

Section 4 - Gas

Key results show:

The most notable development this quarter relates to trade. Following near record pipeline imports at the start of the year due to the cold weather, imports have fallen 11 per cent on last year in Q2. Exports remained low in Q2 following low levels in Q1, and were down by one-half on 2017 at the lowest volume for Q2 in the last 20 years. **(Chart 4.4)**. The quarter also saw the continued contraction of Liquefied Natural Gas (LNG) imports on last year's volumes, down 41 per cent **(Chart 4.5)**.

UK production of natural gas in Q2 2018 was 6.7 per cent lower in comparison to the same quarter last year, as a result of robust volumes last year. Within this, production of associated gas was 14 per cent lower whilst dry gas production was 38 per cent higher **(Charts 4.1 & 4.2)**.

Demand for natural gas in Q2 2018 fell by 2.7 per cent compared to last year, to 170 TWh **(Chart 4.6)**.

Demand for gas for electricity generation fell by 0.5 per cent in comparison to the same quarter last year, in line with a reduction in electricity demand (see Chapter 5 for more details). **(Chart 4.6)**.

Similarly final consumption was down 3.9 per cent, with domestic use and other final users down 6.7 and 1.9 per cent respectively, driven by warmer weather in Q2 2018 when compared with the same period last year **(Chart 4.6)**.

Relevant table

4.1: Natural gas supply and consumption

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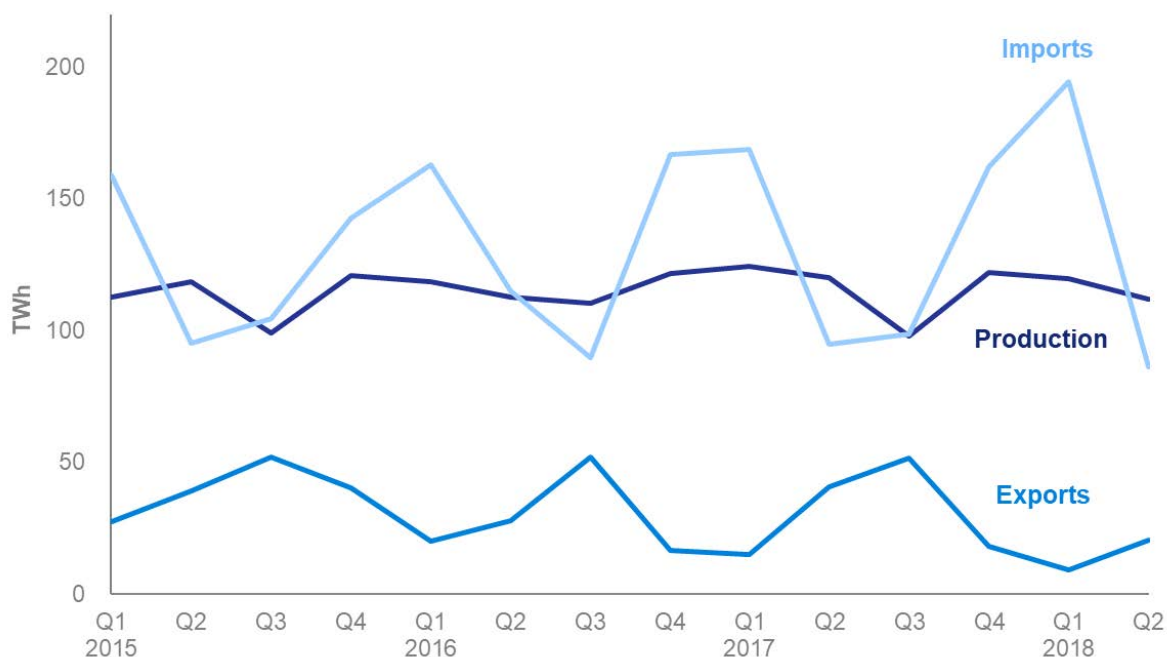
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Gas

