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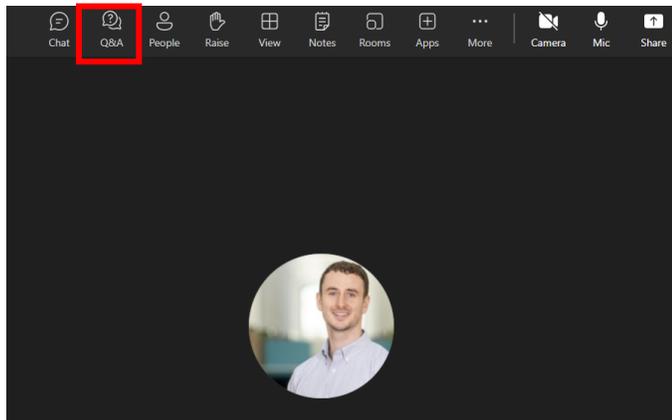
**energy  
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# Housekeeping for Forum

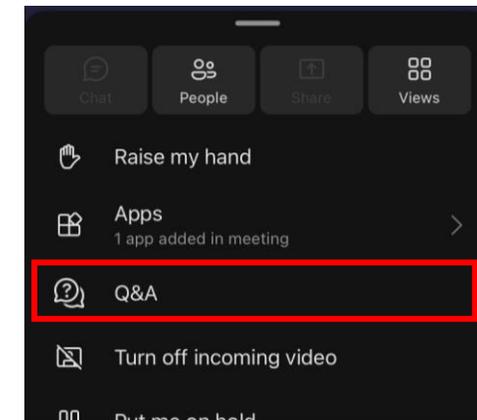
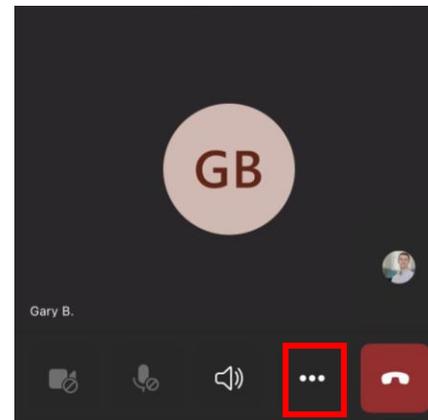
- For Microsoft Teams participants;
- Attendees will be automatically muted on dial-in and cameras will be unavailable.
- We have included some time to answer questions following the presentations.
- You can ask questions **via Teams – Q&A**



Laptop



Mobile



# Today's agenda

| National Gas Energy Forum<br>1000 – 11:30   |       |
|---|-------|
| <b>Max Chapman</b> , Operational Updates  | 10:02 |
| <b>Nicola Lond, Laura Loughran &amp; Kirsty Appleby</b> , UNC Modification Update | 10:12 |
| <b>Alex Potter</b> , Emergency Exercise Glacier                                   | 10:27 |
| <b>Helen Blundell</b> , Exploring the impact of Innovation                        | 10:35 |
| <b>Bill Goode</b> , Gemini update   | 10:50 |
| <b>Alan Stephen</b> , Blending update   | 11:00 |
| <b>Sam Beasley</b> , Gas Quality Data Portal Initiative                           | 11:15 |
| <b>Alison Tann</b> , Capacity Auctions errors guidance                            | 11:20 |
| <b>Max Chapman</b> , General updates & close                                      | 11:25 |



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**Max Chapman**

Ops Liaison & Business Delivery Manager  
National Gas

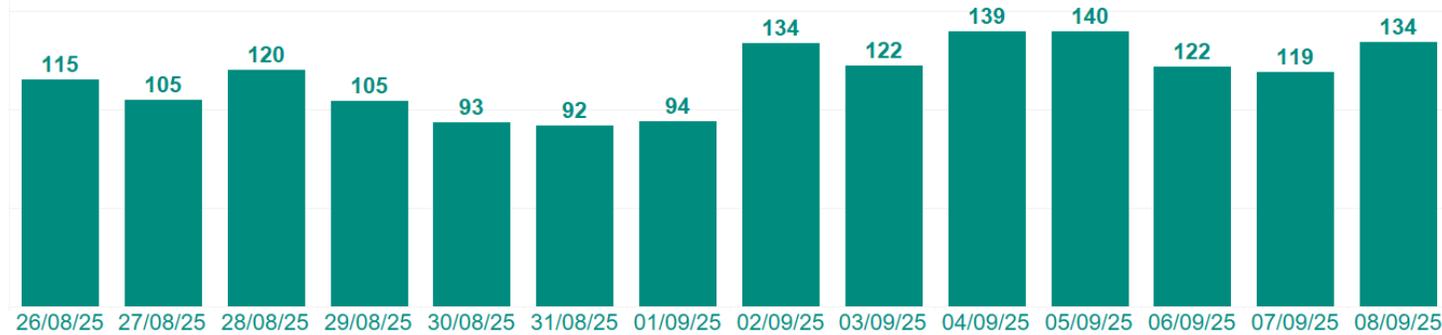


# Introduction : Max Chapman

- Taking over from Rachel while she is on Maternity leave as Operational Liaison & Business Delivery Manager
- Started with company as a Mechanical Apprentice (2013 – 2017)
- Operations Technician (Mechanical) at Hatton Compressor Station (2017 – 2020)
- NCC (2020 – 2025)
- Looking forward to meeting you all over the next year at NGEF and operational visits

# NTS Supply & Demand Overview

## NTS Demand



## NTS Demand vs previous year



## NTS Summer Averages

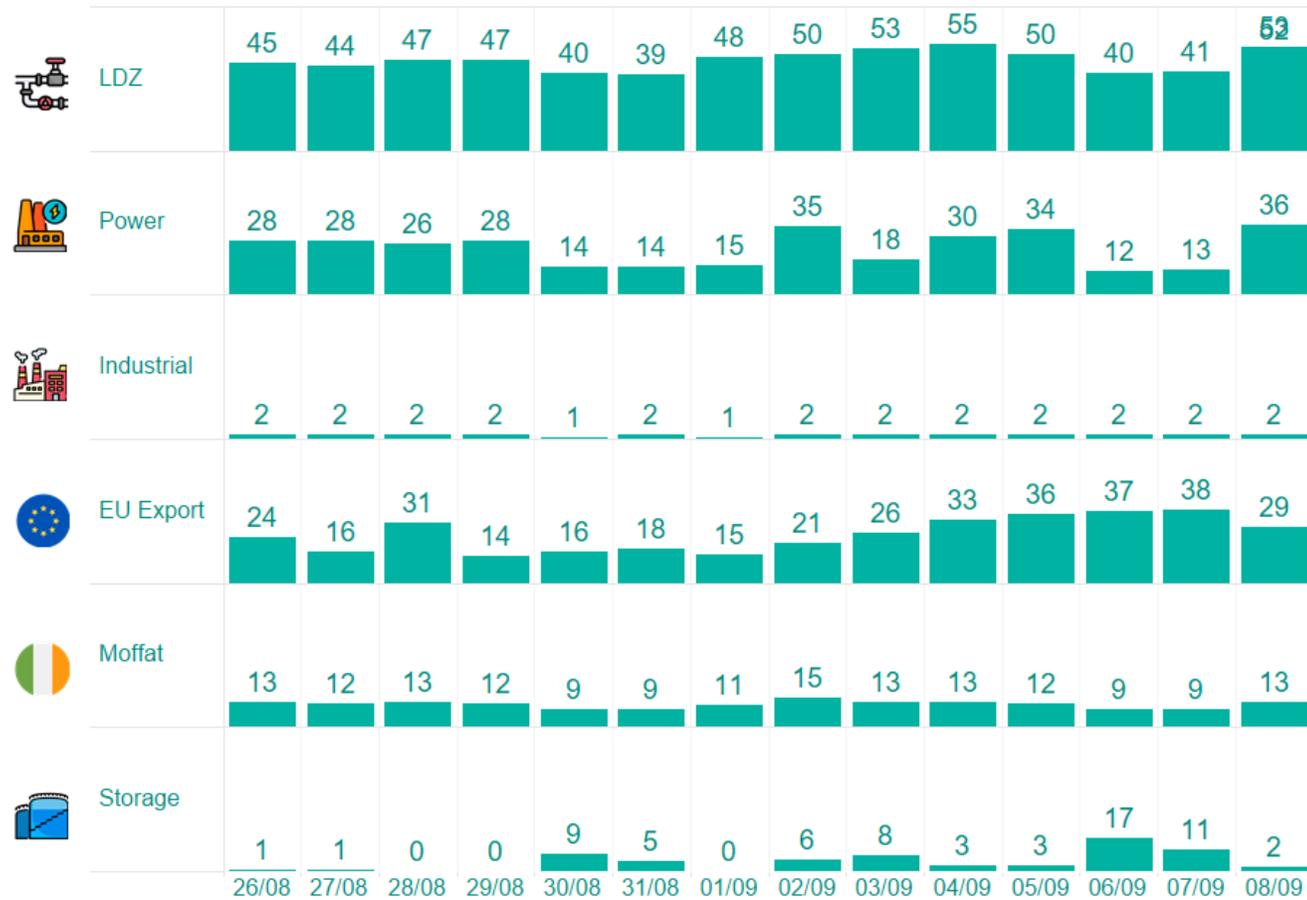
|                | 2024 | 2025 |
|----------------|------|------|
| June           | 142  | 137  |
| July           | 162  | 145  |
| August         | 146  | 138  |
| Sept (to 10/9) | 119  | 124  |

Lowest Demand  
=91.9mcm (31/08)

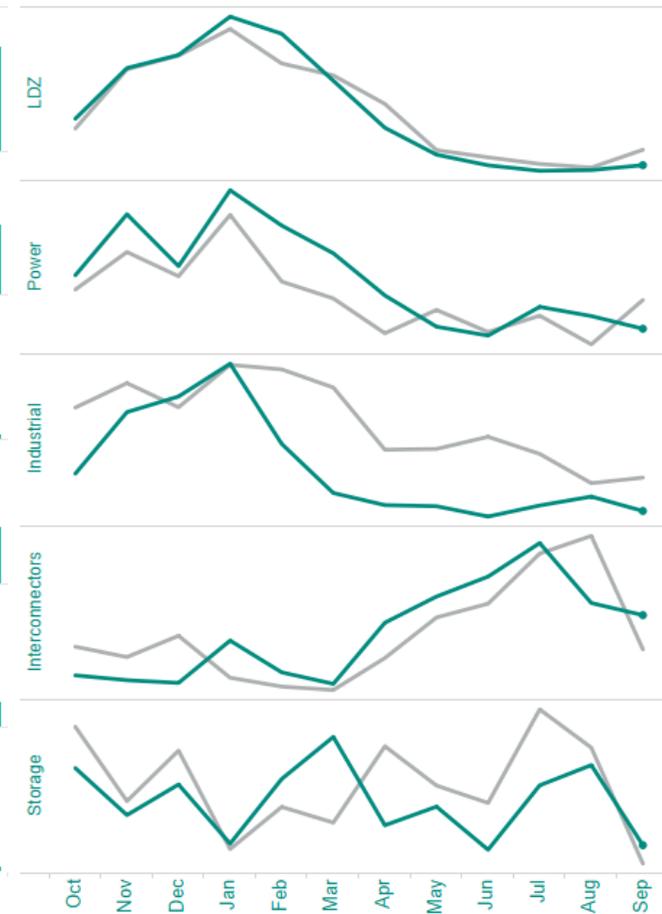
# NTS Demand Breakdown

Demand Categories - Last 14 days

End of day values (mcm)



Monthly average end of day



All values shown are volume in millions of cubic metres per day (mcm/d)

