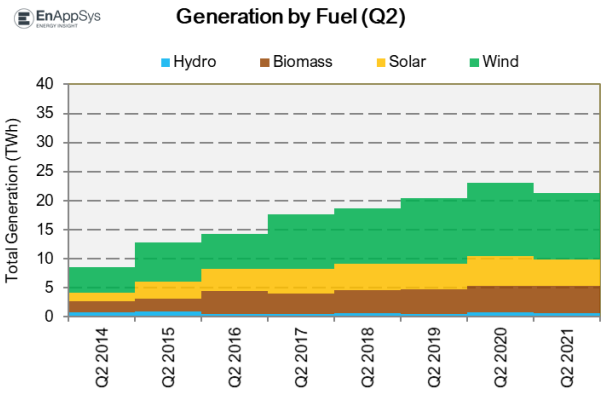
5 Renewables



As installed capacity increases, there is an underlying trend for renewable generation output to increase relative to the corresponding quarters in prior years. However, this Q2 2021 saw wind generation decrease from the Q2 2020 level – the first time such a trend has been seen since the reduction seen from 2015 to 2016, after its lowest quarterly generation since Q2 2019 at 11.48TWh. Despite this, wind comprised the largest share of renewable generation in the quarter at 53.9% with 21.7% coming from biomass, 21.3% from solar and 3.1% from hydro.

Combined renewable generation was down 21% from Q1 and down 7% from Q2 2020 to 21.29TWh. Decreases compared to Q2 2020 generation were seen in solar (by 11% to 4.53TWh), wind (by 9% to 11.48TWh) and hydro (by 7% to 0.65TWh), with biomass decreasing by less than 1% to 4.63TWh.

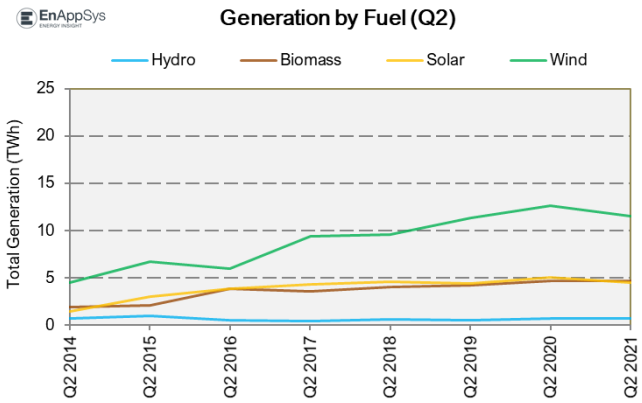




This higher renewable generation contributed to higher embedded generation than Q2 2020, which can be seen in section 2 (Demand and Prices). In Q1, solar installed capacity reached 14GW for the first time, but generally less favourable weather led to lower average solar in Q2 2021 compared to Q2 2020.

Peak solar generation was 9.5GW in Q2 2021, whereas it reached 9.6GW in Q2 2020. June 2021 saw higher average solar generation than June 2020, but April and May 2021 saw lower generation on average than in 2020. Biomass generation surpassed that of solar for the first time in a Q2 since 2016.

Despite the low levels of renewables this quarter, as more renewable capacity, particularly wind, continues to be built, we expect to see record levels of generation continue to be broken in the future and renewables taking a larger share of the fuel mix.



Statistics

The following table sets out key statistics relating to renewable electricity output during the quarter and all previous quarters over the last two years:

Table 8 Quarterly renewable generation TWh and %

*GB Only (Excludes Northern Ireland)	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
TOTAL GENERATION BY FUEL (TWh)									
Biomass	4.17	4.02	5.03	4.71	4.65	3.89	4.69	5.16	4.63
Hydro	0.52	0.87	1.06	1.52	0.70	0.72	1.36	0.99	0.65
Solar	4.37	4.15	1.22	1.95	5.06	3.86	1.16	1.69	4.53
Wind	11.28	12.97	17.74	23.00	12.59	13.68	19.01	19.25	11.48
TOTAL RENEWABLES	**20.35**	**22.01**	**25.06**	**31.17**	**23.00**	**22.14**	**26.21**	**27.10**	**21.29**
SHARE OF RENEWABLE GENERATION (%)									
Biomass	20.5%	18.3%	20.1%	15.1%	20.2%	17.6%	17.9%	19.1%	21.7%
Hydro	2.6%	4.0%	4.2%	4.9%	3.0%	3.3%	5.2%	3.7%	3.1%
Solar	21.5%	18.8%	4.9%	6.2%	22.0%	17.4%	4.4%	6.2%	21.3%
Wind	55.5%	58.9%	70.8%	73.8%	54.8%	61.8%	72.5%	71.0%	53.9%
SHARE OF TOTAL GENERATION (%)									
Biomass	6.2%	6.3%	6.6%	6.3%	8.0%	6.3%	6.4%	6.9%	7.0%
Hydro	0.8%	1.4%	1.4%	2.0%	1.2%	1.2%	1.9%	1.3%	1.0%
Solar	6.5%	6.5%	1.6%	2.6%	8.8%	6.3%	1.6%	2.3%	6.9%
Wind	16.9%	20.2%	23.3%	30.6%	21.8%	22.2%	26.1%	25.7%	17.4%

The following table compares this Q2 with Q2 data from the last eight years:

Table 9 Year-on-year comparison of Q2 renewable output TWh and %

*GB Only (Excludes Northern Ireland)	Q2 2013	Q2 2014	Q2 2015	Q2 2016	Q2 2017	Q2 2018	Q2 2019	Q2 2020	Q2 2021
TOTAL GENERATION BY FUEL (TWh)									
Biomass	3.41	1.93	2.12	3.87	3.52	4.02	4.17	4.65	4.63
Hydro	1.05	0.71	0.93	0.53	0.44	0.56	0.52	0.70	0.65
Solar	0.85	1.45	3.03	3.84	4.29	4.54	4.37	5.06	4.53
Wind	5.64	4.47	6.70	5.98	9.36	9.54	11.28	12.59	11.48
TOTAL RENEWABLES	**10.95**	**8.56**	**12.78**	**14.22**	**17.61**	**18.66**	**20.35**	**23.00**	**21.29**
SHARE OF RENEWABLE GENERATION (%)									
Biomass	31.2%	22.6%	16.6%	27.2%	20.0%	21.5%	20.5%	20.2%	21.7%
Hydro	9.6%	8.3%	7.3%	3.7%	2.5%	3.0%	2.6%	3.0%	3.1%
Solar	7.7%	16.9%	23.7%	27.0%	24.4%	24.3%	21.5%	22.0%	21.3%
Wind	51.5%	52.2%	52.4%	42.1%	53.1%	51.1%	55.5%	54.8%	53.9%
SHARE OF TOTAL GENERATION (%)									
Biomass	4.4%	2.7%	3.0%	5.5%	5.1%	5.9%	6.2%	8.0%	7.0%
Hydro	1.4%	1.0%	1.3%	0.8%	0.6%	0.8%	0.8%	1.2%	1.0%
Solar	1.1%	2.0%	4.3%	5.5%	6.3%	6.7%	6.5%	8.8%	6.9%
Wind	7.3%	6.3%	9.5%	8.5%	13.6%	14.0%	16.9%	21.8%	17.4%

6 Notes on the Report

The figures used in the report refer to GB only, against BEIS figures that refer to GB and Northern Ireland. This selection has been made since Northern Ireland is separate from GB and is more closely linked to the electricity grid of the Republic of Ireland.

Generation levels by fuel from 2009 are based upon National Grid FUELHH data, which give the operationally metered totals by fuel, down to a 5-minute resolution.

Prior to 2009, individual plant data has been aggregated from our databased matching of National Grid fuel-type relationships.

To account for embedded wind and solar, the National Grid forecasts for these generators have been used as if they were output figures. Embedded hydro and biomass have been accounted for using analysis of Ofgem data on certificate awards.

Within this report, levels of offshore wind have not been separated from the wind total. This is because this can only be reliably done using metered volumes at a generating unit level. This is not a publicly available data stream and figures can only be estimated and not distributed. Final Physical Notifications (FPNs) at wind farms do not correlate well with metered volumes and so cannot be used reliably.

Price and demand data primarily come from Elexon (as does the FUELHH data), with the exception of the APX day-ahead prices.

Availability levels are calculated by totalling levels of recorded availability at all plants in the market.

Next to providing a pan-European energy data platform, flexible configurable screens and automated data feeds, EnAppSys offers consultancy services and incredibly detailed market insights for companies in the energy industry.

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