

Summer Outlook 2024



Overview

Gas Networks Ireland's Summer Outlook sets out the demand and supply outlook for summer 2024 (April to September 2024 inclusive) for both the Republic of Ireland (ROI) gas demand and the Gas Networks Ireland system demand. The Gas Networks Ireland system demand refers to the combined demands for ROI, Northern Ireland (NI) and Isle of Man (IOM) which are all transported through Gas Networks Ireland's system. The Summer Outlook is designed to inform the energy industry on the anticipated status of the gas system over the period, to assist the industry in preparing for the summer months.

Key messages

The outlook for both ROI and Gas Networks Ireland's system indicates that sufficient gas supply sources and network capacity will be available across the summer period to meet the anticipated demand projections.

The Corrib gas field is anticipated to meet 21% of ROI demand during summer 2024. The balance of gas demand will be met by imports from Great Britain (GB) via the Moffat Entry Point (78.8%), with a small contribution (0.2%) made by biomethane. The share of renewable gas in the network is set to grow over the coming years¹.

ROI gas demand for summer 2024 is forecast to be approx. 9% higher than for the same period in 2023. This increase is projected to be dominated by increased demand in the Powergen sector, which is forecast to increase by 7% in summer 2024 compared to the same period in 2023, due to projected growth in electricity demand. Following reductions evident in summer 2023, it is currently anticipated that Non-Daily Metered (NDM) and Daily Metered Industrial & Commercial (DM I&C) demand will return towards longer term averages during summer 2024. Gas demand for Transport is predicted to be 16 GWh, an 14% increase on demand in summer 2023, which will be fully supplied by biomethane.

Upstream planned maintenance is scheduled to take place at the Corrib Entry Point from 24th to 30th June 2024. These scheduled works are not expected to have any impact on meeting Gas Networks Ireland's customer demand.

In the summer period 2023, indigenous gas supplies made up 22.4% of ROI gas demand (Corrib 22.3%, Biomethane ~0.1%) with the remaining 77.6% being met from imports through the Moffat Entry Point.

ROI gas demand reduced by 13% in the summer of 2023 against the equivalent period in 2022. This drop was driven by a 16% decrease in gas consumption for power generation for the same comparative period. Both the residential and I&C sectors saw decreases in demand of 5% and 2% respectively.

Power generation was the most variable of the gas demand sectors across the 2023 summer period, continuing historical trends. On low wind-days, gas accounted for up to 93% of electricity generation in the Single Electricity Market (SEM). The flexibility of gas-fired generation compliments both the intermittent nature of wind generation and the intra-day changes in the electricity demand profile.

Gas prices have stabilised following the volatility arising out of Russia's invasion of Ukraine in 2022. This is due to a number of factors, including strong Norwegian supplies, increased LNG imports and a robust storage position in Europe.

The upstream supply outlook is positive for the summer ahead, which is supported by both ENTSOG² and National Gas Transmission's (GB TSO) outlook³ on supply for Europe and Great Britain respectively. Gas supply adequacy in the EU is bolstered by the high storage levels in April 2024 (59% full on average) while GB's diverse gas supply sources contribute towards National Gas Transmission's positive outlook for supply to Ireland for summer 2024.

¹ Gas Networks Ireland published the "Biomethane Energy Report" in September 2023, which provides further information on their biomethane strategy

² ENTSOG Summer Outlook 2024 and Winter Outlook 2024-25

³ National Gas Transmission: Gas Summer Outlook 2024

Summer period 2023 supply

Figure 1 shows actual gas supply sources during the summer 2023 period. Indigenous supply sources accounted for 22.4% of total ROI demand, with the Moffat Entry Point supplying the remaining 77.6%. During mid-July to early August, the Corrib gas field was on a planned outage and therefore effectively all gas requirements were met via imports from Scotland during that period.