Chart 4.1 Production and imports and exports of natural gas (Table 4.1)



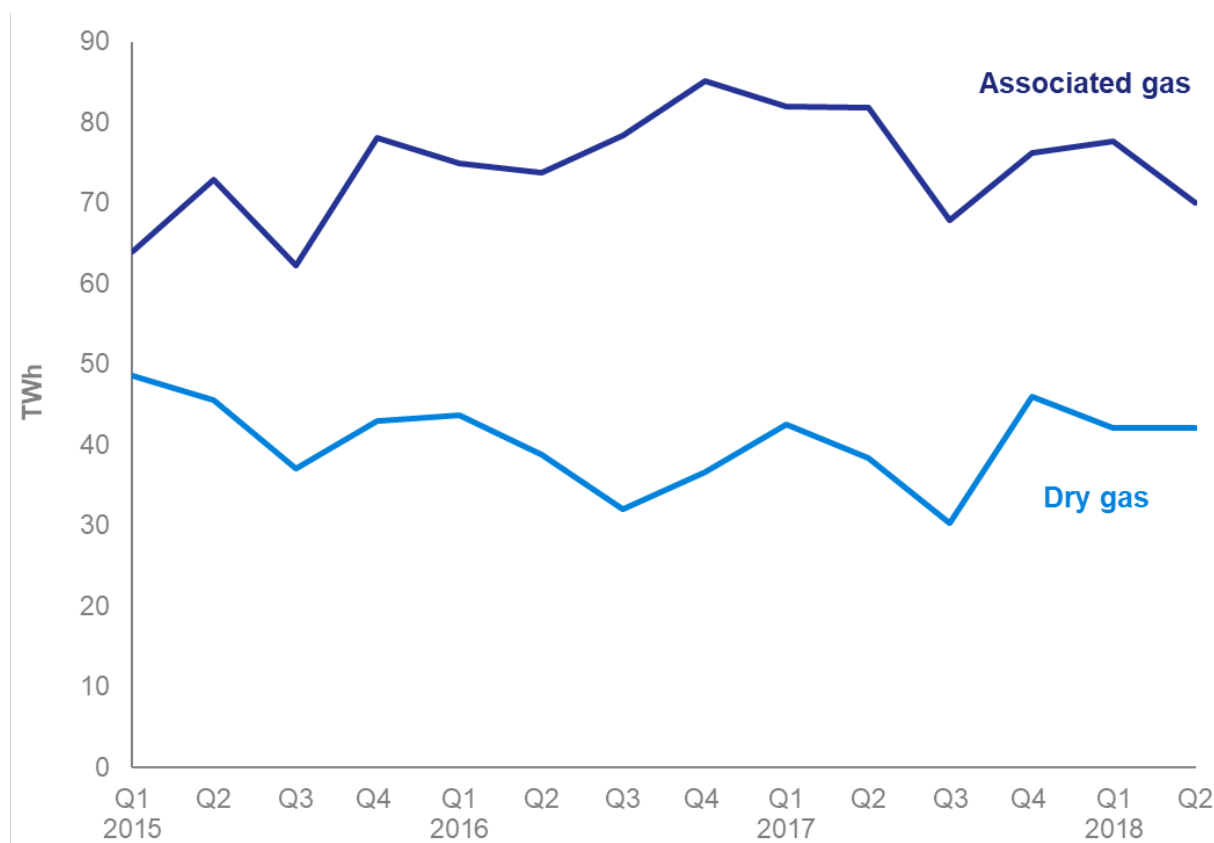
Following near record pipeline imports at the start of the year due to the cold weather, imports in Q2 2018 were down 11 per cent on the same quarter in 2017 and were driven by a 41 per cent decrease in LNG imports, particularly a fall of nearly two-third in imports of LNG from Qatar.

The UK imports natural gas primarily from Norway (predominantly via the Langeled, Tampen Link and Gjoa/Vega pipelines). Smaller volumes are imported from Belgium (via the UK-Belgium Interconnector) and the Netherlands (via the Balgzand to Bacton line). See Map 4.1 for an illustration of trade flows.

