UK Government

Gas System in Transition: Security of Supply

Consultation

Closing date: 18 February 2026

Department for Energy Security and Net Zero (2025)

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Foreword

Gas has been the mainstay of our energy system for decades, generating our power, heating our homes, and underpinning industrial production.

It has played an important role in our energy transition story since the discovery of reserves in the North Sea in the 1960s, it has provided a transition fuel as we moved away from coal powered generation and home heating and has been the basis of our energy security for the past quarter of a century. Now, to ensure our ongoing energy security, insulate household bills from the rollercoaster of fossil fuel prices, and to protect our environment for the generations to come, we are moving at pace to renewable energy sources.

As we continue on that journey to a clean energy system, we will see the pattern of supply and demand for gas change:

Our supply of gas from the UK Continental Shelf has been falling for the last 25 years, reflecting the fact it is a super mature basin that peaked a quarter of a century ago. That is an inescapable geological fact that no amount of new exploration or drilling will meaningfully mitigate.

Demand for gas is also falling thanks to our efforts to roll-out renewable power sources and electrify home heating. Our efforts through Clean Power 2030 have accelerated this trend but we will need to do more, especially across home heating and industrial production.

The pattern of demand for gas, on which the commercial model of the gas industry is based, is also changing from one based on seasonal demand to one based on peak demand on any given day (to provide backup support to power generation on the coldest of days).

These changes to both supply and demand present some short-term and transitional challenges. NESO are shortly due to publish their first Gas Supply Security Assessment. This confirms that on the average winter day we will continue to be able to supply sufficient gas for all our needs, in a wide range of decarbonisation scenarios. But it also shows we will need to act to ensure we have the right infrastructure in place to continue to provide insurance for the rarer scenarios (for example, where we experience the coldest single day we could expect to see only once every twenty years, or where we lose the single biggest source of gas supply due to an unprecedented level of infrastructure failure).

Such scenarios are unlikely, but this government will do whatever it takes to ensure our ongoing energy security and ensure we continue to provide the energy insurance we need for even the rare scenarios.

Our plan is clear:

First, we need to redouble our efforts to decarbonise and electrify the economy, to continue to reduce demand for gas and reduce our exposure to fossil fuels – whether from the declining UKCS or from imports. This is the surest way to cement our energy security for the long term.

NESO is clear: The greatest risk to our energy security is from failing to decarbonise and continuing to be overly dependent on fossil fuels. We have already accelerated the transition to clean power through renewables and nuclear. We will soon set out our plans to do the same for home heating via our Warm Homes Plan, and for industrial demand via our Industrial Decarbonisation Strategy.

Second, while the previous government did not plan for this scenario, which was an inevitable consequence of the declining basin, we will take the necessary steps to ensure that the gas system and market adapt to continue to provide not just the baseload gas supply we need day-to-day for our power generation, home heating, and industrial production, but also the supply infrastructure we need to provide insurance on the rarest of cold days where demand is far higher. That is likely to require greater market shaping and possible intervention to ensure sufficient storage, terminal, and interconnector capacity for rare peak demand days. This is the subject of this consultation document.

Third, we will continue to work with National Gas as the Gas System Operator (GSO), and NESO as the National Energy System Operator, to monitor our gas security of supply and also to use and supplement the range of tools the GSO already has available to continue to match supply and demand and balance the gas system on a daily basis now and for years to come.

This consultation is an important step in shaping our gas system to play this important role in our energy security for the years to come, and I encourage all those who have a stake in the system to engage in this conversation.

Michael Shanks MP

Minister for Energy

General information

Why we are consulting

This consultation forms part of the government's programme of work on the gas system, as set out in the Midstream Gas System Update to Market[1]. The Update to Market set out a government-led programme of work considering three challenges: balancing infrastructure investment and affordability; managing a planned and orderly operational transition; and ensuring resilience of supply and infrastructure, the latter of which is the focus of this consultation.

Separate to this consultation, the National Energy System Operator (NESO), an independent public corporation with a responsibility to provide advice to the government on the whole energy system, will shortly publish a new medium-term Gas Supply Security Assessment. This assessment has identified issues relating to the future supply of gas in the 2030s and has informed the work in this document. The Government, NESO, National Gas and Ofgem will work closely together to consider necessary next steps which ensure future gas supply security following the outcome of the assessment and this consultation.

Consultation details

Issued: 26 November 2025

Respond by: 18 February 2026

Enquiries to:

Gas Systems team, Energy Security and Resilience Directorate
Department for Energy Security and Net Zero
5th Floor
3-8 Whitehall Place
London
E9 5JZ

Email: gasintransition@energysecurity.gov.uk

Consultation reference: Gas system in transition: security of supply

Audiences:

The consultation will be of interest to all parties in or outside of GB with an interest in GB's gas system, including: gas producers (including biomethane and hydrogen); gas consumers; energy suppliers; current and potential storage operators; current and potential LNG site

[1] DESNZ 2025, 'Midstream gas system update to market' (viewed on 22 November 2025)

operators; interconnector operators; gas transporters; gas shippers; investors; regulators; trade associations; and academics.

Territorial extent:

Great Britain. Energy policy is devolved to Northern Ireland, and they have an independently operated gas system. However, given Northern Ireland's reliance on gas supplies from Great Britain, we are committed to working closely with them on the issues outlined in this consultation to ensure their requirements and interests are considered and addressed appropriately.

We are committed to continue supporting the gas security of both Northern Ireland and Ireland, and welcome responses from those governments and market participants regarding any matters of relevance arising from this consultation. Regular engagement takes place with both governments, with the 2023 gas security of supply Memorandum of Understanding (MoU) between the UK and Ireland governments setting out how to balance supply and demand during rarer scenarios of high peak demand / infrastructure failures.[2]

Certain topics under consideration may relate to policy matters that are devolved to Scotland, Wales and Northern Ireland, and the department will work with devolved administrations on any policy development to ensure policies take account of devolved responsibilities. Some statistics within this document may refer to UK-wide figures when more readily available.

[2] DESNZ (2023), 'Cooperation for natural gas security of supply: UK - Ireland memorandum of understanding' (viewed 25 November 2025)

How to respond

Your response will be most useful if it is framed in direct response to the question posed, and with evidence in support wherever possible. Further comments and wider evidence are also welcome. When responding, please state whether you are responding as an individual or representing the views of an organisation.

We encourage respondents to make use of the online e-consultation wherever possible when submitting responses as this is the government's preferred method of receiving responses. However, responses in writing or via email will also be accepted. Should you wish to submit your main response via the e-consultation platform and provide supporting information via hard copy or email, please be clear that this is part of the same consultation response.

Respond online at: https://energygovuk.citizenspace.com/energy-security/gas-security-of-supply

or

Email to: gasintransition@energysecurity.gov.uk

Write to:

Gas Systems team, Energy Security and Resilience Directorate
Department for Energy Security and Net Zero
5th Floor
3-8 Whitehall Place
London
E9 5JZ

When responding, please state whether you are responding as an individual or representing the views of an organisation.

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws. See our privacy policy.

We will summarise all responses and publish this summary on GOV.UK. The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Quality assurance

This consultation has been carried out in accordance with the government's consultation principles.

If you have any complaints about the way this consultation has been conducted, please email: bru@energysecurity.gov.uk.

Executive Summary

The role of gas in our energy system

It is hard to overstate the centrality of gas to our energy system over recent decades. Since the discovery of reserves in the North Sea in the 1960s it has generated our power, heated our homes, and underpinned industrial production. As a transition fuel it has allowed us to move away from coal powered generation and home heating and has been the basis of our energy security for the past quarter of a century.

However, the energy crisis illustrated the risk of over-reliance on fossil fuels, exposing household bills to the volatile international fossil fuel markets and rocketing energy prices. At the same time, the climate crisis is growing more urgent, presenting an imperative to act now to protect our environment for the generations to come.

The Climate Change Act 2008 set a binding legal target to reduce carbon emissions and reach net zero by 2050. This government has set out a clear mission to make Britain a Clean Energy Superpower – with the aim of delivering lower cost and secure energy, with good jobs. We are now moving at pace to renewable energy sources with clean power by 2030, a plan to ensure warm homes, and decarbonise our industry.

But gas will continue to play an important role in our energy system in the years to come while our energy system transforms. It will provide a backup source of power generation and continue to heat our homes and underpin our businesses and industry while they decarbonise and electrify. This means that it is critical to maintain security of supply for the future, and this government has a clear plan for gas to ensure that remains the case.

A clear plan to ensure security of supply

The government will ensure continued energy security during the transformation of the energy system – including maintaining gas security of supply with a clear plan:

First, it is absolutely evident that the bedrock of our future energy security lies with decarbonisation, thereby reducing our demand for gas. Reducing our exposure to fossil fuels will protect us from the inevitable geological decline in domestic gas production. NESO is clear: the faster we decarbonise, the more secure we are. If we fall behind on decarbonisation, we become more insecure or we will have to take further, expensive action to protect ourselves.

The government has already accelerated the transition of power generation away from gas through more renewables and nuclear, with the goal of a clean power system by 2030. This will be followed by plans to do the same for residential demand for gas through a new Warm Homes Plan, and for industrial demand through a new Industrial Decarbonisation Strategy.

Second, we will work with the gas industry and market to ensure continued gas security as the pattern of supply and demand changes. We will ensure we maintain sufficient and resilient gas infrastructure capacity across gas storage facilities, LNG terminals, and gas interconnectors to meet demand. Crucially, we will do so not just to meet baseload gas demand under 'business as usual' scenarios but to also maintain the supply infrastructure we need to provide insurance for rare of scenarios when gas demand is far higher than normal. The government believes that this will require greater shaping of markets and intervention than in the past. We will always do whatever it takes to protect our energy security. This is the focus of this consultation document.

Third, we will continue to work with National Gas as the Gas System Operator (GSO) to manage the gas system in the years to come, making use of their extensive tools to balance supply and demand on a day-to-day basis. This remains a close partnership alongside the National Energy System Operator (NESO) who will continue to provide Gas Supply Security Assessments, and the Office of Gas and Electricity Markets (Ofgem) who provide the regulatory price control to enable investment in the gas network, to ensure the gas system continues to meet the needs of the nation.

While our analysis indicates that there is sufficient gas supply for the UK, it also shows that we will need to do more to ensure we have the right infrastructure in place in the early 2030s. We are setting out this plan now to provide sufficient lead time to implement any necessary actions (for example legislative changes or capital investment). Nevertheless, some of these mitigations will be quicker to implement, and with the existing powers of the Gas System Operator, the system will remain equipped to manage challenges should they start to appear sooner.

The changing pattern of supply and demand for gas

The reason for this consultation is due to the pattern of supply and demand for gas evolving, because of the twin trends of the clean energy transition and the natural geological decline of North Sea gas production (**see chapter 1**).

The pace and scale of the clean energy transition is driving the changing pattern of gas demand. The decarbonisation of power, home heating, and industry, means that annual gas demand could fall by 40%-75%[3] between 2024 and 2050, depending on the decarbonisation pathway taken and the uptake of low carbon technologies. However, while overall annual demand for gas will fall, the peak demand for gas on any single given day will fall more slowly due to the continuing role of gas in providing dispatchable power generation.

The pattern of gas supply is also changing due to the geological decline of the UK Continental Shelf (UKCS). Domestic gas production facilities through the UKCS in the North Sea have played an important role for the UK over the past several decades and will continue to do so for decades to come. However, as a super-mature basin UKCS production has been in

[3] Hydrogen Evolution having the least reduction, Electricity Engagement having the highest reduction. FES (2025) data workbook (Natural Gas Demand Summary Tab)

structural decline for many years, and the facts of its geology mean this decline will continue. The evidence is clear that new exploration licenses would not make a meaningful difference to supply.[4]

Despite this changing pattern of supply and demand, NESO's upcoming Gas Supply Security Assessment makes clear that on the average winter day we will continue to be able to supply sufficient gas for all our needs, in a wide range of decarbonisation scenarios. However, it also shows we will need to act to continue to provide insurance for the rarer scenarios (for example, where we experience the coldest single day we could expect to see only once every twenty years, or where we lose the single biggest source of gas supply due to an unprecedented level of infrastructure failure) (**see chapter 2**). Such scenarios are unlikely, but government will do whatever it takes to provide the energy insurance we need for even the rare scenarios.

Ensuring sufficient infrastructure capacity and resilience

We will work with industry to ensure that the level of infrastructure capacity is maintained to meet peak demand (**see chapter 3**). We have a flexible and diverse mix of gas supply sources at present, and there will continue to be sufficient supply for the UK in the future. We need to be able to use this supply with the right mix of infrastructure for the future, including:

- **Gas storage facilities** – ensuring we have sufficient flexible geological gas storage capacity, with optimum rates of deliverability of stored gas which can be drawn on both over the season and at short notice to meet peaks in gas demand.
- **LNG infrastructure** – considering the necessary capacity of our gas terminal infrastructure to be able to import the projected global surplus of supply of Liquefied Natural Gas (LNG), store that gas, and inject it into the gas transmission network.
- **Gas interconnectors** – maximising the use of interconnector capacity available, through our two gas interconnectors that connect GB to the Netherlands and to Belgium, allowing us to import gas if needed from the continent (making use of European gas storage), while also exporting gas when we have a surplus.

We would also like to explore views on other issues often raised in the debate on the future of gas, including the concept of a strategic gas storage reserve, and longer-term gas contracting models. Alongside this we will be working to ensure that the gas infrastructure that we rely on remains resilient and secure and we can avoid or manage unplanned outages.

Ensuring a commercial model that supports gas infrastructure

We will work to ensure the commercial model of gas supply works for asset owners and investors, so they are able to deliver the resilient gas infrastructure capacity that we need to

[4] North Sea Transition Authority (NSTA) (2025), '[Production and Expenditure Projections data]' (viewed 25 November 2025). NSTA analysis indicates that gas production on the UKCS is declining at a rate of 12% per year, reflecting the UKCS' status as a super mature gas basin

meet peak day demand. This is particularly true given the projected reduction in overall utilisation of that gas infrastructure on an annual basis (see chapter 4). The bar for government intervention in the market is high, but the government wishes to explore the barriers to effective market operation and whether further support may be required. This includes consideration of:

- **Revenue support mechanisms** – to provide certainty of revenue required to ensure peak capacity and not just annual capacity. This document explores the range of mechanisms already in use across the energy system and their applicability to the gas system, including Regulated Asset Base (RAB), cap and floor mechanisms, Contracts for Difference (CfDs) and the Capacity Market.
- **Regulatory reform to increase flexibility** – working to reduce and roll back regulatory barriers that serve to restrict flexibility or supply, allowing our existing infrastructure to maximise its contribution to meeting gas demand.

This consultation document

This consultation document explores this proposed plan in more detail and is an important step in shaping our gas system for years to come. The document is structured as follows:

Chapter 1: The changing pattern of supply and demand: sets out how we expect gas supply and demand to evolve during the energy transition. It outlines our changing supply and demand patterns alongside the continuing need for peak-day capacity.

Chapter 2: Priorities for gas security of supply: sets out the context of the risk by setting out the three key priorities to the future of our gas supply – infrastructure capacity, infrastructure resilience, and a commercial model that supports effective infrastructure operation.

Chapter 3: Changing infrastructure requirements: outlines the roles of LNG, interconnectors, and storage in our current gas system. It suggests models of government policy action that could be used if market arrangements were insufficient to meet peak demand requirements, including supporting the development of new supply infrastructure.

Chapter 4: Changing commercial requirements: outlines potential revenue support models to support the commercial viability of existing infrastructure operators (such as interconnectors, LNG terminals, and storage facilities). Also further explores how regulatory and market-based changes could support the UK's continued attractiveness as a destination for gas imports.

We are inviting stakeholders to provide their views on both our assessment of the issues facing the gas system, our proposed policy actions, and their potential impacts. This consultation is a crucial step in ensuring that any future actions are underpinned by a robust evidence base and a shared understanding of sector and the wider system's evolving needs. This consultation will run for 12 weeks with findings expected to contribute to further policy development next year.

Out of scope

Hydrogen

Low carbon hydrogen will be an important future source of dispatchable power generation and an important fuel for decarbonising hard to electrify sectors like industry, refineries, and heavy transport. As a potential low carbon alternative to natural gas, the pace and extent of hydrogen's use across these different sectors will have a direct impact on the future demand for natural gas. Government aims to publish a new forthcoming UK Hydrogen Strategy in due course, setting out our vision and objectives for hydrogen. The direction set through this strategy will be taken into account when considering the outcomes of this consultation.

Biomethane

Biomethane currently accounts for about 1% of gas within the grid[5], and by 2030, the government expects to be supporting around 8 TWh of annual biomethane production through the Green Gas Support Scheme (GGSS) and Renewable Heat Incentive collectively.[6] Following on from a 2024 Call for Evidence,[7] we expect to publish a comprehensive biomethane consultation in the financial year 2025-26, which will consider, amongst other things, how best to support biomethane production when the GGSS closes to new applications in March 2028.[8] For this reason, biomethane production is not the focus of this security of supply consultation. But we recognise the important interplay between the future decisions taken around supporting biomethane production and in overall gas security of supply, and we encourage biomethane producers to respond to this consultation on any matters which may affect them (particularly the potential changes to gas quality standards in Chapter 4).