Figure 1: Summer 2023 Actual Gas Supply⁴

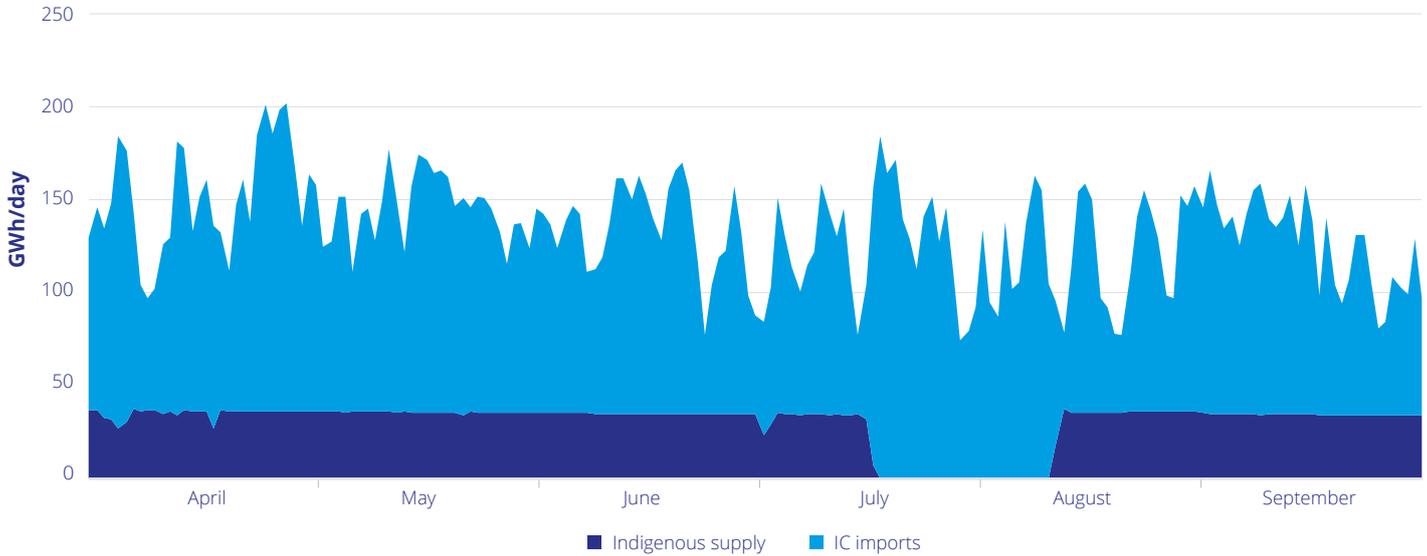


Table 1 shows the summer 2023 breakdown by entry point. The total ROI supply (including shrinkage⁵) was 24,656 GWh, with Moffat imports supplying the majority of gas with 19,132 GWh (77.6%), followed by Corrib, which provided 5,491 GWh (22.3%). Biomethane contributed 33 GWh (~0.1%) towards ROI supply, an increase of approximately 90% compared to summer 2022.

Table 1: Summer 2023 Actual Gas Supply by Entry Point (GWh)