The UK exports natural gas primarily to Belgium (over 70 per cent of total exports in 2017) and Ireland (15 per cent of total exports in 2017). Following record low exports in Q1 2018 during a period of high demand due to the cold weather, exports in Q2 were roughly half of last year and the lowest Q2 figure since 1999.

Within the overall decrease, exports to Belgium were down more than 60 per cent, and to the Netherlands by nearly a half. Conversely, exports to Ireland were up by around three-quarters following depressed exports this time last year. Figures have been affected by closures at some facilities.

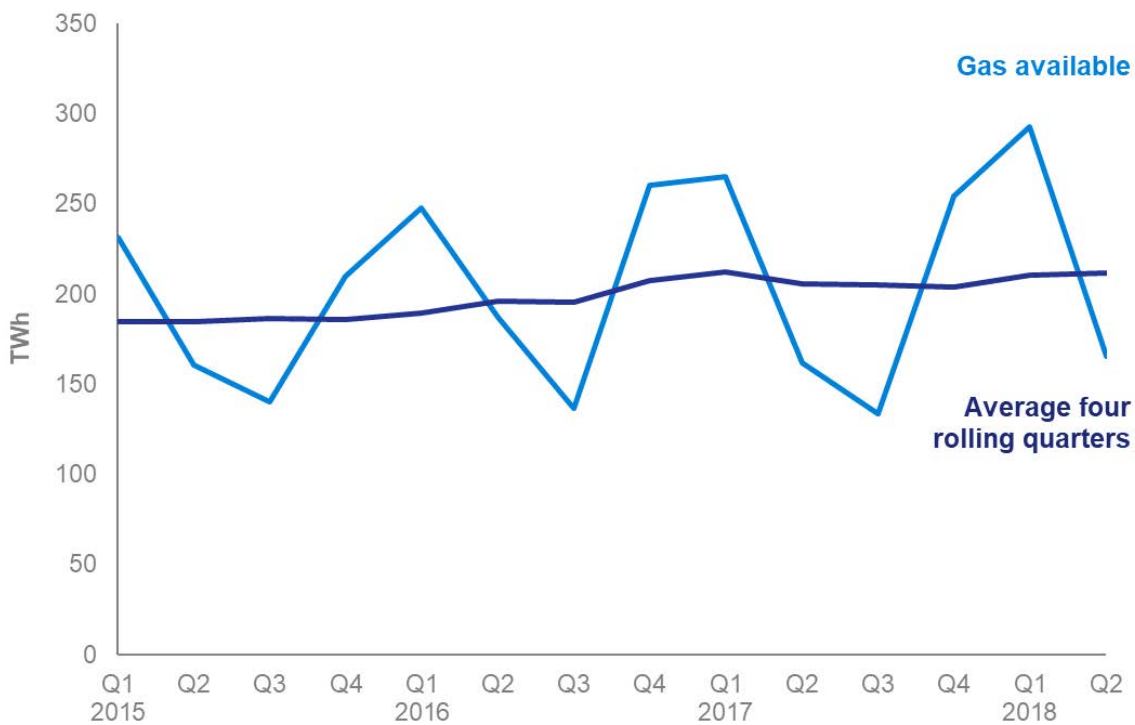
Gross production of natural gas was down by 6.7 per cent in Q2 2018, predominantly due to robust production this time last year. Current volumes are less than 40 per cent of the average quarterly production in 2000 when gas production peaked. The extraction of cushion gas from the Rough storage facility continues to feed into production figures.

Chart 4.2 Production of dry gas and associated gas (not shown in published tables)

Production of associated gas (natural gas produced from oil fields) in Q2 2018 was down 14 per cent compared to the same quarter last year, from 82 to 70 TWh. In comparison dry gas production (natural gas composed mainly of methane) increased by 38 per cent in Q2 2018 on last year, partly because extraction of the cushion gas from Rough had not yet started this time last year.