Physical and digital infrastructure resilience

Our energy infrastructure needs to be resilient against a range of risks, including extreme weather and external interference. The physical and digital resilience of gas infrastructure is not the focus of this consultation. There is, however, separate work underway on a range of resilience issues across all energy vectors which will be consulted on as needed.

[5] DESNZ (2025) 'DUKES Table 6.4' (viewed on 25 November 2025)
[6] DESNZ (2025) 'Energy and emissions projections: 2023 to 2050 Annex D (viewed on 25 November 2025)
[7] DESNZ (2024) 'Future Policy Framework for Biomethane Production: A Call for Evidence p.23 (viewed on 25 November 2025)
[8] DESNZ (2025) 'Clean flexibility roadmap' (viewed on 25 November 2025)

Chapter 1: The changing pattern of supply and demand

Introduction

This chapter provides an overview of how the pattern of demand and supply for gas is expected to evolve over the coming decades and provides context for why the government is consulting.

The evolution of gas demand will be shaped by the pace and scale of the energy transition, including the decarbonisation of power, home heating, and industry, as well as the development of hydrogen and other low-carbon gases. NESO's Future Energy Scenarios suggest that annual gas demand could fall by 40%-75%[9] between 2024 and 2050, depending on the pathway taken and the uptake of low carbon technologies.[10]

However, while overall annual demand for gas will fall, the peak demand for gas on any single given day will fall more slowly due to the continuing role of gas in providing dispatchable power generation. We will work with industry to ensure that level of infrastructure capacity is maintained to meet peak demand (**see chapter 3**), while also ensuring the commercial model works for asset owners and investors given reduced overall utilisation on an annual basis (**see chapter 4**).

The evolution of gas supply is also changing due to the natural geological decline of the UK Continental Shelf (UKCS). Domestic gas production facilities through the UKCS in the North Sea have played an important role for the UK over the past several decades and will continue to do so for decades to come. The government has committed to partner with business and workers to manage existing fields for their lifespan, including through the introduction of new transitional energy certificates. However, as a super-mature basin UKCS production has been in structural decline for many years, and the facts of its geology mean this decline will continue. The evidence from our own work and NESO's is clear - that new exploration licenses would not make a meaningful difference to supply.[11]

We are ensuring that North Sea workers and communities are supported through a brand new [North Sea Jobs Service], a world-leading national programme offering end-to-end career transition support for oil and gas workers looking to move into secure jobs in growing industries, alongside the expansion of the Energy Skills Passport to new roles and sectors, and

[9] NESO (2025) 'FES data workbook' Natural Gas Demand Summary Tab (viewed on 25 November 2025) Hydrogen Evolution having the least reduction, Electricity Engagement having the highest reduction.
[10] NESO (2025) 'FES data workbook' Natural Gas Demand Summary Tab (viewed on 25 November 2025)
[11] NSTA (2025) 'Production and expenditure projections' (viewed on 25 November 2025) Analysis indicates that gas production on the UKCS is declining at a rate of 12% per year, reflecting the UKCS' status as a 'super mature' gas basin.

up to £20 million funding for the Transition Training Fund from the UK and Scottish Governments.

Despite the changing pattern of supply and demand, NESO's upcoming Gas Supply Security Assessment makes clear that on the average winter day we will continue to be able to supply sufficient gas for all our needs, in a wide range of decarbonisation scenarios.[12] But it also shows we will need to act to continue to provide insurance for the rarer scenarios (for example, where we experience the coldest single day we could expect to see only once every twenty years, or where we lose the single biggest source of gas supply due to an unprecedented level of infrastructure failure) (see chapter 2). Such scenarios are unlikely, but government will ensure we continue to provide the energy insurance we need for even the rare scenarios.

The changes to the pattern of gas supply and demand are not immediate and emerge over time, and the proposals in this consultation document are designed to ensure we take any necessary action in good time to maintain this level of insurance. What is clear is that the surest route to long-term energy security remains the decarbonisation and electrification of our energy system. Indeed, under scenarios that model faster transitions to net zero (and consequently faster reductions in gas demand), we comfortably meet all demand scenarios, even rare peak 1-in-20-year daily demand (assuming all infrastructure capacity is available). Conversely, falling behind in the drive to clean energy would leave our energy security more vulnerable. NESO's Future Energy Scenarios show that accelerated decarbonisation saves the approximate equivalent of the annual capacity of two South Hook-sized LNG terminals [13] by 2050[14]. This is a reduction in annual gas demand of 451 TWh (41 bcm) in 2050.[15]

The gas market operates on a privatised model and has functioned for decades with limited involvement of government. Where the market is able to continue meeting our system's needs without intervention then any potential role for government may be limited or not required. However, the government is likely to need to work more closely with the market to ensure the continued maintenance and investment in the gas infrastructure we need and will do so as required to ensure we maintain security of supply for even the rarer high demand scenarios. Below we set out the changing supply and demand pictures in more detail.

The changing pattern of supply

Great Britain (GB) has diverse sources of gas supply, as shown in Figure 1 below. This includes gas transported via pipeline from the UK and Norwegian Continental Shelves in the North Sea (comprising 43% and 35% of the UK's gross annual gas supply, respectively), as well as Liquefied Natural Gas ((LNG), 21%) and interconnector pipeline imports from Belgium and the Netherlands (1%). GB also has eight storage sites, which provide an effective source

[12] NESO (2025) 'Gas Supply Security Assessment' p. 4 and p.18. (viewed on 25 November 2025)
The comparison is between the Electric Engagement and Falling Behind scenarios.
[13] South Hook LNG Terminal Company Ltd (2025) 'Commercial structure' (viewed on 25 November 2025)
[14] DESNZ conversion factors from NESO (2025) 'FES data workbook' Natural Gas Demand Summary Tab (viewed on 25 November 2025)
[15] DESNZ conversion factors from NESO (2025) 'FES data workbook' Natural Gas Demand Summary Tab (viewed on 25 November 2025)

of system flexibility when responding to short-term changes in supply and demand. These sites provided the equivalent of 8% of 2024/25 total winter gas demand[16] and are reliant on being filled by the above four sources of supply.

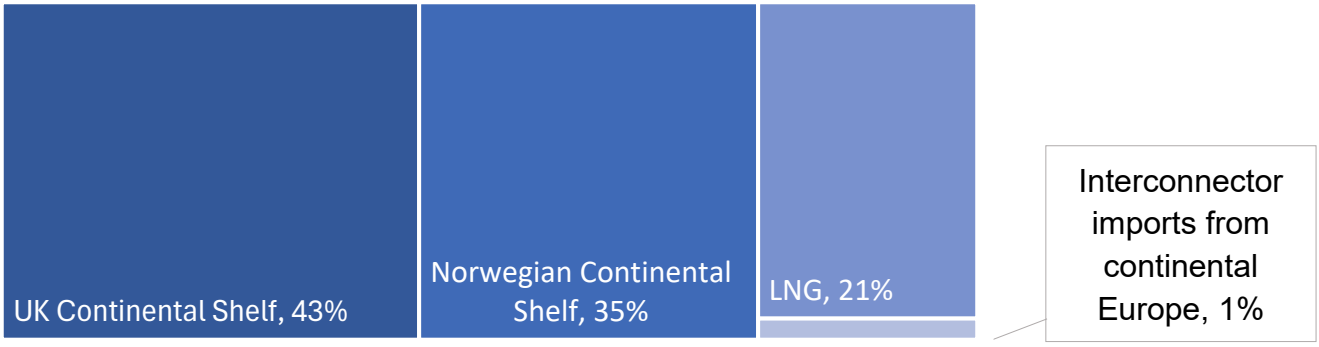

Figure 1: Five-year average gross UK annual gas supply (2020-2024)[17]

Going forward, our supply mix will change. As the super-mature UK Continental Shelf continues to deplete on an annual basis, we expect our other sources of supply – Norwegian gas, LNG and interconnector pipeline imports from continental Europe – to play increasingly important roles in meeting national gas demand.[18] Figure 2 below captures historic trends in the UK's gas supply sources from 2000 to 2024.

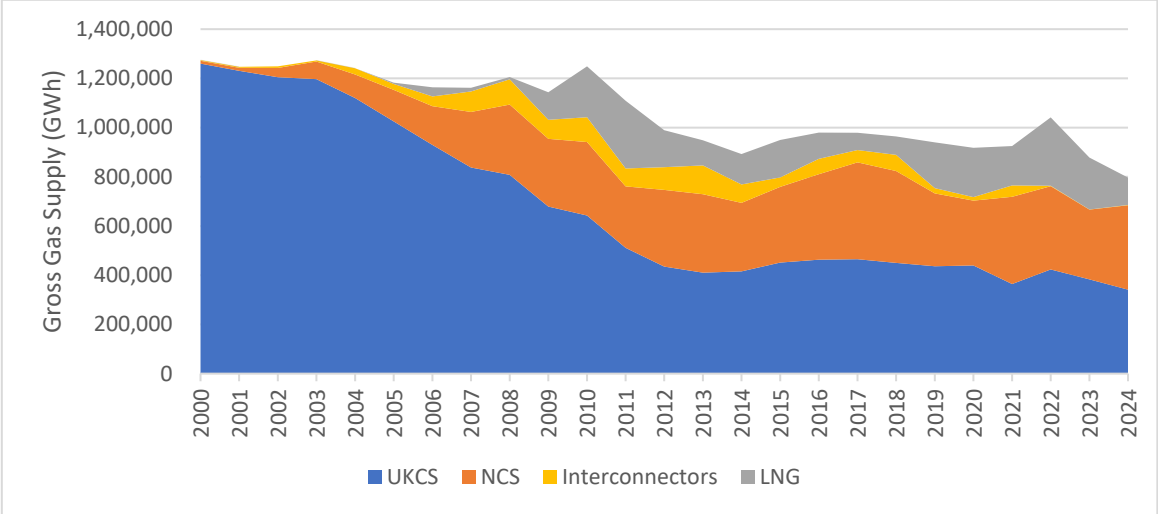

Figure 2: Historic trends in UK gross annual gas supply, 2000-2024.[19]

Importantly, the shape of our future supply mix will largely depend on two variables: the level of GB gas demand, which will be heavily influenced by the pace of decarbonisation and electrification, and the pace of decline of the Norwegian Continental Shelf. Unlike the super-mature UK Continental Shelf, which is already declining at a rate of 12% per year,

[16] DESNZ analysis using data from National Gas (2024) 'Ten Year Statement' and National Gas (2025) 'Gas Winter Review 2024/25' (both viewed on 25 November 2025)
[17] DESNZ analysis of DESNZ (2025) 'Energy Trends: UK gas' (viewed on 25 November 2025)
Gross gas supply does not include biomethane. Biomethane accounts for 1% of net natural gas supply.
[18] Domestic gas production on the UKCS is currently projected to decline by 12% annually according to the NSTA. NSTA (2025) 'Production and expenditure projections' (viewed on 25 November 2025)
[19] DESNZ analysis of DESNZ (2025) 'Energy Trends: UK gas' (viewed on 25 November 2025)

the comparatively less mature Norwegian Continental Shelf is expected to only start declining in the late 2020s.[20] The uncertain pace of its decline, alongside the level of future GB gas demand, will determine the share of LNG and interconnector imports entering the gas system.

The uncertain pace of the NCS' decline is reflected in the three scenarios below, which were produced by the Norwegian government in 2024 and reflect the broad range of possible production activity on the NCS. The key variables underpinning these scenarios include the resource base (i.e. the volume of oil and gas in unexplored fields), exploration activity and technological development.[21]

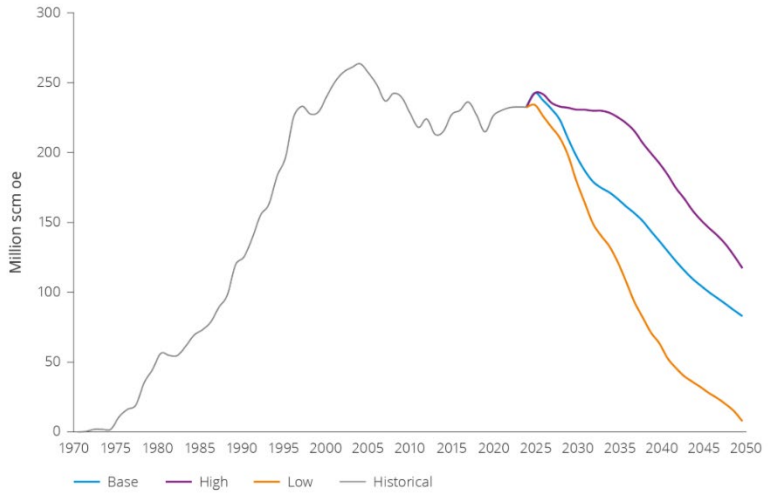

Figure 3: Three potential scenarios for total production development on the NCS, 2025-2050, contained in the Norwegian Offshore Directorate's 2024 Resource Report.[22]

Compared with the Norwegian Continental Shelf, most gas fields on the super-mature UK Continental Shelf have already been explored (reflecting the UKCS' smaller size and different production history). As such, the government's commitment not to issue new licences to explore new fields in the UKCS will have a marginal impact on future production levels and, as NESO says, will not make a material difference to our security of supply.[23] Our plan to issue

[20] NSTA (2025) 'Production and expenditure projections' (viewed on 25 November 2025)
NCS production is expected to start declining 'in the later 2020s' according to the Norwegian Offshore Directorate. Whilst the Norwegian Offshore Directorate expect production on the NCS to decline in all scenarios, the NCS could still be a significant source of supply for continental Europe and the UK, depending on future discovery of exploitable reserves.
Norwegian Offshore Directorate (2024) 'Oil and gas on the shelf moving forward' (viewed on 25 November 2025).
[21] Norwegian Offshore Directorate (2024) 'Resource Report 2024' (viewed on 25 November 2025)
[22] Norwegian Offshore Directorate (2024) 'Resource Report 2024' (viewed on 25 November 2025)
[23] DESNZ (2025) 'Building the North Sea's energy future' pages 48-49 (viewed 25 November 2025)
While offshore licence rounds have consistently resulted in numerous awards, sometimes up to 100, fewer than 10% of recently issued licences have progressed to active production. With new licences awarded in the last decade having made only an incremental difference to overall oil and gas production. Future exploration and production licences would not meaningfully increase UK production levels, nor would they change the UK's status as a net importer of oil and gas.

Transitional Energy Certificates will support overall security of supply by managing existing fields for the entirety of their lifespan.[24]

Our future supply mix is also likely to coincide with a healthy and robust global LNG market. Global LNG production forecasts indicate that ample supply is expected in the medium-term, surpassing expected global demand. This is reflected in the International Energy Agency's forecast below, which compares estimated future LNG export capacity against expected global LNG demand (based on the IEA's Stated Policies Scenario, which takes into account existing policies and measures as well as those under development).[25] This forecast is still subject to some uncertainty – as well as changes to global LNG demand, infrastructure outages and other events can still influence future production levels.

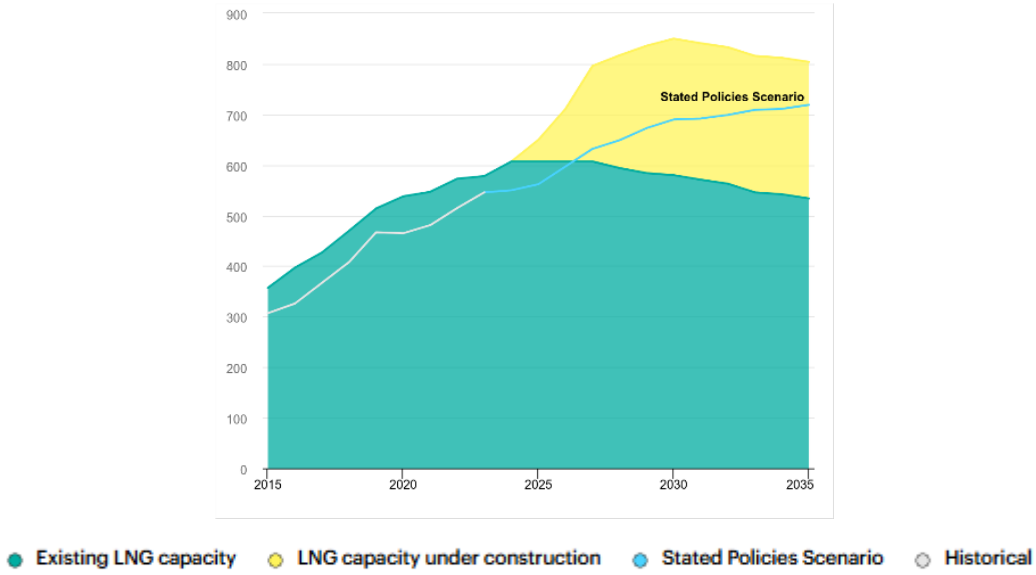

Figure 4: Projected global LNG capacity and trade, 2015-2035, produced by the International Energy Agency.[26] Conversion: 100bcm is approximately equivalent to 1,100TWh.

In this context, it will be important to maintain one of the key strengths of the GB gas system: access to diverse and flexible supply. This consultation explores options for reducing regulatory barriers and promoting frictionless trade – whether through our interconnector pipelines or LNG terminals – as well as the feasibility and cost of expanding supply entry points to GB. In so doing, it builds on GB's current accessibility to a global gas market. GB's LNG terminals (the second largest in Europe) facilitate access to a wide range of producing countries, whilst our interconnector pipelines with Belgium and the Netherlands allow us to import and export gas to countries across continental Europe.