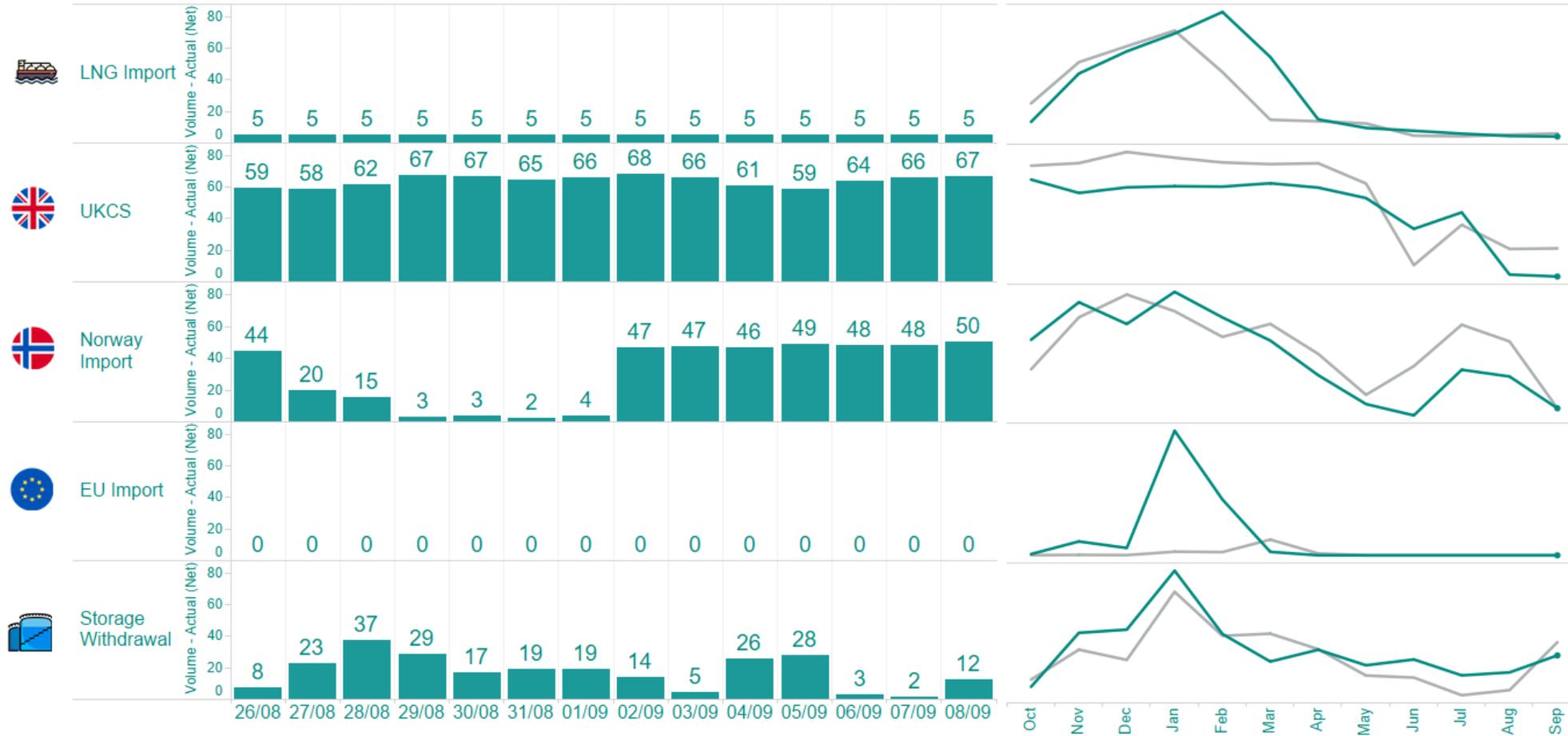
■ 2024/2025 ■ 2023/2024

# NTS Supply Breakdown

## Supply Categories - Last 14 days

End of day values (mcm)

Monthly average end of day

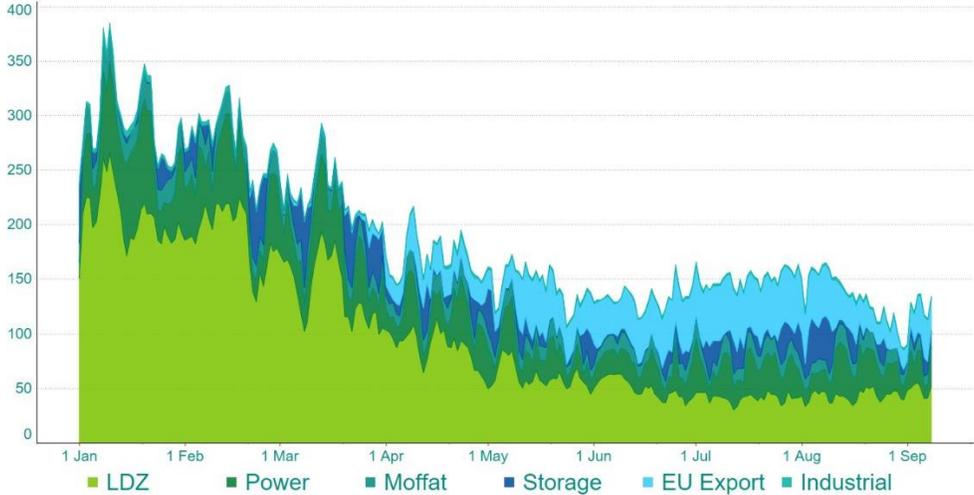


All values shown are volume in millions of cubic metres per day (mcm/d)

■ 2024/2025  
■ 2023/2024

# NTS Summer Demand Review

UK Demand 2025 (mscm/d)



July to Sept Demand Comparison

|              | 2024         | 2025         | Diff         |
|--------------|--------------|--------------|--------------|
| LDZ          | 50.3         | 45.5         | -9.5%        |
| Power        | 25.1         | 28.4         | +13%         |
| Storage      | 18           | 13.6         | -24.4%       |
| Moffat       | 12.7         | 13.2         | +3.9%        |
| EU Export    | 45.8         | 40.1         | -12.4%       |
| Industrial   | 3.4          | 2.7          | -20.6%       |
| <b>Total</b> | <b>155.3</b> | <b>143.5</b> | <b>-9.2%</b> |

### LDZ

- Consistently higher seasonal temperatures vs 2024

### Power

- Increase driven largely by reduction in wind generation

### Storage

- LRS storage level main contributing factor

### Moffat

- Minor increase in seasonal demand

### EU Exports

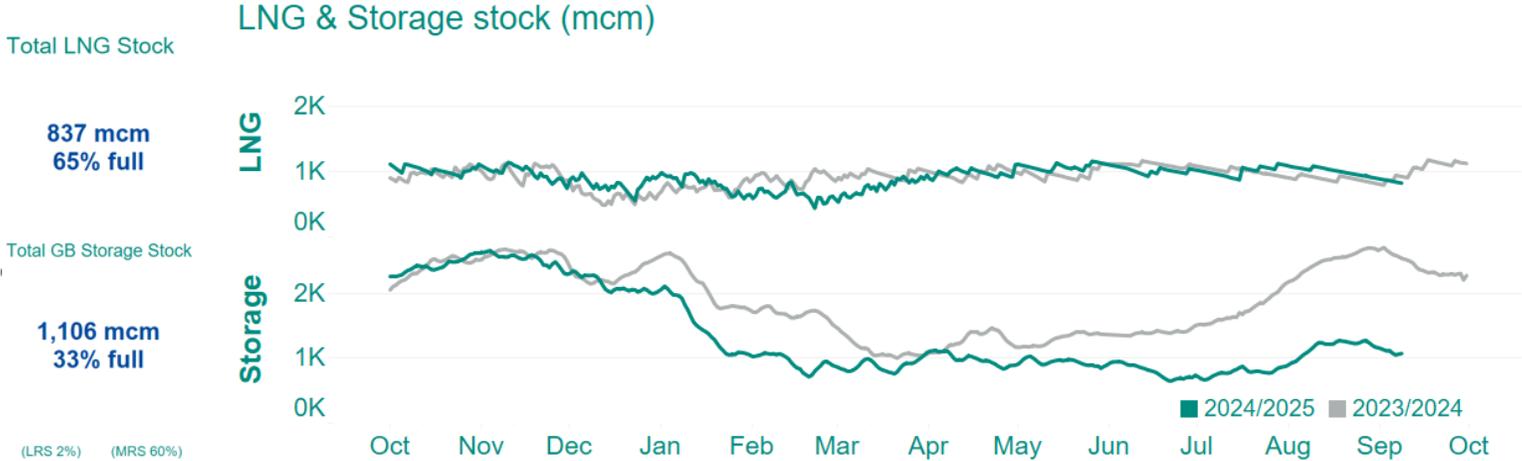
- Corresponding with EU storage stocks, which were ahead of schedule in 2024

### Industrial

- Continued reduction of 20% for consecutive years

# UK & EU Storage Levels

## UK LNG & Storage Stock



### LNG

- Continued high Asian LNG price, 1 boat currently due.

### UK Storage

- Key differentiator for 2025 is the reduction in UK LRS storage stock, this time last year this was at 70%.

### EU Storage

- Stocks are slightly below last year, indicating increased confidence. In 2024, EU reached 90% level 2 months ahead of schedule.

Data as of beginning of gas day 08/09/2025  
All values shown in million cubic metres (mcm)



# Summer Overview

## NTS Compression running hours

- 2206 hours Summer 2025
- 2208 hours Summer 2024

## NTS Compression free days

- 39 days 2025
- 17 days 2024

**10.7% of NTS Pipelines outages completed this year so far (=817km)**

**0 constraints requiring use of commercial tools**



# National Gas Market Change Update

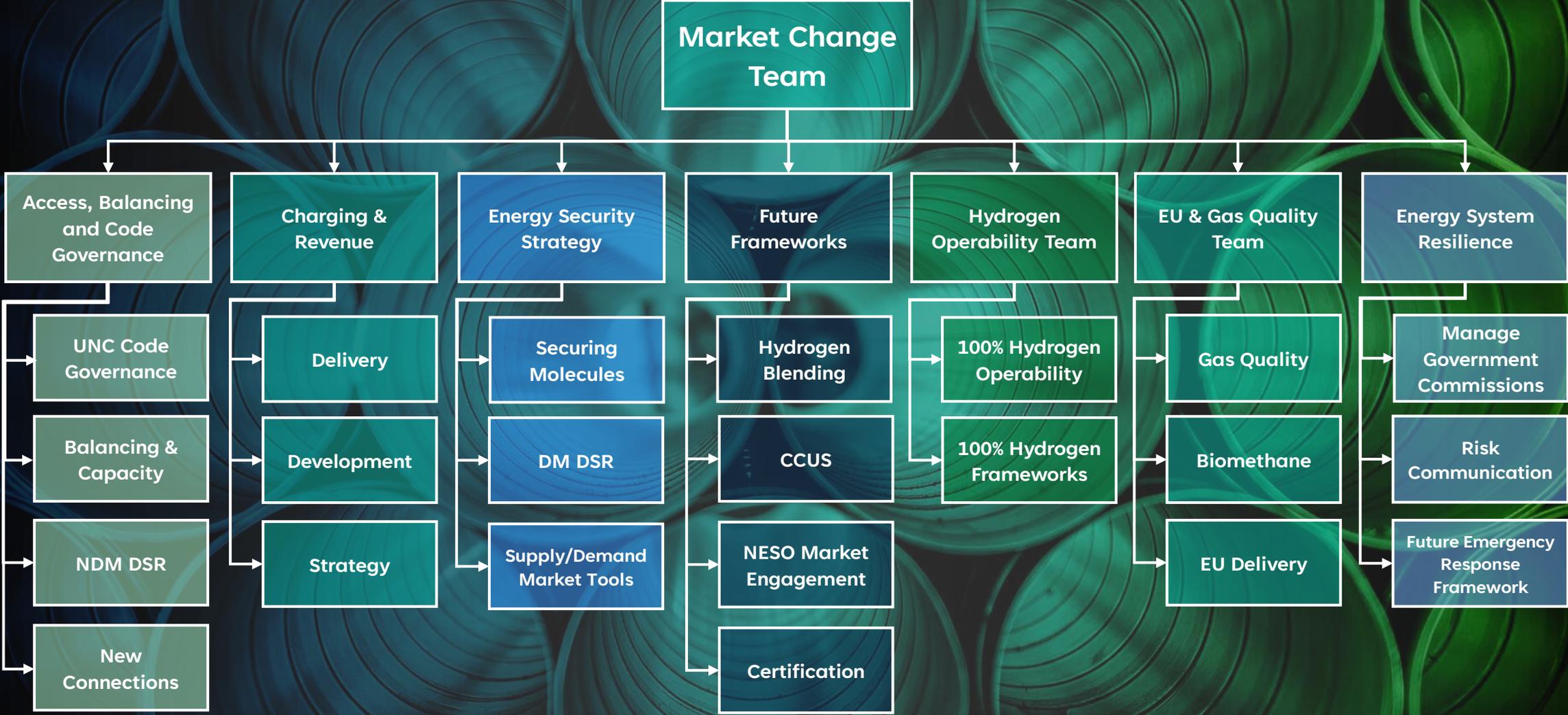
**Nicola Lond**  
Senior Codes Change Lead

