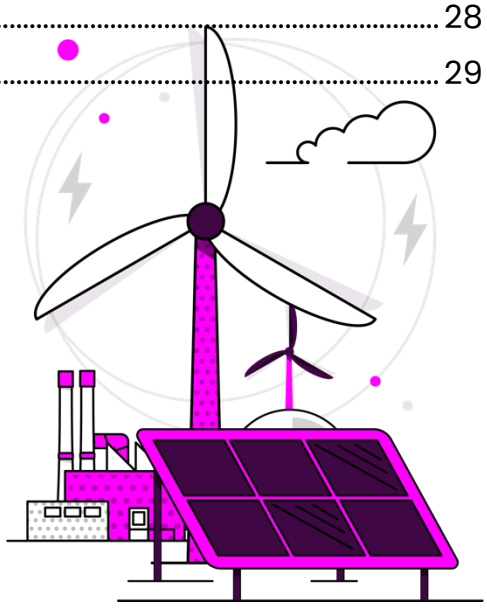
September 2025

Gas Options Advice methodology

NESO
National Energy System Operator

Contents



1. NESO and the gas planner role

Introduction to NESO and the gas planner role

Introduction to NESO and the gas planner role

The UK's 2023 Energy Act set the legislative framework for an independent system operator and planner to help accelerate GB's energy transition, leading to the establishment of the National Energy System Operator (NESO).

As an independent, public corporation at the centre of the energy system, NESO takes a whole system view to create a world where everyone has access to reliable, clean and affordable energy. Our work will be the catalyst for change across the global community, forging the path to a sustainable future for everyone.

Working in partnership with the UK government, Ofgem, industry and consumers, we take a long-term approach to planning Great Britain's (GB's) energy networks that identifies whole energy system needs and ensures that the system can be designed and built accordingly.

Our role involves strategic network planning across electricity, gas, and new vectors such as hydrogen, adopting a holistic approach to decarbonising the whole energy system. NESO's Strategic Energy Planning (SEP) programmes are being consulted on and developed to cover electricity, hydrogen and gas energy systems.

Now serving as GB's gas strategic network planner, NESO works collaboratively with National Gas Transmission (NGT) who own and operate the National Transmission System (NTS), to support strategic planning decisions on the gas transmission network. As per our gas system planner licence, we produce two publications consecutively: the Gas Network Capability Needs Report (GNCNR) and the GOA[1].

Tackling climate change is truly the challenge of our generation; addressing energy security, sustainability and affordability for everyone are at the forefront of our thinking as we drive to meet net zero. It is NESO's job to transform the whole energy system to meet these challenges and transition to a low-carbon future, embracing new technologies and cleaner generation sources, always with the cost to the consumer in mind.

[1] More information on what we do on the GNCNR and GOA: Gas Network Capability Needs Report (GNCNR) | National Energy System Operator and Gas Options Advice (GOA) | National Energy System Operator

2. Gas network planning

The gas network planning cycle

Gas Options Advice overview

The gas network planning cycle

Our gas strategic network planning obligations are set out in condition C8 of our gas system planner licence[2]. These new obligations form part of the two-year gas network planning cycle, carried out in collaboration with NGT and the NTS.

The cycle begins with us identifying the NTS system physical capability needs through the GNCNR. Based on these findings, NGT will develop the Strategic Planning Options Proposal (SPOP) to propose reinforcement options, which we then assess in the GOA document.

The purpose of this two-year network cycle is to identify gas transmission network needs and drive the development and assessment of network reinforcement options.

This cycle is illustrated inFigure 1 and described in more detail below.

