Section 4 – UK Gas
April to June 2020

Key results show:

The most notable development this quarter relates to demand in the wake of the Covid-19 pandemic. UK demand for natural gas in Q2 2020 dropped off sharply, by 16 per cent, to just 155 TWh. This was a Q2 record low. Gas demand is typically associated with temperatures because of it is mainly used for heating. However, in Q2 2020 demand was impacted by the Covid-19 pandemic as well as reduced demand for generation (Chart 4.6):

- Demand in the industrial sector and by other final users was down by 19 per cent and 11 per cent, respectively, caused by the lockdown restrictions.
- Demand for generation was down by 27 per cent to just 49 TWh, a record low for Q2 of any year and the second lowest volume in the series as electricity from renewable sources in Q2 2020 was the second highest on record.
- Warmer temperatures in Q2 2020 compared with 2019 meant there was less demand for heating. Domestic demand was down by 11 per cent, a smaller decrease than expected given temperatures but this is likely related to the increased time that people have spent at home this year compared to normal.

Following a near halving of pipeline imports in Q2 2020, Qatar became the main source of imported gas, with a share of more than 50 per cent of total imports. Overall Liquified Natural Gas (LNG) comprised 65 per cent of total imports, beating the record of 62 per cent previously set in 2011 (Chart 4.5).

Production was up by 9.7 per cent despite reduced demand because planned maintenance was postponed ensuring there was minimal manning at terminals to aid with social distancing during the Covid-19 pandemic (Chart 4.1).

Relevant table

4.1: Natural gas supply and consumption

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Production of natural gas in the second quarter of 2020 was up by 9.7 per cent compared with the same quarter of 2019 as terminals suspended maintenance which usually happens at this time of year. Works have been suspended to keep minimal manning at terminals to aid with social distancing during the Covid-19 pandemic.

Current volumes of production are less than 64 per cent of the average quarterly production in 2000 when gas production peaked and follows the general annual trend of decline.

Imports in Q2 2020 decreased substantially on 2019, by more than one-fifth, to 95 TWh as demand fell in the wake of the Covid-19 pandemic restrictions. The fall in imports outstripped the 9.0 per cent fall in exports, meaning that net imports were down by nearly 30 per cent (on a nominated flow basis1).

For more detail on trade, see Charts 4.4 and 4.5.

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1 Nominated flows include some trade with Belgium whereby gas has been traded between companies, but then ‘sold back’ before the gas has been physically transferred. Table 4.3 shows physical flows.
Production of associated gas (natural gas produced from oil fields) in Q2 2020 was up by 17 per cent compared to the same quarter last year, from 76 to 84 TWh.

In comparison, dry gas production (natural gas composed mainly of methane) decreased by 8.1 per cent, from 34 to 31 TWh.
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, associated with the colder temperatures over the winter months because of its predominant use for heating. However, in Q2 2020 demand was also heavily impacted by the lockdown restrictions in place in the UK, announced on 23rd March, in response to the Covid-19 pandemic.

Gas availability in the second quarter of 2020, at 161 TWh, was down by 8.4 per cent on Q2 2019. This was the result of the fall in net imports, a response to the sharp contraction in demand in the industrial and commercial sectors during the months of April and May 2020 (see Chart 4.6).

The average availability of gas over four rolling quarters was lower than the average for Q2 2020 because of the impact of Covid-19 restrictions on demand.
Map 4.1 shows the flows of gas between the UK and the continent, as well as imports into the three Liquefied Natural Gas (LNG) terminals. The UK typically imports natural gas primarily from Norway (predominantly via the SAGE, FLAGS and Vesterled pipelines). Smaller volumes are imported from Belgium (via the UK-Belgium Interconnector) and the Netherlands (via the Balgzand to Bacton line).

However, in Q2 2020 pipeline imports fell by nearly half, particularly because flows via Langeled fell by 60 per cent. At 17 TWh, this was the lowest quarterly figure for Q2 in any year since the pipeline began operation in 2006. This reduction in Norwegian imports is attributable to maintenance works that have been taking place on that infrastructure.

The diversification of the global Liquefied Natural Gas (LNG) market and established import infrastructure in the UK meant that the shortfall in supply via pipelines could be met by LNG imports. While total imports in Q2 2020 were down by 23 per cent, imports of LNG were up by 8.4 per cent. The share of total imports met by LNG notably comprised 65 per cent of the total, beating the prior record of 62 per cent set in 2011 (see Table 4.4 for further detail on import sources).

Imports of LNG from Qatar exceeded imports from Norway for the third time ever, following only the notably cold winter of 2010-2011 and the impact of the Fukushima disaster on global LNG markets in 2014.

Total exports in Q2 2020 fell by 8.0 per cent, driven by reduced flows to Belgium despite increases to both Ireland and the Netherlands. As a result, net imports were down by 29 per cent.

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2 The export total in Tables 4.3 only includes gas that has physically flowed through pipeline border points and is lower compared to the nominated flows in Tables 4.1 and 4.2.
Chart 4.5 Imports by origin (Table 4.4)

Following the decrease in pipeline imports in Q2 2020, Qatar became the main source of imported gas for the third time on record.

In Q2 2020, the UK imported 48 TWh from Qatar (51 per cent of total imports) compared to just 33 TWh from Norway (35 per cent of total imports).

LNG from Qatar was roughly 80 per cent of all LNG imports with other cargoes arriving from the USA, Russia and Trinidad & Tobago, among others.

Overall, LNG comprised 65 per cent of total imports, beating the record of 62 per cent previously set in 2011.

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 physical imports and exports of gas Q2 2020
UK demand for natural gas in Q2 2020 dropped off sharply, by 16 per cent, to just 155 TWh. This was a record low in Q2. Gas demand is typically associated with temperatures because of its predominant use for heating. However, in Q2 2020 demand was also heavily impacted by the Covid-19 pandemic as well as near record generation from renewable sources:

**Impact of Covid-19 pandemic**
Demand in the industrial sector and by other final users was down by 19 per cent and 11 per cent, respectively, caused by the lockdown restrictions in place in the UK during April and continuing into May in response to the Covid-19 pandemic. This markedly affected hospitality and catering, which are sectors that are typically heavy gas consumers.

**Reduced demand for generation**
Demand for generation was down by 27 per cent to just 49 TWh, a record low for Q2 of any year and the second lowest volume in the series. Generation from fossil fuels has been on a downward path and electricity from renewable sources in Q2 2020 was the second highest on record after Quarter 1 2020, and the second consecutive quarter in which more electricity was generated from renewable sources than from fossil fuels.

**Increased temperatures**
Warmer temperatures in Q2 2020 compared with 2019 meant there was less demand for heating. Domestic demand was down by 11 per cent. The reduction is smaller than may have been anticipated given temperatures but is likely related to the increased time that people have spent at home during lockdown compared to normal.

A complete breakdown for gas demand is provided in Energy Trends table 4.1 - Natural gas supply and consumption.