**Laura Loughran**  
Code Change Lead

**Kirsty Appleby**  
Code Change Lead – Charging & revenue



# Market Change Team Responsibilities



# Transmission UNC Modifications

## Approved awaiting implementation

### Implementation

- 0864s : fax removal from Code Communications
- 0887 : Facilitating Bi-Directional connections between IGT pipelines and the NTS

- TBC
- TBC

## Awaiting Authority Decision

D0001 - Hydrogen Blending: An NTS Transportation and Power Station Consumption Demonstration.

0900 - Amendment to the Gas Quality NTS Entry Specification at Biomethane System Entry Points

## In development

- 0849R: Commercial Framework Review to Enable Hydrogen Blending
- 0894/A: Biomethane entry into the GDN by exporting methane from the GDN into the NTS via Compression
- 0901R: Review of the arrangements for reservation of NTS Capacity
- 0902R:EU Capacity Allocation Mechanism Network Code Review
- 0907: Extension to current maintenance period
- 0912s: PARCA Quarterly NTS Entry Capacity minimum duration quantity
- 0913: Amending referencing and naming errors in TPD section B and V

## At Consultation

- 0903:Introduction of a Single NTS Capacity Reference Price

# Arrangements for Reservation of Capacity review

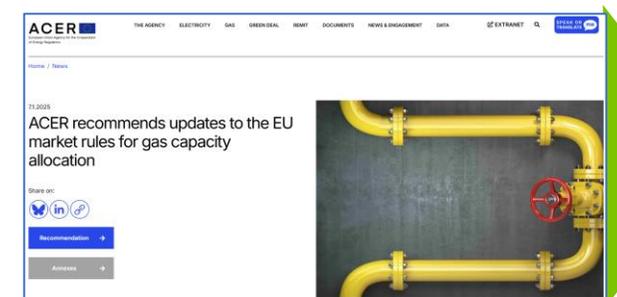
- **Review Group 0901R** has highlighted several potential improvement areas for the reservation of Capacity (PARCA process)
- The Workgroup report is due to be finalised in October workgroup for **return to Panel in October**.
- **There is no consultation** for a Review Group.
- The workgroup report will contain recommendations.
- **New modification 0912S** has been raised to address a specific point on the capacity commitment required when existing available capacity is utilised to fulfil a PARCA requirement.

| UNC Request Workgroup Report  | At what stage is this document in the process? |
|---|--|
| <b>UNC 0901R:</b><br>Review of the arrangements for reservation of NTS Capacity | 01 Request                                     |
|   | 02 Workgroup Report                            |
|   | 03 Final Modification Report                   |

For further information, or to share your thoughts on this subject, please contact [Nicola.j.lond@nationalgas.com](mailto:Nicola.j.lond@nationalgas.com). Join the conversation at Transmission Workgroup - [Review of the arrangements for reservation of NTS Capacity | Joint Office of Gas Transporters - Gas Governance](#)

# CAM Network Code Reform - What has happened and why is it relevant for GB?

- The EU **Capacity Allocation Mechanisms (CAM)** Network Code is an EU Regulation that EU TSOs were legally obliged to implement as part of the EU 'Third Energy Package' in 2015
- At **Brexit**, the CAM Code was transposed into UK law, accompanied by a new Statutory Instrument (SI), so continues to apply at GB Interconnection Points (IPs)
- **ACER** have conducted a review and issued a **recommendation** to the European Commission in Dec 2024 to update the EU CAM Code to deliver greater flexibility in IP capacity booking and better align the capacity regime to the gas commodity market
- As GB is **physically and commercially** interconnected to NI and EU member states, EU gas market change is relevant for consideration in GB. **Compatibility** is important to maintain efficient trading arrangements across interconnectors.
- This is the first EU Network Code Reform post-Brexit and so acts as a 'test-case' for GB.



# CAM Network Code Reform – UNC Workgroup 0902R

- UNC Modification **0902R** was raised in January 2025 to review the benefits and risks of GB divergence / alignment. The key proposals we have been discussing are:

Arrangements for capacity calculation / maximisation

Additional capacity auctions at Interconnection Points (including a new balance-of-month product)

Incremental capacity arrangements

Auction parameter modification process

- As the UNC Workgroup 0902R approaches a close, we plan to raise a **‘successor’ Modification** to propose changes to GB arrangements, informed by the conclusions of 0902R.
  - Note - any GB changes are still subject to a final decision on the amendments to the EU's CAM code. We anticipate an update from the European Commission by the end of 2025.

For further information, or to share your thoughts on this subject, please contact [Laura.Loughran@nationalgas.com](mailto:Laura.Loughran@nationalgas.com). Join the conversation at Transmission Workgroup - [EU Capacity Allocation Mechanism Network Code Review](#) | [Joint Office of Gas Transporters - Gas Governance](#)

# Charging: UNC Modification 0903 – Now at Consultation

National Gas Transmission raised UNC [Modification 0903](#) in early 2025 after an extensive development period, that is now at consultation stage. UNC0903 proposes the **introduction of a single Capacity tariff across all Entry Points and all Exit Points** (whilst maintaining all existing discount methods). Extensive discussions including analysis of potential impacts have taken place at the workgroups which concluded in July. UNC0903 is now out for consultation with **representations invited by 5pm on 2nd October 2025**. After this, Ofgem is expected to conduct a Regulatory Impact Assessment.

## Proposal Objectives Reminder:

UNC0903 proposes improvements to the charging methodology aiming to:

- Improve the overall stability of pricing to help minimise impacts that would otherwise affect Entry or Exit
- Reducing Entry reserve prices, offering lower costs than it would otherwise be under the As-is method, removing barriers to Entry
- Reduce the overall capacity tariff for one unit of gas entering, utilising, and exiting the NTS.

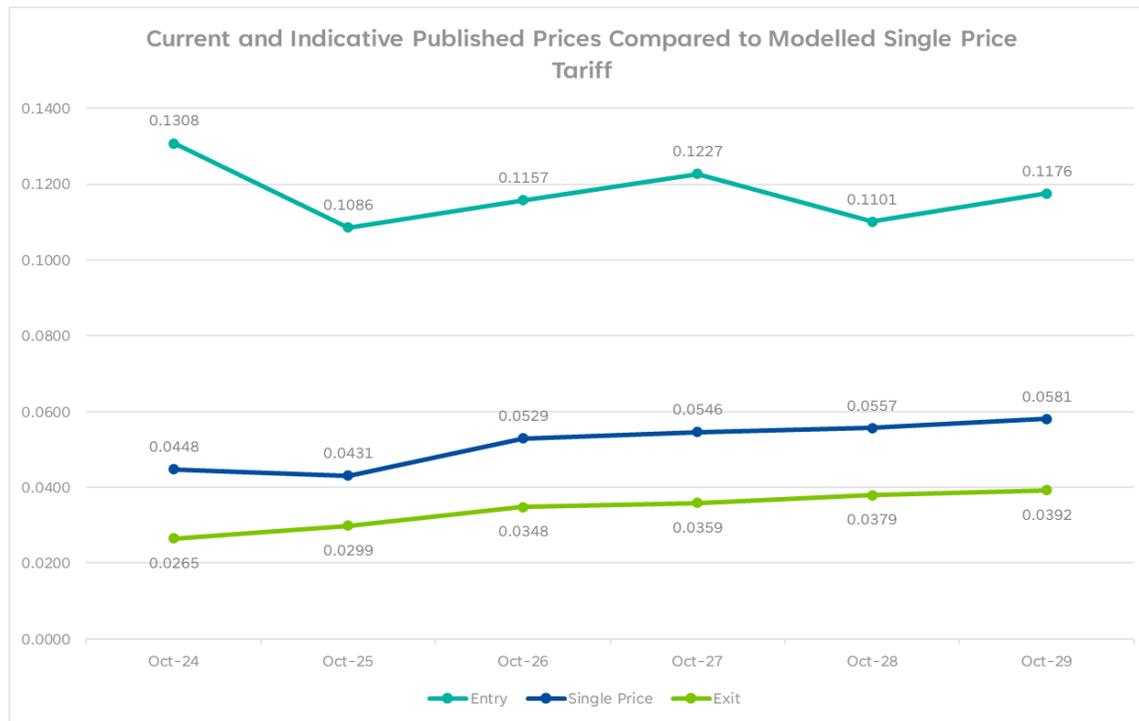
Analysis to help understand potential impacts, including for domestic consumers using Ofgem's price cap model, are available on the UNC0903 modification pages and referred to in the Draft Modification Report

For further information please contact [colin.williams@nationalgas.com](mailto:colin.williams@nationalgas.com) or [Kirsty.Appleby@nationalgas.com](mailto:Kirsty.Appleby@nationalgas.com).

To follow progress, review all documentation and to **respond to the consultation** please follow the [UNC0903](#) main page on the Joint Office website.

# Charging: UNC Modification 0903 – Now at Consultation

Introduction of a single Capacity tariff across all Entry Points and all Exit Points (illustration of Capacity charge impact)



**Note:** Entry/ Exit Prices for October 24 and October 25 are published actuals. October 26 prices onwards are published indicatives.

Entry prices would reduce from what they would otherwise be under status quo

Exit prices would increase from what they would otherwise be under the status quo

The single price under 0903 would smooth out potential volatility, more pronounced for Entry but still relevant to Exit

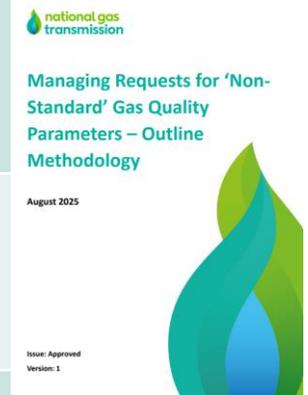
On a unit price basis, the Entry reduction would be larger than the Exit increase. Further assessments beyond this are available as part of the workgroup report and the [workgroup materials](#).