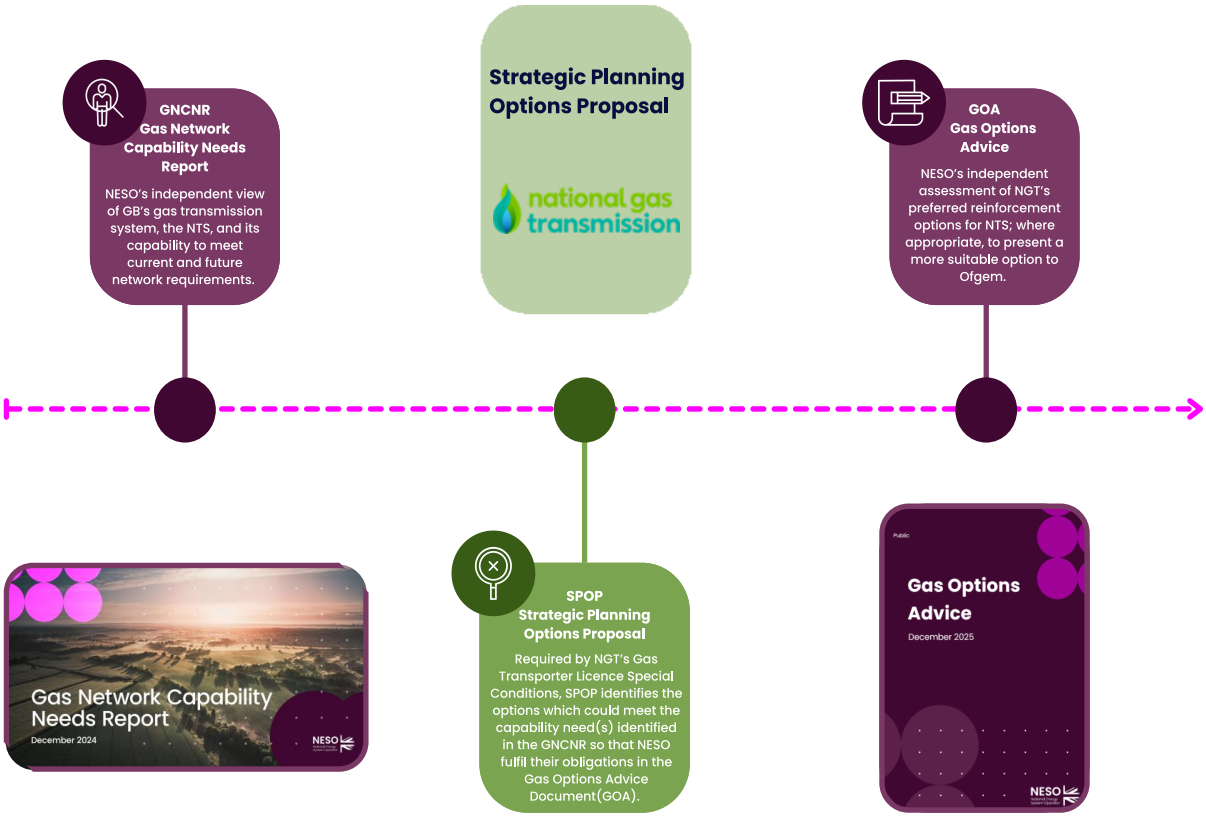


Figure 1 Gas network planning cycle

The GNCNR gives an independent view of GB's gas transmission system, the NTS, and its capability to meet current and future network requirements.

[2] Gas System Planner Licence Conditions

The SPOP is NGT's response to the capability needs identified by NESO in the GNCNR. This is required as per special condition 9.10 of NGT's Gas Transporter Licence.

The purpose of the document is to identify the options that could meet the capability needs identified in the GNCNR. Such options may involve construction, expansion, reinforcement, repurposing, replacement, decommissioning or the use of commercial options where NGT deem these appropriate.

NGT will present a range of options with a cost estimate, physical specifications, technical criteria, and estimated deliverability for each option. They will also calculate the impact on the physical network capability that each option creates once implemented.

Should NGT's views differ from those in the GNCNR, these differences and their implications will be documented.

NGT is obligated to share the SPOP with NESO and Ofgem by 30 June 2025 and every subsequent two years.

Once these options are proposed, NESO will analyse them to recommend a preferred option that is either an option presented in SPOP or a new option that NESO believes is a preferred option. The outcomes of this will be published in the GOA document by the 31st December 2025.

We have engaged with NGT and Ofgem to form a view of how the SPOP and the GOA will interact with each other, ensuring that the outputs of our analysis can inform Ofgem's decisions on funding and progression in response to network needs.

As we continue with our work throughout this two-year cycle, our assessment will be underpinned by regular engagement with the relevant stakeholders. Whilst we value and consider external views for the development of our methodology and assessment, our advice and analysis will ultimately remain independent.

The intent of the GOA document is for NESO to give an independent assessment of NGT's proposed reinforcement options for the NTS. It can also, where appropriate, present alternative options to Ofgem. Our licence condition requires us to state a recommendation for which options should be progressed further. This information then supports Ofgem in decisions on funding and progression of asset interventions for the NTS.

Although we provide recommendations for the options to meet the NTS's needs, Ofgem or other relevant parties will ultimately decide on the investments made.

GOA overview

The GOA is the third deliverable within the overall gas network planning cycle and represents the last stage of the process detailed under condition C8 of our gas system planner licence. The GOA is required to be published by 31 December 2025 and every two subsequent years thereafter.

GOA's purpose

The purpose of GOA is to set out, as far as is reasonably practicable:

- Our view of the drivers for change to the NTS, considering security standards, gas supply and demand requirements, deliverability, and entry and exit capacity obligations.
- Our view of the suitability of proposed investment options that could meet any needs identified in the GNCNR.

The options assessed in the GOA could be proposed either by NGT in the SPOP or be put forward by NESO. Such options can involve no or minimal construction, expansion, reinforcement or replacement of the NTS. In addition, options that relate to rules, codes, and legislation that underpin the regulatory framework or operation of pipeline systems may be considered, as well as options related to the practices, services and commercial arrangements within the energy market.

Due to the sensitive nature of the commercial proposals, as specified in C8.16, we will take due care to exclude any information that may affect the commercial interests of the owner of the information. All relevant information will be shared with the regulator to enable them to make the necessary decisions.

3. NESO GOA methodology

Introduction

Decision framework

Capital and operational costs

Environmental impacts

Social impacts and deliverability

NPV assessment method

Review in combination

Introduction

Through the GOA, we will carry out an unbiased assessment of all investment options put forward by NGT and where deemed appropriate options developed by NESO. Those proposals are created to meet each identified shortfall in NTS capability from those published in the GNCNR.

The assessment can be carried out on either a single option or a combination of options. These options support the NTS capability requirements for entry capability, exit capability, or a combination of both.