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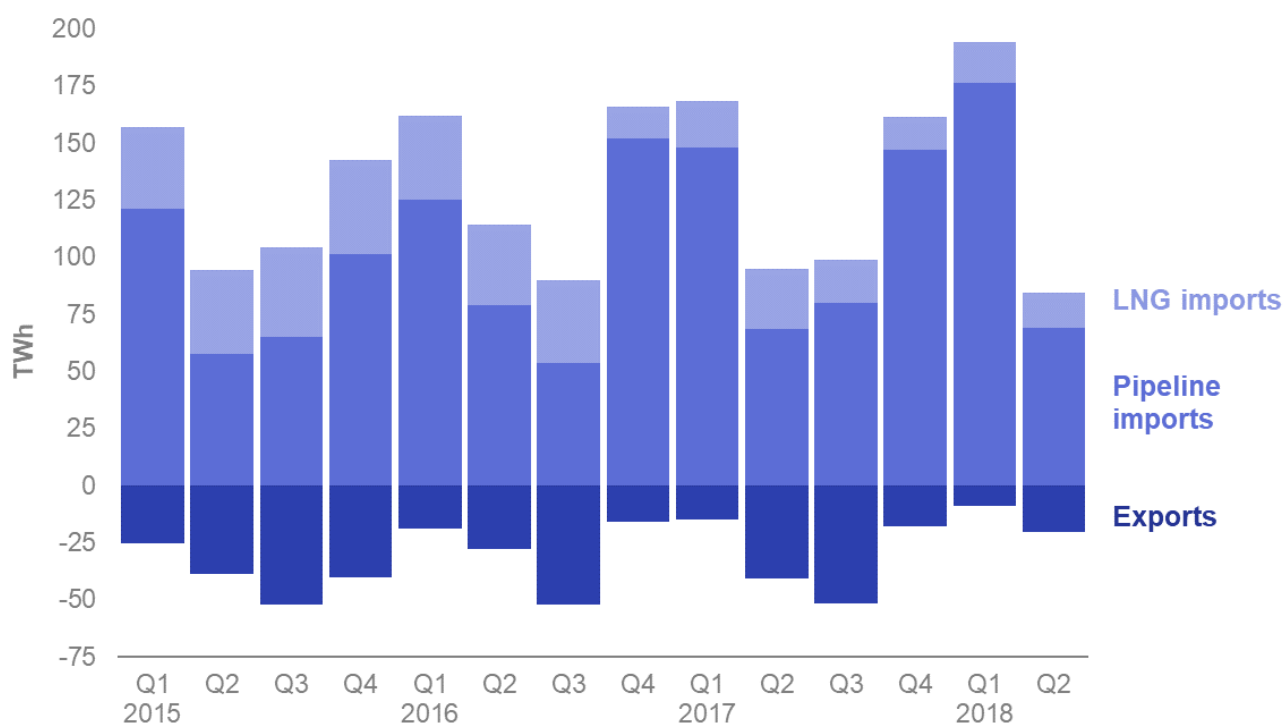
Chart 4.3 Gas availability (Table 4.2)



Gas available at terminals is roughly equal to gross gas production minus producers' own use, plus net imports.

Gas availability is seasonal, and peaks during Q1 and Q4 each year. Gas availability in Q2 2018 increased by 1.3 per cent compared to Q2 2017 to 164 TWh and was driven by the large decrease in exports.

The long-term picture shows that the average availability over four rolling quarters had remained fairly constant since the start of 2012 before increasing slightly since the start of 2015.

Chart 4.4 Import and exports (Table 4.3 and Table 4.4)

Net Imports during Q2 2018 were up by 18 per cent in comparison to the same quarter in 2017, driven by the lower export figure. Lower exports were partially a result of lower production and the closure of the Belgian interconnector for three weeks during Q2 2018.