[24] DESNZ (2025) 'Building the North Sea's energy future' (viewed on 26 November 2025)
[25] Figure 4 includes an editorial decision by the IEA to compare global LNG capacity against demand under the Stated Policy Scenario, rather than the Announced Pledges Scenario or the Net Zero Emissions by 2050 scenario. The SPS reflects existing policies and those under development; the APS reflects all major announced pledges; NZE is a pathway for the global energy sector to reach net zero emissions by 2050.
[26] IEA (2024), 'LNG capacity and trade, 2015-2035' (viewed 25 November 2025)

Additionally, in light of GB's changing supply mix, we expect a larger share of our gas supply to enter terminals in south England and Wales – where our LNG and interconnector entry terminals are located – and flow northwards to centres of demand in GB. Historically, most of our gas has entered terminals in Scotland and North England and flowed southwards, as entry terminals in these areas are connected to pipelines in the UK and Norwegian Continental Shelves (see Figure 5).

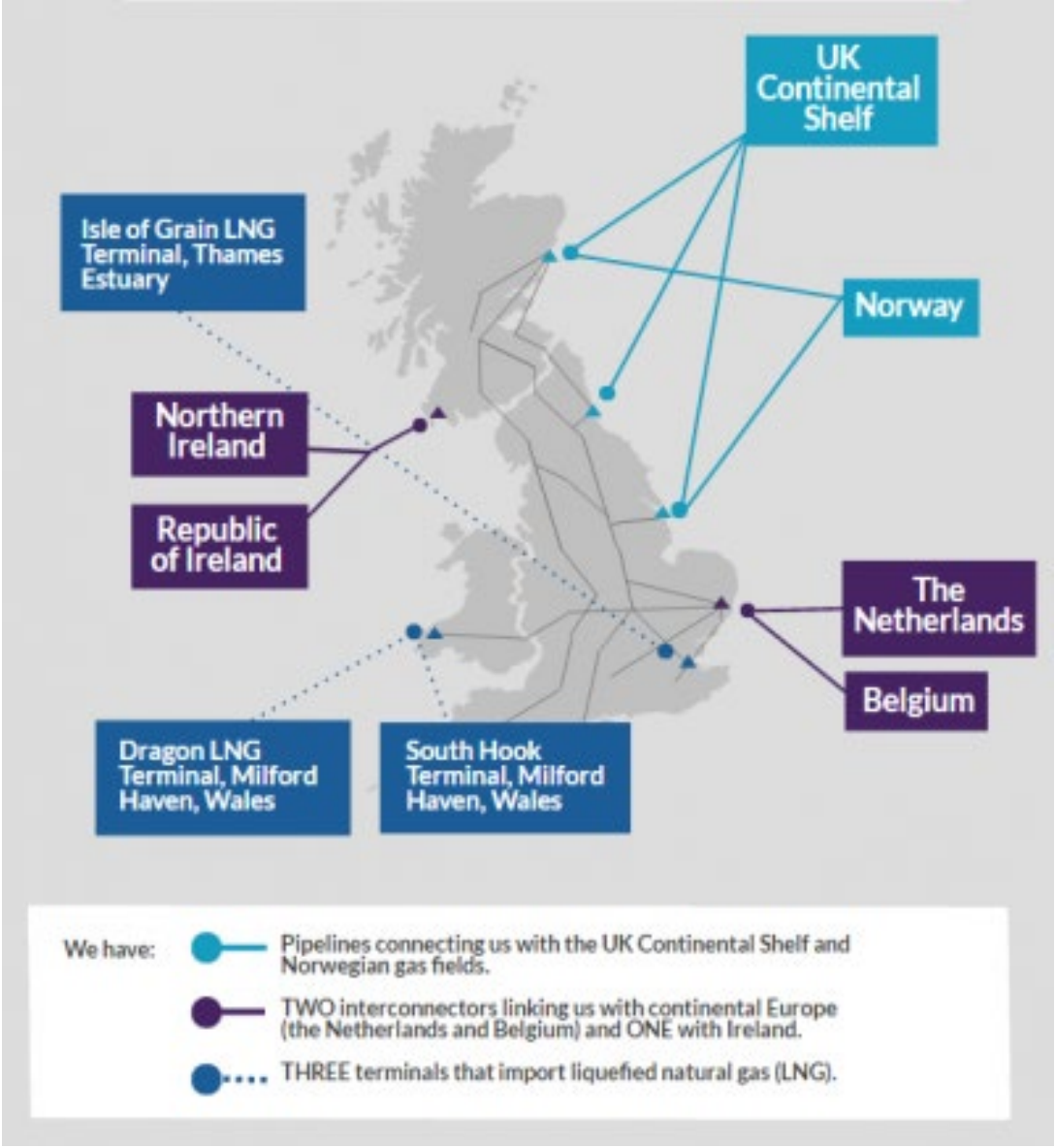

Figure 5: GB Gas Supply Entry Points[27]

As such, our changing supply mix will accompany changes to the direction of gas flows in GB. It is therefore important to ensure the continued resilience of import infrastructure in the south of England and Wales, as well as ensure that the gas system is equipped to manage higher flow rates from South-to-North (e.g. new compressors may be needed or existing sites

[27] Ofgem (2021) 'What drives British wholesale gas prices?' (viewed on 25 November 2025)

modified to push gas northwards). This priority is set out in Chapter 2: Priorities for gas security of supply.

The changing pattern of demand

At present, gas constitutes approximately 35% of the UK's energy mix.[28] It is primarily used as a fuel for residential heating (domestic heating), electricity generation and heavy industrial processes. The current split in UK gas demand over 2024 can be seen below.

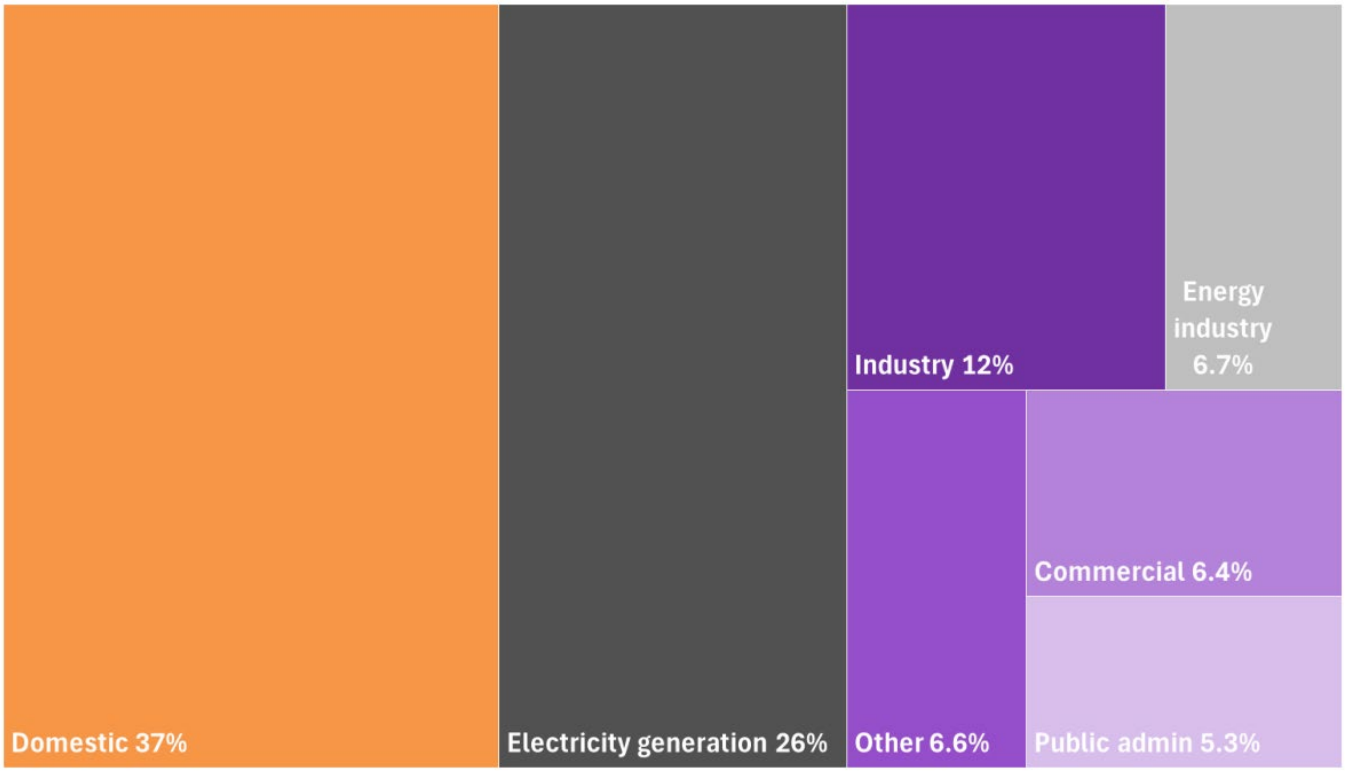

Figure 6: Sectoral consumption of natural gas, 2024 [29]

We expect typical daily gas demand to decline over the coming decades, as more residential and commercial buildings transition to alternative sources of heating, gas becomes a back-up source of power generation (rather than a baseload source), and industry decarbonises. Whilst we can be confident in this broad trend, the precise pace of gas decarbonisation nevertheless remains uncertain, reflecting variability in policy and market development. To reflect this uncertainty, this consultation draws on scenarios for UK gas demand contained in the National Energy System Operator's latest Future Energy Scenarios (FES). These are:

- **Electric engagement**: This is NESO's lowest gas demand pathway and reflects a scenario where we are on track to meet government net zero goals by 2050. Power demand is met primarily through renewable and nuclear sources, with consumers being

[28] DESNZ (2025) 'Digest of UK Energy Statistics (DUKES): natural gas' Chapter 4: Natural gas (viewed on 25 November 2025)
[29] DESNZ (2025) 'Energy Trends: UK gas' DUKES Table 4.1 (viewed on 25 November 2025). Definitions of each demand category can be found here: DESNZ (2025) 'Natural gas statistics: data sources and methodologies' (viewed on 25 November 2025)

highly engaged in the transition using smart technologies, heat pumps, and electric vehicles.

- **Hydrogen evolution**: This NESO scenario reflects a gas demand pathway that is net zero 2050 compliant, involving greater use of hydrogen in the energy system compared to the electric engagement scenario. The level of gas demand is higher than the electric engagement pathway, as more gas is needed to produce blue hydrogen.
- **10-year forecast**: This scenario represents NESO's current view of the next ten years, taking into account where the gas system is at present, existing projects, and policies, and planned actions.
- **Falling behind**: This is the highest gas demand pathway modelled by NESO, which is not consistent with government net zero goals. Although there is some decarbonisation compared to the present day, the pace is insufficient to meet net zero by 2050. The principal components of the Falling Behind pathway include substantially more gas used for heating and power generation compared to the other pathways, and, according to DESNZ and NESO's analysis, presents the greatest risks to our energy security.

Importantly, as already highlighted, we expect the level of rare peak day gas demand to decline at a slower pace compared to typical daily gas demand.[30] The comparatively slow pace of decline of peak day demand reflects the continued possibility of high gas demand during particularly cold and still days over winter (i.e. very cold days with low wind). On these days, the role of gas as a back-up source of power generation would take effect, in line with the government's position that gas would be maintained on the system in a strategic role as a reserve for these periods, alongside higher domestic heating demand due to colder temperatures. This creates the emerging priority of needing to ensure that we have sufficient midstream infrastructure in place to meet these peak demand days, even as we expect less gas to flow through this infrastructure during typical winter days. This is set out in Chapter 2.

With respect to GB gas exports, changes to continental Europe and/or Ireland's supply and demand mix will affect future GB export levels, providing a source of uncertainty. Whilst we typically export gas to continental Europe via our interconnector pipelines during spring and summer months to support European storage injections ahead of winter, and export gas to Ireland throughout the year, changes to continental European and/or Irish supply and demand can affect these export patterns.

[30] Peak day demand constitutes the highest (i.e. peak) daily demand that we would reasonably expect to occur over winter. For instance, as set out in the Uniform Network Code (UNC), National Gas is obliged to make sure that the National Transmission System is equipped to meet peak 1-in-20-year daily gas demand.

Chapter 2: Priorities for gas security of supply

In light of GB's changing gas supply and demand mix (**see chapter 1**), we have identified three main priorities for security of gas supply in the coming decades. These include maintaining:

- a level of infrastructure capacity to accommodate a broad range of demand;
- a system resilient to unplanned infrastructure outages; and
- a commercial model that allows infrastructure to operate.

NESO's 2025 Gas Supply Security Assessment identifies similar priorities for the future supply capacity and resilience of the gas system.[31] The following sections of this chapter explore each of these three priorities in more detail, outlining the potential implications for our gas security of supply over the medium-term. Chapter 3 then outlines the potential actions to ensure necessary infrastructure capacity and resilience, and chapter 4 outlines the potential actions to support commercial models that allow that infrastructure to operate effectively.

Priority 1: Ensuring gas infrastructure capacity

Gas infrastructure *capacity* determines the amount of gas we can use in GB. It is different from gas *supply* (in terms of molecules of gas available). There is sufficient global supply of gas available to the UK, (indeed there is a forecast global oversupply of LNG in the coming years as new LNG production facilities come on stream in the U.S. and Qatar, adding 50% growth of LNG supply by 2030).[32] The focus of this section is therefore whether we have sufficient gas infrastructure *capacity* to be able to utilise that available supply, especially as the GB gas supply mix changes as set out in chapter 1.

We currently benefit from diverse gas supply sources, which in turn means we utilise a diverse range of gas infrastructure capacity to bring supply to the country and move it to where it is needed. This includes pipelines and terminals from the UKCS, pipelines and terminals from the NCS, LNG terminals, gas interconnectors from two European countries, gas storage facilities both onshore and offshore, and the National Transmission System (NTS). According to the Gas System Operator (National Gas) we currently have sufficient gas infrastructure capacity in place to meet a 1-in-20-year peak day gas demand.[33] The latest GSO estimate of our gas supply capacity for 2025-26 (assuming no disruptions and full storage levels) can be seen below.

[31] NESO (2025) '2025 Gas Supply Security Assessment' (viewed on 26 November 2025)
[32] International Energy Agency (2025) 'World Energy Outlook 2025' (viewed on 25 November 2025)
[33] National Gas (2025) '2025 Gas Winter Outlook' (viewed on 25 November 2025). Data on the supply capacity breakdown is available in the Table 6 data workbook here: 2025 Gas Winter Outlook Workbook

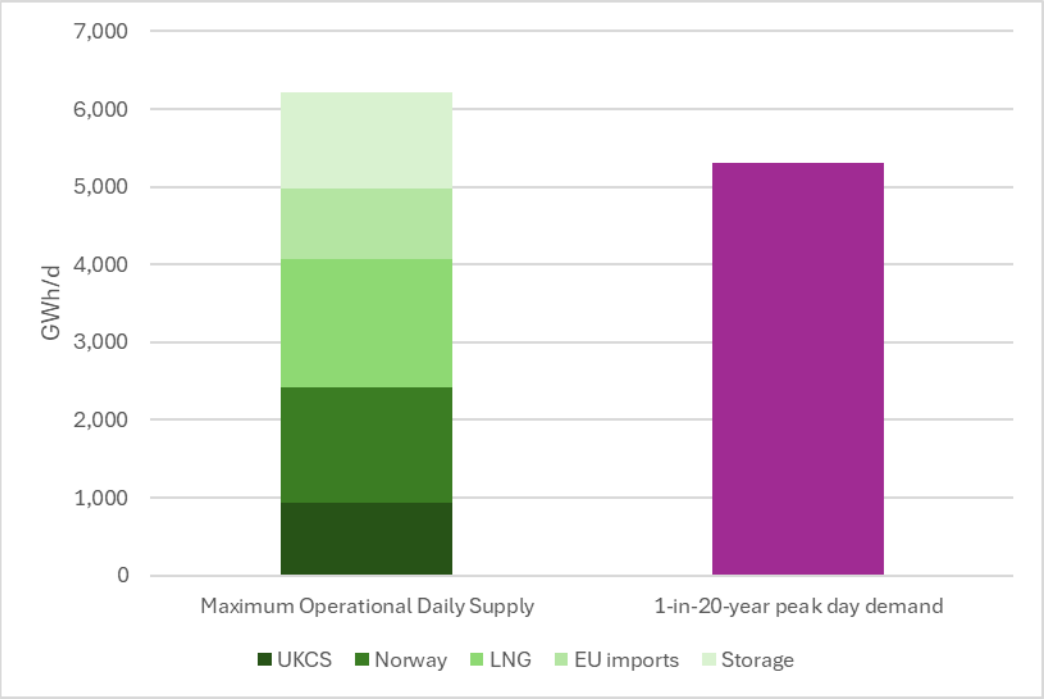

Figure 7: National Gas' 1-in-20-year peak day demand analysis for Winter 2025-26 [34]

Figure 7 shows a maximum operational daily supply of 6,215GWh (565mcm/d) for winter 2025-26 – sufficient to meet an estimated peak 1-in-20-year daily demand of 5,300GWh (482mcm).[35]

However, as our gas supply mix changes and supply from the UKCS declines due to natural geological reasons, we can no longer utilise or benefit from the *capacity* of the associated UKCS infrastructure. In simple terms - as our gas infrastructure *capacity* falls, so the amount of gas *supply* we can bring into the country falls. This is why we need to determine what level of gas infrastructure *capacity* we need in future even though the global market for gas *supply* is forecast to be oversupplied in the years to come.