Should our view of the physical capability needs of the NTS have changed or updated since the publication of the GNCNR, these changes will be clearly stated in the GOA. Focus will be placed on any significant system needs changes that could impact NESO's view of the options and the recommendations put forward.

Our analysis will also consider other arrangements or agreements with other parties regarding the development of the NTS, where there is a long-term impact on the NTS.

The GOA will provide a detailed analysis of each investment proposal based on the economic, environmental, social, and deliverability aspects. NESO and NGT might hold different views on the proposals put forward; those material differences will be identified along with their implications.

Due to the sensitive nature of the commercial proposals, we will take due care to exclude any information that may affect relevant commercial interests. All relevant information will be shared with the regulator to enable them to make the necessary decisions.

We will describe below our framework to the GOA economic assessment, with the network capability element for each option being undertaken using the GNCNR methodology[3].

[3] Gas Network Capability Needs Report (GNCNR) | National Energy System Operator

Decision-making framework

We will carry out an unbiased assessment of all investment options put forward by NGT or ourselves. This evaluation will result in the recommendation of preferred options.

We will consider each option by assessing the following aspects:

- direct economic impacts (capital and operational costs)
- environmental impact
- social impacts
- deliverability

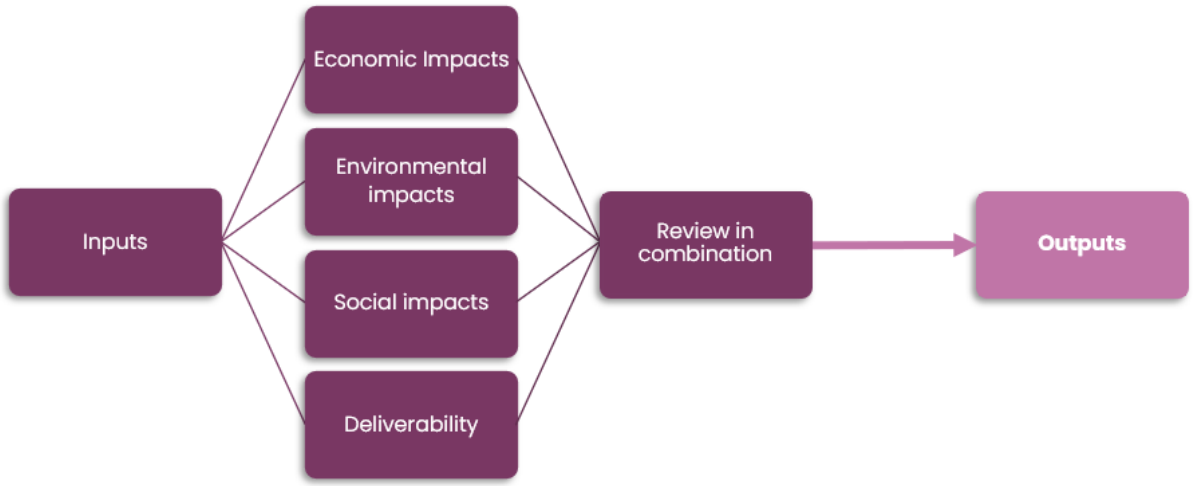


Figure 2 High level view of the options assessment process

We describe in detail the criteria covered under these assessments in the subsequent sections.

The listed items are currently the criteria included in our assessment and if they are part of the net present value (NPV) or social impacts and deliverability (SI&D) matrix assessment.

ASSESSMENT CATEGORIES	DESCRIPTION	NPV OR SI&D MATRIX ASSESSMENT
Capital costs	Costs associated with the design, planning, building and decommissioning (at the end of the assumed operational life) of the investment options	NPV
Operating costs	Costs associated with the operation and maintenance of the investment options	NPV
Network constraint costs	Costs that NGT incur when gas flows on the NTS are constrained, they serve as a benchmark against the capital and operating costs in the economic assessment	NPV
Environmental impacts	Environmental cost of emissions that are incurred as part of an investment option	NPV
Social impacts	Consider to what extent can these options ensure network security of supply, promote and maintain safety for the consumer	SI&D Matrix assessment
Deliverability	Consider the likely complexity in implementing the option, together with any known challenges concerning the proposal's geographical location and whether it is reliant on unproven technology.	SI&D Matrix assessment

Capital and operational costs

For each option we calculate the total cost of investment over the expected life of the relevant assets, (the direct economic impacts of a given proposal).

When assessing the direct costs of an investment option, we will consider:

- capital investment costs for designing, constructing and commissioning any new assets on the NTS
- capital investment costs for removing (decommissioning) redundant assets on the NTS
- expenditure associated with operating and maintaining the newly commissioned assets for their expected life. This could include changes to both fixed operational costs as well as variable costs, such as fuel.

Where an option requires the installing of new assets, in-line with the recommendations included in the HM Treasury's Green Book[4]. NESO will include the cost of decommissioning those assets from the NTS at the end of their assumed operational life.

Environmental impacts

Any investment option that involves a change to the physical makeup of the NTS could have some local and wider environmental impacts, as a result of the construction itself. For example, longer-term effects from installed assets and resulting changes to the operation of the network.

