

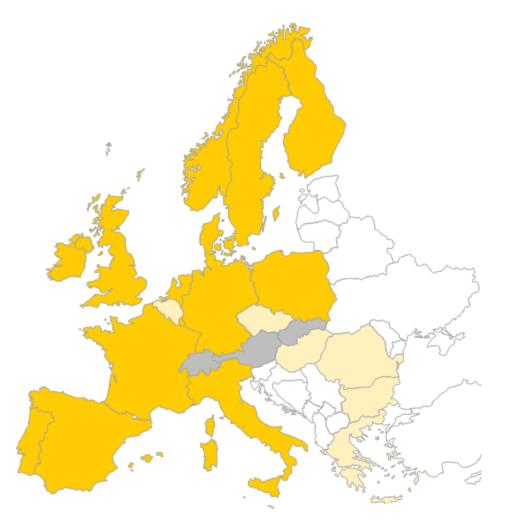
North West Europe Gas Market Review

January 2021



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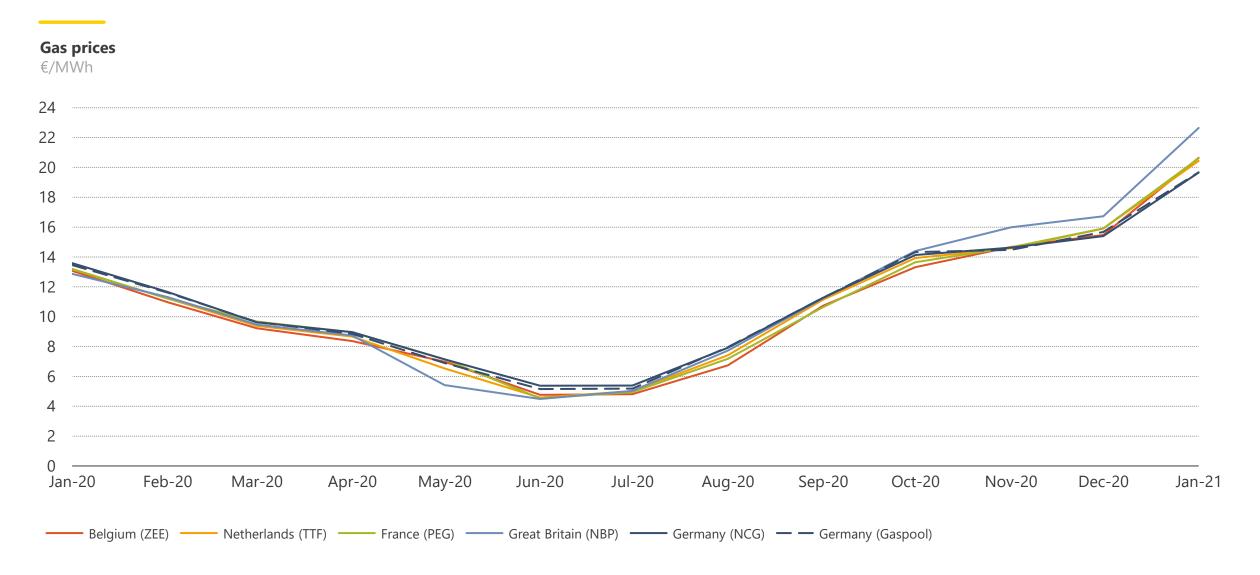


Executive Summary

- 1. Gas prices: Average gas prices in Northwest Europe rose by 30% m-o-m in January, to €20.6/MWh due to a supply crunch amid increased demand from heating and power. High Asian LNG spot prices led to LNG cargoes being diverted to Asia, which resulted in the supply tightness in the European gas markets. The NBP spot traded 12% (or €2.4/MWh) higher than the prices in Continental Europe due to lower-than-usual indigenous production putting further upward pressure on prices. See <u>slides 4-5</u>
- **2. Consumption:** Total gas consumption in NW Europe was broadly flat with January 2020 at 32bcm. Decreased gas demand in Germany (-2.8bcm) is offset by increased gas demand outside Germany. **See** <u>slides 6-7</u>
- **3. Supply:** Storage withdrawals increased by 5.0bcm y-o-y, contributing almost a third of the European supply mix at the expense of LNG, which decreased by 3.7bcm across the same time period. Pipeline imports from Norway and Russia rose by 1.8bcm, accounting for a combined 50% share of the total supply, helping offset declines in indigenous production (-1.0bcm) and LNG imports (-3.7bcm). **See slides 8-11**
- **4. Indigenous production:** Dutch production was down 13% y-o-y but was up 15% m-o-m in response to increased gas demand. Despite higher demand than in December, GB production fell by 7% m-o-m due to unplanned production constraints in the UK Continental Shelf (e.g., Barrow North and Bacton). **See <u>slides 12-13</u>**
- **5. Pipeline imports:** Total pipeline imports rose by 10% versus the prior year, primarily due to 1.5bcm higher flow from Russia. Driven by increased demand and high prices, Russia increased gas exports to Europe via all the major routes. **See** <u>slide 14</u>
- **6. LNG:** Total LNG send-out from NW European LNG regasification terminals was 72% lower y-o-y due to the tight LNG supply. This led to the terminal utilisation rate across the country was lower than the 12-month average. **See slides 15-16**
- **7. Storage:** Storage withdrawals were up 67% y-o-y as the main contributor to meeting marginal demand in NW Europe. Storage inventory levels fell to the trailing 5-year minimum. However, there remain vast differences between countries. Inventories in GB and Belgium remained below 10 days of demand, whilst French, German and Dutch storages had at least 30 days of demand. **See <u>slides 17-20</u>**