Moffat	Corrib	Biomethane	Total ROI supply
19,132	5,491	33	24,656



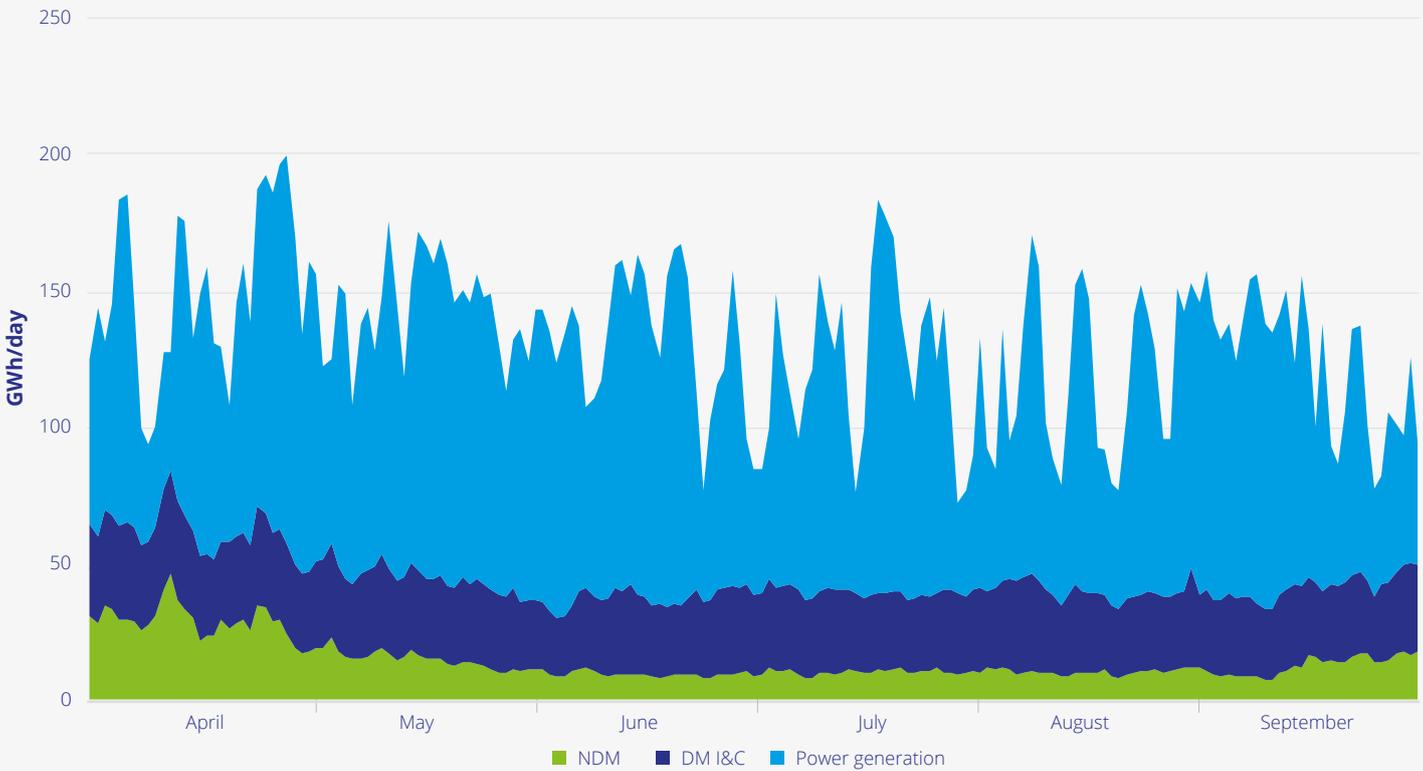
⁴ Scheduled Upstream Maintenance works at Corrib took place between the 17th July and 11th August 2023.

⁵ Shrinkage Gas includes Own Use Gas used by the Transmission System Operator (TSO) for the operation of the transportation system; and/or, gas required to replace Unaccounted For Gas lost or otherwise unaccounted for from the Transportation System.

Summer period 2023 demand

Figure 2 shows actual gas demand for the 2023 summer period. Total gas demand over the period was 13% lower than the 2022 summer period.

Figure 2: Summer 2023 Actual Gas Demand



Daily Metered (DM) I&C sector gas demand for the summer 2023 period was 6% lower than the 2022 period. Non-Daily Metered (NDM) demand was 12% lower compared to the summer 2022 period; with weather correction taken into account, the NDM sector demand was instead up slightly by 0.3%. Table 2 shows the summer 2023 actual gas demand by sector.

