

Section 4 - Gas

Key results show:

Provisional 2018

In 2018 gross gas production decreased by 3.1 per cent compared to last year, opposing the year-on-year increases since 2013. However, the longer-term trend has been one of decline since the peak in 2000. **(Chart 4.1)**

In 2018, imports of natural gas were down by 2.0 per cent, with LNG imports increasing by 7.3 per cent. In contrast, exports decreased by a third this year to their lowest level since 1998. This decrease drove the 7.9 per cent increase in net imports over the past 12 months. **(Chart 4.4)**

Overall gas demand in 2018 was stable on last year, but this contained a decrease of 4.7 per cent for generation (due to the continued uptake in low carbon sources displacing gas generation) and an increase of 3.1 per cent in final consumption. A large component of this latter increase is demand for heat generation during the 'Beast from the East' in Q1 2018. **(Chart 4.6)**

Quarter 4 2018

UK production in Q4 2018 was down by 5.1 per cent **(Chart 4.1)**. Production of associated gas increased by 5.9 per cent whilst dry gas production was 23 per cent higher than Q4 2017. **(Chart 4.2)**

Exports in Q4 2018 were down by nearly half at record low levels in Q4 for the series at 9.6 TWh. Imports of Liquefied Natural Gas (LNG) nearly trebled resulting from low demand in Asia. Overall imports decreased by 5.9 per cent, partly due to the sharp decline in pipeline imports from Belgium, which were just 2.7 per cent of levels last year. **(Chart 4.4)**

Across Q4 2018, UK demand for natural gas was down 4.5 per cent in comparison to Q4 2017, to 253 TWh. This is attributed to a fall in demand for electricity generation by 10 per cent and the 3.2 per cent decrease in final consumption in comparison to the same quarter last year. **(Chart 4.6)**

Relevant table

[4.1: Natural gas supply and consumption](#)

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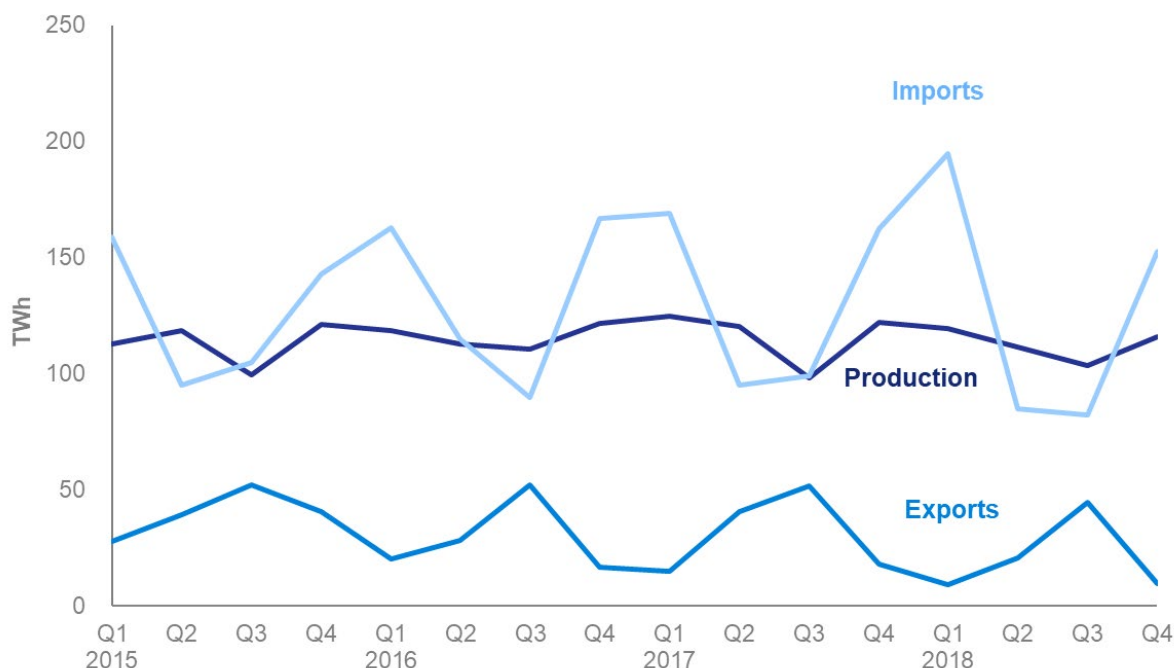
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Chart 4.1 Production and imports and exports of natural gas (Table 4.1)