NESO is committed in its advisory role to providing its best view of the relative merits of each proposed option. We are aligned with the UK government's commitment to the protection and enhancement of the environment.

Environmental assessments enable us to evaluate the potential impact that investment proposals could have on the environment, and to compare options based on their relative impact.

It should be acknowledged that at the early appraisal stage, options under consideration are defined at a broad level. We expect decisions on the required location and detailed design will come at a later stage of the investment cycle.

We do not consider that the GNCNR or the GOA will impose an obligation on any other party, and they are not intended to have any status in planning[5]. We therefore do not consider it necessary to undertake a Strategic Environmental Assessment (SEA), or Habitats Regulation Assessment / Habitat Regulations Appraisal[6] (HRA). However, we note that these are expected to be integral components of our electricity network planning covered CSNP.

In the following Social impacts & Deliverability section, we will also consider how known features in the geographical area of proposed assets may create challenges. For the implementation of option(s), this consideration will take account of environmental factors such as Areas of Outstanding Natural Beauty (AONBs) and National Scenic Area (NSA)[7] that could pose significant restrictions on siting or routeing of assets.

[4] The Green Book and accompanying guidance | HM Treasury

[5] 'Planning' in the sense of the Planning Act 2008 or the Town and Country Planning Act 2015

[6] Habitats Regulation Assessment applies to England, Wales and Northern Ireland, and Habitat Regulations Appraisal applies to Scotland

[7] Areas of Outstanding Natural Beauty (AONBs) applies to England, Wales and Northern Ireland, and National Scenic Area (NSA) applies to Scotland

Social impacts & Deliverability

Social impacts and deliverability will be assessed alongside the NPV calculation via a low, medium and high scoring matrix framework.

Social impacts

Social impact assessments include the process of analysing and appraising the consequences of investment proposals on communities or society. This considers both the positive and negative impacts that result from these options:

- **Security of supply** – the assessment of the options will need to consider whether and how the options deliver a safe and secure network
- **Greenhouse gas emissions** – recognising that there is a social cost of greenhouse gas emissions incurred in construction and changes to network operation
- **NO_x emissions** – these represent a group of chemical compounds known as nitrogen oxides which are significant air pollutants and are considered greenhouse gases
- **Public Sector Equality Duty** – this is an obligation to consider the impact of options on protected characteristics relating to affected populations

The following section details our assessment approach for each.

Security of supply

The NTS provides an ongoing benefit to the consumer by enabling a safe and secure supply to homes and businesses. For our social impact assessment, we will consider whether proposals ensure that NGT maintains a resilient and secure gas supply.

Where an option is designed to increase entry capability, its relative benefit in terms of increased security of supply can be estimated, with reference to market intelligence, about future supply, storage volumes and their sources. For options designed to increase exit capability, we intend to work closely with NGT and the gas distribution networks (GDNs). This is to evaluate the security of supply implications of exit constraints, and the relative benefits or risks associated with investment options. If it is considered that an option carries a significant security of supply safety risk, it will be discounted.

For aspects of security of supply that cannot be quantified, we will assess options using the framework matrix scale:

Greenhouse gas emissions

We will use the HM Treasury's Green Book guidance to quantify the cost of environmental impacts, particularly regarding the cost of greenhouse emissions.

Compressor station operation is a significant source of carbon dioxide emissions on the NTS. We will use our network analysis of options and our forecast of future flow patterns to identify changes in compressor utilisation. This in turn enables us to quantify corresponding changes to compressor fleet carbon emissions.

We will also consider estimated emissions due to the construction process as well any impact from changes to ongoing maintenance activities.

Fugitive methane emissions are the unintentional release of methane in the atmosphere from equipment over time. This can happen during the production, processing, storage, and transportation of natural gas and other hydrocarbons, and will be considered where applicable.

To the extent that these emissions can be quantified and costed – for example, adopting a social cost of emissions – they will be included in our economic assessment.

NOx emissions

NOx emissions arise from combustion processes within compressor stations and can be a significant local air pollutant. Based on an assessment of changes to compressor utilisation associated with investment options, and noting the ongoing investment to reduce NOx emissions, we will estimate any significant changes to NOx emissions.

Public Sector Equality Duty

NESO is subject to the Public sector equality duty[8]. It is incumbent on us to consider the impact of any options on protected characteristics - age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, including ethnic or national origins, colour or nationality, religion or belief, and sexual orientation. Whilst we do not expect any significant impacts on any of the protected characteristics, we will consider them carefully.

Deliverability

To carry out the deliverability assessment, we apply a framework against each option, considering a range of factors:

- **Complexity** – Is the assessment complexity of the options that could lead to constraints against the timeline stated in NGT SPOP
- **Geographical considerations** – is the assessment of whether the options will be in the proximity of areas of population or sensitive areas, such as AONB/SSSI, that would potentially lead to a constraint in an option being implemented as stated in NGT SPOP
- **Technology** – is the assessment of the options technology being presented is new or mature technology that could lead to further justification for safety legislation. This could lead to further justification of the option resulting in a constraint of the delivery timeline stated in NGT SPOP.

[8] Public sector equality duty | Ministry of Justice

Framework matrix

The ranking below provides an overview of the approach used. Social impacts and deliverability rank is determined by comparing the feasibility of each proposal.