Table 2: Summer 2023 Actual Gas Demand by Sector (GWh)

Power Generation	Total DM I&C	NDM	Total ROI demand
16,206	5,463	2,591	24,260

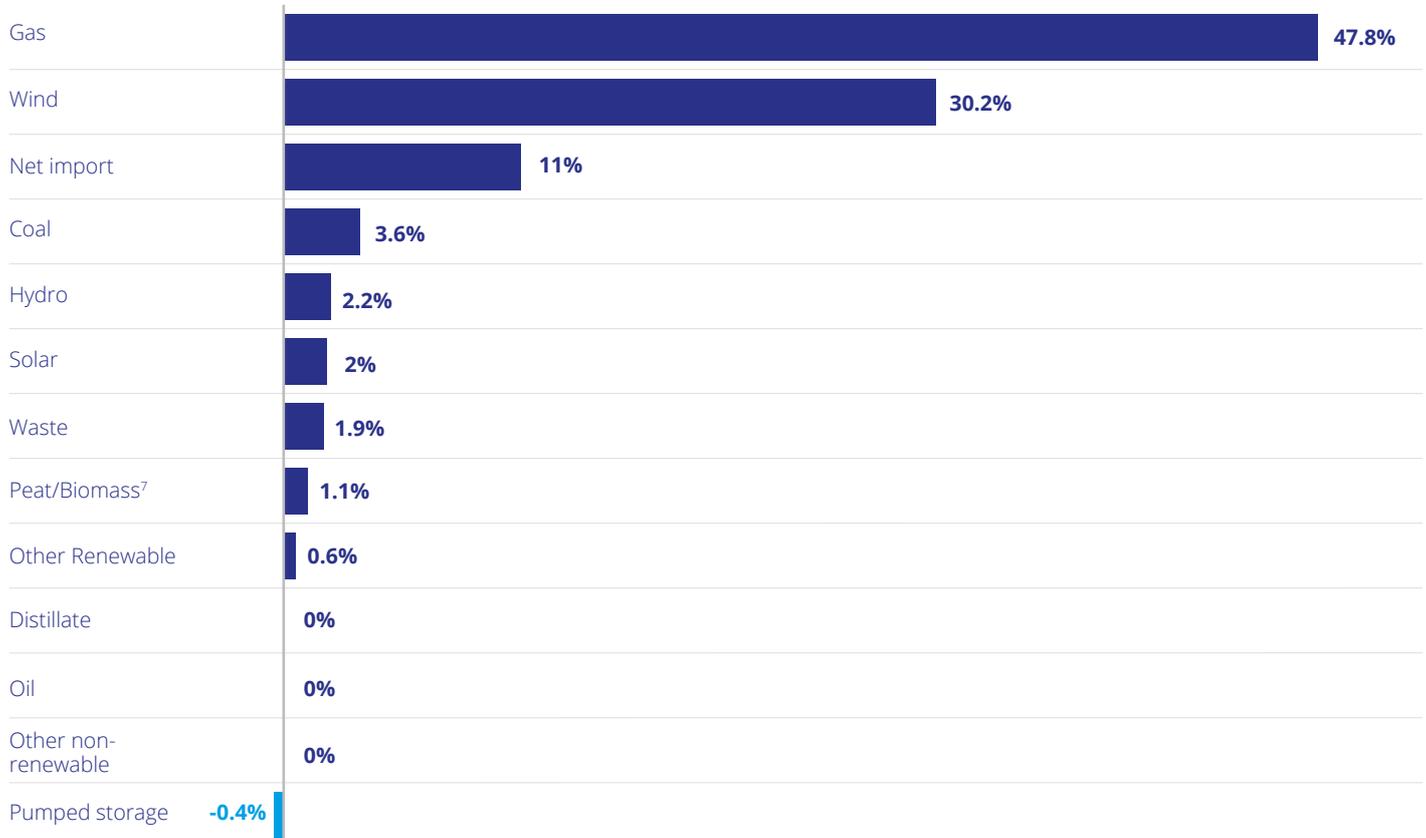
While gas prices returned to 2021 levels in summer 2023, there is some evidence of the energy crisis having an extended residual impact on consumer behaviour, resulting in a reduction in I&C and NDM demand in the summer of 2023 compared with 2022.

In the power generation sector, gas demand was 16% lower than the 2022 summer period and accounted for 48% of the total fuel mix compared to 56% in summer 2022. Key drivers of the decrease in gas demand for power generation include increased renewable generation in summer 2023 compared to the same period in 2022 coupled with high levels of electricity imports to Ireland owing in part to the discount of the UK Emissions Trading Scheme (ETS) carbon price compared to the EU ETS carbon price. ROI was a net importer of electricity across the summer 2023 period, with net imports accounting for 11% of demand. During summer 2023, wind generation supplied 30% of Ireland's electricity demand compared to 27% for the same period in 2022. Coal accounted for 4% of the fuel mix in summer 2023 compared to 8% for the same period in 2022.