North West European gas price development

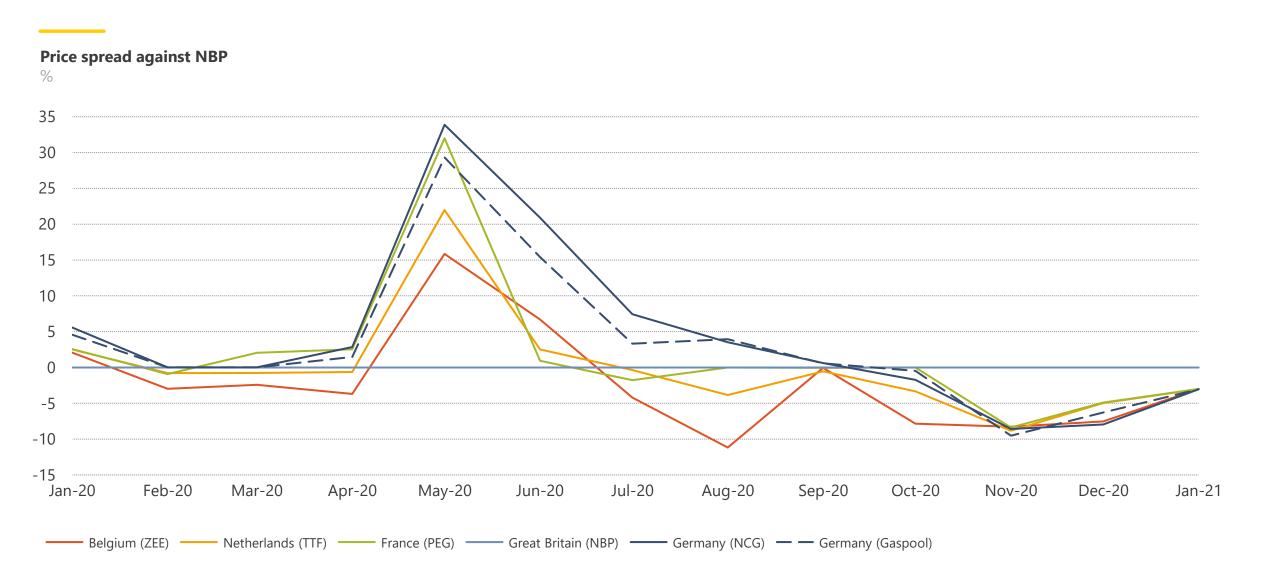




¹⁾ Monthly prices are the averages prices of each month's daily prices. Prices are converted in € using the monthly averages of the daily exchange rates.

% Price spreads against NBP





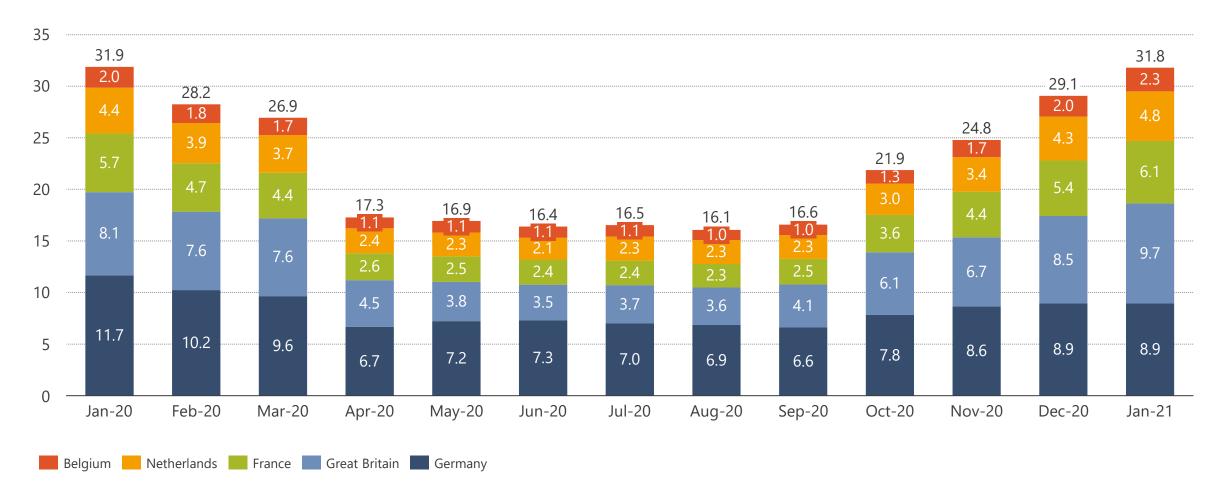
¹⁾ Using the monthly averages prices of daily prices and the monthly averages of daily exchange rates.