# Update: Gas Quality – Non-standard requests

## Transparent and Consistent: New Methodology

**New methodology** has been developed. This will be published on our website [Connections Document Library](#)

- Clear and transparent process documenting how we will manage requests for non-standard gas quality arrangements – oxygen (O<sub>2</sub>) and Carbon Dioxide (CO<sub>2</sub>)
- Non-Standard is that outside of our template Network Entry Agreement specification
- Methodology shaped through industry consultation via UNC Gas Quality Workgroup
- **Heat Map** of the NTS has been included in the methodology
  - Showing areas of the NTS where elevated O<sub>2</sub> may be accommodated more easily
  - Is based on likelihood of our pipeline conveying gas to “sensitive customers” within area
- **Network Analysis** will be undertaken for each application on a worst-case basis to determine risk
- Pre-defined **Decision-Tree**
  - Sets out clear steps to give a ‘yes’, ‘no’ or what level (of O<sub>2</sub>/CO<sub>2</sub>) can be accommodated
  - Methodology will be applied consistently
- Assessment made at the **Application** Stage (applicable to new connections)



For further information, or to share your thoughts on this subject, please contact [Ahmed.jama@nationalgas.com](mailto:Ahmed.jama@nationalgas.com)

# Thank you

[Market Change | National Gas](#)

[box.gsoconsultations@nationalgas.com](mailto:box.gsoconsultations@nationalgas.com)

[box.ntsgascharges@nationalgas.com](mailto:box.ntsgascharges@nationalgas.com)





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# Alex Potter

Lead NEC Specialist  
National Gas





# Exercise GLACIER

NEC Assurance Exercise 2025

**N**etwork  
**E**mergency  
**C**o-ordinator

# Network Emergency Co-ordinator Assurance Exercise

## Purpose

- Showcase the gas industry's ability to manage a Network Gas Supply Emergency (NGSE) safely and effectively.
- Fulfil the NEC's legal obligation to assure emergency response capability.

## Scenario

- Simulated supply losses will trigger an NGSE, testing industry-wide response mechanisms.

## Key Objectives

## Emergency Management

- Test response to emerging gas shortages using warning notices and proactive communication.
- Assess industry understanding post-exercise.

## Pre-Emergency Strategy

- Simulate activation of commercial and physical tools.
- Evaluate the Primary Transporter's situational awareness through collaboration.

# Network Emergency Co-ordinator Assurance Exercise

## Key Objectives

### Coordination

- Strengthen gas-electricity interaction processes.
- Engage National Energy System Operator and Electricity Distribution Network Operators.

### Success Indicators

- Effective two-way communication across stakeholders.
- Timely, accurate information sharing.
- Implementation of robust emergency strategies.

# Exercise GLACIER

Mon 13 Oct, Day 1 – Pre-Emergency / Stage 1 NGSE



Tue 14 Oct, Day 2 – Stage 2 NGSE



Tue 21 Oct, Day 3 – Stage 3 NGSE

# Exercise GLACIER

## Monday 13<sup>th</sup> October Pre-Emergency

- Gas Transporter Collaboration
- Gas Balancing Notification  
(live issue marked for exercise)
- Gas Availability Status (GAS) Report  
(live population marked for exercise)
- Scale-back Off-peak Exit Capacity (consideration of live data by GSO but no further communications issued)
- Activation of Operating Margins Contracts  
(testing of contract activation process for Exercise)

## Tuesday 14<sup>th</sup> October Emergency

- Declaration of an NGSE  
(live issue of Emergency declaration marked for exercise)
- Stage 1: Determine Use of Available Gas  
(exhaust available Stage 1 actions)
- Stage 2: Entry Point Flow Directions  
(live issue of directions to maximise flows marked for exercise)
- Stage 2: Load Shedding Directions\*  
(live issue of directions to cease taking gas marked for exercise)
- Public Appeal  
(notional issue)

## Tuesday 21<sup>st</sup> October Isolation

- Public Appeal  
(notional issue)
- Stage 3: Allocation and Isolation  
(live issue of allocation and isolation directions marked for exercise)

# Industry Briefing Note

- Can be viewed at National Gas website:
  - [https://www.nationalgas.com/sites/default/files/documents/20250624-NEC\\_Exercise\\_GLACIER\\_Industry\\_Briefing\\_Note.pdf](https://www.nationalgas.com/sites/default/files/documents/20250624-NEC_Exercise_GLACIER_Industry_Briefing_Note.pdf)

**Exercise Glacier (2025)**

The planned 2025 NEC industry exercise to test emergency response procedures is called Exercise Glacier. It will take place over three days in October 2025 (13th, 14th, and 21st). The Industry Briefing Note was published in June 2025.

[Download the Exercise Glacier Industry Briefing Note ->](#)

**Industry exercise participant requirements**

The following documents provide more information about the participation requirements for NEC industry exercises.

[Directly Connected Sites](#)  
[Shippers](#)  
[Storage Operators](#)  
[Supplementary Transporters](#)  
[Terminals](#)

**Exercise GLACIER 2025  
NEC Assurance Exercise  
Industry Briefing**

Network  
Emergency  
Co-ordinator

**GLACIER**  
NEC Assurance Exercise

The 'E1 Network Gas Supply Emergency Procedure' sets out how NGSEs are managed. Version 12.1 was published in November 2024. Click the image on the left to access this important document

[Initiation >](#)  
[Exercise Reporting >](#)  
[Contact >](#)  
[Appendices >](#)

short video which explains the NGSE Response Framework

**Gas Emerg Processes**  
Intro a overview

This is an interactive document. The buttons below feature on the left bottom corner of each page for your convenience. Use them as follows:

Home: takes you back to this page  
Glossary: Link to abbreviations and definitions  
Navigation: takes you to the next or previous page

# Emergency Contact Data

## Distribution Networks

This map shows the Distribution zones by region, and network operator.

There are currently four DNs which operate across several LDZs, and they are listed below:

1. SGN
2. Northern Gas Networks
3. Cadent
4. Wales & West Utilities





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# Exploring the Impact of Innovation

**Helen Blundell**

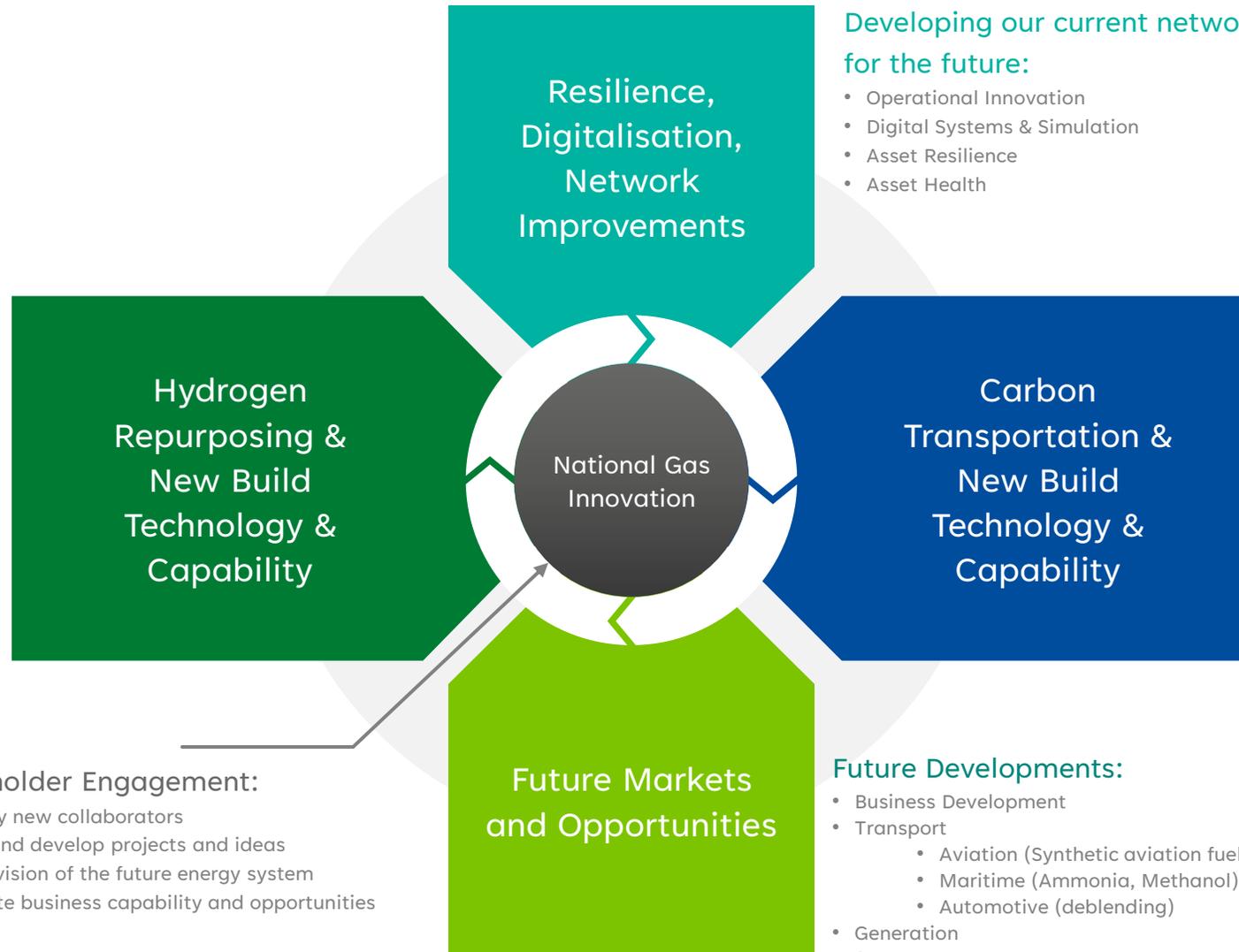
Innovation Implementation Manager  
National Gas



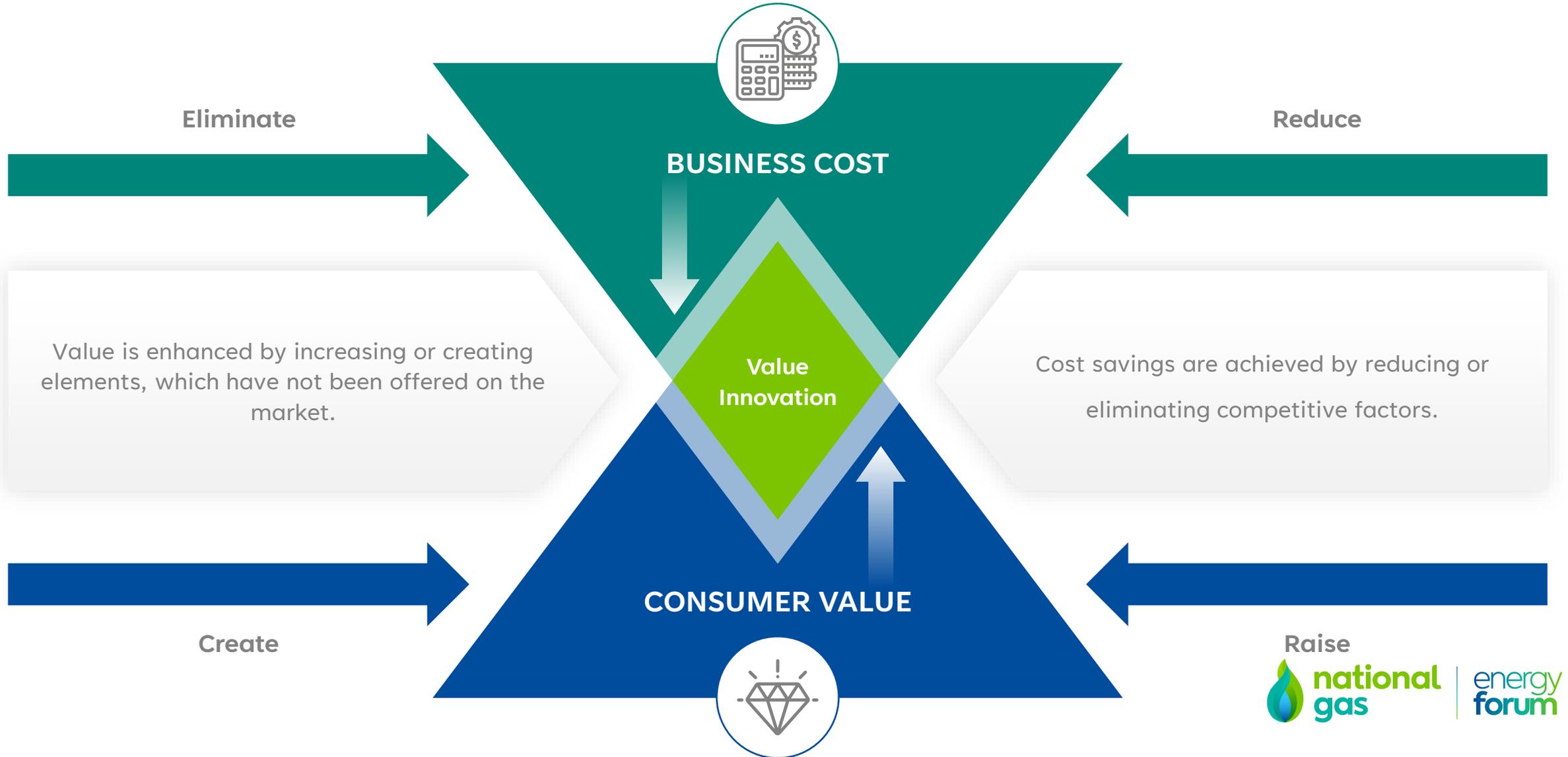
# Innovation at National Gas

## Hydrogen Transport:

- Asset capability
- Asset Design
- New asset development
- Materials Capability
- Measurement systems
- Inspection & Surveillance
- Control & Management
- Skills & Competencies
- Blending