Exports in 2018 decreased by one-third to the lowest level since 1998 when only a small proportion of gas was exported from the UK, and this was only the third time since 2000 that the UK exported less than 100 TWh of gas. Low levels of exports were primarily because exports to Belgium dropped by nearly one-half and exports to the Netherlands fell by a third; these pipelines were used for import flows during the cold weather at the start of the year. Additionally, the long-term capacity contract for the UK-Belgium interconnector ended at the start of October 2018, which led to substantially decreased exports in the final quarter of 2018.

Production of natural gas in 2018 decreased by 3.1 per cent compared with 2017. This opposes the increase in year on year production seen since 2013 and has been driven by the closure of the Theddlethorpe dry gas terminal in August 2018. Imports in 2018 were down by 2.0 per cent on the year before.

A sharp increase in LNG imports in Q4 2018 drove an increase over the year – Q4 saw the highest quarterly total for LNG imports since 2014 and the volume was treble that of Q4 2017. A combination of the Asian market buying Qatari LNG on the forward market, increased shipping costs and new projects coming online through 2018 have meant that we have seen increased volumes arriving in the UK from the US and Russia, thereby benefitting the UK from a more diversified supply portfolio.

Imports in Q4 2018 decreased by 5.9 per cent on the same quarter of 2017. In contrast, exports in Q4 2018 were down by nearly half at record low levels in Q4 for the series at 9.6 TWh, due to the Bacton Zeebrugge Interconnector long term capacity contract terminating in October. For more detail on trade, see Chart 4.4.

Indigenous production of natural gas in Q4 2018 was down by 5.1 per cent, attributed to the closure of the Theddlethorpe terminal as well as comparatively lower levels of production through October and November 2018 after robust levels in the same months of 2017.

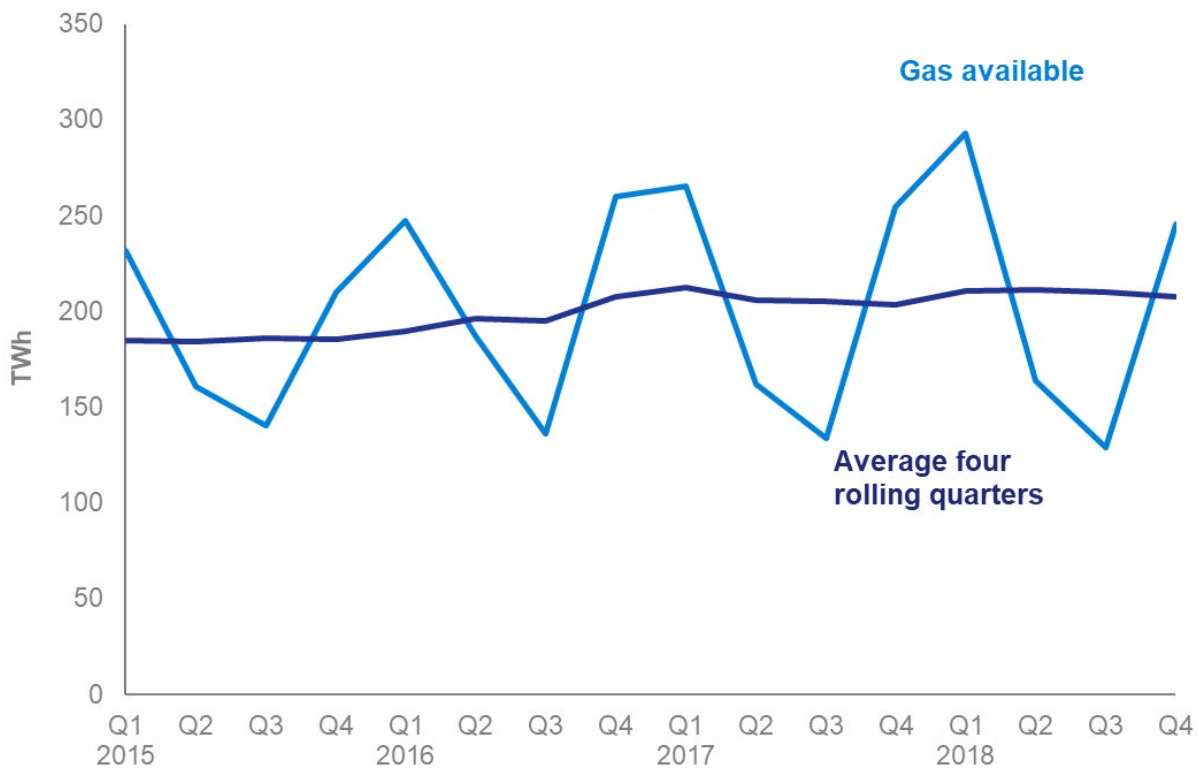
Chart 4.2 Production of dry gas and associated gas (not shown in published tables)