The focus of this consultation is how to ensure the appropriate level of insurance (in terms of gas infrastructure capacity) to ensure that we can access the gas supply available to meet demand even during rare and low probability 'stress events.' This means, for example, single days with either very high demand (for example a 1-in-20 peak day demand – which equates to the highest level of peak gas demand we should expect to experience on only one day every 20 years) and/or a material drop in supply (for example an N-1 infrastructure scenario – which equates to the loss of the largest piece of our supply infrastructure).

In determining the infrastructure capacity needed, we also need to factor in the market tools available to manage supply and demand on any given day. The GSO are responsible for balancing the gas system on a day-to-day basis and already have access to a range of tools to

[34] DENSZ analysis using National Gas data, taken from the 2025 Winter Outlook data workbook and the "Figure 5 & Table 7" tab. Available via: 2025 Gas Winter Outlook Workbook
[35] Peak 1-in-20-year daily demand, as well as all maximum operational supply assumptions, are reviewed and recalculated by National Gas on an annual basis ahead of each Winter Outlook.

manage supply and demand imbalances if required. This includes, for example, making balancing trades on the market, making use of operating margins, making use of linepack (i.e. gas stored within the National Transmission System), or allowing the temporary use of off-specification gas.

To understand the implications of the changing pattern of supply and demand we have modelled a range of low-probability, high-stress events. This is done by assessing the difference (or margin) between maximum daily supply and peak (highest) daily demand during typical winter conditions and then layering on high-stress scenarios including:

- **Infrastructure unavailability** – de-rating the available capacity to take account of business-as-usual outages, whether planned or unplanned, that may happen on any given day (e.g. for maintenance).
- **Severe weather** – a 1-in-20 peak day demand which models the highest level of peak gas demand we should expect to experience only once every 20 years (e.g. an extremely cold day).
- **Low underlying storage levels** – while we have effective short and medium range storage in this country (which can quickly carry out empty and refill cycles), this models low storage levels which would be expected at the end of a prolonged and very cold winter (e.g. with less opportunity to refill).
- **Major infrastructure loss** – an N-1 scenario, which models a scenario where we lose supply from the single largest piece of gas supply infrastructure on the GB network.

We then overlay different demand forecasts onto those layered high stress scenarios which reflect the pace of decarbonisation – using four gas demand pathways in NESO's Future Energy Scenarios (summarised in Chapter 1). These pathways range from faster transitions to net zero ('electric engagement' and 'hydrogen evolution') to NESO's current view of gas demand over the next ten years (the 'Ten Year Forecast') to a scenario that is insufficient to meet net zero by 2050 ('Falling Behind').

This modelling shows that even under several stress scenarios we will have sufficient infrastructure capacity to meet peak day demand with positive margins in future years. For example, a 1-in-20 peak day demand scenario with low gas demand.

However, in some of the lower probability and more highly stressed scenarios in the 2030s we start to see some risks of negative margins on individual peak days. This analysis is captured in Figure 8 below. The columns represent available daily peak supply available based on available gas infrastructure capacity, with time elapsing in five-year intervals. The coloured lines across the columns depict 1-in-20-year peak day demand (the highest level of peak gas demand we should expect to experience only once every 20 years) under each demand pathway in NESO's Future Energy Scenarios (listed in Chapter 1). The difference between all four pathways is shaded in light blue to capture the range of 1-in-20-year peak day demand.

Peak 1-in-20 Supply Margins (high storage levels left, low storage levels right)

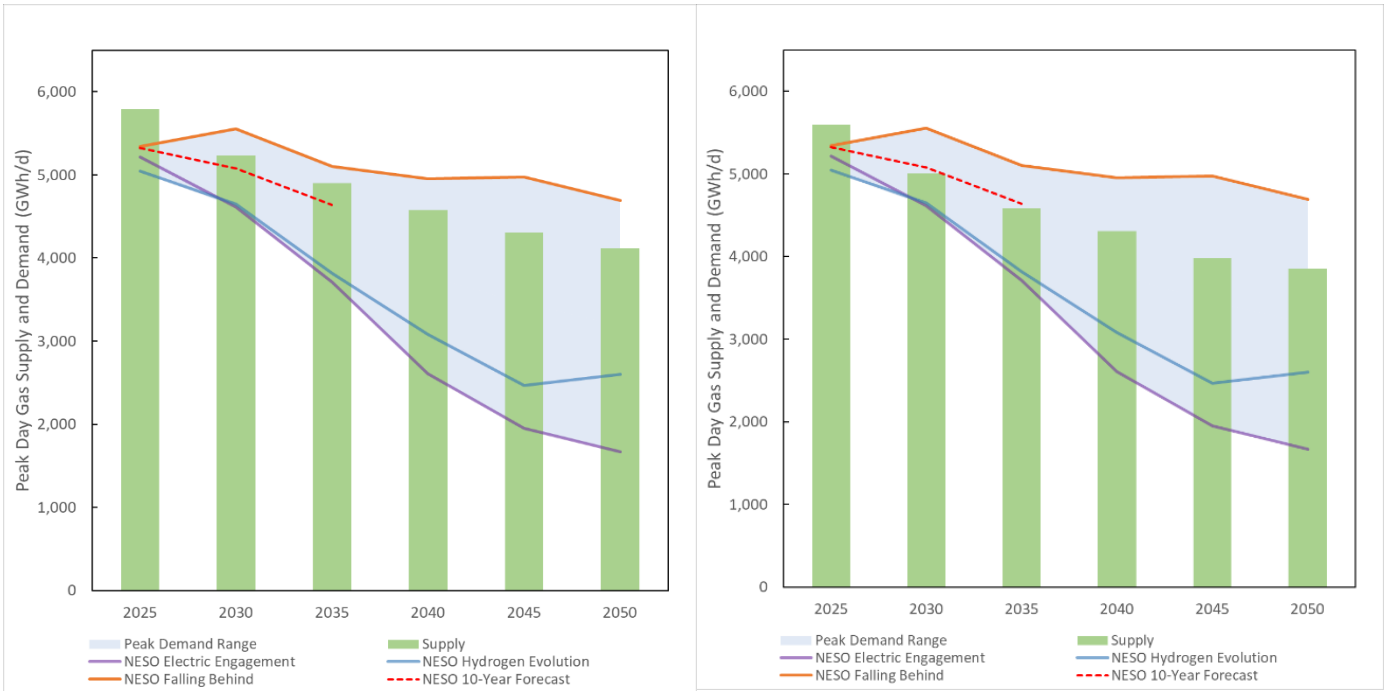

Figure 8: Peak 1-in-20-day gas supply margins under different gas demand pathways, 2030 to 2050, high storage levels (left) low storage levels (right)[36]

This shows that combining the 'falling behind' scenario (where gas demand remains higher than would be consistent with carbon budgets) *and* a very stressed demand scenario (a 1-in-20-year demand), we could see some small negative margins on peak day. It also shows that if we combine low gas storage levels (i.e. at the end of a prolonged and very cold winter) with a 1-in-20 year peak demand, margins could be tight under the NESO Ten year forecast (NESO's current view of gas demand over the next ten years).

These findings also show that, under faster transitions to net zero (electric engagement and hydrogen evolution), we could comfortably meet peak 1-in-20-year daily demand by lowering underlying overall gas demand. The conclusion is that increasing the pace of progress towards clean energy, decarbonisation, and electrification brings significant energy security benefits.

The key question for this consultation is therefore how to best provide insurance for low-probability, high-stress scenarios. While they remain unlikely, given the potential impact of negative margins, the government will do what is necessary to maintain security of supply.

1. Do you agree with the assessment that, as supply from the UK Continental Shelf continues to naturally deplete, imbalances between supply and demand may

[36] DESNZ analysis of future peak day gas margins, in each gas winter between 2030 and 2050 (in five-year intervals). Gas demand data are based on FES 2025 outputs, with supply data based on a mixture of publicly available forecasts and internal analysis. More detail on the methodology can be found in the technical annex accompanying this consultation. 'High and low storage levels' equate to level of fullness, rather than storage capacity. This analysis aligns with the NESO's Gas Supply Security Assessment (with the latter limited to 2035, rather than 2050).

become possible in low-probability, high-stress scenarios? Please provide evidence to support your answer.

2. **In light of the analysis outlining the priority of ensuring gas infrastructure capacity, do you think the market will respond to provide such insurance for low probability, high stress scenarios? Please provide evidence to support your answer.**

3. **What gas supply and demand scenarios are you using for planning in your organisation and why?**

    a. **What impacts to your sector/business have you identified using these scenarios?**

    b. **What mitigating actions are you considering against the supply and demand scenarios your organisation is using for planning?**

Priority 2: Ensuring gas infrastructure resilience

As our supply mix changes, the infrastructure supporting our LNG and interconnector pipeline imports will likely become more important in meeting national gas demand. This means we need to ensure the gas system remains resilient to the remote possibility of unplanned infrastructure outages at these sites.

GB currently has access to flexible and diverse sources of gas supply, including pipelines connected to the UK and Norwegian Continental Shelves, two interconnector pipelines with continental Europe and the second largest LNG port infrastructure in Europe. However, in the future, as the UK and Norwegian Continental Shelves decline (at different rates), our two other sources of supply – LNG and interconnector pipeline imports from continental Europe – will likely play an increasingly important role in meeting demand. As noted in Chapter 1, this role will heavily depend on two variable factors: the level of GB gas demand and the exact pace of decline of the Norwegian Continental Shelf.

The infrastructure supporting our LNG and interconnector imports is currently geographically clustered together. Two of our three LNG terminals are located in Milford Haven, Wales, and both of our interconnector pipelines with continental Europe flow into Bacton, England. The relative impact of failure at these entry terminals and associated infrastructure would therefore likely be more significant in the 2030s compared to today.

Whilst a *store* of supply rather than a *source* of supply, our gas storage sites help inject gas into the gas system to meet demand as and when required. So, we must also remain mindful of the possibility of disruption and outages at gas storage facilities, and the impact this could have on the GSO's ability to balance gas demand.

Analysis from GSO indicates that we are currently able to withstand failure of our largest single piece of infrastructure on the National Transmission System during a single peak 1-in-20-year

demand day with high storage levels and no other supply interruptions.[37] Looking ahead, NESO's medium-term analysis shows that should we experience the loss of our single largest piece of infrastructure on the very same day that we experience peak 1-in-20-year demand and when storage stocks are low, then the GSO would face challenges in balancing demand. Clearly this is an extremely low probability scenario, and as such, it reflects the very high standards of reliability for maintaining the gas system set out in legislation.[38] Nonetheless, the range of options outlined in the following chapters, alongside our exploration of a greater role for government, reflect our commitment to maintaining the very highest standards of system resilience as the gas system changes.

As such, we consider how to best maintain the reliability and resilience of our key gas import infrastructure over the coming decades, as well as other key infrastructure such as geological gas storage facilities and interconnectors. Any actions to ensure sufficient gas infrastructure capacity may also serve to mitigate this resilience challenge by introducing extra redundancy (for example if it was considered optimal to expand and diversify gas entry points into the country). These issues are explored further in **chapter 3**.

4. **Do you agree with the assessment that ensuring resilient infrastructure capacity is a key priority as the gas supply mix changes? Please provide evidence to support your answer.**

5. **In light of the analysis outlining the priority of ensuring resilient infrastructure capacity, do you think the market will respond to achieve this priority? Please provide evidence to support your answer.**

Priority 3: Ensuring a commercial model that supports infrastructure capacity

Maintaining sufficient supply capacity requires the operators of key infrastructure, such as import terminals, interconnector pipelines, and storage sites, to effectively maintain and operate their assets on an on-going basis. However, a future which involves shrinking national gas demand and narrowing seasonal price spreads may pose challenges to these businesses' commercial models.

In light of the projected decline in national gas demand, operators of key gas infrastructure face the long-term prospect of less gas flowing through their infrastructure during typical gas demand days. The government wishes to understand whether this prospect is affecting these businesses' near-term commercial viability, including when it comes to gathering the investment needed to recover revenue and maintain ageing assets. It is important to understand the breadth of this challenge among midstream infrastructure operators, including

[37] National Gas (2025) 2025 Gas Winter Outlook (viewed 25 November 2025). See N-1 analysis, p. 15. N-1 is a legal standard in both the UK and the EU, designed to assess whether there is sufficient infrastructure capacity in the gas system in the context of an extremely low probability scenario (major infrastructure failure coinciding with a peak 1-in-20-year demand day). The N-1 standard can be found in Regulation (EU) 2017/1938 of the European Parliament and of the Council (retained in UK law), Article 5.

[38] See Regulation (EU) 2017/1938 of the European Parliament and of the Council (retained in UK law), Article 5.

whether poor performing long-term capacity booking auctions may be impacting the near-term profitability of these operators' business models.

We have also received feedback indicating that regulatory standards may be serving to make GB a relatively high-cost destination to land LNG cargoes compared to other European markets. These factors include higher entry capacity prices - linked to how network costs are allocated - and the need to ballast some LNG cargoes with nitrogen to meet GB's narrower Wobbe Index limit[39]. As LNG import capacity in continental Europe expands, it is possible that these factors could affect GB's trade competitiveness and risk fewer cargoes landing in our import infrastructure. These factors are explored further in Chapter 4, which considers how regulatory and market-based changes might help maintain GB's attractiveness as a destination for gas imports.

In addition to the challenges facing operators of GB import infrastructure, narrowing seasonal wholesale price spreads and market volatility is impacting the commercial model of GB storage sites. Profits in the storage industry have historically been generated by large differentials between summer and winter gas prices, which encourage injections over summer and withdrawals over winter. However, between 2005 and 2020, NBP gas summer-winter spreads fell by around 70%, reducing opportunities for profits to be made.[40] Several gas storage projects granted planning permission since 2000 have not been developed, with companies that have engaged with the government citing declining summer-winter price differentials and a lack of certain financial revenue as key reasons. The commercial risks to storage sites could grow if seasonal wholesale price spreads remain narrow or reduce further, which could deter new entrants to the market, preclude necessary investment or prompt market exit whilst there is still a need for domestic storage to help avoid gas shortfalls on peak days in the years ahead.

The government is therefore exploring whether additional policy action may be necessary to ensure an ongoing viable commercial model for midstream gas infrastructure categories and ensure sufficient levels of infrastructure capacity to meet peak demand even in low-probability, high-stress scenarios. These options are explored in further detail in Chapter 4.

6. Do you agree with our assessment that ensuring a viable commercial model for infrastructure capacity is a key priority for the gas sector? Please provide evidence to support your answer.

7. In light of the analysis outlining the priority of ensuring commercially viable infrastructure capacity, do you think the market will respond to achieve this priority? Please provide evidence to support your answer.

[39] The Wobbe Index is a measure of gas quality set out in the Gas Safety (Management) Regulations (1996) to ensure gas safety with all end user combustion equipment. The regulations currently specify a Wobbe Index range of 47.2 – 51.4MJ / m3 under normal conditions, which reflects the quality of the gas of GB's historic primary source of supply, the UKCS. However, this range is narrower compared to other major markets, and as such gas from other markets and sources may need treatment to bring into the range of UK regulations.

[40] Speirs J and others (2020), 'The flexibility of gas: what is it worth?', Imperial College London Sustainable Gas Institute, p. 3 (viewed 25 November 2025).

Chapter 3: Changing infrastructure requirements

This chapter outlines potential government policy actions that could be taken to address the priorities of ensuring sufficient and resilient infrastructure capacity as set out in chapter 2. It sets out our current supply infrastructure. It then outlines potential options to ensure these assets continue to provide the physical capacity, system flexibility and resilience we need to meet evolving demand and provide insurance against rare, high-impact events (such as exceptionally cold days occurring with a probability of once in twenty years, or major unplanned infrastructure failure).

While chapter 3 addresses the physical capability and resilience of the system, Chapter 4 then turns to the financial and market conditions and respective policy options to ensure a commercial model that supports infrastructure operators, such as potential revenue support models, as well as regulatory and market-based changes to maintain the UK's attractiveness for gas imports.

Historically, the government has taken a limited role in the gas supply flexibility sector, which has generally been robust and reliable. As a result, the market is currently structured in a way that provides a large amount of autonomy for participants, with no role for government in setting allowed revenue returns or in dictating the amount of supply made available for the market. To date this approach has delivered the security and resilience we have needed in the short-term, but has meant limited government oversight of necessary infrastructure. It has also meant that, in common with other sectors of UK infrastructure, we have run the risk of failing to invest ahead of need. This is unlikely to be an appropriate model for a system undergoing significant change. Therefore, with the upcoming challenges to the gas system and our energy security, outlined in the preceding chapters, we need to consider whether a different approach, involving policy action and intervention, is required to sensibly mitigate potential risks to our energy security. To inform any such decisions, we are seeking a broad pool of evidence from across the sector to allow government can take well-informed and proportionate action.

In light of this, we explore a range of potential actions in order to address the identified priorities, and what the costs, trade-offs and consequences might be. We have purposely cast a wide net in exploring the options available, based on the suggested mitigations set out in NESO's Gas Supply Security Assessment, what has been raised with us by the sector and what is in operation elsewhere, whether in other energy vectors or internationally. We are interested in hearing a wide range of views to help us reach a balanced assessment of any necessary policy actions needed to meet the priorities set out in Chapter 2.