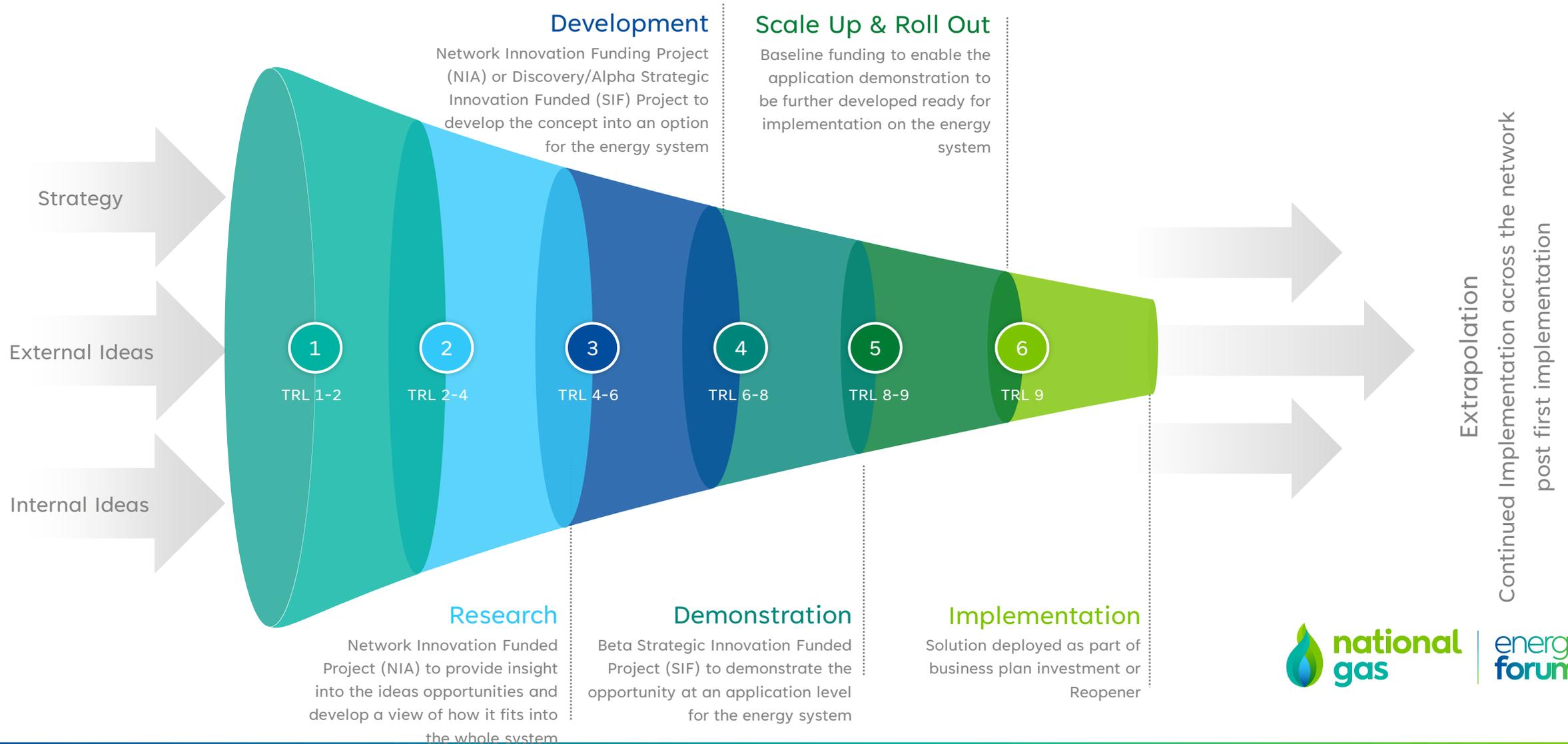


# Why do we innovate?

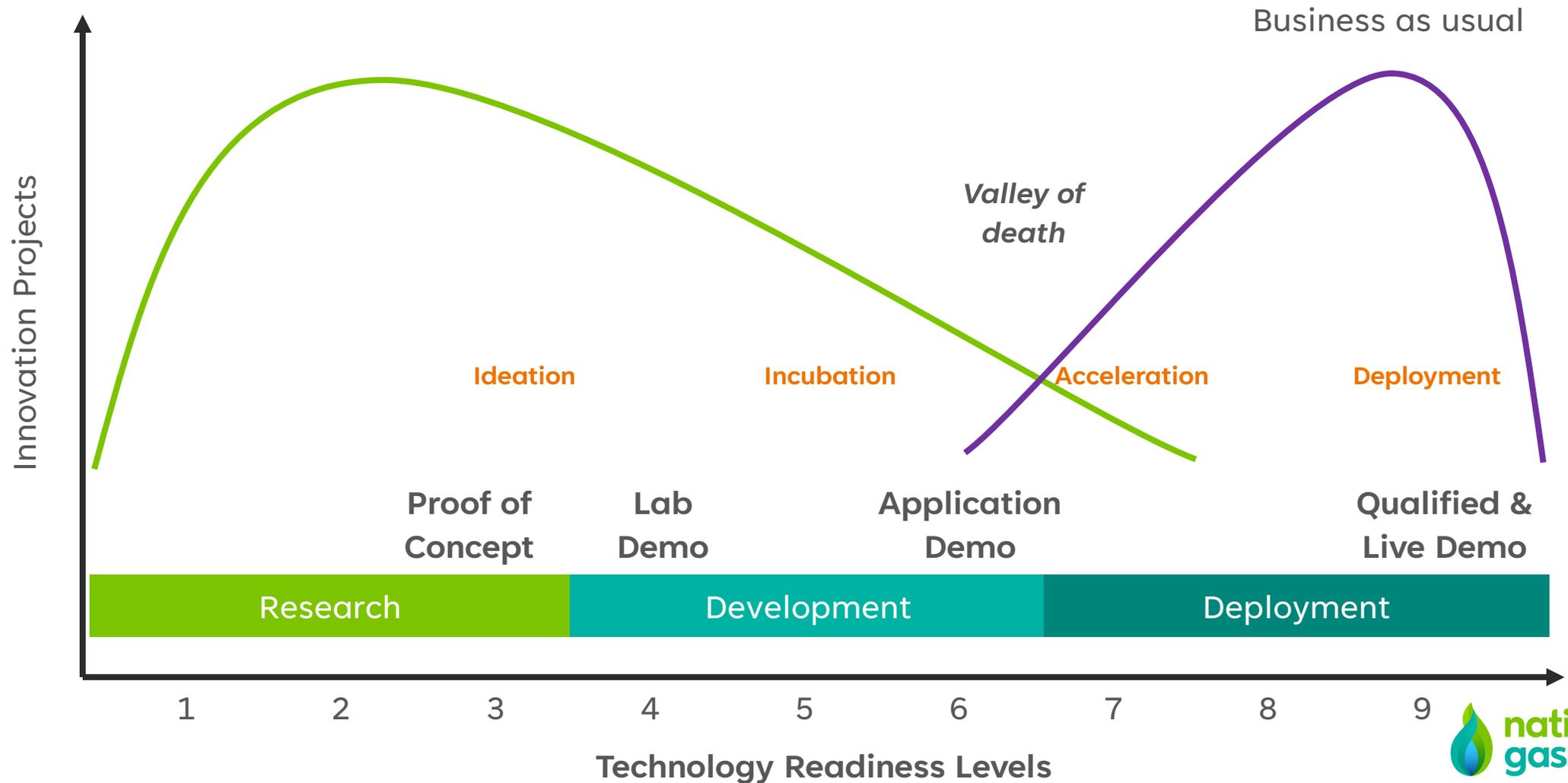


# How do we innovate?

From Idea to Implementation



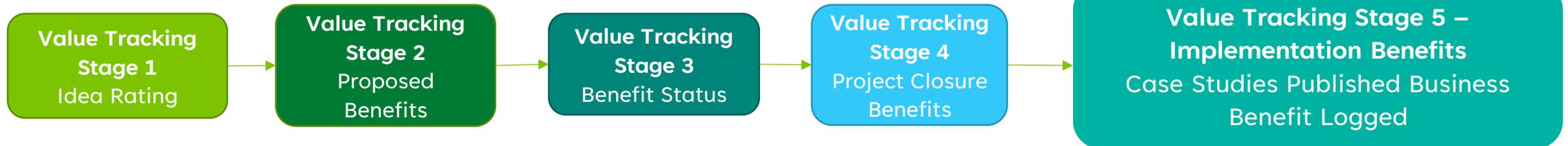
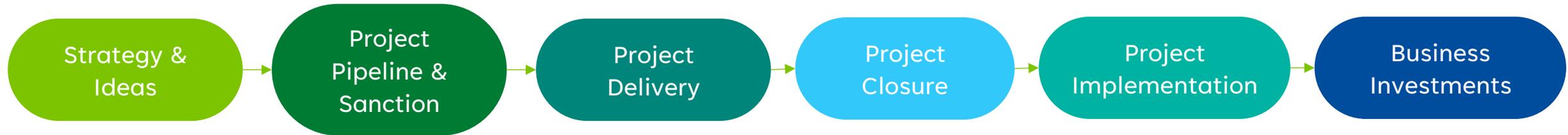
# Challenges of Implementation



# Understanding Value

## Innovation Project Delivery & Management

Idea development to Implementation and Value Tracking



Enables prioritisation for delivery & assesses alignment to business

Logs benefits for consideration by project sanction committee. Cost, safety & environmental impact considered