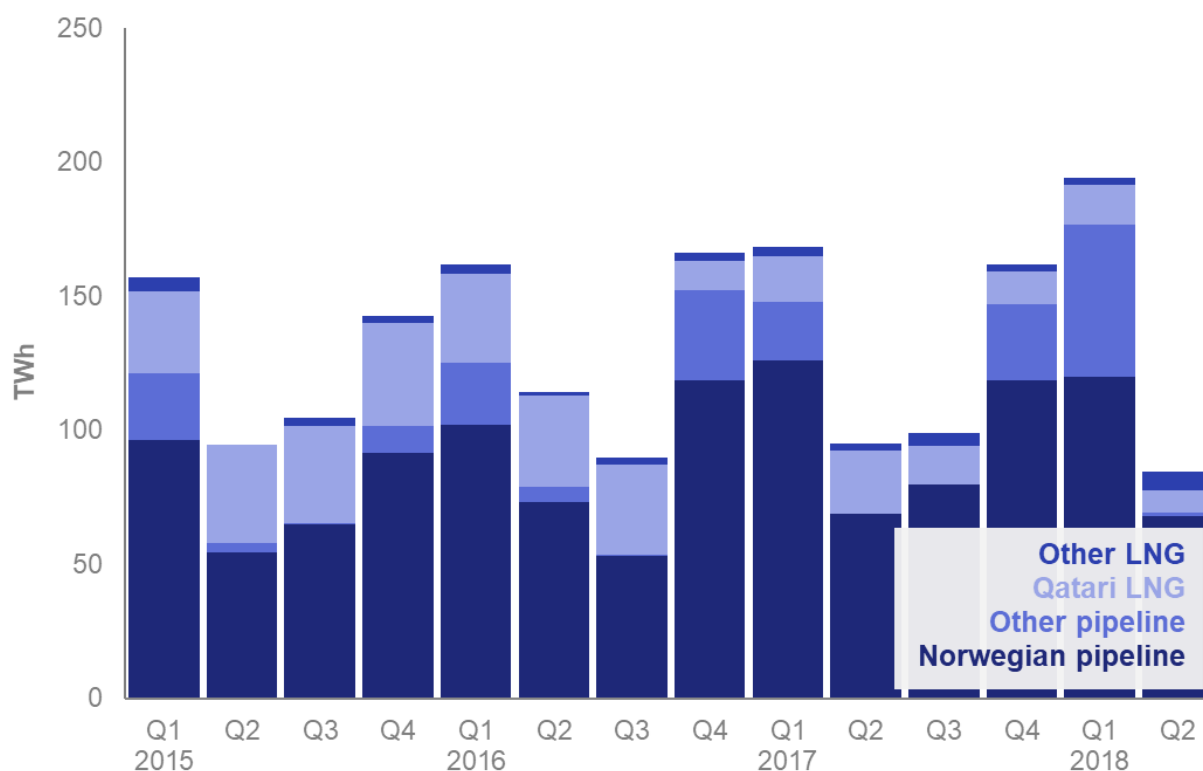
As noted in Chart 4.1, the UK imports natural gas primarily from Norway (predominantly via the Langeled, Tampen Link and Gjoa/Vega pipelines). Smaller volumes are imported from Belgium (via the UK-Belgium Interconnector) and the Netherlands (via the Balgzand to Bacton line).

Pipeline imports were stable, up just 0.4 per cent, with overall imports from Norway down 1.4 per cent and increases in imports from Belgium and the Netherlands (around 500 GWh and 700 GWh respectively). Conversely, imports of LNG decreased by 41 per cent, meaning LNG only accounted for 18 per cent of total imports compared to 27 per cent in the same quarter last year.

Exports decreased by just under 50 per cent over the same timeframe, driven by exports to Belgium and the Netherlands falling by 62 per cent and 45 per cent respectively as the flow of the pipelines was reversed to supply imports to the UK, and due to closure of the Belgian interconnector.