Production of associated gas (natural gas produced from oil fields) in 2018 was down by 2.3 per cent compared to 2017. However, in Q4 2018 associated gas production increased by 5.9 per cent on Q4 2017, from 76 TWh to 81 TWh.

Q4 2018 dry gas production (natural gas composed mainly of methane) decreased by 23 per cent to 35 TWh. 2018 annual dry gas production follows the same trend, decreasing by 2.6 per cent compared to 2017.

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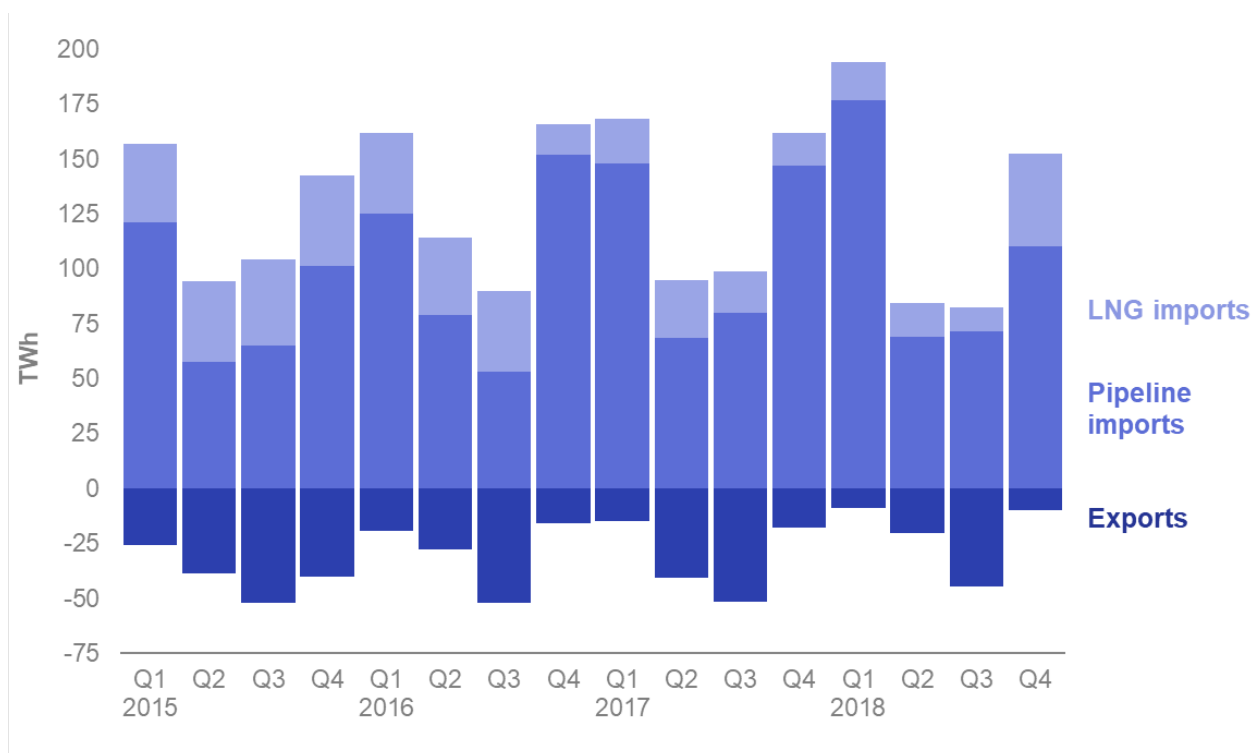
Chart 4.3 Gas availability (Table 4.2)