Complexity	Geographical Considerations	Technology	Network Security of Supply
Highly complex design unlikely to be deliverable. The design is subject to a high likelihood of constraints and risks affecting the construction to such a degree that the option should not be considered further.	The option would be unlikely to be implemented without incurring significant extra costs and delays due to very large areas of population or multiple sensitive areas, such as AONB,/SSSI located in proximity.	New technology that has not been used before beyond testing. Would need further justification to ensure compliance with safety legislation.	Achieves minimal potential mitigation of forecast Security of Supply risk
Design that features some complex elements that may be challenging to deliver. The design is subject to constraints that are likely to affect construction to such a degree that the option should not be included without potential solutions identified.	The option would be very difficult to implement or incur significant extra costs or delays, due to large areas of population or sensitive areas located in proximity.	Emerging complex technology, with uncertainty on longevity.	Achieves some of potential mitigation of forecast Security of Supply risk
Design of moderate to significant complexity, with constraints or risks which may impact some construction. Design is likely to be achievable and issues are capable of resolution.	The option may be implemented with some challenges to avoid significant areas of population or sensitive areas located in proximity.	Proven mature technology that is used by equivalent Gas Transmission System Operators, but not on the NTS.	Achieves most of potential mitigation of forecast Security of Supply risk
Design of low to moderate complexity. The design is subject to a low likelihood of constraints affecting construction. Option very likely to be achievable in the time stated.	The option should be achievable, with minimal or no areas of population or sensitive areas located in proximity.	Proven mature technology already used on the NTS.	Achieves maximal mitigation of forecast Security of Supply risk

Economic assessment

NPV methodology

For each investment option considered, the main economic analysis will compare different options by their net present value (NPV) over an assumed lifetime.

If the discounted benefits of an option outweigh the discounted costs of an option over its lifetime, it will have a positive NPV. All options will be compared to a base case, 'do nothing' option.

Constraint costs may occur if NGT cannot meet its contractual obligations at supply and demand points on the NTS. If they occur, those costs could impact consumer bills. Some intervention options could reduce the constraint costs. Those options may include commercial contracts to manage the location of supplies and demands, code changes, or physical changes to the makeup of the network. By recommending suitable solutions to ease network constraints, GOA recommendations will reduce the incidence and cost of constraints on the NTS, delivering consumer benefits.

Constraint cost savings of the option will be considered alongside the relevant option's costs to understand the net-present value.

The net present values for each option in the economic assessment will be calculated by:

FES pathways

The investment options will be assessed against the range of Future Energy Scenario (FES) net zero pathways and the Counterfactual/Falling Behind[9]. This is to ensure NTS resilience and a continued ability to meet the security of supply 1-in-20 standard due the decarbonisation of GB future energy requirements.

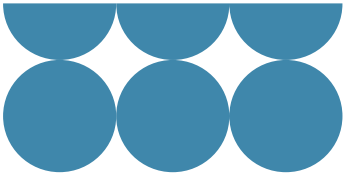
To ensure ongoing security of supply, whilst options will be assessed against all FES net zero pathways, the Counterfactual/Falling Behind will be given priority.

Our recommended investment option will have a positive NPV across all FES net zero pathways and the Counterfactual/Falling Behind, with reasoning to why we have chosen the option.

Asset life assumption

Key assets installed on the NTS (e.g. compressors, pipes and valves) are usually assumed to have a design life of 40 to 50 years.

[9] FES Counterfactual and Falling Behind FES scenarios will both have been analysed during the two-year cycle. GNCNR will have been assessed against Counterfactual and GOA against Falling Behind



However, the useful life of gas network assets is currently uncertain and is dependent on the pace of progress towards net zero and its corresponding implications for the NTS.

For example, the future of any proposed new assets may partly depend on whether they would be needed for future hydrogen applications, post-2050.

For the purposes of our analysis 2050 will be considered as the earliest decommissioning year for newly installed assets. Depending on the indications from FES and other sources, the assumed asset life may be extended beyond 2050 on a case-by-case basis.

As the FES data does not extend beyond 2050, it is not possible to assess the constraint risk beyond this point using FES data.

For this reason, where necessary to consider the impact of an option, we will extrapolate ongoing costs and benefits beyond 2050 in real, constant terms.

Assessing investment options against the base

To assess options that are designed to meet the network capability needs, we begin by establishing our reference (base case)[10]. This case will have a set of constraint costs associated with the projected volume of constraints on the network.

For each investment option we re-project the volume and cost of constraints. The constraint cost for each option is then compared with the base case constraint cost value. Any reduction in these constraint costs is defined as a benefit for that investment option. The increase in total expenditure, which may include changes in compression costs, versus the base case, is also calculated for each option. This is defined as the cost of the option.

For the base case and each option, costs and benefits will be discounted at a social time preference rate, over the period to 2050, or beyond this date where appropriate.