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Chart 4.5 Imports by origin (Table 4.4)

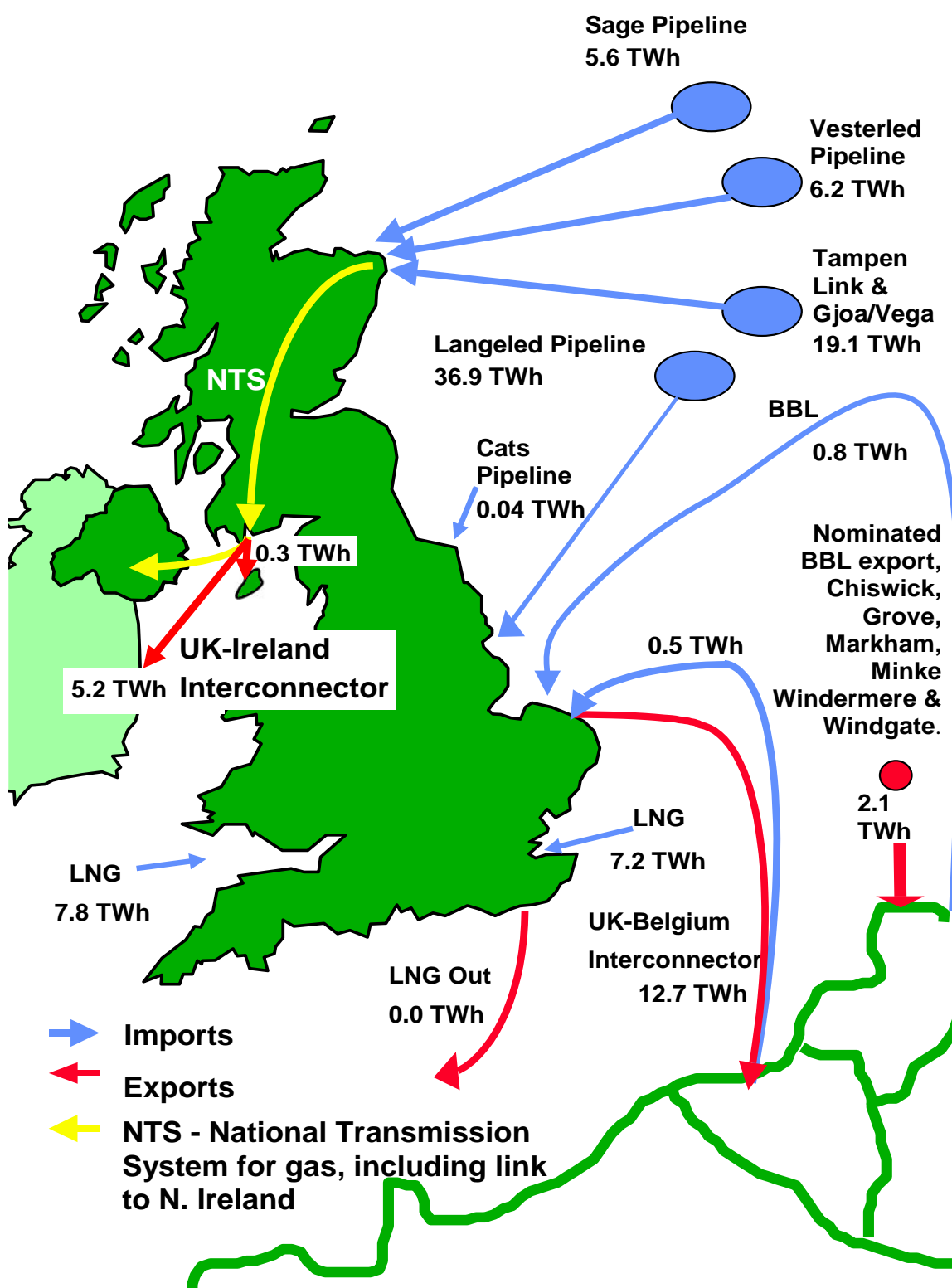


Overall imports in Q2 2018 fell by 11 per cent compared to last year, driven by a fall in imports of LNG. Imports of LNG decreased by 41 per cent, meaning LNG only accounted for 18 per cent of total imports compared to 27 per cent in the same quarter last year. The majority of LNG imports are sourced from Qatar and these fell by nearly two-thirds meaning that Qatari LNG accounted for only 57 per cent of LNG imports in Q2 2018 compared to over 90 per cent in Q2 2017. Imports from Trinidad and Tobago were up by more than a third, and shipments were also received from the US and Russia. Imports of LNG from Russia accounted for 3.2 per cent of total imports, and 1.7 per cent of total supply to the UK in Q2 2018.