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

Gas availability reflects gas demand and is therefore seasonal, peaking during Q1 and Q4 each year. Compared to the same quarter in 2018, gas availability in Q4 2018 decreased by 3.4 per cent to 246 TWh.

The average availability of gas over four rolling quarters has been gradually rising since the start of 2015, reaching volumes close to 2012/13 levels in 2018.

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

In 2018, imports of natural gas were down by 2.0 per cent whilst exports decreased by a third, driving the 7.9 per cent increase in net imports over the past 12 months.

Pipeline imports were down by 3.6 per cent in 2018. In contrast, LNG imports increased by 7.3 per cent, accounting for 17 per cent of the UK's total imports.

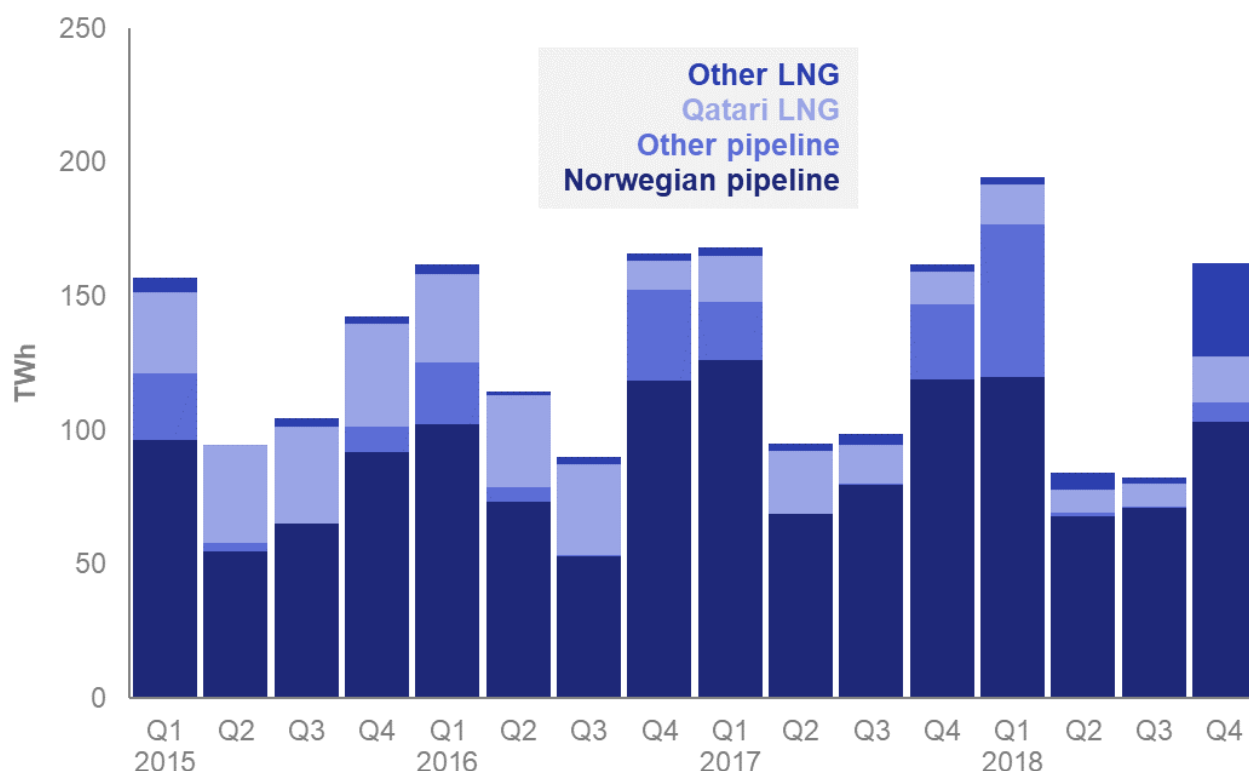
The decrease in exports to 83 TWh in 2018 was caused by a substantial contraction in exports to Belgium (down 44 per cent) and a smaller contraction in exports to the Netherlands. Despite this, Belgium remains the largest export market for UK gas, comprising 59 per cent of total gas exports.