North West Europe monthly consumption¹



NW Europe consumption

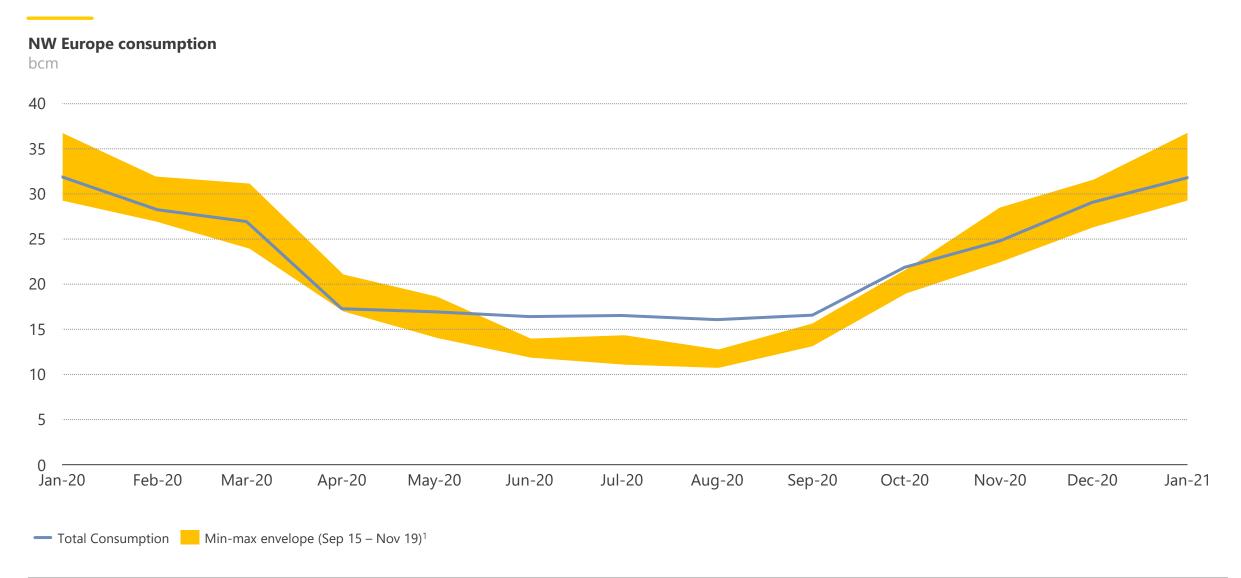
bcm



¹⁾ Consumption excludes demand from interconnectors.

North West Europe consumption in min-max envelope





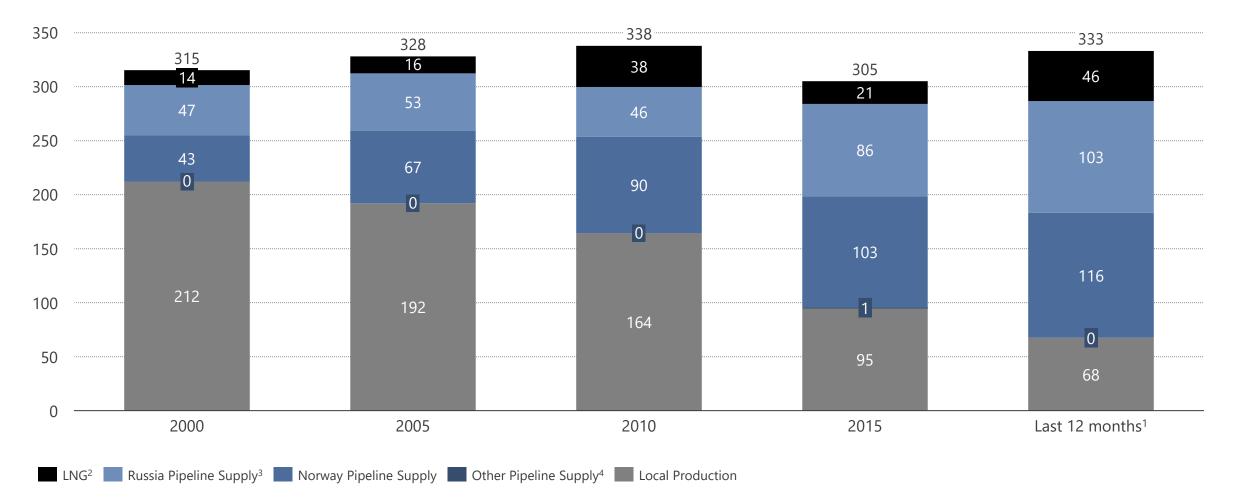
¹⁾ Envelopes are calculated by taking the maximum and minimum monthly values since September 2015.