Figure 3 shows the power generation Fuel Mix for ROI for summer 2023⁶. Gas-fired generation accounted for the highest share of ROI's power generation fuel mix, demonstrating its important role in electricity generation.

Summer period 2023 demand continued

Figure 3: Summer 2023 Power Generation Fuel Mix



Power generation was the most variable of the gas demand sectors across the 2023 summer period, continuing historical trends. On low wind-days, up to 93% of Ireland’s electricity demand was met by gas generation while on high wind days, this figure was as low as 15%. Hence, low wind generation typically results in an increase in gas-fired generation and vice versa. The flexibility of gas-fired generation compliments both the intermittent nature of wind generation and the intra-day changes in the electricity demand profile. The partnership between flexible gas-fired power generation and intermittent renewable generation will be a key factor in enabling Ireland’s renewable integration ambition into the future, as set out in the Climate Action Plan and the National Energy and Climate Plan.

Summer period 2024 forecast supply position

Corrib and biomethane are the remaining indigenous gas sources, with Corrib being the dominant indigenous gas source. The maximum forecasted supply⁸ from Corrib during this period is 32 GWh/day. During the summer period, Corrib gas supplies are anticipated to decline to approximately 30% of initial peak production levels (103.9 GWh/d). Corrib is forecast to meet 21% of ROI demand during the summer period. The balance of gas demand will be met by imports via the Moffat Entry Point⁹ (78.8%), with a small contribution (0.2%) made by biomethane.

The share of renewable gas in the network is set to grow over the coming years. Biomethane production was 33 GWh during the summer of 2023; the supply of biomethane is expected to grow by approximately 83% to 60GWh in the summer of 2024 compared to the previous year.

⁷ Co-firing peat and biomass until end-Dec 2023. Biomass-fired generation only from Jan-2024 onwards.

⁸ The supply scenario represents maximum daily supply capacities at indigenous sources. Actual supply profiles on a given day may differ from the maximum daily scenario.

⁹ The Moffat Entry Point has a current technical capacity of 387 GWh/day and supplies gas to ROI, Northern Ireland, and Isle of Man.