Compared to the same quarter of last year, Q4 2018 pipeline imports were down by 25 per cent driven by virtual cessation of imports from Belgium. Meanwhile, imports of LNG nearly trebled as a result of low demand in Asia (due to high stocks and milder winter temperatures) causing a steep downward trend on LNG prices globally. However, Q4 2018 total imports decreased by 5.9 per cent to 153 TWh compared to the same quarter in 2017.

When compared with last year, exports decreased by nearly half to a near record low, due to the Bacton Zeebrugge Interconnector long term capacity contract terminating at the beginning of the October.

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Chart 4.5 Imports by origin (Table 4.4)



As noted in Map 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).

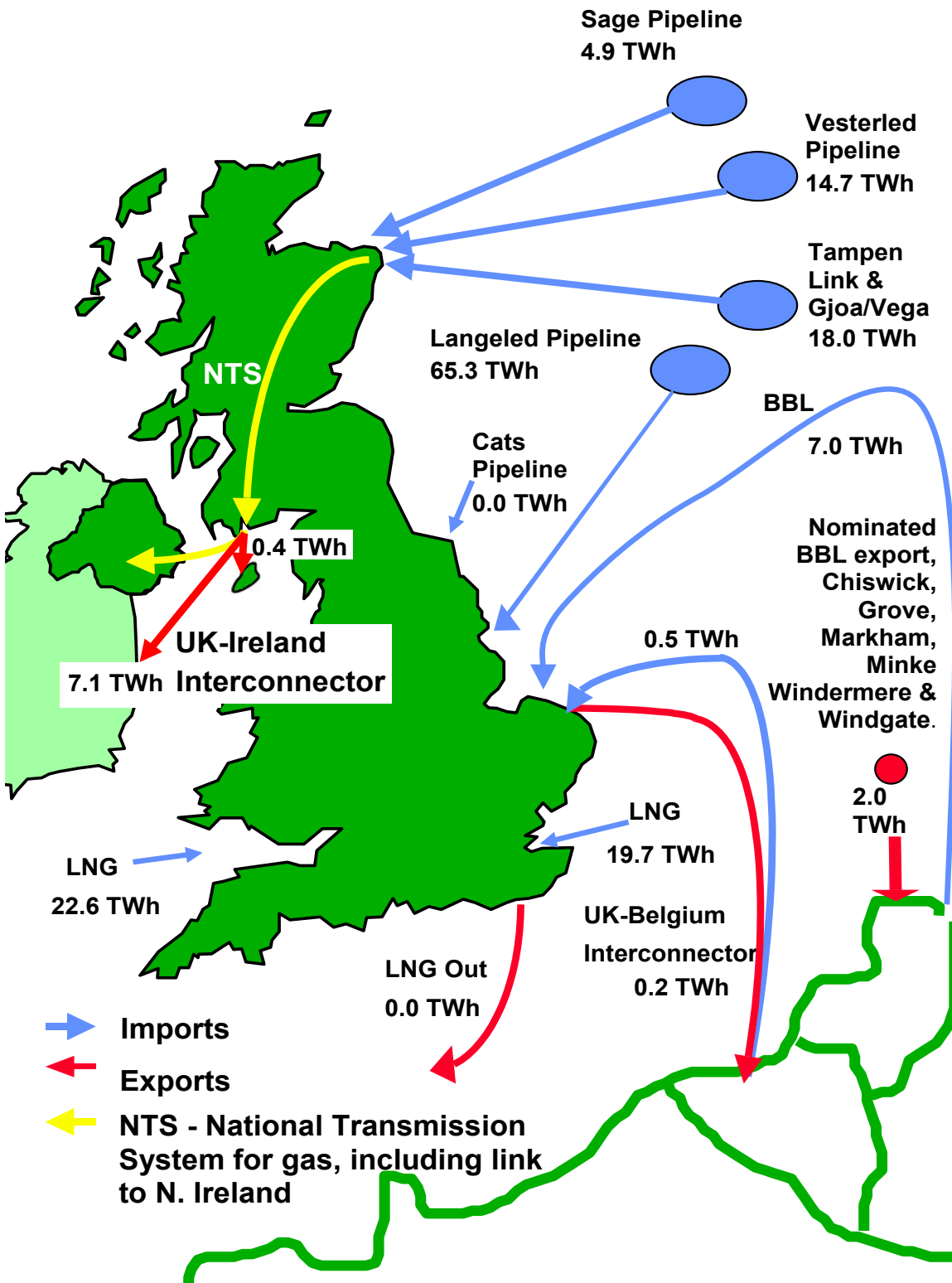
In 2018, Norway remained the principal source of UK gas imports at 70 per cent, although down from 75 per cent in 2017. After a significant contraction in the amount of LNG imported into the UK in 2017, imports of LNG rose by 7.3 per cent in 2018. Qatari imports fell by more than thirty per cent as the mix of LNG sources continued to diversify, although they remain the largest supplier at 55 per cent.

Most notably in Q4 2018, LNG imports nearly trebled compared with Q4 2017, due to decreased demand from Asia, supply from new projects including in the US and Russia, and low demand in 2017. Like last year, Qatar remains the biggest importer although this December was the first month since March 2009 that Qatar was not the main source of LNG, with Russia being the principal source of LNG in that month. Overall, the market has grown in diversity this quarter with five countries supplying more than 5 per cent of total LNG including Russia, Trinidad and the USA.

Compared to the same quarter last year, there has been a decrease in imports through six of the seven pipelines that bring gas to the UK in Q4 2018. Pipeline imports from Norway were down by 13 per cent, although varying by pipeline. Despite this, Norway remains the major supplier of gas to the UK, with Norwegian pipeline and LNG imports together making up 68 per cent of all Q4 2018 imports. Meanwhile, in Q4 2018, imports from Belgium decreased to 2.7 per cent of levels last year due to the Bacton Zeebrugge Interconnector long term capacity contract terminating at the beginning of October.