North West Europe annual gas supply







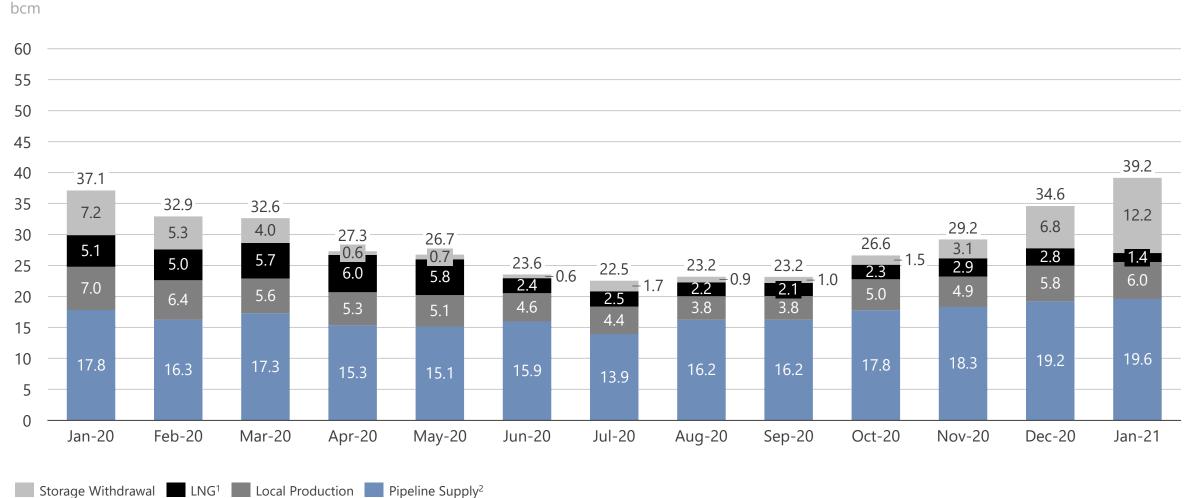


¹⁾ Year-to-date corresponds to the last 12 months. Previous years are calendar years. 2) LNG reflects regasification send-out to the high pressure network. 3) Russia pipeline supply includes pipe imports via Poland, Czech Republic, and Austria. 4. Other pipeline supply includes Denmark, Spain and Switzerland.

North West Europe monthly gross gas supply



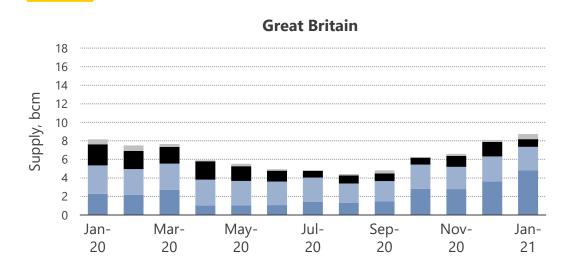




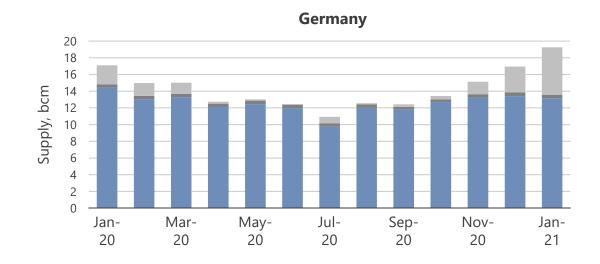
¹⁾ LNG reflects regasification send-out to the high pressure network. 2) Pipeline supply is from Russia (including via Poland, Czech Republic, and Austria), Norway, Denmark, Spain and Switzerland

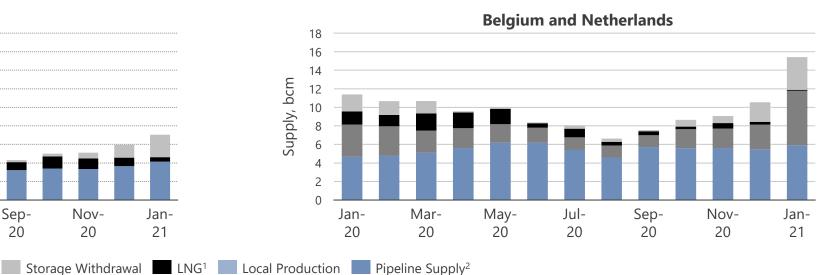
Monthly gross gas supply by country











¹⁾ LNG reflects regasification send-out to the high pressure network. 2) Pipeline supply is from Russia (including via Poland, Czech Republic, and Austria), Norway, Denmark, Spain and Switzerland

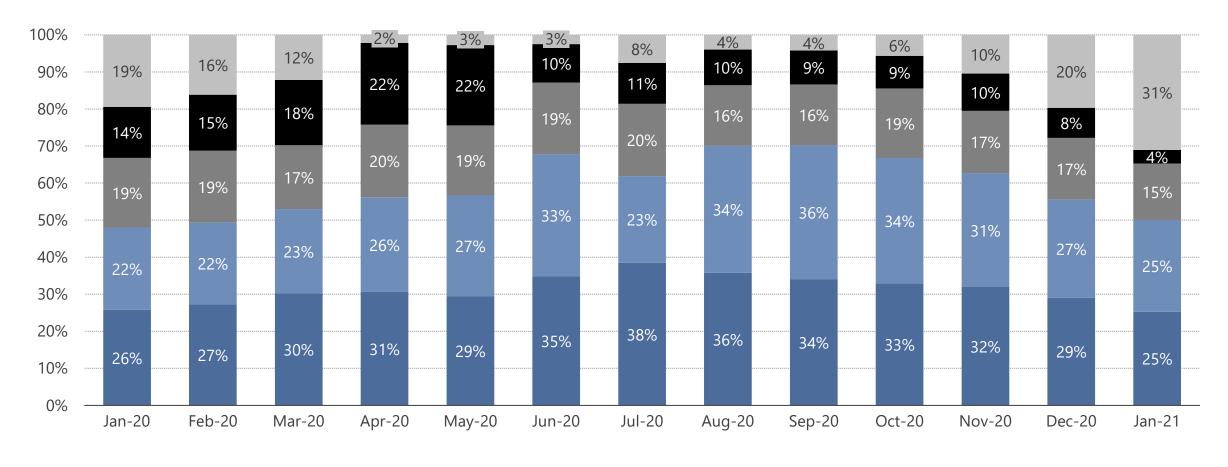
Source: Aurora Energy Research EOS CONFIDENTIAL 10