Summer period 2024 forecast demand

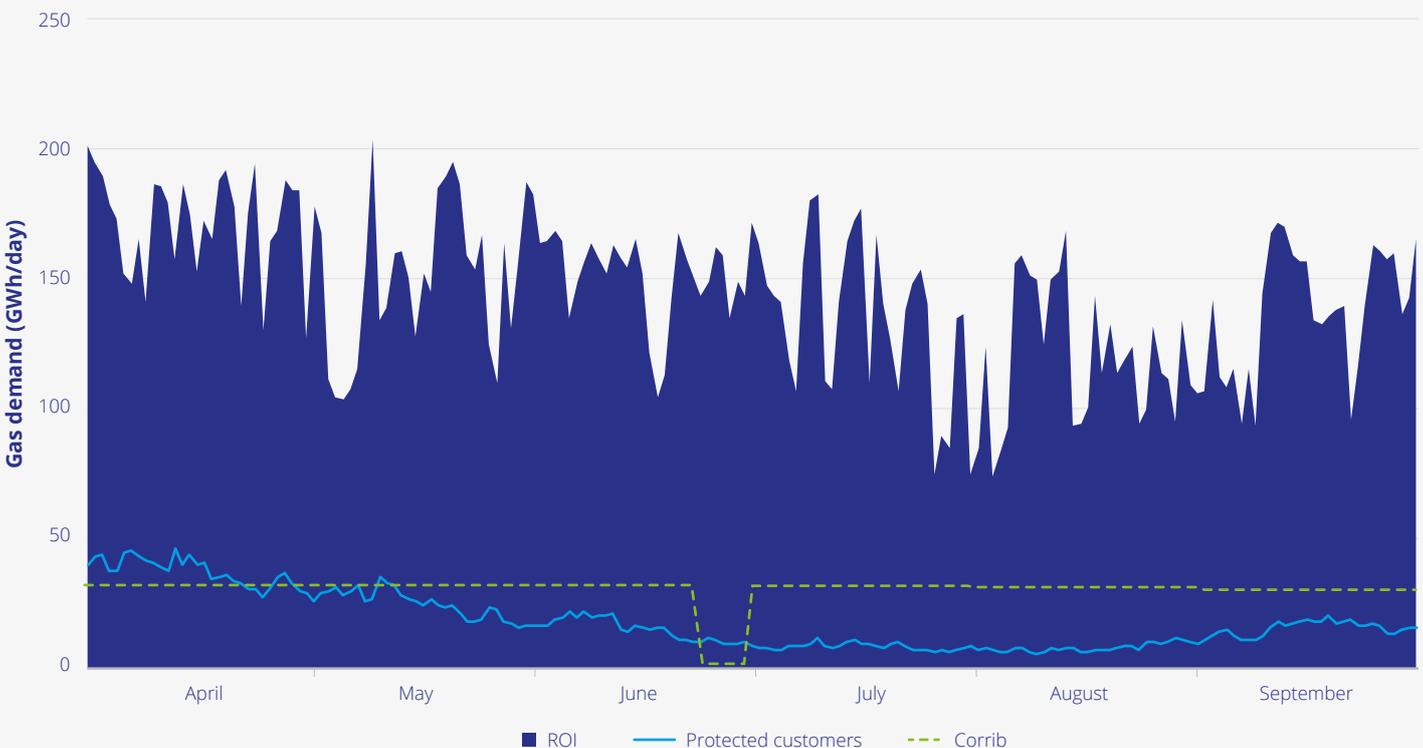
ROI gas demand for summer 2024 is forecast to be approx. 9% higher than for the same period in 2023. This is driven by forecast increases in gas demand of 16%, 8% and 7% in the NDM, DM I&C and power generation sectors respectively. Gas demand for Transport is predicted to be 16 GWh, an 14% increase on demand in summer 2023.

The contribution of gas towards the electricity fuel mix is sensitive to both market conditions and to weather conditions which in turn influences wind generation. In our Single Electricity Market (SEM) forecasting model, the forecast gas demand for power generation is highly dependent on the forecast fuel prices, the electricity price spread between GB and Ireland, which influences the direction of electricity imports and exports, and planned and forced generator outages. The forecast anticipates similarly high levels of imports to Ireland via electrical interconnectors in summer 2024 compared to the previous year. Electricity demand is forecast to increase by approximately 7% in summer 2024, driving higher gas demand for power generation in summer 2024 vs. 2023.

NDM sector gas demand is seasonally lower in the summer months due to being largely weather-driven. Demand in this sector is expected to increase by 16% in summer 2024 compared to 2023, returning to levels of demand recorded prior to the invasion of Ukraine in 2022, typically associated with average weather conditions and cooking and water heating requirements.

Figure 4 below illustrates the natural gas supply capability at Corrib to cover the forecast demand from protected customers for the majority of the summer, aside from the period between the 24th and 30th of June when upstream maintenance works are scheduled at Corrib, during which time protected customer demand will be supplied by imported gas via Moffat.

Figure 4: Forecast ROI protected customer demand, total ROI gas demand and Corrib supply



Gas system operability

Gas Networks Ireland monitors transmission system imbalances as a result of shipper balancing activities on a daily basis. The Marex Spectron Trading Platform allows Gas Networks Ireland to trade out system wide imbalances in an efficient manner. It is important, that shippers are aware of the negative impact of not maintaining individual balanced positions, i.e. high balancing costs for Gas Networks Ireland that inevitably are paid for by the shippers. The 3.5% of the System Average Price that is levied as a charge against the Shippers for imbalances also serves as an appropriate incentive to Shippers to appropriately balance their portfolios.