The following summarises the elements used in the NPV calculation:

- **Option costs** – this includes any build costs, operating costs, decommissioning costs, environmental, social costs. Also, the cost of commercial contracts with third parties that will reduce constraints
- **Constraint costs from each option** - they are calculated by determining the network capability impact of each option under the FES pathways and the Counterfactual/Falling Behind
- **Base case constraint costs** - it is the situation where there is no intervention on the NTS
- **Constraint cost savings** - they are calculated by comparing the constraint costs from one option to the base case constraint costs

[10] The base case we define as the option where there is no intervention planned to change network capability (i.e. it is a 'do nothing' option)

NPV calculation

Option costs

A gas unit cost library has been developed in collaboration with Jacobs[11] which is benchmarked against a wide range of industry data. The unit cost library will assist NESO in the valuation of any asset build costs (new build, repurposing or modification), operating costs and decommissioning costs for all investment options.

The units cost library will also be used to evaluate the costing of options presented by NGT within SPOP. Via SPOP, NGT will share all relevant capability and costing information and relevant details of commercial agreements, as per their SPOP licence conditions.

The investment option cost elements will consider the following asset classes and types of investment:

- Transmission pipelines
    - New build, uprating, repurposing, replacement and decommissioning
- Above ground installations (AGIs)
    - New build, repurposing and replacement
- Compressor stations
    - New build, replacement, uprating and re-wheeling.

These types of asset classes will consider the following cost elements:

- Capital expenditures (CAPEX)
    - Materials
    - Construction (labour)
    - Land costs
    - Permitting and regulatory fees
    - Miscellaneous
- Operational expenditure (OPEX) [12]
    - These are based on UK gas transmission data and regulatory insight (from Ofgem's RIIO-2 framework) and Jacob's professional experience
- Environmental costs
    - Cost of CO_2 equivalent emissions (CO_{2e}), which will be aligned with the Treasury Green Book guidance

[11] Jacobs are a consultancy firm who have been supporting NESO in the creation of our gas unit cost library, for more information on Jacobs please visit their website: Welcome to Jacobs | Jacobs

[12] Impacts on compressor fuel costs are considered separately

Constraint costs

Constraints costs on the NTS will be assessed for both entry and exit capability requirements depending on the investment option.

Entry capability constraints

When assessing entry capability, constraint volumes will be calculated on the same basis as the flame chart constraint days published in the GNCNR as shown below.

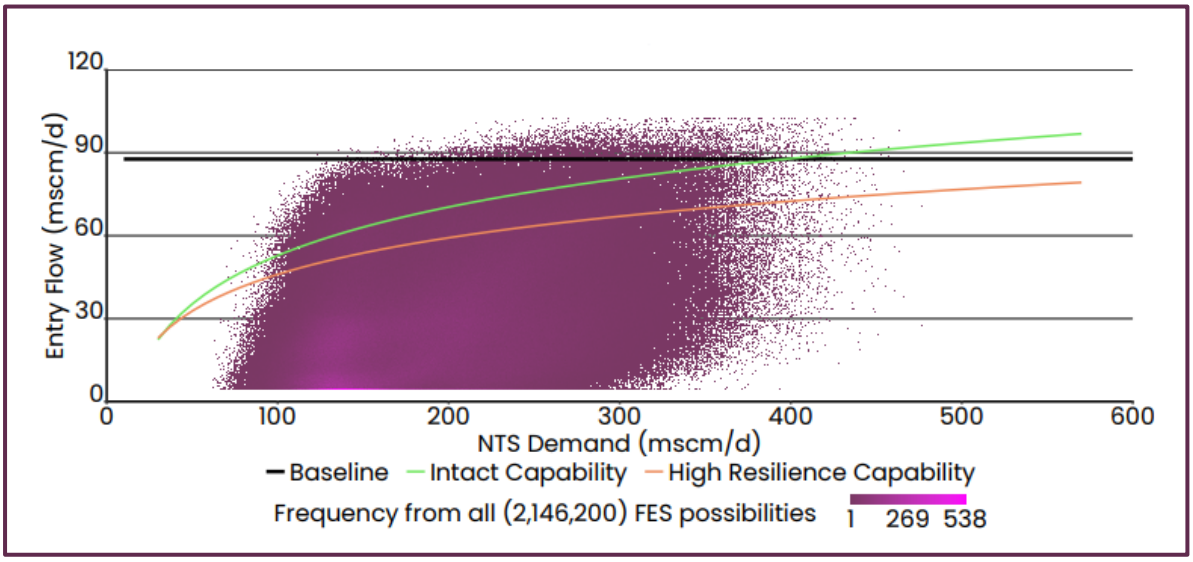


Figure 4 Entry capability flame chart

Constraint volumes will be calculated by taking the difference between each forecast future entry flow and the corresponding flow along the intact entry capability curve. Any portion of this difference which is above baseline entry capacity will be excluded from the total. Baseline entry capacity is defined as the obligated capacity by NGT Transporters Licence[13].

These differences are known as the Capability Shortfall. A summation is then carried out to derive total entry constraint volume for each pathway (and Counterfactual/Falling Behind) for each year.

Entry cost constraint value is calculated using NGT SAP prices, locational actions and buyback percentage splits & Department of Energy Security and Net Zero (DESNZ) Energy and emissions projections: 2022 to 2024: Annex M: Growth assumptions and prices[14].

Exit capability constraints

When assessing exit capability, constraint volumes will be calculated on the same basis as the flame chart constraint days published in the GNCNR as shown below.