As with any government intervention, particularly when set against a challenging fiscal landscape, any actions will need to be carefully considered in terms of the incentives they create and associated risks, the costs they impose on different participants in the system – especially consumers – and overall demonstration of value for money of the action taken. We

are therefore particularly interested to understand the direct and indirect costs of each option, to inform subsequent assessment of each action against the risk(s) it may mitigate.

Ensuring sufficient key gas supply infrastructure

As gas basins in the UK and Norwegian Continental Shelf irreversibly decline in the future, we expect LNG and interconnector imports to play an increasingly important role in meeting demand, with GB storage continuing to provide a source of short-term system flexibility.

LNG supply

In recent decades, LNG (Liquified Natural Gas) has become an increasingly important method of moving gas to market and to end users. The vital role of LNG to GB security of supply is underpinned by the longer-term outlook for global LNG supply, which will rise over the coming decade as new LNG capacity comes online. Between 2025 and 2030, around 3,245 TWh (295 bcm) of new LNG export capacity is expected to begin production, a 45% increase on 2024 nameplate capacity[41]. In GB, LNG imports have gained importance in ensuring a secure and diverse gas supply portfolio as indigenous production has declined.

The global supply of LNG is growing. Supply increased by 4% (or 132TWh/12bcm) in the first half of 2025[42], and there are new liquefaction projects expected to come online in the USA, Qatar, Canada, and others before the end of the decade. Many analysts are predicting that the market will be oversupplied by around 2027-2028[43]

The UK has three LNG import terminals, all situated in GB: Grain on the Isle of Grain in Kent, England; and South Hook and Dragon in Milford Haven, Wales. Combined, these terminals offer a total import capacity of approximately 1,650GWh (150 mcm) / day, although given expansions at the Grain and South Hook LNG terminals, may be able to provide more gas in some high demand conditions. This is the second highest import capacity in Europe, after Spain.

Figure 9 below show historic UK LNG imports.

[41] International Energy Agency (2025) 'Global LNG Capacity Tracker – Data Tools – IEA' (viewed on 27 August 2025)
[42] International Energy Agency (2025) 'Global Gas Market Report, Q3-2025' (viewed on 27 August 2025)
[43] Institute for Energy Economics and Financial Analysis (2023) 'Global LNG Outlook 2003-2027' (viewed on 27 August 2025)

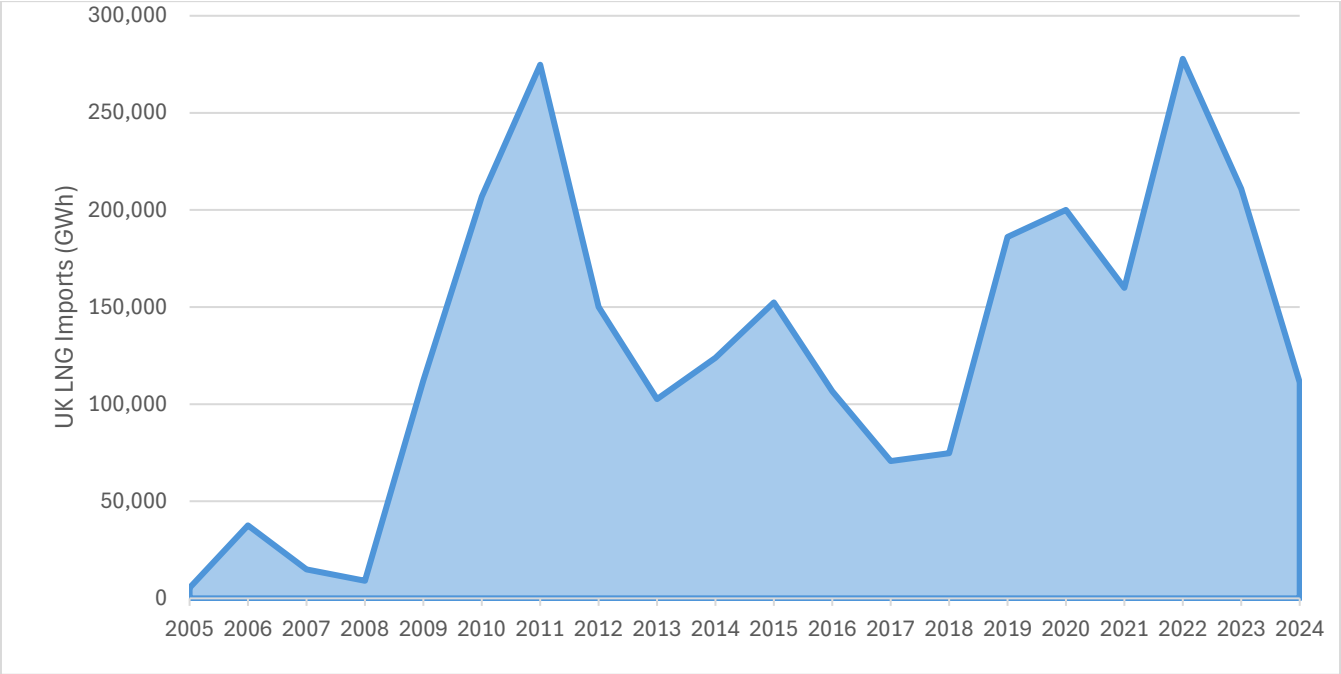

Figure 9: UK LNG imports 2005 – 2024[44]

One of the most valuable aspects of the LNG sector in providing security of supply is its ability to respond to both seasonal variations in demand as well as to relatively short notice changes to the balance of supply and demand on the NTS.

GB's LNG capacity enables us to play an important role in providing security of supply to partners in Europe, importing gas through LNG terminals, and then exporting through our interconnectors. This is through the BBL (UK-Netherlands) and Interconnector Ltd (UK-Belgium) interconnectors, and to the island of Ireland through the Moffat Interconnection Point. This contributes to Europe's ability to fill gas storage, strengthening wider UK and European energy security, and generating income for our gas assets. GB's three gas terminals are also equipped with on-site storage facilities, which are typically used to hold gas that has arrived but is not immediately fed into the network. Collectively, these terminals have the capacity to store significant volumes of gas, which is due to increase as Grain installs new storage as part of their expansion, potentially enhancing system flexibility and supply resilience.

Analysis of FES 2025 data suggests while GB will become more reliant on imports in percentage terms, the actual volume of imports is expected to peak by the early 2030s under the FES Net Zero pathways, and by the mid-2040s in their Falling Behind Scenario.[45]

GB takes a market-based approach to LNG infrastructure. The three LNG import terminals were constructed prior to 2009, and current terminal owners and operators continue to invest in modernising or expanding their capacity.

[44] DESNZ (2025) 'Energy Trends: UK gas' DUKES Table 4.3 (viewed on 25 November 2025)
[45] DEZNZ analysis of data from NESO (2025), 'Future Energy Scenarios: NESO Pathways to Net Zero 2025 Data Workbook' (viewed on 25/11/2025). V003 sheet F.21
Imports could be from either LNG or interconnectors; it is not possible to estimate any split between these with confidence.

Grain and South Hook terminals have expansion projects underway. An expanded terminal at Grain is currently under construction, adding around 55 TWh (5bcm) / year additional capacity, and is likely to be operational by the end of 2025 – however currently the amount of gas these expansions can deliver to consumers is limited by constraints on the NTS. Industry has shown an interest in bringing an additional terminal to GB, but despite the most advanced of these projects reaching the front-end engineering design (FEED) phase, as yet no projects have reached final investment decision (FID).

Grain LNG has signed long-term terminal usage agreements out to 2050, with a final lot of capacity due to come to market in the near future. Capacity at Dragon LNG is allocated to suppliers out to 2029, with plans to bring capacity rights after this date to the market soon. South Hook has capacity rights assigned out to 2035, and an exemption to regulated third party access rules (see below section on LNG Capacity) for 20 years on their incremental capacity project but would need to sell capacity for after this date.

As GB continues to decarbonise, reliance on gas is expected to decrease which may affect LNG terminals in future. In addition, as Europe look to increase their import capacity infrastructure, through developing new terminals and floating storage and regasification units (FSRUs), this could make other countries more attractive than GB in landing gas. HMG could consider intervening in the market to support LNG terminals and this could be done through providing revenue support which is explored in Chapter 4: Options for Ensuring Commercially Viable Infrastructure Capacity. Further detailed discussions of terminal capacity arrangements and FSRUs are also set out below.

8. Government's assessment is that existing LNG infrastructure is robust and commercially viable, do you agree?

a. If not, what actions do you think would be required to protect the strategic importance of existing LNG infrastructure?

9. Is there a strategic case for enhancing or expanding storage capabilities at LNG terminals?

a. What role should government play in supporting this?

Floating Storage and Regasification Units (FSRUs)

FSRUs are custom built or converted LNG carriers that receive LNG, store it onboard, and convert it back into gas for delivery into a local pipeline network. Given the costs of building brand new LNG terminals, development of an FSRU could be a more affordable option to support our supply infrastructure.

Unlike a traditional onshore LNG terminal, an FSRU could be deployed relatively quickly and with lower capital costs than an onshore terminal, however any FSRU would be smaller in capacity and have a lower send out compared to GB's three existing onshore LNG terminals. One advantage is that an FSRU could be redeployed once GB gas demand declines and the additional send out is no longer required, reducing the sunk costs and decommissioning challenges associated with an onshore terminal. As an FSRU can be redeployed when no

longer needed, it also offers the strategic advantage of being relocatable and sellable to international markets, generating additional revenue.

Historically, FSRUs have been used in emerging markets or to serve economies with limited alternative supply options, however, several countries in Europe have rapidly deployed FSRUs, which have supported moves away from Russian gas, with Germany, Italy, the Netherlands, Finland, France, Greece and Turkey all bringing an FSRU to market since 2022.

Case Study: German FSRU Rollout

In February 2022, Germany, along with much of Europe, moved rapidly to reduce reliance on Russian pipeline gas by commissioning new LNG import infrastructure – prior to 2022 the country had no ability to import LNG. Germany commissioned FSRUs at four key ports: Wilhelmshaven, Brunsbüttel, Stade and Mukran.

As a result of public-private cooperation, significant government support and expedited construction timelines, these first of these FSRUs, the Höegh Esperanza at Wilhelmshaven, came online as quickly as late 2022, with commercial operations starting early 2023.

In the longer term, Germany is planning to transition these sites either to permanent land-based LNG import terminals, or to support green fuels such as ammonia and hydrogen.

These FSRUs, constructed at pace, have been central to their energy security strategy – stabilizing gas supplies and ensuring security of supply for Germany and Europe.

Earlier this year, the Republic of Ireland announced plans[46] to deploy an FSRU as part of a new State-led Strategic Gas Emergency Reserve. Ireland has limited indigenous production, so the initiative is designed to increase Ireland's energy resilience by providing an alternative source of gas in the event of a disruption to supplies from GB, which currently accounts for around 80% of Ireland's natural gas imports[47].

Ireland plan for the FSRU to act as a temporary and transitional measure, capable of supplying the country's entire gas demand for up to seven days during emergencies. It will be operated by Gas Networks Ireland (GNI) and moored at a coastal site yet to be publicly confirmed. Initial plans are for the vessel to connect to the national grid via a purpose-built jetty and regasify imported LNG as needed.

Bringing an FSRU to GB could help respond to the capacity and resilience priorities set out in Chapter 2 - adding an additional supply point to the system, would add resilience in the case of

[46] Department of Climate, Energy and the Environment (2025) 'Government approves development of State-led strategic gas emergency reserve' (viewed on 25 November 2025)
[47] Department of Climate, Energy and the Environment (2020), 'Policy information: Gas' (viewed on 25 November 2025)

outages elsewhere, and the extra supply capacity and responsiveness of LNG regasification would increase the ability of the system to respond to a broad range of demand.

HMG is aware of interest from the market to locate an FSRU in GB, although no plans have yet reached Final Investment Decisions (FID). We are not aware of any significant regulatory barriers to entry that would prevent the market from delivering an FSRU.

In the unlikely case that the market cannot provide additional LNG entry capacity, government could consider bringing an FSRU to GB. Government could directly or indirectly charter an FSRU and have it operated on behalf of HMG and bill payers, should an FSRU option be considered to provide value for money,

10. Do you agree with the assessment that the introduction of an FSRU could help ensure gas infrastructure and resilience? Please provide evidence to support your answer.

11. Do you agree that there are no significant barriers to entry for new LNG entry points, including for an FSRU, and that the market can deliver additional capacity if this is necessary?

a. If not, what could government do to resolve the barriers to entry for new LNG entry points?

12. Do you consider there to be other advantages and/or disadvantages of government directly chartering and appointing an operator of an FSRU, to be operated as a strategic gas supply source?

13. Please explain whether and how you think it would impact your role in the market and your current operating model if HMG were to directly charter an FSRU.

Interconnectors

Interconnectors provide a key piece of flexibility to the GB gas system. These gas pipelines connect Great Britain's NTS to continental Europe and the island of Ireland, allowing gas to be transported between neighbouring countries, enabling cross-border energy flows, and strengthening regional energy cooperation. This enables GB to receive natural gas during times of peak demand and to support interconnected countries meet their supply needs. Each pipeline is governed by an international agreement with the relevant state on the other end of the interconnection. The agreements with EU member states are underpinned by the Trade and Cooperation Agreement between the UK and the EU.

Currently, GB's diverse sources of gas supply significantly exceed its demand during the spring and summer months. Historically, this has led to the interconnectors operating on a broadly seasonal pattern, exporting to Europe during the summer when GB demand is lower and importing gas from the continent during the winter months when GB demand is highest.

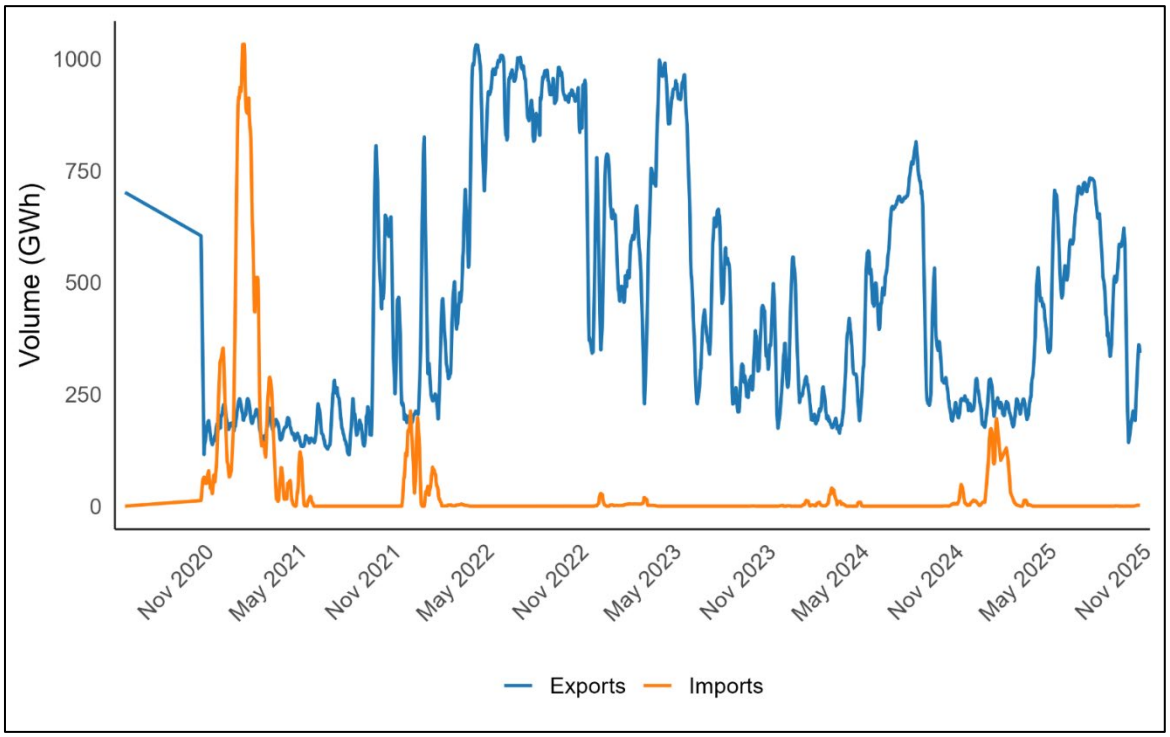

Figure 10: Daily interconnector imports and exports, November 2020 – November 2025[48]

Two of the gas pipelines connecting GB to neighbouring countries have bi-directional flow capacity, which facilitate both imports and exports:

- Interconnector Limited (INT), connecting Belgium and GB.
- Bacton-Balgzand Line (BBL), connecting the Netherlands and GB.

In determining flow direction, INT and BBL respond to shipper nominations who respond to price differentials between prices in GB's and prices available in Europe. INT and BBL can switch the direction of their flows in four and 24 hours respectively, allowing the interconnectors to respond to short-term market signals and sending gas where demand is highest. This responsiveness makes interconnectors a vital tool for balancing supply and demand across borders, and enhances energy security and market efficiency in the UK and across Europe.

The diversity of GB's sources of gas supply means we can often export gas to continental Europe, the Republic of Ireland and Northern Ireland while continuing to meet UK gas demand.