North West Europe share of monthly gas supply



Share of gas supply



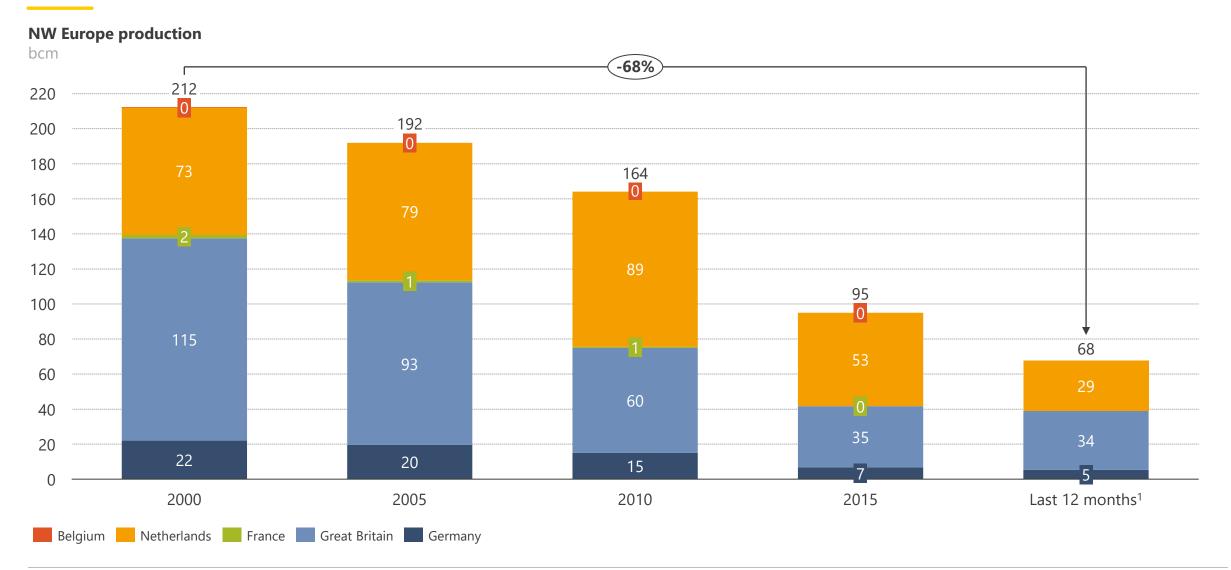




¹⁾ LNG reflects regasification send-out to the high pressure network. 2) Russia pipeline supply includes pipe imports via Poland, Czech Republic, and Austria.

North West Europe annual indigenous production



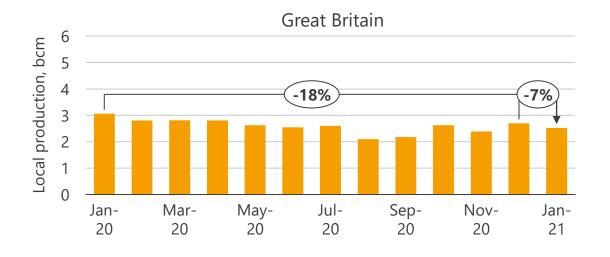


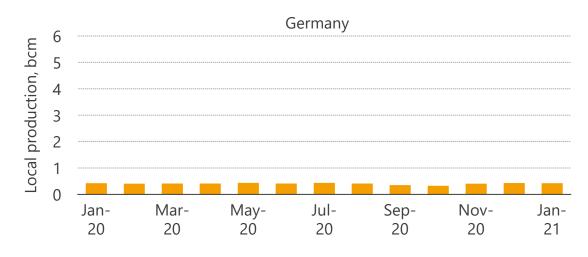
¹⁾ Year-to-date corresponds to the last 12 months. Previous years are calendar years. Production values indicate gas volumes that enter a country's system and are net of energy own use for production operators