[13] Entry capacity | National Gas

[14] Energy and emissions projections: 2022 to 2040 | DESNZ

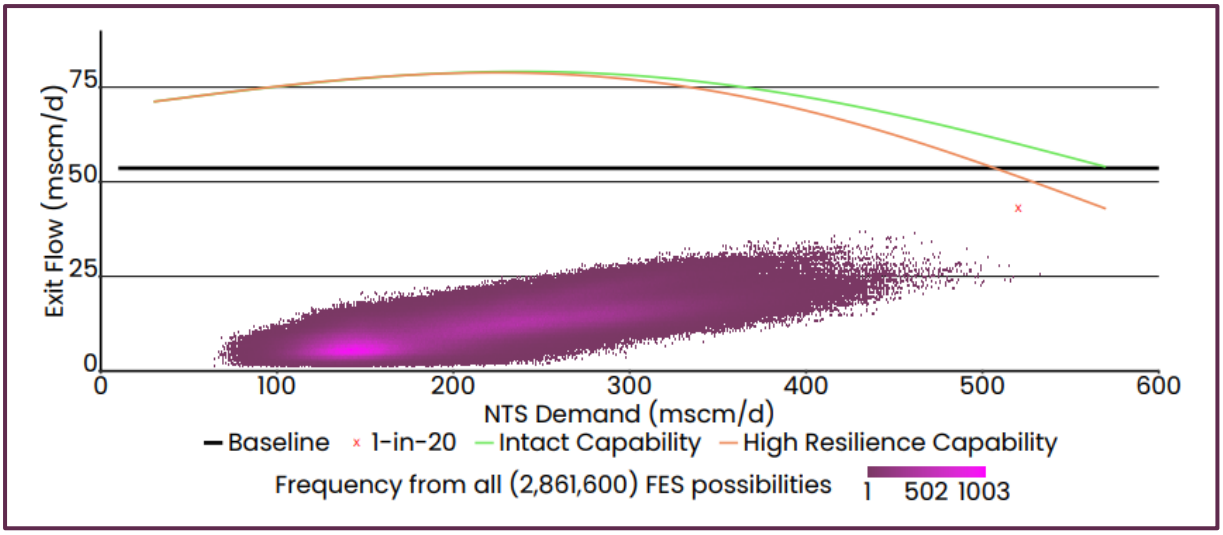


Figure 5 Exit capability flame chart

Constraint volumes will be calculated by taking the difference between each forecast future exit flow and the corresponding flow along the intact exit capability curve. Any portion of this difference which is above baseline exit capacity will be excluded from the total that NGT hasn't released as obligated incremental capacity. Baseline exit capacity is defined as the obligated capacity by NGT Transporters Licence[15].

These differences are known as the Capability Shortfall. A summation is then carried out to derive total exit constraint volume for each pathway, (and Counterfactual/Falling Behind), for each year.

Exit cost constraint value are calculated using the following steps:

- Exercise of interruptible exit capacity (where a relevant contract is in place)
- Calculation of any existing constraint management contract regular costs
- Unsold capacity would be withheld in a zonal region
- Locational buy action
- The buy-back of exit capacity rights

To ensure the exit constraint cost these steps will be undertaken in collaboration with NGT and the relevant GDN by a zonal basis for constraint management[16].

Base case costs

This is defined as a 'do nothing' option where costs (other than constraint costs) are assumed to be zero.

[15] Exit capacity | National Gas

[16] Constraint management | National Gas

Compressor costs

Options may affect compressor fuel usage. Changes in compressor fuel use will be estimated by reference to calculations in our network analysis models, and DESNZ fuel price assumptions.

Constraint cost savings

These are calculated by comparing the constraint cost of an investment option to the base case constraint costs.

Review in combination

For each investment option proposed, each element of the assessment – environment, social, deliverability and economic - will be used to inform the recommendation on option(s) to Ofgem. The economic assessment will be the primary decision criterion.

However, if there are unmitigable or significant environmental or societal impacts associated with an option, we will consider the balance of impacts across the set of assessments. All relevant data, assumptions and calculations will be shared with Ofgem to demonstrate that NESO's recommendation is unbiased and transparent.

In future iterations of the GOA we will review previous investment recommendations, updating the progress of these and where relevant, the benefit of each option.

4. Stakeholder engagement

Our stakeholder engagement approach

GOA publication timeline

Stay in touch

Our stakeholder engagement approach

Stakeholder engagement is used throughout the gas network planning process. As we developed our GOA, we have engaged with stakeholders across three categories to best suit their anticipated needs as showing in Figure 3. stakeholders that have varying levels of interest in GOA. As we are developing the methodology, we will engage with stakeholders via consultation, webinars and bilateral conversations.