Pipeline imports were stable, up just 0.4 per cent on last year, with imports from Norway down 1.4 per cent with small additional volumes from Belgium and the Netherlands mitigating this.

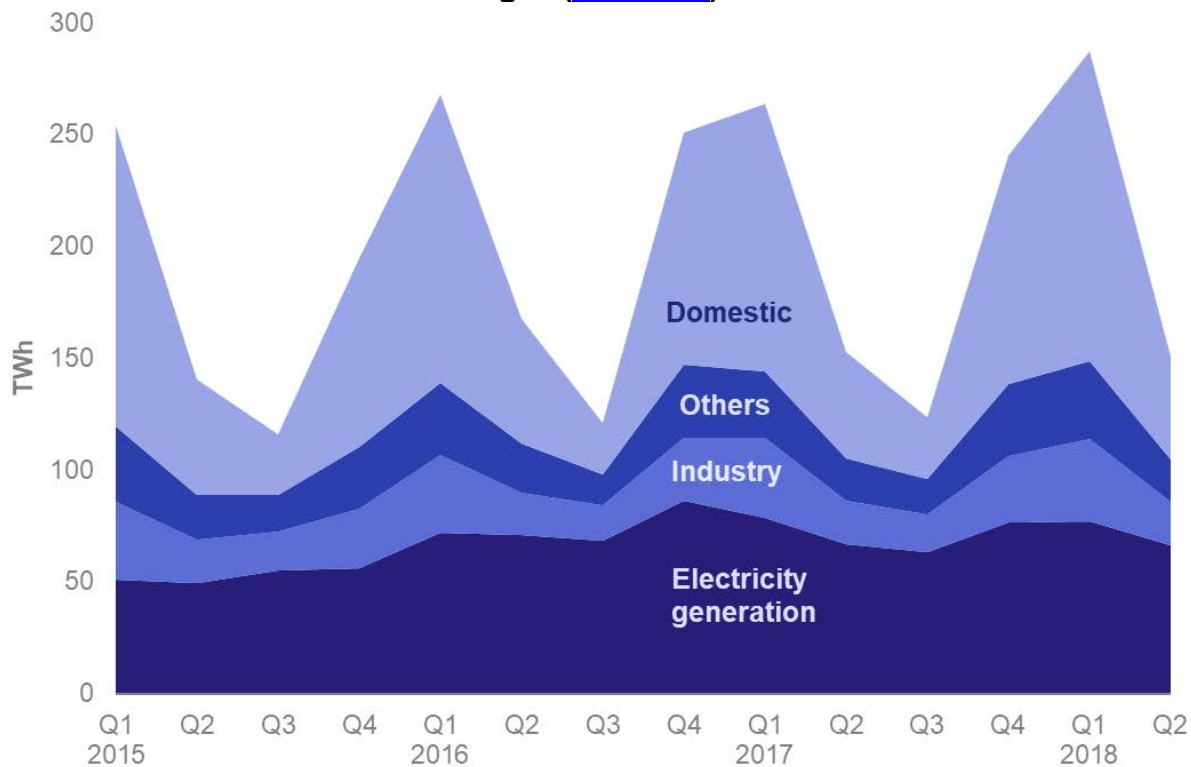
A complete country breakdown for physical pipeline and LNG imports is provided in Energy Trends Table 4.4 - *Supplementary information on the origin of UK gas imports.*

Map 4.1: UK imports and exports of gas Q2 2018



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Chart 4.6 UK demand for natural gas (Table 4.1)



UK demand for natural gas in Q2 2018 was down 2.7 per cent in comparison to Q2 2017 (to 170 TWh).