Monthly indigenous production by country



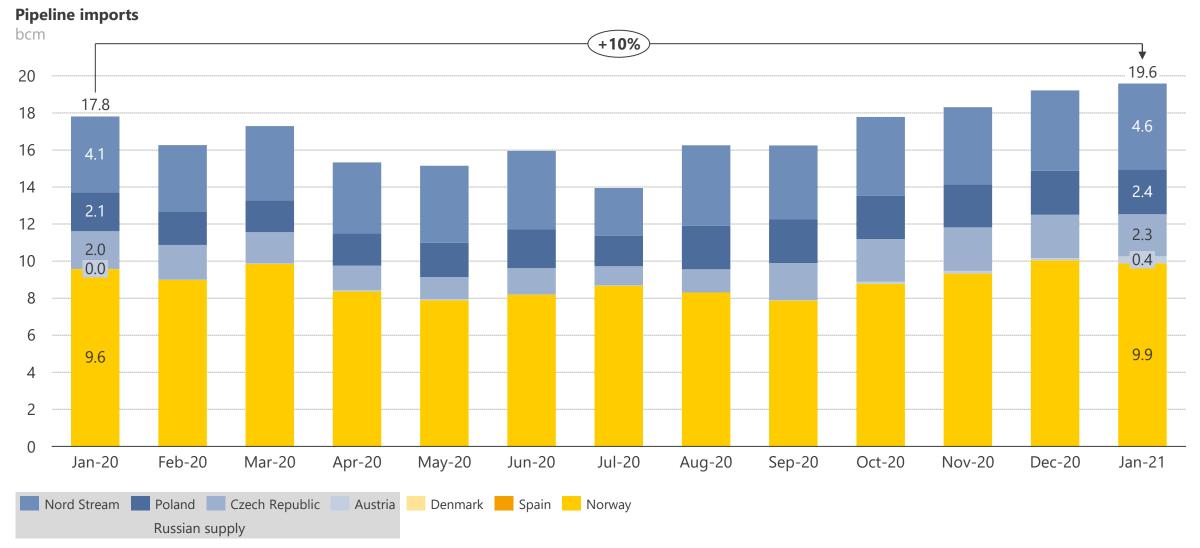






Pipeline imports to North West Europe





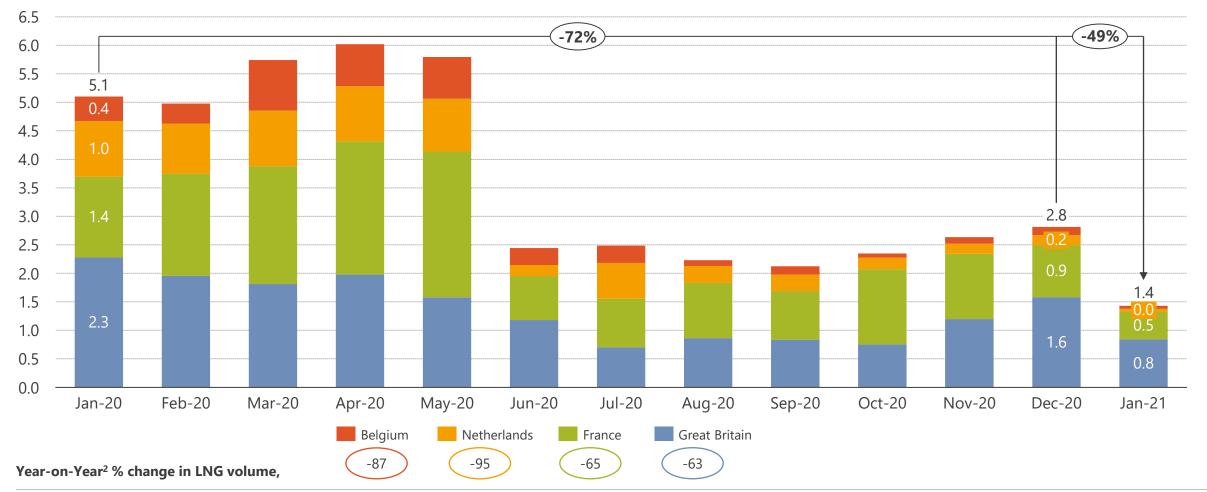
¹⁾ LNG reflects regasification send-out to the high pressure network. 2) Russia pipeline supply includes pipe imports via Poland, Czech Republic, and Austria.

Volume of gas into North West Europe from LNG regasification



Volume of gas from LNG regasification¹

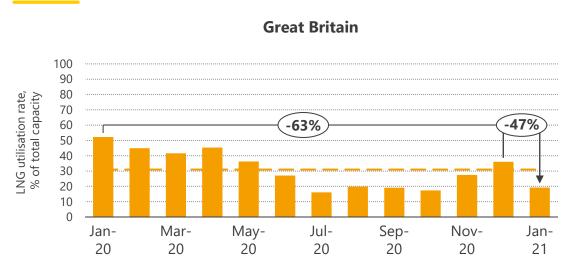
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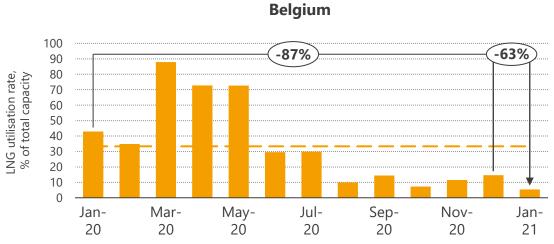


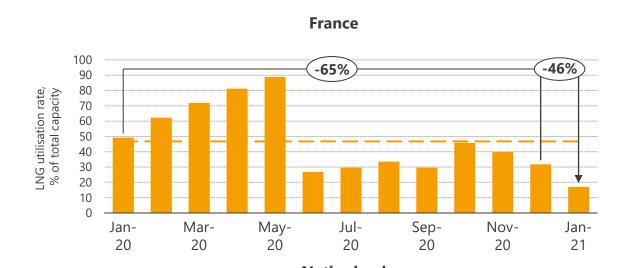
¹⁾ The reported volumes correspond to the regasification terminal send-out to the high pressure network. 2) Year-on-Year compares data from the last month to the same month a year ago.