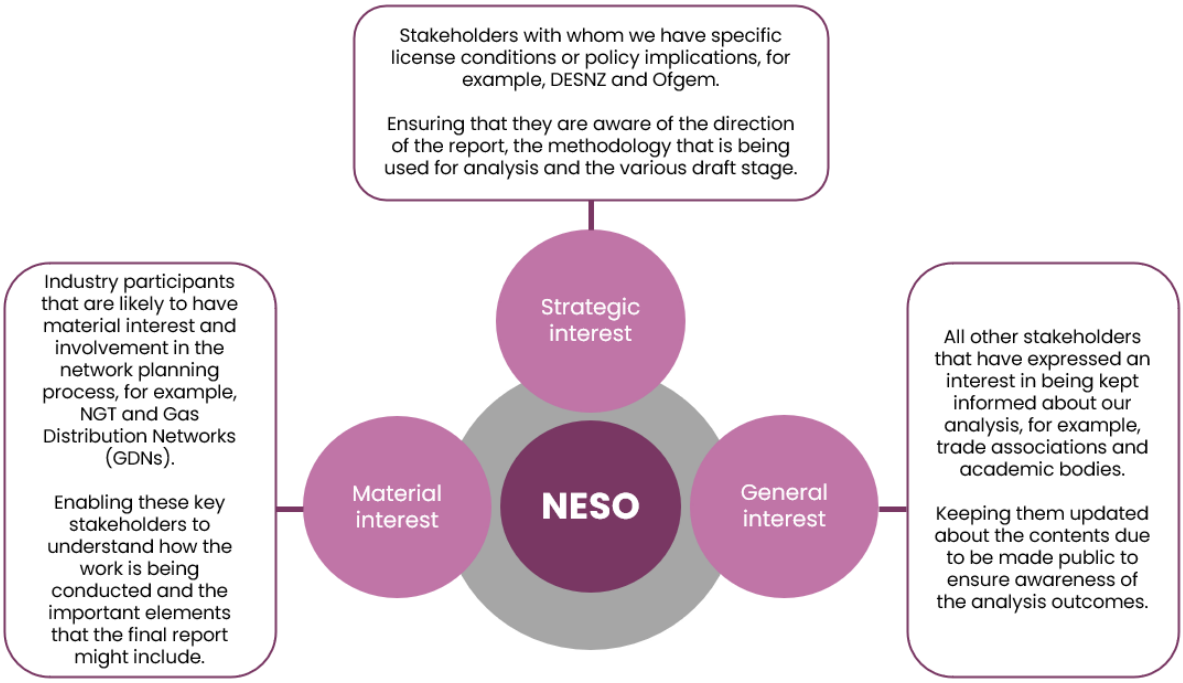


Figure 6 Stakeholder engagement approach

Engagement principles

The following will define our stakeholder engagement:

- **Timely and transparent**: we will engage early, and our process, methodology, and stakeholder approach will be transparent. We will make it clear to stakeholders how we will consider their feedback and how they can shape the plan, while adhering to the confidential nature of the work where appropriate.
- **Proactive engagement**: we will identify stakeholders with interest or expertise in energy planning whose inputs could materially improve the plan. We will update our stakeholders proactively on new and changing information via our regular stakeholder groups and public communications.
- **Action feedback**: we will consider all feedback from our stakeholders during the engagement process. In the main, we will group feedback under themes and share how we have considered and addressed these themes. We will be candid with stakeholders that we will not be able to action all feedback we receive. This could be for a variety of reasons, like some views conflicting with the aims of the plan. Finely balanced trade-offs will need to be made. A clear explanation will be provided for any feedback that is not used.
- **Coordinated engagement**: where we can, we will align stakeholder engagement activity across NESO's SEP activity, aiming to be as efficient as possible with stakeholders' time. We will build on relationships formed during other strategic planning activities and explain to stakeholders how the SEP projects all fit together.
- **Tailored engagement**: we will ensure our engagement is accessible and at the right level for our diverse range of stakeholders, who all have different experiences in the energy sector and network planning. We will regularly seek feedback to understand if the engagement is working for stakeholders so we can improve.

GOA publication timeline

Our licence requires us to publish the GOA by the 31st December 2025, and every other year thereafter. Alongside the GOA we also publish a data workbook to make all relevant modelling data as transparent and accessible as possible.

Figure 7 Stakeholder engagement timeline for GOA

Stay in touch

NESO communicates with its stakeholders in a timely, transparent, and proactive manner. To hear the latest updates from SEP, and/or gas network planning, you can tailor your communication preferences by:

Strategic energy planning (gas network planning included)

- Subscribe to NESO Newsletter: neso.createsend.com/h/d/918820CF9659BD06
- Follow us on LinkedIn: National Energy System Operator: Overview | LinkedIn

Gas network planning

- Send email to: gwend@neso.energy

5. Glossary

Glossary

Legal notice

Glossary

Acronym	Description
AONB	Areas of Outstanding Natural Beauty
CAPEX	Capital expenditure
CO_2	Carbon dioxide
CO_{2e}	CO_2 equivalent emissions
CSNP	Centralised Strategic Network Plan
DESNZ	Department of Energy Security and Net Zero
FES	Future Energy Scenarios
GNCNR	Gas Network Capability Needs Report
GOA	Gas Options Advice
HRA	Habitat Regulation Assessment, or Habitat Regulations Appraisal
NGT	National Gas Transmission
NPV	Net Present Value
NSA	National Scenic Area
NTS	National Transmission System
OPEX	Operational expenditure
SEA	Strategic Environmental Assessment
SEP	Strategic Energy Planning
SPOP	Strategic Planning Options Proposal
SSSI	Site of Special Scientific Interest

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