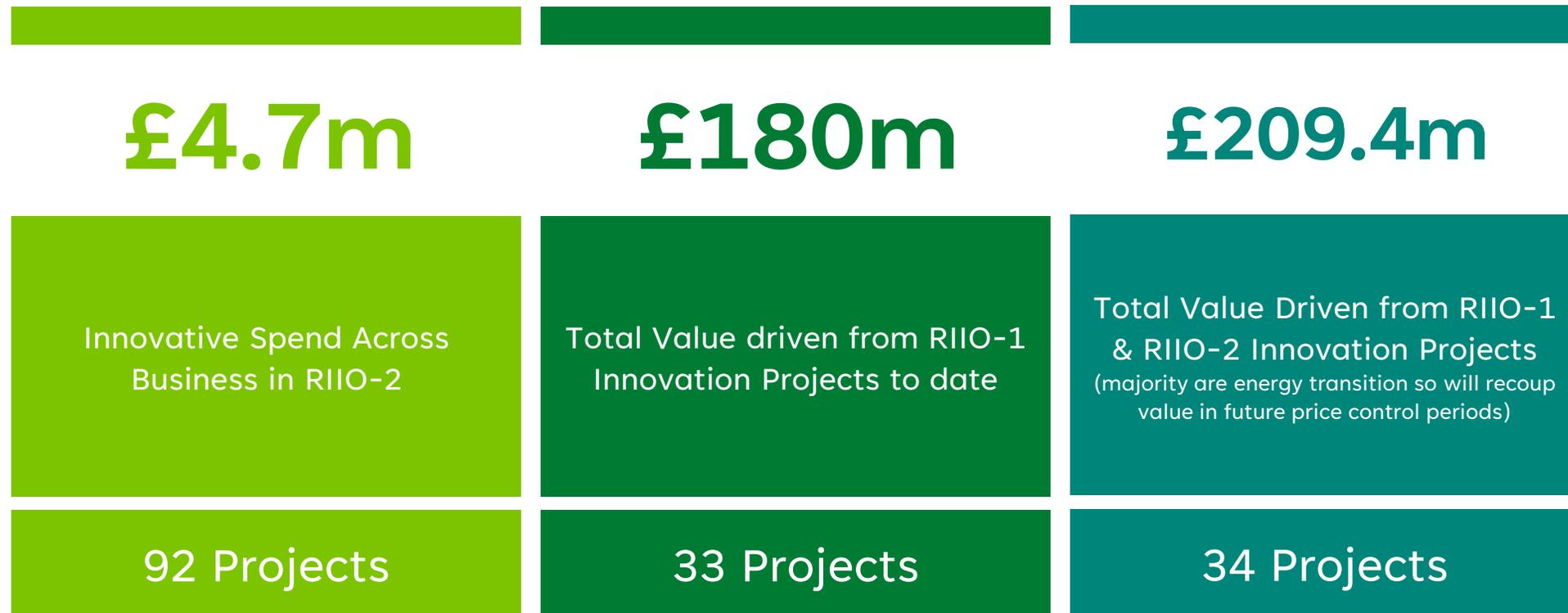
Reviewed at key gateways. Is the project delivering what we expected?

Enables prioritisation of the projects for implementation. Supports value reporting requirements

Case study for all closed innovation projects reported here:  
<https://www.nationalgas.com/innovation/value-delivered>

# The Value of Implementation in RIIO-2

Close relationships across the business, coupled with an innovative mindset drives value



# Case Study: Dent Tolerance

*Small changes can drive large value*

This RIIO-1 project carried out comprehensive testing on simulated pipeline dents to determine the tolerance of L555 (X80) pipeline.

The results provided the industry with validation of the pipeline tolerance levels for plain dents, thus being incorporated into industry documentation for pipeline inspections

This has meant an increased confidence in the assessment of pipeline dents, thus reducing remedial actions and outages.

**Project Cost: £900,000 (2018)**

**Value realised by March 2025: £85,200,000**



# Looking forward to RIIO-3

*Estimated ~£50M value still to be realised from implemented innovation projects*

BIM (Building Information Modelling) and Open Source SCADA (supervisory control and data acquisition) are two implemented digital innovation projects expected to drive significant value over the coming years.

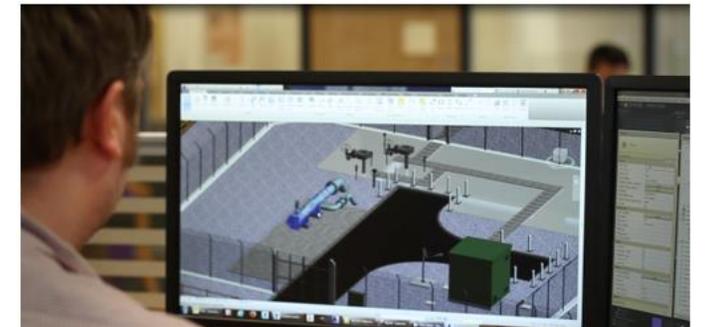
- BIM allows for the pegging of cost and carbon data to 3D models throughout an asset's design, construction and maintenance
- SCADA allows for the remote and local operation, configuration and management of compressor stations and terminals, including monitoring real time data and alarms

Combined, these innovations have driven a cost saving of £20M during RIIO-2.

Additional innovation has been ongoing to the software to reduce emissions from compressor isolation valves, thus increasing the expected RIIO-3 value further

*Additional RIIO-3 Innovations to look out for:*

- Dynamic risk-based surveillance technology
- Robotic and non-destructive asset inspection techniques
- Improved site communications technology





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# Bill Goode

Business System Delivery Lead  
National Gas



# Agenda

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1. Energy Identification Code (EIC) Change

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2. User Survey Next Steps

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3. Gemini Development - Work In Progress

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4. Upcoming and Completed Gemini Development

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5. Support Details

# Energy Identification Code (EIC) Change

- The programme successfully implemented the Energy Identification Code (EIC) change on **Tuesday 9th September 2025 by 10:00 (BST)** all file interfaces were successfully checked for connectivity post go-live.
- There are 2 APIs impacted by the change, these API were required to reflect the EIC change to ensure they continued to be processed successfully. The two impact APIs were:-
  1. View IP Nomination (data item: RECIPIENT\_MARKETPARTICIPANT.IDENTIFICATION)
  2. Add/Update IP Nomination (data item: INTERNALACCOUNTTSO)
- National Gas and our suppliers are monitoring API usage and proactively engaging with parties if the old EIC code is still being used to call these APIs.
- Support for Post EIC implementation please contact [servicedesk@xoserve.com](mailto:servicedesk@xoserve.com). Further information about EIC can be found in the [Change Pack](#) approved at Change Management Committee in May 2025

# User Survey Next Steps

- The Gemini Sustain Plus programme, after 2.5 years of dedicated effort, successfully implemented a significant upgrade to the Gemini System in March. This upgrade impacted all users and provided a range of benefits, including enhanced usability, functionality, and support
- A customer feedback survey was shared with all Gemini Users post go-live, where we received feedback from 81 external users. The average score for overall system experience was **7.59/10, with 77% rating experience as Good or Excellent.**
- We are keen to understand where we can further improve from a delivery and user experience perspective, as a result we are reaching out to **High Frequency Users** of the system to offer them the opportunity to provide feedback during a call.
- We would also like to open this offer up to any interest party, to gain insight to key learnings on future improvements, if you or your organisation would like to share feedback via a short call, please contact [GeminiSustainPlus@nationalgas.com](mailto:GeminiSustainPlus@nationalgas.com)

## Next Steps

- The programme will reach out to those high frequency users and set-up calls where required, following that the programme will develop a future change backlog, which will also take into consideration regulatory change.
- Following that we will playback summary results of the User Survey and feedback sessions in the Autumn

# Gemini Development - Work in Progress

## Energy Balancing Adjustment Process

- The programme has successfully completed development phase of the 'Enhancing the Energy Balancing Adjustment Process' and is now completed User Acceptance Testing.
- The objective of this enhancement is to streamline the process bringing the following benefits:
  - ✓ Enable shippers to directly add, review, approve and reject adjustments for the specified site types.
  - ✓ Reduce reliance on email communications
  - ✓ Improved visibility and traceability of adjustments across all stakeholders
- The Go-Live date for this change is currently being assessed, once confirmed it will be communicated out accordingly.
- For further details please find [Change Pack](#) that has been shared on 16<sup>th</sup> June 2025

## Long Term Utilisation Monitoring Report

- This is a minor change to an external report (LT UIOLI Monitoring Report) it ensures that Short-Term Capacity bookings are not included within the report, ensuring the utilisation percentage is accurately represented.
- The programme has commenced with development work and aiming to deliver ahead of October 2025 and the regulatory reporting deadline.

# Upcoming and Completed Gemini Development

## Completed

### **UNC Modification: 0897 Removal of Non-Obligated Entry Capacity from Capacity Neutrality**

- The programme successfully delivered the solution on **1<sup>st</sup> July 2025** to meet the obligations within this Modification.
- Please note, there are no impacts to Gemini screens or APIs. This is purely a charge calculation change. First usage has been monitored from **August 2025**.
- Further information about the change, can be found in the [Change Pack](#) was formally approved at Change Management Committee in April 2025.

## Upcoming

### **UNC Modification: 0887 Facilitating Bi-Directional Connections Between IGT Pipelines and the NTS**

- Following Modification approval on the **19<sup>th</sup> August 2025**, discussions are taking place to agree optional time to deliver the central system solutions to meet the obligations set-out within the Modification.
- The programme is hopeful of commencing development work on Gemini in **Q4 2025**.



**national  
gas**

energy  
**forum**

# Alan Stephen

Lead Account Manager, Customer Connections  
National Gas



# National Gas - Key player in Hydrogen Transport Infrastructure

Blend and grow hydrogen economy

Project Union

Deliver on UK's decarbonisation goals by 2050

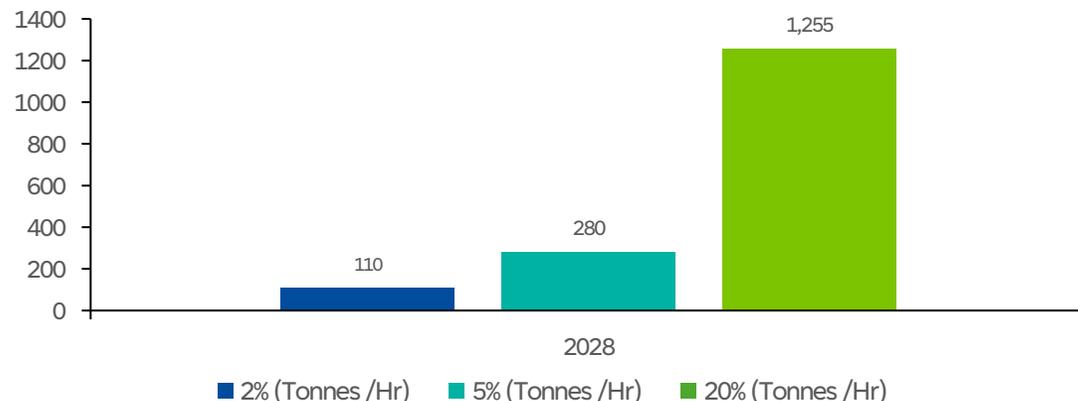


## Hydrogen Blending

Enabling Hydrogen Blending on the NTS is crucial to building a Hydrogen market

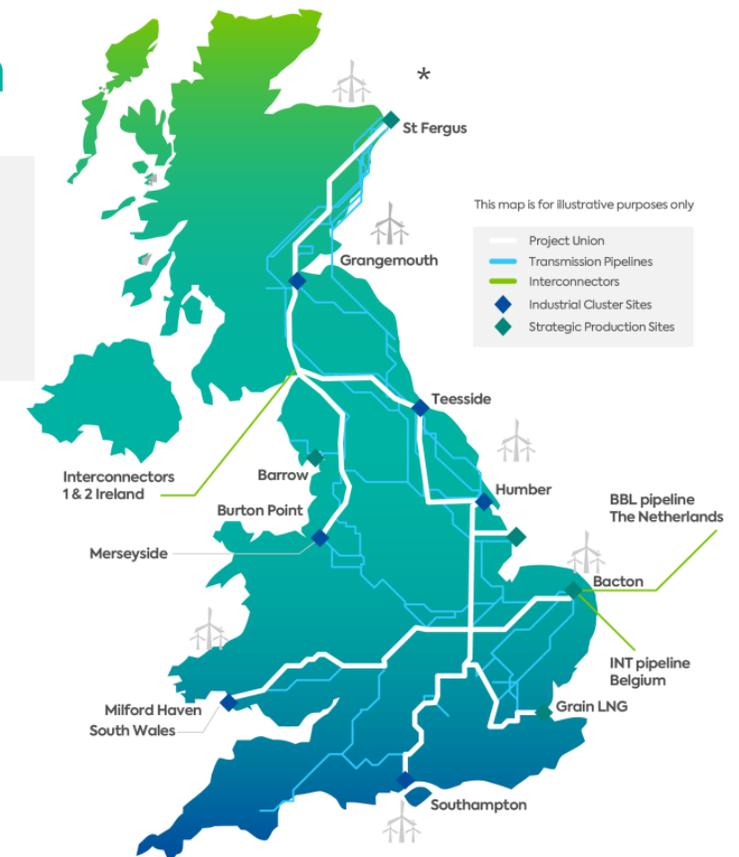
Through blending, Hydrogen producers can access a wider demand market and de-risk projects