Gas prices have stabilised following the volatility arising out of Russia's invasion of Ukraine in 2022. This is due to a number of factors, including strong Norwegian supplies, increased LNG imports and a robust storage position in Europe. It remains to be seen how future developments in Ukraine, and indeed in the Middle East, will affect wholesale gas prices. Gas Networks Ireland monitors fluctuations in gas prices on a continual basis to anticipate the effect on gas network throughput.

Planned summer maintenance activities

Upstream of the Gas Networks Ireland transmission system, the following scheduled maintenance works are currently anticipated, as advised by gas producers/connected system operators:

Table 3: Scheduled Summer Maintenance Upstream of Entry Points

Entry point	Scheduled upstream maintenance	Period	Duration (Days)
Corrib	Planned maintenance	24 th to 30 th June 2024	6

Gas Networks Ireland has no other planned maintenance work on the transmission system that would affect gas supply to our customers during the summer period. Capital works at the Brighthouse Bay compressor station in Scotland, located downstream of the Moffat Entry Point, are planned for the summer period, which will enhance the capacity and increase the resilience of gas supply to Ireland. These works are not anticipated to have any impact on downstream supply to Gas Networks Ireland's customers.

Upstream security of gas supply

National Gas Transmission expect that there will be sufficient supply to meet GB demand, and as a result to meet Ireland's demand, for the summer ahead¹⁰. Gas demand will primarily be met by supplies from UK indigenous production and from Norway, with the balance coming from LNG. GB exports to continental Europe are expected to reduce significantly compared to summer 2023, due to both higher levels of storage and additional LNG regasification capacity within the EU, and tighter gas price spreads between GB and Europe.

The European Union (Council Regulation (EU) 2022/1369) aims to guarantee better preparation against any further supply disruptions by reducing the Union's gas demand and by facilitating the filling of gas storage facilities.

The EU has once again extended the European Gas Demand Reduction Plan to reduce gas consumption in Europe by 15% between 1st April 2024 and 31st March 2025 compared to the five-year average of the reference period from 1st April 2017 to 31st March 2022¹¹ which is equal to a reduction of 270 TWh. While not strictly bound by this target, Ireland endeavours to meet this target on a voluntary basis. ROI demand for April 2023 through to March 2024 trended 8% lower vs. the 5-year average reference period:

- This trend is heavily influenced by gas demand in the power generation sector, which typically accounts for over 50% of Ireland's total gas demand. Power generation gas demand is largely dependent on wind output, generator availability, electricity imports/exports and electricity system demand at any point in time. April 2023 through to March 2024 showed a 4% reduction vs. the 5-year average reference period.
- Final end use gas demand incorporates all sectors of gas demand excluding power generation, i.e. DM I&C and NDM – April 2023 through to March 2024 trended 13.2% lower vs. the 5-year average. Drivers of this reduction include a milder winter and decreases in consumption both at a commercial and residential level due to changing consumer behaviour following a period of high gas and electricity prices.

The EU Gas Storage Regulation sets out targets for European natural gas storage sites to help mitigate the effect of any supply challenges with volumes to reach 90% of capacity by 1st November 2024. The EU gas stock level exited the heating season at the start of April with storage remaining 59% full, which is at the maximum of the range of the last five years, enabling the 90% target by the end of the summer season 2024 to be particularly achievable.

Data freeze

In order to complete the detailed analysis required to produce this document, the input data was defined in March 2024, based on the most up to date information available at the time.

Disclaimer

Gas Networks Ireland has followed accepted industry practice in the collection and analysis of data available. However, prior to taking business decisions, interested parties are advised to seek separate and independent opinion in relation to the matters covered by this Summer Outlook and should not rely solely upon data and information contained therein. Information in this document does not purport to contain all the information that a perspective investor or participant in the Republic of Ireland's gas market may need.

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¹⁰ National Gas Transmission: Gas Summer Outlook 2024

¹¹ Security of gas supply: member states agree on recommendation to continue voluntary demand reduction measures - Consilium (europa.eu)