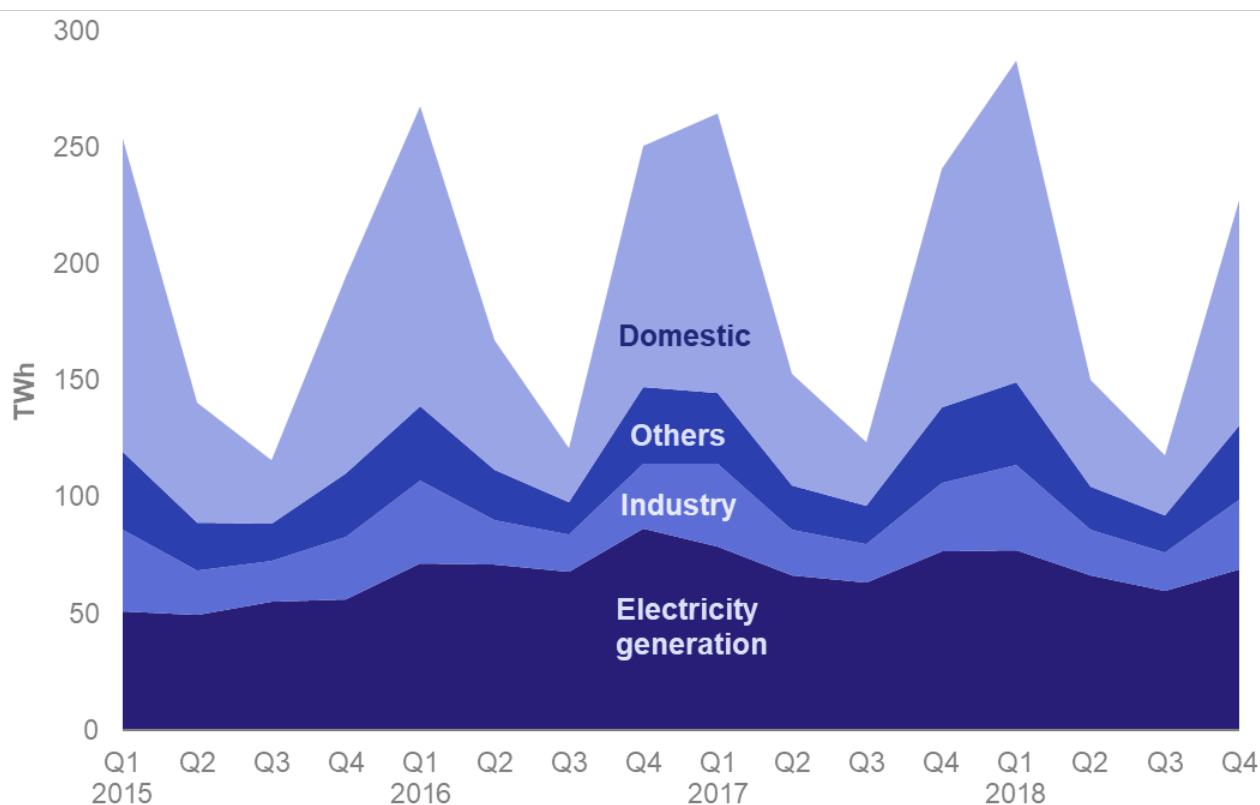
A complete country breakdown for physical pipeline and LNG imports is provided in Energy Trends Table 4.4 - [Supplementary information on the origin of UK gas imports](#).

Map 4.1: UK imports and exports of gas Q4 2018



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Chart 4.6 UK demand for natural gas (Table 4.1)



In 2018, the UK's overall gas demand was stable on the year before but contained interesting variations within that. Demand for final consumption increased by 3.1 per cent, with domestic and other final users up 3.2 and 3.9 per cent respectively. Domestic demand was influenced by particularly cold weather and subsequent high demand in Q1 2018 as a result of Anticyclone Hartmut (or the 'Beast from the East'), which was partially offset by lower demand later in the year.

In contrast, demand for gas used for electricity generation in 2018 follows the year-on-year decrease by 4.7 per cent due to the continued uptake in low carbon electricity sources such as renewables and nuclear.

Across Q4 2018, UK demand for natural gas was down 4.5 per cent in comparison to Q4 2017, to 253 TWh. The principal cause was the decrease in demand for gas used for electricity generation, which fell by 10 per cent.

Similarly, final consumption of gas decreased by 3.2 per cent with domestic use and other final users down by 5.0 per cent and 2.6 per cent respectively, driven by the fewer heating degree days in this period compared with Q4 2017.

A complete breakdown for gas demand is provided in Energy Trends table 4.1 - [Natural gas supply and consumption](#).