Blend Volumes available in 2028  
Tonnes/Hr



## Project Union

National Gas plans to repurpose NTS assets and build a GB central hydrogen backbone



\* For illustration

# National Gas - Key player in Hydrogen Blending



## £ De-risking Projects

Blending reduces risk for producers in early years, when hydrogen demand is uncertain, by providing backstop demand. This reduced risk makes debt financing more accessible and thereby improves investability into hydrogen projects

## ↗ High capacity

The NTS has the highest capacity for blend over any other network. With volumes of 280 tonnes/hr of hydrogen available at 5% blends in 2028

## 👥 Access a wider market

NGT can play a pivotal role in integrating hydrogen producers to a wider market through its various direct connects into the power, heat, and transport sectors

We are working directly with EU Transmission System Operators to ensure alignment across UK and EU

## 🔧 Hydrogen Infrastructure

Pipelines and storage facilities also requires significant long-term investment. NGT with its long-term hydrogen planning and access to capital, can de-risk these investments and accelerate their deployment

Expertise in building and managing networks

## Blending Timeline





## **DESNZ Consultation**

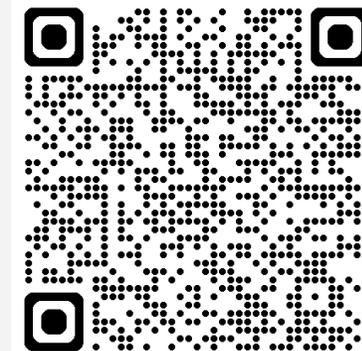
*Hydrogen blending into the GB gas transmission network*

# DESNZ Consultation Questions

## Consultation Details



Department for  
Energy Security  
& Net Zero



[Hydrogen blending into the GB gas transmission network](#)

Published 23 July 2025

Closes 11:59pm on 16 September 2025

**How to respond**

[Respond online](#) or

email [hydrogentransportandstorage@energysecurity.gov.uk](mailto:hydrogentransportandstorage@energysecurity.gov.uk)

**Q1a.** Do you agree with the assessment of the impacts of blending up to 2%, 5% and 20% hydrogen by volume on NTS connected end users? Please provide evidence to support your response.

**Q1b.** Are there any further operational and/or financial impacts on end users we should consider? Please provide evidence to support your response

**Q2.** Do you agree that if transmission blending is enabled and intended to be commercially supported by government, the most appropriate mechanism would be via the Hydrogen Production Business Model? Please provide evidence to support your response.

**Q3.** Do you agree with our minded to position, if blending were enabled, to allow both the gas transmission network operator and gas shippers to purchase hydrogen produced for blending? Please provide evidence to support your response.

**Q4.** Do you agree that working within the current gas billing arrangements will not result in an increase in billable usage and gas bills for end users connected to the NTS, should transmission level blending be enabled by government? Please provide evidence to support your response.

**Q5a.** Do you agree with our minded to position, if blending were enabled, to consider further whether to support and enable transmission blending of up to 2% hydrogen by volume? Please provide evidence to support your response

**Q5b.** Do you have any further concerns on enabling blending up to 2% hydrogen by volume into the NTS? Please provide evidence to support your response.

**Q5c.** Is there a maximum level of blend that would be feasible with minimum modifications for sites connected to the NTS? Please provide evidence to support your response.

**Q6a.** We welcome feedback on the economic assessment presented and any further analysis on the costs and benefits of transmission blending

**Q6b.** Please provide any additional information on the costs of any required modifications or mitigations required for NTS connected sites to be able to accommodate a blend of up to 2% hydrogen by volume. If you do not currently have this information, how long do you expect it take to assess what mitigations might be needed and what the costs of these could be?

**Summary  
Technical  
ask:**

End-User acceptability and modifications required at different blend percentages? (2, 5, 20%)

**Summary  
Commercial  
ask:**

What are the costs involved for end users and the market?  
How much does it de-risk Hydrogen producers?

# National Gas Response

## Key Response

National Gas are calling for **DESNZ to take a strategic policy decision of up to 5% blend** on the Transmission system. We believe that **5% maximises de-risking for Hydrogen producers** whilst still mitigating for end-users. Our current understanding is that **modifications required for 2% and 5% will be broadly similar** however **further work is required, and National Gas has suggested routes to funding this**. A strategic policy decision is required to enable a thorough investigation into <5% blend.

## End-User Acceptability

- National Gas response looks at blend acceptability at the following archetypes:

Power Stations  
Storage sites  
Industrial sites

- We believe that modifications required for **2% and 5% will be broadly similar** but accept **further work will be needed**. We have suggested routes to funding this work.
- In order to remain in line with current EU policies, we are investigating our approach to **managing blends at interconnectors**

## De-Risking Producers

- National Gas agrees that blending at 5% will enable hydrogen producers to **fully de-risk projects** and allow them to access lower cost debt to fund their projects Hydrogen producers.
- This in in turn will enable them to **reach FID earlier** and **decrease** their hydrogen **strike price**
- Overall subsidy requirements will be lower, and the resulting savings should be redeployed to end-users for any required modifications

## Commercial Frameworks

- National Gas agrees that blending **should be managed through the HPBM**. This should include considerations to ensure direct offtake of hydrogen is incentivised over blending.
- National Gas agrees that current billing arrangements should be sufficient. Shippers and networks should be allowed to buy blends, although highlights that a certification scheme should be enabled to unlock additional value of blends and decarbonise key end-users
- Enabling blend connections will need **improved strategic thinking** to maximise the utility of blending for the whole system. It will optimise production while mitigating impacts to end-users.



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**Sam Beasley**

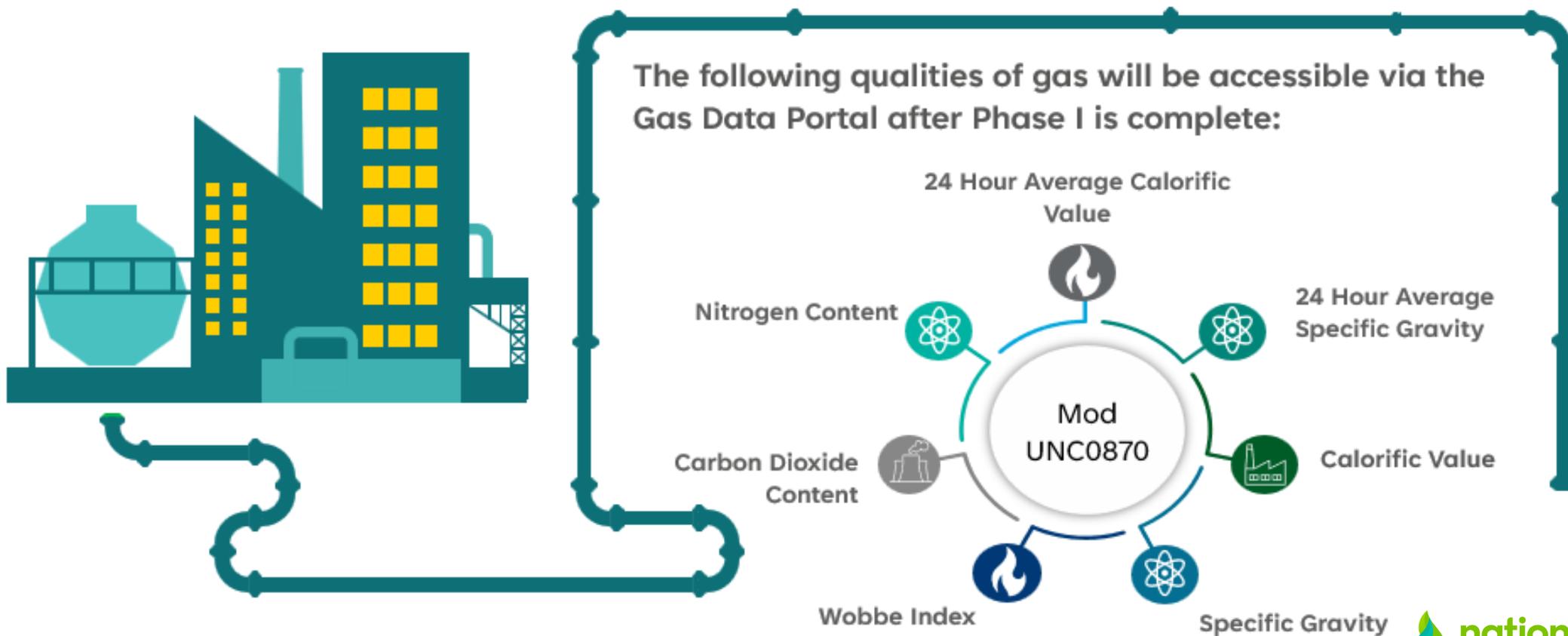
**Product Support Analyst  
National Gas**



# What Is Gas Quality Data?

## 👁️ Vision for Gas Quality Data

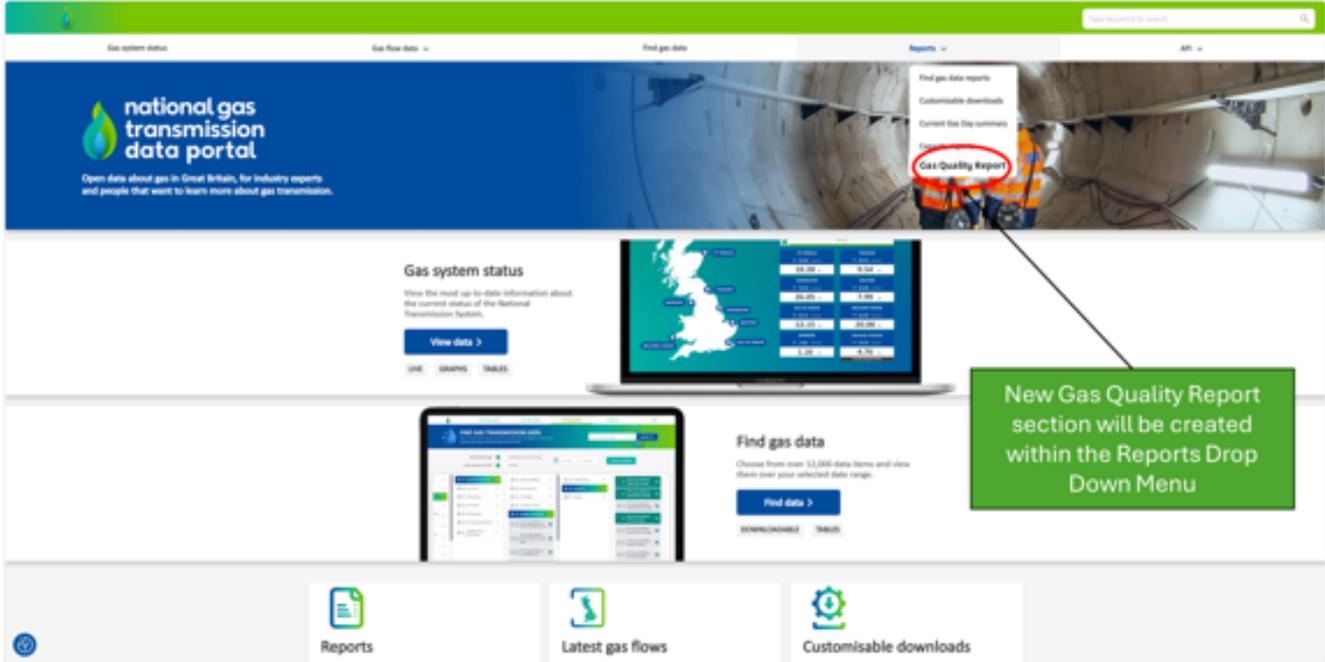
- Available & accessible platform for all users to conduct trend analysis on various qualities of gas
- Transparency on the Gas Data Portal, of all parameters that are currently measured at Distribution Network offtake points, as well as compressor & multi-junction sites.