- GB has unidirectional, export only, connections to Ireland, Northern Ireland, and the Isle of Man through the Moffat interconnectors. We expect these interconnectors to continue to remain operational and will continue to work with the respective governments to ensure cooperation and security of supply.

[48] DESNZ analysis of National Gas Interconnector flow data taken from the National Gas transmission data portal.

In December 2024 BBL announced reductions in GB import capacity from 432GWh/d (~40mcm/d) to 240GWh/d (~22mcm/d)[49] due to a historical and future decrease in demand for physical gas flows from the Netherlands to GB, as well as electricity grid connection issues on the Dutch side.

In July 2025, Interconnector Ltd announced an open season on GB capacity, which closed in September. This review is in response to high asset maintenance and operation costs as well as increased business costs associated with increasing environmental and security obligations. The outcome of this review was that Interconnector Ltd announced plans to reduce capacity from 803GWh/d to 667.9GWh/d (73mcm/d to 61mcm/d)[50] from 4th November 2025, and then to 396.7GWh/d (36mcm/d) from 1st October 2026.

These developments underscore the interconnectedness of the challenges we are trying to mitigate – commercial pressures affecting our total capacity to supply gas and protect our resilience, which whilst manageable currently would be difficult to mitigate in extreme scenarios in the future, without any intervention.

Interconnectors play a key role in the GB supply mix and could contribute significantly to addressing the capacity and resilience priorities set out in Chapter 2. They play a vital role in GB meeting peak demand in a cold winter period or during a cold snap; they are able to react rapidly to changes in demand and prices, while supporting filling GB's own medium range storage sites, and can enable landing of gas more quickly than directing an LNG cargo to GB.

We are seeking views on how to secure sufficient import capacity via the interconnectors, to ensure they continue to play an important role as the trends of gas traded between GB and Europe changes and economic pressures might grow. We want to consider what role HMG should play in protecting and enhancing the capacity and reliability of our interconnectors in the years ahead.

14. How can the strategic importance of interconnector capacity be protected, and what actions do you think might be required?

Geological storage

Geological natural gas storage has been a valuable asset to Britain's energy security, bolstering GB's system resilience over the past few decades, and will continue to play an important role in the decades to come. It is an effective source of flexibility to the GB system, responding to short-run changes in supply and demand, and providing additional supply flexibility during colder winter months.

Maximising the potential of our gas storage sector as a flexibility tool could help contribute to a wider strategy for supply resilience.

GB currently has eight gas storage facilities, with a combined maximum capacity of 35 TWh (3.2 bcm) – around 13 days of average 2024/25 winter gas demand – and maximum

[49] National Gas (2025) 'National Gas Published 2025 Gas Winter Outlook' (viewed on 25 November 2025)
[50] Fluxys (2025) 'Interconnector Infrastructure' (viewed on 25 November 2025)

deliverability of 1,290GWh/d (~117mcm/day).[51] Our varied sources of gas supply means that the UK is significantly less reliant on gas storage than some of our European counterparts, who have larger storage capacities to mitigate their lack of diverse supply. Their storage is used during winter as baseload supply, in comparison to our storage which acts as an effective flexibility tool over winter, “topping up” the system as needed.

Most of GB’s storage facilities are medium-range storage, meaning they can cycle gas regularly and as such empty and refill quickly after periods of high demand. Some medium-range sites can empty and refill within days, others in months, this is dependent on pressure and the age of the facilities. These sites tend to have a smaller capacity than long range sites, but their higher deliverability enables them to be more responsive to peak-day demand.

Long-range storage sites cycle on a seasonal basis, following a general pattern of injecting in the summer and withdrawing in the winter. They tend to have slightly lower daily deliverability rates and are less able to respond to within-day demand peaks, however, the value of long-range storage is its large capacity and its ability to continually provide a steady flow of gas to the system throughout winter, supporting baseload supply.

While historically both medium range and long-range storage facilities have played an important role in providing year-round energy security, as GB’s supply and demand of gas changes during the transition, (relying on more imports; helping meet peak demand, rather than providing baseload energy) we will need to carefully consider the value of storage capacity and deliverability to meeting our future needs, when determining the scope for potential action.

The seasonal nature of **medium-range storage** can be seen in Figure 11, with storage stocks increasing over summer and falling during winter.

[51] National Gas (2024) ‘Gas Ten Year Statement’ (viewed on 25 November 2025)

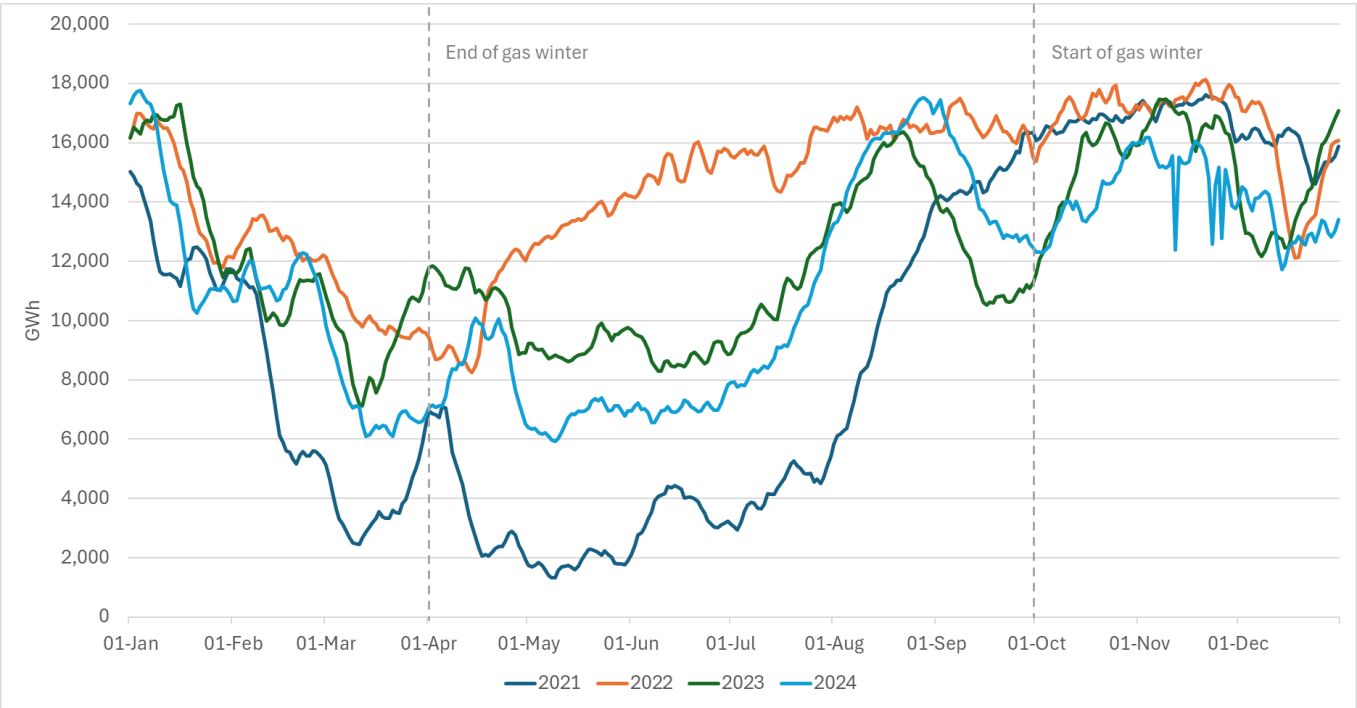

Figure 11: Medium-range storage stock levels 2021-2024[52]

Some storage sites can respond quickly to demand, and the higher deliverability storage sites within GB are able to switch between injecting and withdrawing gas rapidly, some within the same day. This additional flexibility is particularly valuable in instances such as unexpected infrastructure outages, allowing gas from storage to be used to balance demand until the disruption is resolved. Storage also supports utilisation of LNG import infrastructure by providing additional offtake for gas during summer months, when demand would otherwise be lower. Greater geological storage capacity could provide more resilience and flexibility to quickly meet peak demand, especially in the event of disruption elsewhere in the system.

A recent example that illustrates that flexibility provided by gas storage was in early January 2025, when GB experienced a relatively high demand period, peaking at 4,312GWh ((392mcm), including exports) in a single day.[53] Storage withdrawals were key to meeting demand over this cold snap, supplying around 13.6TWh (1.2bcm) over the course of January.

Notwithstanding this, storage is not a consistent, or necessarily wholly reliable, source of gas supply: as stocks deplete, the pressure in storage facilities falls, leading to a decreasing deliverability rate. As such, stocks therefore need to be replenished from other sources, which can in turn serve to increase gas demand during periods of high demand. Periods of high demand will likely mean increased competition for gas, therefore higher prices.

[52] DESNZ analysis based on National Gas data, available via the National Gas transmission data portal. Excludes long-range storage as GB's only long-range storage site came back online in autumn 2022.
[53] DESNZ analysis of National Gas NTS actual demand data, available via the National Gas transmission data portal.

Gas storage sites in GB are privately owned - filling storage sites when gas prices are lower (generally in the summer) and selling onto the market in winter when the price is generally higher.

However, we understand that the changing gas market and the narrowing of price spreads [54] may affect the commercial viability of storage operation, reducing the incentive to invest in storage or worse leaving some sites to face difficulties in the short-to-medium term.

Notwithstanding these potential pressures, we know that natural gas storage will continue to play an important role in the gas system as we transition to Clean Power 2030 and Net Zero 2050, whilst there is also a potential option for gas storage to convert to hydrogen storage. We are aware that natural gas storage, in salt caverns especially, could be converted for use as hydrogen storage and that the feasibility of conversion of depleted reservoirs to hydrogen storage is under close investigation. The Department is separately developing the hydrogen storage business model (HSBM) to incentivise investment in and the development of hydrogen storage, and we understand that current gas storage operators may be considering storing hydrogen in their facilities in the future.

Beyond the option of providing clear revenue support to storage operators (which is explored below in Chapter 4), we are interested in ways that could increase capacity and deliverability of storage sites, as well as changes to the current operation of facilities to ensure stored gas is emptied when needed or to prevent unexpected exit of capacity and deliverability from the market.

Optimal storage use within the system, including injection and withdrawal behaviours, would ideally ensure storage stocks are full for the start of winter, start to empty when needed (especially during cold snaps), and – if necessary – that storage sites refill following cold snaps to ensure resilience for future shocks. To date, the gas storage market has operated effectively to help meet GB demand, especially over winter, however action may be necessary to ensure storage operates in the optimal way during the transition and amidst these challenges to our security of supply. Whilst financial and commercial support options are explored in Chapter 4, possible policy and regulatory actions to bolster the value of storage include:

- **Mandated targets**: setting target levels of fullness and/or emptiness for various sites at various times of the year, by winter and during/following cold snaps, for example as introduced by the European Union following the Russian invasion of Ukraine in 2022[55]. If the target is not met the site operator could face financial consequences, or government could procure the natural gas to the required level. If those with third party access to sites have not sufficiently met filling targets, then these rights could be withdrawn.
- **Compulsory stock obligations**: would require suppliers or shippers to maintain a certain percentage of their annual natural gas usage in store, in part or entirely located within a GB natural gas storage facility. Given the current storage capacity in GB, this

[54] Imperial College London (2020) 'The flexibility of gas: what is it worth?', p. 17 (viewed on 25 November 2025)
[55] European Commission (2025) Reinforced EU rules on gas storage (viewed on 25 November 2025)

would also require significant expansion to the domestic storage sector to ensure storage could still provide some flexibility to the market and operate on a merchant basis.

Different actions to support injection and withdrawal from the system would allocate costs very differently between actors within the system. Any of the above actions would reduce storage flexibility, rendering a certain portion of gas storage capacity illiquid for a period. The above actions could also disrupt seasonal price patterns by increasing demand in summer to meet target deadlines therefore inflating the cost of gas and inadvertently causing negative summer-winter price spreads meaning additional financial support could be needed to provide a firm guarantee of gas in storage.

15. How can geological storage capacity and deliverability levels be protected and what actions do you think might be required?

16. To what extent do you think targets and compulsory stock obligations would address any of the three priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; and commercially viable infrastructure capacity)? Please provide evidence to support your answer.

Strategic gas storage

In addition to above actions to protect capacity and deliverability, the government could consider whether further measures in the storage sector may be appropriate, such as the idea of a strategic storage site. Increased storage capacity and deliverability does not guarantee gas will be in store and withdrawn by the market when needed by the system, so a strategic storage site, under the direct or indirect control of government, may be more suitable in meeting our gas security and resilience needs.

However, before any decisions are made, we want to gather a broad pool of evidence from across the sector to understand the risks, benefits and potential implications of different approaches. Any decision by the government to establish a new site or sequester part of an existing site has would have potential market implications, carry significant costs, and could have unintended consequences, which we would need to consider in full. Therefore, there is a very high evidentiary bar for intervention.

Strategic storage sites are typically large-scale operations that withhold stored gas from normal market functions for use by governments or the system operator in pursuance of a particular strategy, or to cope with unexpected events like times of peak demand or supply shocks, as opposed to being injected and withdrawn in line with market conditions.

Government approaches could either involve direct control of a storage asset (i.e. purchase and ownership of a new site or of an existing / previous geological storage site) or agreement to own or lease part of an existing or future site operated by a commercial partner. In either scenario, the operation of government’s storage reserve would be administered directly or through an intermediary body, such as the system operator.

Building new storage capacity takes significant time: we understand that on average, it takes approximately 7-9 years to build onshore salt cavern storage, and 2-4 years to develop depleted hydrocarbon fields into storage sites plus the planning and permissions process.

There are also significant costs associated with developing storage. The costs facing GB storage facilities are unique, depending on their specific geological characteristics such as location, depth, pressures, age, quality of geology. In addition to this, the purchase of cushion gas is required.

We are aware that some countries have limited access to domestic geological storage, for example Greece, and so to provide a layer of resilience they have invested in storing gas in third country facilities. This is not something GB has needed due to our own facilities, and it is not without its risks; it still takes time and infrastructure to import gas from other countries. However, purchasing part of an existing storage facility in a third country could overcome the need for significant capital investment to build a new facility, or may be proportionate or necessary to supplement domestic geological storage capabilities.

In a scenario where no new capacity is built, acquiring a portion of existing storage capacity could effectively remove working storage capacity available to shippers. This would reduce the ability of the market to efficiently meet demand and supply levels based on prevailing price signals. Some form of partnership with an existing or potential storage operator could be operationalised more quickly, given the site has already been prepared for storage. However, purchasing capacity for the government from an existing asset would not increase capacity and could reduce deliverability.

If there is sufficient evidence to suggest that HMG should enter the market and provide some revenue support to one or several storage assets, it may have unintended consequences and create pressures (such as reducing the incentive to invest in storage facilities) that actually precipitate market exit and ultimately reduce storage capacity.

Based on the cost and time required for HMG to develop a new geological site, prepare it for use, to purchase and fill the site with gas, and establish the necessary legislation, it would not appear feasible to achieve this in the time period of 2030.

However, HMG part-ownership or leasing of another operator’s site (existing, new, or international) could likely be operationalised more quickly and thus may be a more feasible mitigation to use the benefits of geological storage to improve overall GB capacity and/or resilience.

17. What are your views on the strategic storage options outlined above in relation to addressing the priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; and commercially viable infrastructure capacity)?

a. Do you recommend a specific strategic gas storage option?

b. Are there any alternative strategic gas storage options we have not listed?

18. **How would a strategic storage reserve impact your role in the market (would it have a positive, neutral, or negative effect on your current operating model)?**

19. **Who would be best placed to operate a strategic storage site, purchase the gas, and set conditions of use?**

20. **What other factors, including gas usage and refilling terms, should be considered in any strategic gas storage proposal (either through new facilities or by securing capacity at existing sites)?**

21. **What are the implications of leasing part of an existing or future storage site, either in GB or abroad?**

22. **Please provide any evidence on the cost of developing a new storage facility.**

23. **Please provide any estimations on the cost of leasing existing storage capacity.**

Gas contracting

As well as infrastructure-focused actions, this section considers whether changes to gas contracting practices could help address the priorities of ensuring sufficient and resilient supply capacity. While GB benefits from highly liquid gas hubs and flexible trading arrangements, other markets rely more heavily on long-term purchasing strategies. We are seeking views from terminal operators and other market participants on whether longer-term contracting, either by industry or government, could play a meaningful role in strengthening supply resilience and affordability, and what the risks and trade-offs might be.

Longer term and more forward gas purchasing

Along with other European markets, GB has access to two strong and highly liquid “gas hubs” – our own NBP and the Dutch Title Transfer Facility (TTF). The NBP gas hub facilitates the sale of gas from a mixture of UKCS supply, NCS supply, interconnector imports, and LNG deliveries – allowing for trade to happen on the day, day ahead, and in the season ahead. With such flexibility, the GB market generally declines to purchase gas multiple years in advance.

However, in markets that rely on LNG or other imports as their main or only source of gas supply, such as Japan, South Korea or Taiwan, a high proportion of wholesale gas is purchased on long-term contracts by a range of different market participants including private enterprise, state owned, or state backed entities and/or national monopolies.