Demand for gas for electricity generation was stable, down just 0.5 per cent in line with a fall in electricity generation and robust production from renewables (see Chapter 5 for more details).

Similarly final consumption was down 3.9 per cent, with domestic use and other final users down 6.7 and 1.9 per cent respectively, driven by warmer weather in Q2 2018 when compared with the same period last year.

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Table 4.1. Natural gas supply and consumption

	GWh												
	2016	2017	<i>per cent change</i>	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter	2017 2nd quarter	2017 3rd quarter	2017 4th quarter	2018 1st quarter	2018 2nd quarter p	<i>per cent change¹</i>
SUPPLY													
Indigenous production	463,364	464,929	+0.3	112,599	110,387	121,740	124,552	120,091	98,110	122,175	119,707r	112,083	-6.7
Imports	534,740	524,890	-1.8	114,908	89,950	166,923	168,861	94,995	98,857	162,177	194,527	84,832	-10.7
<i>of which LNG</i>	122,310	80,144	-34.5	35,591	36,351	13,863	20,477	26,008	18,876	14,783	17,618r	15,240	-41.4
Exports	116,862	125,629	+7.5	27,979	51,985	16,735	15,062	40,777	51,590	18,200	9,056	20,681	-49.3
Stock change ²	16,242	11,955		-9,551	-6,797	901	12,725	947	-1,004	-713	7,586r	-5,778	(-)
Transfers ³	1,575	2,603		345	457	535	562	631	681	729	708r	750	+18.8
Total supply	899,058	878,747	-2.3	190,322	142,013	273,363	291,638	175,888	145,054	266,167	313,471r	171,206	-2.7
Statistical difference	-2,576	3,917		397	-498	-1,189	1,458	745	374	1,341	590r	738	
Total demand	901,635	874,829	-3.0	189,925	142,511	274,552	290,180	175,143	144,680	264,827	312,880r	170,467	-2.7
TRANSFORMATION													
Electricity generation	297,643	285,550	-4.1	71,180	68,295	86,314	78,642	66,659	63,487	76,761	77,132r	66,333	-0.5
Heat generation ⁴	29,404	30,090	+2.3	6,621	5,556	8,212	9,117	6,603	5,907	8,463	9,117	6,603	-
Energy industry use	57,589	57,024	-1.0	14,051	13,867	13,703	15,183	14,390	13,526	13,925	14,304r	13,531	-6.0
Losses	7,139	6,744	-5.5	1,760	1,901	1,750	1,934	1,464	1,552	1,794	1,968r	1,329	-9.2
FINAL CONSUMPTION													
Iron & steel	4,084	3,854	-5.6	972	955	1,014	1,174	989	866	826	1,063r	925	-6.4
Other industries	93,661	97,055	+3.6	17,919	14,928	26,922	34,450	18,508	15,632	28,465	35,529r	18,746	+1.3
Domestic	311,375	297,035	-4.6	55,589	23,098	103,797	119,678	47,624	27,599	102,135	139,074r	44,425	-6.7
Other final users	95,631	92,522	-3.3	20,555	12,634	31,564	28,763	17,668	14,872	31,219	33,455r	17,337	-1.9
Non energy use ⁴	5,109	4,956	-3.0	1,277	1,277	1,277	1,239	1,239	1,239	1,239	1,239	1,239	-

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Stock change + = stock draw, - = stock build.

3. Natural gas used in the manufacture of synthetic coke oven gas and biomethane injections into the grid from installations certified under the Renewable Heat Incentive (RHI).

4. For heat generation and non energy use, the 2018 figures currently shown are the 2017 figures carried forward - these will be updated in June 2019.