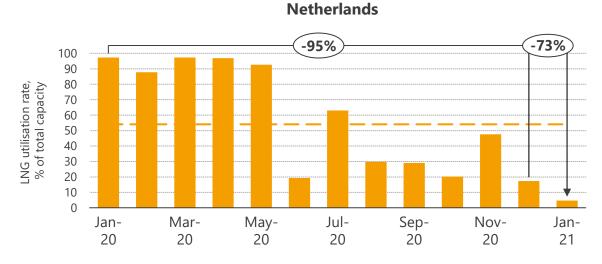
LNG regasification utilisation rate¹











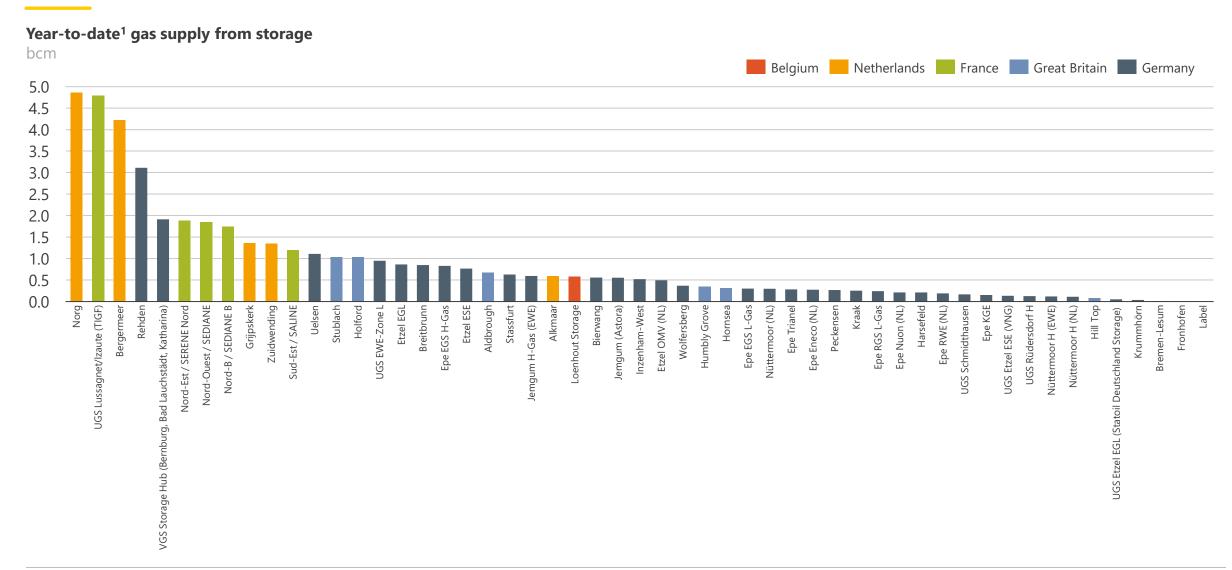
Monthly utilisation rate — — 12-month average

Source: Aurora Energy Research EOS CONFIDENTIAL 16

¹⁾ The utilisation rate is the percentage of the total capacity used in any given month.

North West Europe yearly gas supply from storage

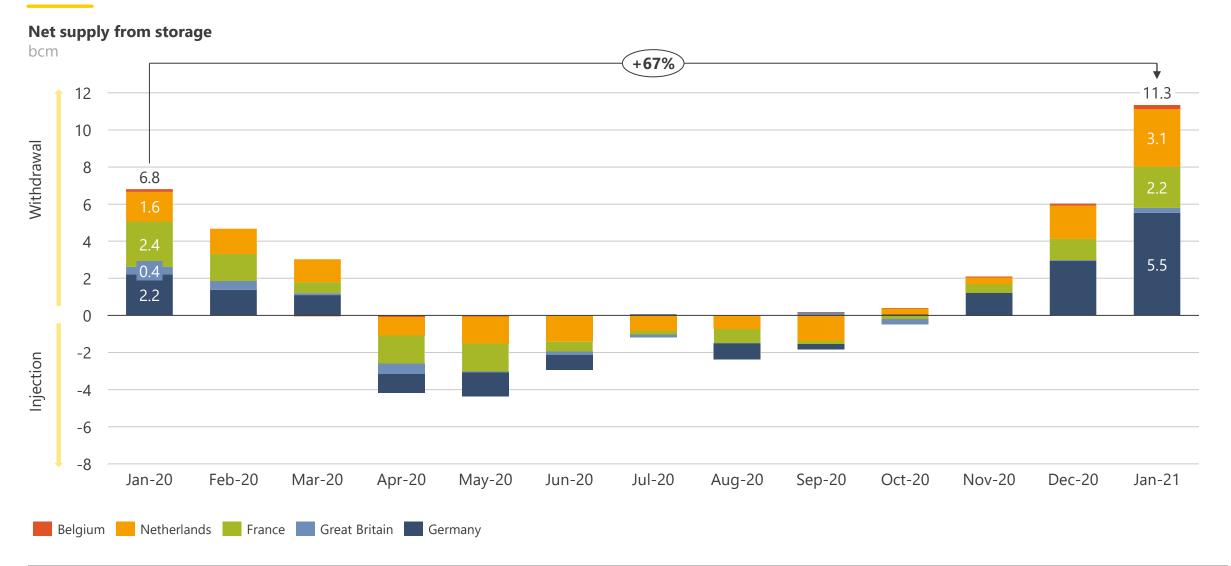




¹⁾ Year-to-date corresponds to the last 12 months.