Case Study: Japan's long-term contracts

Japan has limited access to domestic gas production, relying on LNG imports for 98.5% of their supply in 2024, but natural gas is widely used for domestic heating and cooking, as an important fuel for many industrial processes and for 29.8% of electricity generation. In Japan, government work in close partnership with industry to set policy direction and achieve outcomes. Japan's seventh strategic energy plan notes the importance of taking all necessary measures to ensure a stable energy supply and includes securing long-term LNG contracts.

JERA, Japan's largest power generation company has recently signed 20-year agreements to purchase up to 5.5mtpa of LNG from a range of US suppliers including NextDecade, Commonwealth LNG, Sempra and Cheniere. These deals are structured under terms with no destination restrictions, allowing Japan to optimise shipping routes and respond flexibly to regional demand fluctuations across Asia-Pacific.

Germany has taken decisive steps to secure long-term gas supplies following the disruption of Russian imports, and in 2023 signed a landmark 10-year contract with Equinor, Norway's national energy company, to supply 111 TWh (approximately 10 bcm) of natural gas annually starting from January 2024[56].

As we become more reliant on what we had previously considered as flexible sources for our baseload supply, shippers and suppliers signing contracts that guarantee delivery of gas for many years could help with Priority three, ensuring a commercial model that works.

Changes could be made to Ofgem's regulatory regime to incentivise or require businesses to undertake long-term contracts for gas supply. However, it is not clear what the correct percentage of a shipper's gas supply should be purchased in advance, or how far in advance it should be purchased to provide the greatest benefit to security of supply and consumer prices – and market participants are better placed to make that decision than government.

The terms and conditions of gas supply agreements and sale and purchase agreements are complex, differ between each contract and are commercially confidential. In general, prices are linked to one of the liquid gas hubs, oil prices, or other indices. Usually, the seller assumes the price risk and the buyer assumes the volume risk – meaning that in a situation where prices fall buyers may get a better deal, but if prices are high or GB no longer requires the full volume of gas contracted for, shippers would have to pay for that gas regardless – and are likely to pass that cost on to consumers.

[56] Equinor (2023) 'Equinor and Germany's SEFE enter long-term gas sales agreements and pursue large scale hydrogen supplies - Equinor' (viewed on 25 November 2025)

24. Should we attempt to encourage or require shippers to enter more long-term contracts with producers? If yes, can you explain what mechanism you believe to be most appropriate to encourage or require long-term contracting?

HMG Contracting for gas

The government does not currently play any role in meeting our commitment to security of supply by buying or selling gas, nor has it historically done this since privatisation of the sector in the 1980s. HMG entering into the market and purchasing gas either directly or through an intermediary could in theory provide some certainty to GB suppliers and consumers that gas will be available when required, regardless of the behaviour of the market. This could provide some level of risk management and enhance security of supply in scenarios where supplies are tight, but it is not clear that this would assist with any of the three priorities set out in section 2.

As the wholesale market is incentivised to balance supply and demand, and has done this effectively since the 1980s, we consider that government procuring gas could simply displace gas that would otherwise have arrived via the market and not provide any substantial benefits to security of supply. This could then undermine the financial viability of existing gas shippers, with a risk of defaults. As most consumer gas suppliers are also gas shippers, a default of the shipper arm of the business could risk the supplier arm. If energy suppliers fail, Ofgem could be forced to step in and appoint a supplier of last resort (SoLR), with costs being recovered through consumer bills.

As the government has previously played no role in buying or selling gas, it would need to procure the expertise and identify viable approaches. This could involve amending legislation to set itself up as a shipper (or appoint a shipper on its behalf) and establish a fund to be able to buy gas. This would require fiscal agreement to identify ways to finance these funds, whether it would be through taxpayer, gas users, etc.

We recognise that as a mitigation, contracting for gas during a supply crunch could carry the unintended consequence of adding to existing commercial challenges the sector may face, and potentially exacerbate the risk of market exit, impacting overall system capacity and resilience.

25. Do you agree with the assessment that there would be limited benefits to security of supply or to consumer prices if we entered the wholesale market and purchased gas directly?

26. If HMG were to secure gas on the wholesale market directly, what would be the impact on your current operating model and position in the market?

Industrial demand side response

National Gas already runs an industrial demand side response (DSR) scheme as one of its tools to maintain system balance. This allows for daily metered (DM), or large industrial, consumers who are able to deliver demand reduction of at least 100,000kWh/day, to contract with NG to voluntarily reduce their gas demand when expected supplies are forecast to be

insufficient to meet demand by the end of a gas day[57]. This is a commercial tool which large industrial and commercial consumers voluntarily sign contracts for. It can only be used in specific circumstances, during periods of peak demand, and would not impact domestic consumers.

Through participation in this scheme, consumers receive the option payment as well as the exercise payment if they are called upon to reduce their demand. Crucially, they can protect critical business processes by still receiving some gas.

Though the number of offers and aggregate volume offered for DM DSR have increased year on year, the total percentage of gas demand the scheme can mitigate remains low after three tender periods; e.g. for winter 2024/2025, National Gas accepted offers totalling 4.3GWh (0.4mcm /~0.1% of forecasted peak day demand for that winter), with an option cost of £3.7m.

Consequently, National Gas set a target for an aggregate volume target for the 2025 tender of 25GWh (2.3mcm)/day, yet as the aggregate acceptable quantity offered by industry was 14.5GWh (1.32mcm)/day, National Gas did not accept any offers for the forthcoming winter.

Under Special Condition 9.22 of their Gas Transporter License, National Gas are obligated to implement and maintain a DSR methodology, and any license amendments would need to be approved by the regulator, Ofgem.[58]

27. Do you think industrial demand side response measures are helpful in either ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; or ensuring commercially viable infrastructure? Please explain your answer.

Please only answer questions 28 and 29 if your organisation is a large industrial consumer able to deliver demand reduction of at least 100,000kWh/day, or if is the registered shipper or supplier to such a consumer.

28. Are you aware of National Gas' existing Demand Side Response scheme for Daily Metered consumers?

29. If you were aware of the scheme, are there any change(s) that would make it more likely for your organisation to submit a bid to the existing scheme? Please support your answer with quantitative data where possible.

The options considered throughout this chapter focus on strengthening the physical capability of the system ensuring sufficient infrastructure, and flexibility - and the systems resilience to deliver gas when required. The next chapter addresses third and final priority of ensuring a commercial model that supports the system.

[57] National Gas (2025) 'Demand-Side Response (DSR)' (viewed on 18 October 2025)
[58] Ofgem (2023) 'License Conditions' (viewed on 25 November 2025)

Chapter 4: Changing commercial requirements

This chapter outlines potential government policy actions to address the priority of ensuring a commercial model that works, as set out in Chapter 2. We recognise the potential financial pressures that the gas sector could face as the supply of our gas and demand profile changes during the transition. This chapter sets out potential measures we could take to support the continued operation of critical infrastructure and maintain the UK's attractiveness as a destination for gas imports. Any measures we implement here to support the sector and maintain their operations would also contribute to meeting our commitment to protecting the physical capacity and resilience of our infrastructure.

As set out in Chapter 2, operators of key midstream infrastructure are facing commercial pressures due to declining national gas demand, narrowing price spreads, and market volatility. These pressures may increasingly challenge the commercial viability of key infrastructure operators, prompting consideration of whether further support is needed to avoid potential early market exits and the associated risks to security of supply.

Furthermore, given LNG is expected to play a central role in the transition, this chapter also considers how to keep the UK competitive in attracting global cargoes, recognising the fact that the UK is a relatively high-cost destination for LNG cargoes.[59] We recognise the importance of remaining competitive in attracting global gas supplies and are considering whether policy actions, like regulatory changes or targeted commercial support, could help ensure we have commercially viable infrastructure capacity. As with the policy actions set out in Chapter 3, we are casting a wide net of potential options to identify which options represent the best value for money given a challenging fiscal landscape. We are aware of the potential impacts and unintended consequences of novel government action in the gas market. We are therefore seeking a comprehensive body of evidence in order to take a balanced, well-informed assessment of which policy actions are proportionate and effective in meeting the priorities set out in Chapter 2. Any potential actions considered in this consultation would be subject to further consideration and potential consultation.

Revenue support for key gas supply infrastructure

One policy action that the sector has raised for consideration is the development of some form of revenue support for businesses operating in the gas system. At this stage, we are seeking views on whether such measures could be appropriate and proportionate in addressing the commercial priority set out in Chapter 2 and consequently helping to address the other two priorities set out in Chapter 2: ensuring sufficient and resilient gas supply infrastructure.If deemed necessary and proportionate following this consultation, and following agreement from HM Treasury, , this option would represent a significant change to the way the market currently

[59] Oxford Institute of Energy Studies (2023) 'LNG and UK Energy Security' (viewed on 25 November 2025)

operates (although the extent of this varies across different options for support). As already stated in Chapter 3, this would not be a decision taken lightly, and value for money and unintended market consequences would need to be carefully assessed, but given the priorities outlined in Chapter 2, it may be necessary to intervene in such a manner.

Commercial support options

Government is interested in exploring options to provide some form of commercial support to existing or potential gas infrastructure operators, to help ensure their long-term viability. Such commercial support, either through a mechanism agreed with the regulator, or by establishing private contracts with companies, would be intended to enable companies to continue to operate key components of the gas system and to sustain themselves in the market, where it would not otherwise be able to do so. Whilst looking at the examples of existing government commercial support schemes across the energy system, we are also interested in other variations or models that might work, to determine which, if any, form of government action should reasonably be taken to address our priorities.

As Chapter 3 highlighted, there are significant strategic benefits relating to all parts of our flexibility gas infrastructure – LNG terminals, interconnectors, and geological storage. Depending on the size of the risks to our capacity, resilience, and viability, it may therefore be necessary to support a number of infrastructure assets to protect the benefits they each offer. At this stage, we want to explore whether such commercial support is required, where it would best be targeted, and which support mechanism may have the biggest impact.

Any action would not replicate other existing commercial support programmes – for example, the Hydrogen Storage Business Model – which have different strategic objectives to this work, though we would work to ensure clear delineation between similar programmes.

Potential models that could be considered to support the viability of flexibility infrastructure operators across the sector could be:

- **Regulated Asset Based (RAB) Model**: the business would agree an allowed revenue with the regulator ahead of a price control period. The allowed revenue would reflect the costs incurred by the owner of the business, as well as allowing for a reasonable rate of return on their investment. The allowed revenue would be conditional on operational and performance targets being met. As an example of this model in practice, a RAB model is currently employed in the gas and electricity networks, and it is also being used to finance nuclear energy projects.
- **Contractual cap and floor**: the business would agree a revenue cap and floor with the regulator or through a contract over a specified period. The guaranteed revenue floor would provide a minimum amount of revenue the provider could recover which would be ‘topped up’ by government if the appropriate threshold is not reached. The cap provides a maximum revenue, beyond which revenues or a share of revenues would be transferred to the provider of the floor. A cap and floor scheme is in place to encourage investment in Long Duration Electricity Storage. Ofgem launched the scheme with a first

application window earlier this year,[60] so this would represent an example of this mechanism being implemented elsewhere. There has also been a cap and floor scheme in place to support investment in electricity interconnectors since 2014.

- **Capacity frontstop or backstop**: government would through contracts guarantee purchase all the capacity of a storage facility (backstop) or a certain percentage (frontstop). This capacity would be made available to the market, and if unsold would be purchased by government. In the case of a frontstop, when made available to the market the capacity guaranteed by government would have priority to be sold first. An example of the backstop model from the UK energy sector is government-backed contracts that allow eligible renewable electricity generators to sell their power to a licensed supplier, as an 'offtaker of last resort', when they are unable to secure a commercial agreement in the open market.
- **Contracts for difference**: government would through contracts agree a fixed price for selling storage/interconnector capacity to the market over a period of time, set against a reference price. If capacity is sold below this price, government would compensate the storage/interconnector operator up to the agreed fixed price level. If capacity is sold above this price, the excess returns would be passed back to government. As an example of this model in practice, Contracts for Difference are currently used to support low carbon electricity generation.
- **Capacity market**: government would hold periodic auctions, during which operators would bid to provide capacity to the system. Successful bidders will secure contracts whereby they receive regular payments by government and will need to provide capacity to the market when required. This model is in use elsewhere in the energy system. Through the Electricity Capacity Market, existing and new build capacity compete in technology neutral auctions to obtain Capacity Agreements. Under these agreements, generating units and interconnectors commit to making their capacity available by turning up their generation or imports when required, while consumer-led flexibility units commit to turning down their electricity demand. In return for making capacity available, these units receive guaranteed payments to support investment. Given the different nature of the electricity and gas systems, this model would likely work quite differently in gas. Of the models set out in this section, it would represent one of the more significant sets of changes to current market structures and operation.

The various approaches outlined above could provide revenue certainty and therefore longer-term investment stability. Economic regulation approaches allow with some medium-term flexibility through periodic reviews, and a greater degree of government action in the sector through closer involvement and monitoring of performance, however, may not be necessary to achieve optional outcomes of commercial support. Contractual approaches will generally be less administratively intensive and lighter touch than economic regulation and likely entail less government and regulatory influence thus more optionality for market participants.

We have discounted the prospect of providing upfront funding processes (i.e. capital investment). While they present advantages in avoiding long-term financial commitments to

[60] Ofgem (2025) 'Long duration electricity storage' (viewed on 25 November 2025)

government and may facilitate the development of infrastructure projects where the cost of capital prohibits investment, such an approach would not provide ongoing revenue certainty, and as such would not provide confidence in the long term in the face of adverse changes in the economics of the gas sector.

30. Do you think the possible commercial support options outlined would address any of the three priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; or commercially viable infrastructure capacity)? Please include any additional evidence you have on why action of this kind is/is not required in your answer.

31. If you do think these commercial models address one of the three priorities, which option(s) do you believe to be most appropriate? Please provide evidence of how these options could work for the three types of gas flexibility facilities (LNG terminals, interconnectors, and storage sites) focused on in this chapter.

32. What might be the possible advantages and drawbacks (including unintended consequences) of such an intervention in the market?

33. Are there other alternative models that are preferable to those listed above? Please outline the basic principles of an alternative model and why you would believe it would be more appropriate.

34. What are the risks and opportunities of interaction between a possible gas storage commercial support model and other business models in energy, notably hydrogen storage and carbon dioxide storage?

Potential regulatory changes

A key way to support both the commercial viability of critical gas infrastructure and the UK's competitiveness for gas imports is to assess whether the current regulatory framework still enables investment and sustainable operation in a changing energy landscape. It is also important to consider potential new regulatory developments in this context.

Britain's current natural gas policy and regulatory framework is underpinned by the Gas Act 1986, supplemented over time by additional legislation to reflect the evolving gas system and its requirements. This includes the Gas Safety (Management) Regulations 1996 (GS(M)R), which are overseen by the Health and Safety Executive (HSE), and set out requirements for safe conveyance of gas through networks. This framework has supported secure supply, safety, and clear roles and responsibility in the market. Subsequent legislation has addressed areas such as resilience, commercial arrangements, affordability, and technological developments – including obligations from former EU membership or accommodating new technologies like smart meters. The Energy Act 2023 introduced further changes, including provisions for hydrogen regulation and the establishment of the National Energy System Operator (NESO). In addition to legislation, the framework includes other measures, like industry-led codes, some of which are overseen by regulators or industry bodies rather than government.

As our gas system continues to evolve as the UK transitions to net zero in 2050 and beyond, the government may need to amend, or more fundamentally revise through primary legislation, the framework that supports our future energy system, while preserving the benefits of the current arrangements.

It is important to also consider the opportunities for regulatory flexibility, whilst recognising the importance of maintaining efficient cross-border trading arrangements with the EU and meeting commitments under the TCA. The below sub-sections set out in detail some specific regulatory measures that may be considered in light of these developments to help ensure commercially viable supply capacity.

35. To what extent do you think the current gas framework will remain fit for purpose over the coming decades? What changes, if any, need to be made and why?

36. Do you expect the standards set out in the GS(M)R to remain suitable should GB become more reliant on imported gas generally, and LNG for baseload supply? If not, why, and how could this be alleviated?

37. How might GB's gas regulatory regime (including assimilated EU legislation) be impacted by the EU's own regulatory and policy plans for transitioning their energy system to net zero?

Reviewing and amending existing regulatory standards

As GB's gas supply mix evolves, it is important to assess whether existing regulatory standards remain fit for purpose. This section considers how current rules may be affecting the commercial viability of our supply infrastructure. We also welcome views on any other current regulatory standards not covered below that are impacting the commercial viability of GB's gas supply.

38. Are there any other current regulations (not the upper limit of the Wobbe number or LNG terminal capacity) that may be acting as a barrier to investment, gas security, and/or affordability?

- **a. Please demonstrate the impact of the regulation, and the likely impact of alternative arrangements.**

39. Are there any other aspects of GB's regulatory or market framework that could be a barrier to LNG being brought to GB where this is needed or impacting on our security of supply?

40. Do you have examples of when these barriers had an impact on LNG imports?

Wobbe Index

The standard of gas entering the NTS is governed by the GS(M)R, for which HSE has lead responsibility. One of the specifications set out in the regulations is the Wobbe Index (WI), which measures the interchangeability of gas and is expressed in megajoules per normal cubic metre (MJ / m3). The WI, sometimes referred to as the Wobbe Number, is calculated from the calorific value of the gas and its relative density and varies with the composition of the gas.

The GS(M)R currently specify a WI range of 46.5 – 51.4MJ / m3 under normal conditions. This range ensures that gas supply is compatible and safe to use with all end user combustion equipment and was set to reflect the quality of the gas of GB's historically primary source of supply, the UKCS. However, this range is narrower compared to other major markets, especially at the upper limit (the European gas industry's EASEE-Gas quality incorporates a WI range of 46.5-54MJ/m3 and most internationally traded LNG gas a WI of between 51 and 56 MJ/m3).

The result of this disparity is that most re-gasified LNG entering GB's NTS must go through a process to bring it in line with GS(M)R standards, such as nitrogen ballasting, and these processes can increase costs and CO2 emissions of the LNG brought to the GB market. Currently, the upper WI can be increased to 52.85 MJ / m3 in the case of a National Gas Supply Emergency, but as the amount of gas we receive from the UKCS decreases and we become more reliant on imports, more LNG will require treatment to be compatible with the current limit set out in the GS(M)R.

In February 2024, Ofgem published a Call for Input to gather evidence from industry on the potential impacts of amending the upper WI as they consider there to be merit in doing so to support security of supply and reduce the cost of nitrogen ballasting. Government recognises the potential strategic benefits of such a change. Raising the WI threshold could help reduce costs for industry and enhance Great Britain's attractiveness as a destination for gas imports, which in turn could help to address the priority of ensuring resilient supply capacity.

HSE previously consulted on changes to the GS(M)R and have made changes to reduce the lower limit to 46.5MJ/m3, which came into effect in April 2025. No changes were made to the upper limit due to a lack of sufficient evidence that raising the upper limit would maintain or improve health and safety standards.

Government remains committed to working in partnership with HSE and Ofgem to assess the evidence and explore the case for change. Any decision to raise the WI limit would depend on the assessment of a number of factors, with maintaining safety remaining paramount.

41. To what extent would increasing the upper Wobbe limit address any of the three priorities set out in Chapter 2 (ensuring we have sufficient supply capacity to meet future demand; ensuring resilient supply capacity; and ensuring commercially viable supply capacity)? Please provide evidence to support your answer.

42. Would increasing the upper Wobbe Index limit strengthen GB's energy security and competitiveness in the global LNG market and, if so, why?

- **a. What would be impact of making no changes to the upper Wobbe Index limit?**

43. What impact would increasing the upper Wobbe Index limit have, particularly in relation to cost and operational burdens, for your organisation, whether positive or negative?

LNG terminal capacity

As LNG plays a greater role in GB's future supply mix, it is important to ensure that the regulatory framework governing terminal capacity continues to help the sector meet Priority three, ensuring a commercial model that works. With exemptions to third-party access rules beginning to expire, it is important to consider whether current arrangements will remain effective in enabling investment and operation.

Case Study: Isle of Grain LNG Capacity Sales

Prior to 2023, all sales for primary regasification capacity at GB's LNG terminals had been under terms exempted from regulated third party access (rTPA) rules. In September 2023 the terminal announced a major auction for 9mtpa of existing regasification capacity which is due to come off contract from January 2029.

The auction offered three lots of capacity, each comprising 42 berthing slots, 200,000m3 of liquid storage and 3mtpa of regasification capacity (125 GWh/d) per year. The auction was met with strong market interest, and two of the three lots sold – one to Sonatrach, a longstanding partner of the terminal; and another to Venture Global, the companies first investment into LNG infrastructure outside of the United States and the first time a US customer has purchased primary regasification capacity at the terminal.

LNG terminals are not licensed by Ofgem; however, they are covered by regulations relating to third party access as well as environmental and health and safety law. At the time of construction or expansion, Ofgem has granted LNG terminal operators exemptions to regulated third party access (rTPA) rules, which allows the terminals to assign new capacity without a formally regulated sale process. This has allowed LNG terminals to sell long-term contracts to shippers on a bilateral / closed basis (as primary capacity holders, these shippers can then either bring cargoes to GB themselves or resell that capacity on a bilateral, 'over the counter' basis to others who wish to bring LNG to GB but do not hold suitable capacity at that terminal).

Given that LNG construction and expansion occurred in late 2000s, some of these exemptions for rTPA rules have already expired, and much of the rest of the current market capacity under exemption will expire between 2029 and 2035. Future sales of existing capacity once these contracts expire will be through an open and fair sale process regulated by Ofgem. While we have no evidence that rTPA exemptions have prevented traders importing gas to GB, the ending of existing exemptions could alter market behaviour. And as LNG imports become more important to GB security, there may be players in market considering expanding existing capacity (pending regulatory and technical approvals) or bringing new LNG capacity to GB. We therefore want to ensure that existing regulations in this space continue to function as effectively as they have been.

44. To what extent do you agree that current regulatory and market arrangements for LNG terminals are suitable for the future needs of the gas system? Please provide evidence to support your answer.

45. How could HMG best support the continued effectiveness and adaptability of the regulatory and market framework for LNG terminals, if needed?

Introducing new regulatory standards

As well as amending existing regulations, new or upcoming standards, whether domestic or international, may shape the commercial environment in which operators of key gas infrastructure do business. This section seeks views on how a methane emissions import standard might impact this environment. We also welcome views on any other regulatory developments, current or anticipated, that could have a material impact on the commercial viability of GB's gas supply.

46. Are there any other areas of emerging regulation you believe government should monitor or engage with to support the existing commercial models in place within GB's gas sector?

Methane emissions import standard

Methane is the second most significant greenhouse gas contributing to climate change, following carbon dioxide (CO_2). It is responsible for approximately one-third of current global warming, and its atmospheric concentration has increased sharply over the past decade. Despite its relatively short atmospheric lifespan of 10 to 12 years, compared to centuries for CO_2, methane has a far greater short-term warming potential. Over a 20-year period, its impact is more than 80 times that of CO_2, making it a critical target for immediate climate action.

The IEA (International Energy Agency) estimates natural gas operations result in around 5% of global energy-related greenhouse gas emissions, of which methane emissions account for two thirds. Recognising this, several countries are taking action around methane emissions, including around energy value chains. Notably, the EU has taken steps to address methane emissions as part of its broader climate and energy strategy. In July 2024, the EU Commission published its Methane Regulation which included plans to introduce a Methane Emissions Import Standard. The standard requires importers of oil and gas into the EU to demonstrate equivalence of Measurement, Reporting and Verification (MRV) systems to those required within the EU and empowers the Commission to impose methane intensity thresholds from 2030. While detailed MRV requirements are still being developed, the EU's approach emphasising measurement-based reporting and equivalence for imports has the potential to set a new international benchmark for methane transparency and accountability.

While the UK is no longer bound by EU law, the Methane Import Standard is likely to shape the commercial and regulatory environment around GB–EU energy trade. GB exports gas via interconnectors with the EU (Belgium and the Netherlands) and to the Republic of Ireland. While the legal obligation falls on the EU importer, in order to retain frictionless trade, GB exporters may need to demonstrate that exported gas is compliant with EU requirements. This presents a challenge as gas traded through the GB market comes from a variety of sources, including domestic UKCS gas, NCS, and LNG imports, and once gas enters the National Transmission System, it cannot be physically traced.

GB companies could face market pressures to demonstrate compliance with EU standards in order to maintain access. If the gas exported via interconnectors cannot be determined to meet EU requirements, it could reduce the attractiveness of the UK as a destination to land gas and potentially undermine the economic viability of UK import and export infrastructure.

Globally, there has been developing interest in the potential role of 'certified' natural gas, defined as natural gas whose attributes have been independently verified against a defined standard. Certified natural gas could be viewed both as a route to demonstrating compliance with the EU standard, and as an alternative market measure to support the reduction of methane emissions from fossil fuel operations globally. This has potential implications for the global, and therefore GB, gas market. Beyond aligning with the EU standard, there is potential for the UK to explore whether performance standards, MRV standards, and/or certification schemes could be developed to support wider emission reduction objectives while maintaining security of supply. Building emissions data and developing international MRV standards could support a later decision on whether GB should introduce a methane import standard, or alternative option, to encourage reduction of methane emissions from fossil fuel production globally.

47. Would the introduction of an equivalent UK import standard be a viable route to managing the risks presented by the EU standard? Please provide evidence to support your answer.

48. If applicable, what Measurement, Reporting and Verification frameworks do you currently have in place and do you believe they meet EU requirements?

- **a. If not, what do you think the main barriers are to your Measurement, Reporting and Verification frameworks meeting EU requirements?**

49. Do you consider it feasible to provide methane-related data for gas traded through virtual hubs, given the challenges of physical traceability, and how?

50. What are your views on the different options for addressing methane emissions from imported gas (e.g. mandated Measurement, Reporting and Verification requirements, certification schemes, and performance standards)?

51. Are there any other alternative mitigations we have not named that could address the priority of ensuring a commercial model that works?

A summary of the questions asked throughout the document is below, and the final section focuses on the next steps following on from publication of this document.

Consultation questions

1. **Do you agree with the assessment that, as supply from the UK Continental Shelf continues to naturally deplete, imbalances between supply and demand may become possible in low-probability, high-stress scenarios? Please provide evidence to support your answer.**
2. **In light of the analysis outlining the priority of ensuring gas infrastructure capacity, do you think the market will respond to provide such insurance for low probability, high stress scenarios? Please provide evidence to support your answer.**
3. **What gas supply and demand scenarios are you using for planning in your organisation and why?**
    a. **What impacts to your sector/business have you identified using these scenarios?**
    b. **What mitigating actions are you considering against the supply and demand scenarios your organisation is using for planning?**
4. **Do you agree with the assessment that ensuring resilient infrastructure capacity is a key priority as the gas supply mix changes? Please provide evidence to support your answer.**
5. **In light of the analysis outlining the priority of ensuring resilient infrastructure capacity, do you think the market will respond to achieve this priority? Please provide evidence to support your answer.**
6. **Do you agree with our assessment that ensuring a viable commercial model for infrastructure capacity is a key priority facing the gas sector? Please provide evidence for your answer.**
7. **In light of the analysis outlining the priority of ensuring commercially viable infrastructure capacity, do you think the market will respond to achieve this priority? Please provide evidence to support your answer.**
8. **Government's assessment is that existing LNG infrastructure is robust and commercially viable, do you agree?**
    a. **If not, what actions do you think would be required to protect the strategic importance of existing LNG infrastructure?**
9. **Is there a strategic case for enhancing or expanding storage capabilities at LNG terminals?**
    a. **What role should government play in supporting this?**

10. **Do you agree with the assessment that the introduction of an FSRU could help ensure gas infrastructure and resilience? Please provide evidence to support your answer.**

11. **Do you agree that there are no significant barriers to entry for new LNG entry points, including for an FSRU, and that the market can deliver additional capacity if this is necessary?**

    a. **If not, what could government do to resolve the barriers to entry for new LNG entry points?**

12. **Do you consider there to be other advantages and/or disadvantages of government directly chartering and appointing an operator of an FSRU, to be operated as a strategic gas supply source?**

13. **If HMG were to directly charter an FSRU, please explain whether and how you think this would impact your role in the market and your current operating model?**

14. **How can the strategic importance of interconnector capacity be protected, and what actions do you think might be required?**

15. **How can geological storage capacity and deliverability levels be protected and what actions do you think might be required?**

16. **To what extent do you think targets and compulsory stock obligations would address any of the three priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; and commercially viable infrastructure capacity)? Please provide evidence to support your answer.**

17. **What are your views on the strategic storage options outlined above in relation to addressing the priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; and commercially viable infrastructure capacity)?**

    a. **Do you recommend a specific strategic gas storage option?**

    b. **Are there any alternative strategic gas storage options we have not listed?**

18. **How would a strategic storage reserve impact your role in the market (would it have a positive, neutral, or negative effect on your current operating model)?**

19. **Who would be best placed to operate a strategic storage site, purchase the gas, and set conditions of use?**

20. **What other factors, including gas usage and refilling terms, should be considered in any strategic gas storage proposal (either through new facilities or by securing capacity at existing sites)?**

21. **What are the implications of leasing part of an existing or future storage site, either in GB or abroad?**

22. **Please provide any evidence on the cost of developing a new storage facility.**

23. **Please provide any estimations on the cost of leasing existing storage capacity.**

24. **Should we attempt to encourage or require shippers to enter more long-term contracts with producers? If yes, can you explain what mechanism you believe to be most appropriate to encourage or require long-term contracting?**

25. **Do you agree with the assessment that there would be limited benefits to security of supply or to consumer prices if we entered the wholesale market and purchased gas directly?**

26. **If HMG were to secure gas on the wholesale market directly, what would be the impact on your current operating model and position in the market?**

27. **Do you think industrial demand side response measures are helpful in either ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; or ensuring commercially viable infrastructure? Please explain your answer.**

28. **Are you aware of National Gas' existing Demand Side Response scheme for Daily Metered consumers?**

29. **If you were aware of the scheme, are there any change(s) that would make it more likely for your organisation to submit a bid to the existing scheme? Please support your answer with quantitative data where possible.**

30. **Do you think the possible commercial support options outlined would address any of the three priorities set out in Chapter 2 (ensuring sufficient infrastructure capacity; ensuring resilient infrastructure capacity; or commercially viable infrastructure capacity)? Please include any additional evidence you have on why action of this kind is/is not required in your answer.**

31. **If you do think these commercial models address one of the three priorities, which option(s) do you believe to be most appropriate? Please provide evidence of how these options could work for the three types of gas flexibility facilities (LNG terminals, interconnectors, and storage sites) focused on in this chapter.**

32. **What might be the possible advantages and drawbacks (including unintended consequences) of such an intervention in the market?**

33. **Are there other alternative models that are preferable to those listed above? Please outline the basic principles of an alternative model and why you would believe it would be more appropriate.**

34. **What are the risks and opportunities of interaction between a possible gas storage commercial support model and other business models in energy, notably hydrogen storage and carbon dioxide storage?**

35. **To what extent do you think the current gas framework will remain fit for purpose over the coming decades? What changes, if any, need to be made and why?**

36. **Do you expect the standards set out in the GS(M)R to remain suitable should GB become more reliant on imported gas generally, and LNG for baseload supply? If not, why, and how could this be alleviated?**

37. **How might GB's gas regulatory regime (including assimilated EU legislation) be impacted by the EU's own regulatory and policy plans for transitioning their energy system to net zero?**

38. **Are there any other current regulations (not the upper limit of the Wobbe number or LNG terminal capacity) that may be acting as a barrier to investment, gas security, and/or affordability?**

    a. **Please demonstrate the impact of the regulation, and the likely impact of alternative arrangements.**

39. **Are there any other aspects of GB's regulatory or market framework that could be a barrier to LNG being brought to GB where this is needed or impacting on our security of supply?**

40. **Do you have examples of when these barriers had an impact on LNG imports?**

41. **To what extent would increasing the upper Wobbe limit address any of the three priorities set out in Chapter 2 (ensuring we have sufficient supply capacity to meet future demand; ensuring resilient supply capacity; and ensuring commercially viable supply capacity)? Please provide evidence to support your answer.**

42. **Would increasing the upper Wobbe Index limit strengthen GB's energy security and competitiveness in the global LNG market and, if so, why?**

    a. **What would be the impact of making no changes to the upper Wobbe Index limit?**

43. **What impact would increasing the upper Wobbe Index limit have, particularly in relation to cost and operational burdens, for your organisation, whether positive or negative?**

44. **To what extent do you agree that current regulatory and market arrangements for LNG terminals are suitable for the future needs of the gas system? Please provide evidence to support your answer.**

45. **How could HMG best support the continued effectiveness and adaptability of the regulatory and market framework for LNG terminals, if needed?**

46. **Are there any other areas of emerging regulation you believe government should monitor or engage with to support the existing commercial models in place within GB's gas sector?**

47. **Would the introduction of an equivalent UK import standard be a viable route to managing the risks presented by the EU standard? Please provide evidence to support your answer.**

48. **If applicable, what Measurement, Reporting and Verification frameworks do you currently have in place and do you believe they meet EU requirements?**

    a. **If not, what do you think the main barriers are to your Measurement, Reporting and Verification frameworks meeting EU requirements?**

49. **Do you consider it feasible to provide methane-related data for gas traded through virtual hubs, given the challenges of physical traceability, and how?**

50. **What are your views on the different options for addressing methane emissions from imported gas (e.g. mandated Measurement, Reporting and Verification requirements, certification schemes, and performance standards)?**

51. **Are there any other alternative mitigations we have not named that could address the priority of ensuring a commercial model that works?**

Next steps

The consultation will run from 26 November 2025 to 18 February 2026. If during the course of the consultation period you have any further queries, please email: gasintransition@energysecurity.gov.uk

Following on from the consultation closing, government will consider the feedback received and we aim to publish a response in Spring 2026. Following this consultation, we will be able to identify which options we intend to implement so we can continue to meet our commitment to provide energy security during the transition. Further targeted consultations might be required to help shape our plan of measures, support models, and regulations.

We look forward to receiving responses and are committed to continuing engagement to ensure that a balanced set of feedback from a variety of respondents can be incorporated into our thinking. We may reach out with follow-up questions to you where needed to facilitate our assessment of the information you have provided (unless you indicate your preference against this when responding). As we develop a consultation response, we will continue to work with the governments in Ireland and Northern Ireland to consider what the implications of the consultation's outputs might mean for them.

This publication is available from: www.gov.uk/government/consultations/gas-system-in-transition-security-of-supply

Any enquiries regarding this publication should be sent to us at: gasintransition@energysecurity.gov.uk.

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