North West Europe net gas supply from storage



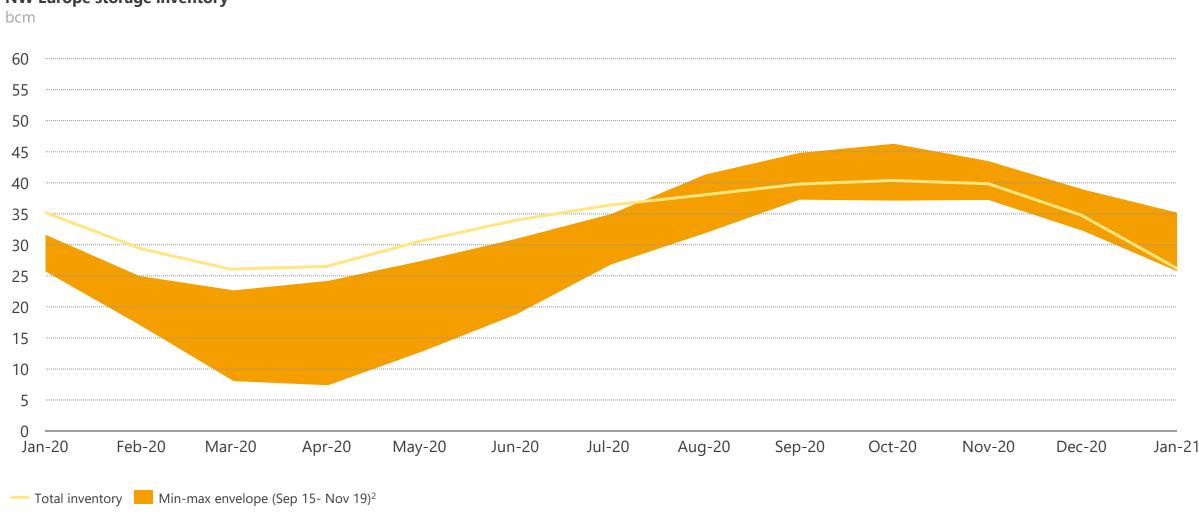


¹⁾ Storage data is based on net daily flows.

North West European storage inventory



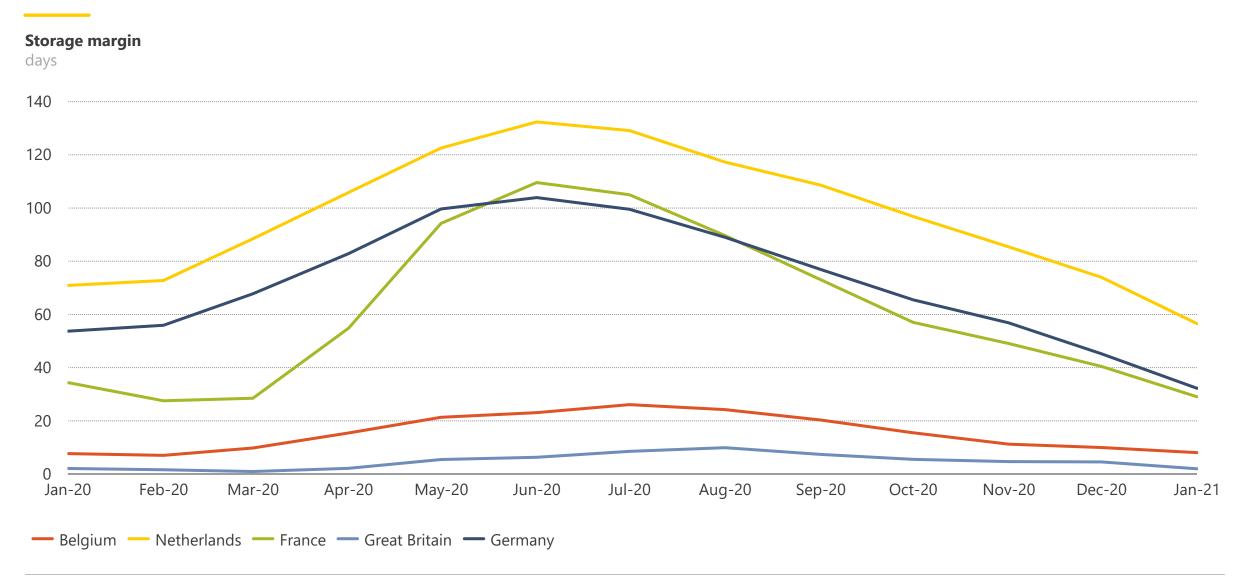




¹⁾ Storage data is based on net daily flows. 2) Envelopes are calculated by taking the maximum and minimum monthly values since September 2015.

Storage margin (days of demand in store)¹





¹⁾ Days of Demand in store is defined as the number of days that the storage inventory could potentially solely satisfy, all contractual constraints left aside. Future demand is defined as today's demand adjusted with last year's profile. The analysis shown is our most up-to-date estimate but may be subject to revision as historical data gets confirmed. The values shown indicate the storage margin at the ned of each month.

Source: Aurora Energy Research EOS

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