# Gas Quality Data

## ✦ User Benefits & Access To (via Gas Data Portal):

- Near Real-time operational data
- Reporting and forecasting
- Latest and Historic data reports over the last 3 years
- Customisable trend analysis platform



# Navigate to Gas Quality Data

The screenshot shows the National Gas Transmission Data Portal website. The navigation bar includes: Gas system status, Gas flow data, Find gas data, Reports, and API. A search bar is located in the top right corner.

The main header features the National Gas Transmission Data Portal logo and the text: "Open data about gas in Great Britain, for industry experts and people that want to learn more about gas transmission."

The "Reports" dropdown menu is open, showing the following options: Find gas data reports, Customisable downloads, Current Gas Day summary, and Gas Quality Report (highlighted with a red circle).

The "Gas system status" section includes a map of Great Britain and a table of data:

| Region     | Pressure (bar) | Flow (m³/s) |
|------------|----------------|-------------|
| London     | 18.28          | 9.54        |
| Manchester | 26.05          | 7.99        |
| York       | 12.15          | 20.06       |
| London     | 1.16           | 4.76        |

The "Find gas data" section includes a search bar and a "Find data" button. Below the button are the options "DOWNLOADABLE" and "TABLES".

A green callout box on the right side of the page states: "New Gas Quality Report section will be created within the Reports Drop Down Menu".

# Gas Quality Data on The National Gas Data Portal

The screenshot shows the 'Gas Quality Reports' section of the National Gas Data Portal. The page features a navigation bar with links for 'Gas system status', 'Gas flow data', 'Find gas data', 'Reports', and 'API'. A search bar is located in the top right corner. The main content area displays three report cards, each with a gas drop icon and a right-pointing arrow:

- Gas Quality Data – Latest Report**  
View latest Gas Quality Data – Data will be refreshed every 12 minutes and latest value will be displayed
- Gas Quality Data – Historical Data**  
Historical Data Graphs for Gas Quality Data
- Gas Quality Data – Wobbe Index Range Forward Outlook**  
Delivery Facility Operators Data for Gas Quality Data for a rolling 5-year view

At the bottom of the page, a green banner contains the text: [Click here](#) for a step-by-step guide to help you navigate the new Gas Quality feature.

# Latest Data Report

[Gas system status](#)[Gas flow data](#)[Find gas data](#)[Reports](#)[API](#)[Back](#)

Published Day: 04/09/2025



Published Time: 11:10:00



## Latest Gas Quality Data

The information contained is the latest value from a 12-minute snapshot. It is made available as an information service only and National Gas do not assume any responsibility for the accuracy of or the content of the information including without limitation, any delay that may occur in making available the information.

| Site        | Area               | 24Hr Average Calorific Value (MJ/m <sup>3</sup> ) | 24Hr Average Specific Gravity | Calorific Value (MJ/m <sup>3</sup> ) | Specific Gravity | Wobbe Index (MJ/m <sup>3</sup> ) | Carbon Dioxide Content (%mol) | Nitrogen Content (%mol) |
|-------------|--------------------|---|-------------------------------|--------------------------------------|------------------|----------------------------------|-------------------------------|-------------------------|
| AberdeenOT  | Scotland (SC)      | 39.49   | 0.62                          | 39.59                                | 0.62             | 50.03                            | 2.00                          | 0.768                   |
| AlrewasEMOT | East Midlands (EM) | 34.99   | 0.49                          | 40.23                                | 0.64             | 50.07                            | 1.93                          | 1.639                   |
| ArmadaeOT   | Scotland (SC)      | 39.59   | 0.62                          | 39.48                                | 0.62             | 49.98                            | 1.94                          | 0.799                   |

[Download as CSV](#)[Print all data](#)

# Historical Data Report

Gas system status      Gas flow data ▾      Find gas data      Reports ▾      API ▾

**Historical Data** Choose to view a graph based on Gas Zones, Gas Sites and Telemetric Values for Gas Quality Data.

← Back

PREVIOUS DAY    LAST WEEK    LAST YEAR    [Gas Day date range](#)

| Gas Zones                                 | Gas Sites                          | Telemetric Values                          |
|---|------------------------------------|--|
| View Gas Quality Data by Geographic Zones | View Gas Quality Data by Gas Sites | View Gas Quality Data by Telemetric Values |
| Show all Areas ▾                          | Show all Sites ▾                   | Show all Values ▾                          |
| 12 terminals                              | 107 total entry points             | 7 demand items                             |

View graph    Download as CSV

# Historical Data Report



Gas system status

Gas flow data

Find gas data

Reports

API

Open my report to search



**Historical Data** Choose to view a graph based on Gas Zones, Gas Sites and Telemetric Values for Gas Quality Data.

< Back

Previous day | Last week | Last hour | Gas Day data range

01/07/2025 → 31/07/2025

### Gas Zones

View Gas Quality Data by Geographic Zones

Show all Zones

Clear

0 Gas Zones

EAST WILLOW (E)

EAST MIDLANDS (M)

NORTH (N)

NORTH EAST (NE)

NORTH THAMES (NT)

NORTH WEST (NW)

### Gas Sites

View Gas Quality Data by Gas Sites

Show all Sites

00 Gas System Points

ALKINGHAM

BLAYTON

BURNBOURGH

CALDECOTT

DROVTON

EASTOFT

### Telemetric Values

View Gas Quality Data by Telemetric Values

Show all Values

7 Telemetric Values

24HR AVERAGE CALORIFIC VALUE

24HR AVERAGE SPECIFIC GRAVITY

CALORIFIC VALUE

CARBON DIOXIDE CONTENT

NITROGEN CONTENT

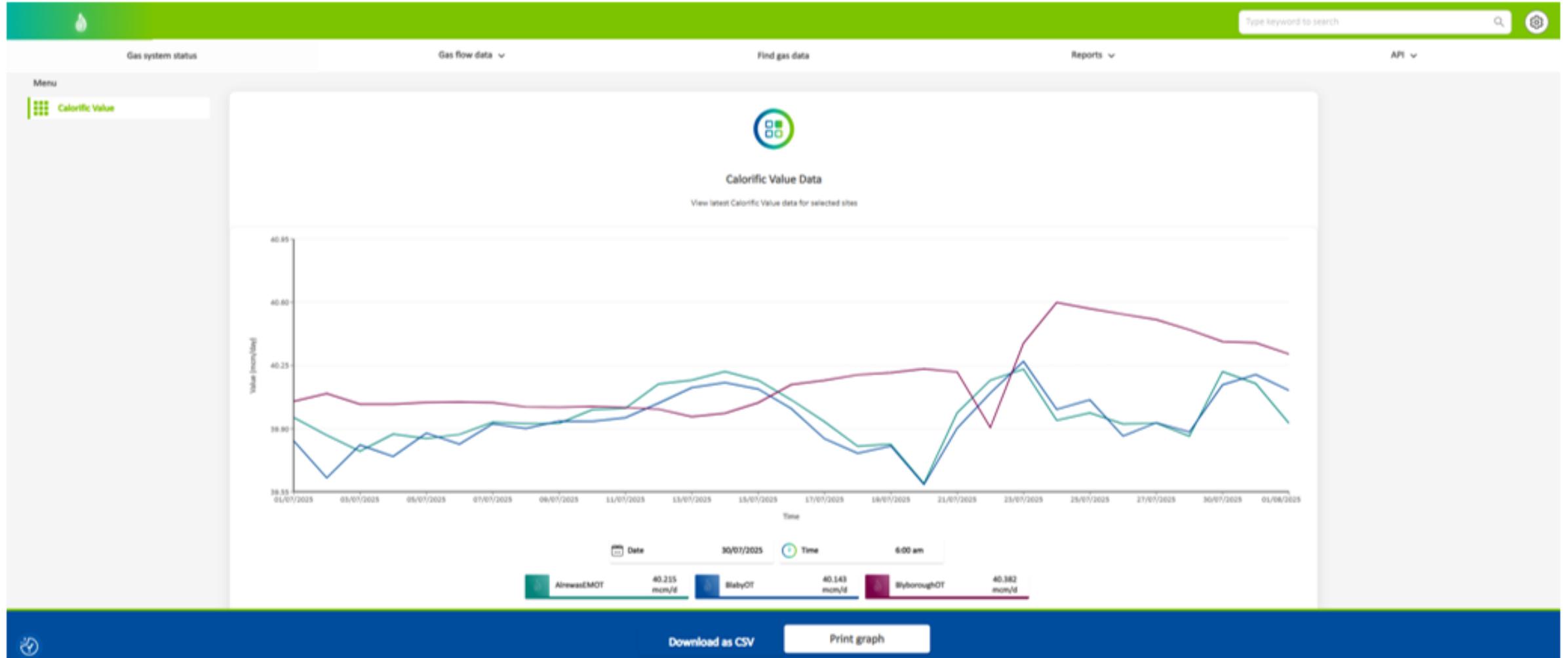
SPECIFIC GRAVITY

View graph

Download as CSV



# Historical Data Report



# Wobbe Index Range Forward Outlook Report

Gas system status      Gas flow data      Find gas data      Reports      API

Menu

- Perenco
- Spirit Energy
- NSMP
- PX
- Grain LNG

## Gas Quality Data – Wobbe Index Range Forward Outlook

In accordance with TPD 1.2.6 & 2.7 and the provisions in the relevant Network Entry Agreements, Delivery Facility Operators who have requested a reduction to their lower Wobbe limit are required to provide an annual rolling 5 year forward look of the Wobbe Index and calorific value of the gas expected to be delivered to the NTS in each Gas Year the minimum and maximum Wobbe Index and calorific value under normal conditions ('steady state') and unexpected conditions ('maximum possible').

| Perenco (Sector) |             |           |       |  |  |
|------------------|-------------|-----------|-------|--|--|
| Telemetric Value | Limits      | Year      | Value |  |  |
| Max Possible CV  | Lower Limit | 2025/2026 | 0.09  |  |  |
| Max Possible CV  | Lower Limit | 2026/2027 | 19.99 |  |  |
| Max Possible CV  | Lower Limit | 2027/2028 | 19.99 |  |  |
| Max Possible CV  | Lower Limit | 2028/2029 | 19.99 |  |  |
| Max Possible CV  | Lower Limit | 2029/2030 | 19.99 |  |  |
| Max Possible CV  | Upper Limit | 2025/2026 | 0.09  |  |  |
| Max Possible CV  | Upper Limit | 2026/2027 | 19.99 |  |  |
| Max Possible CV  | Upper Limit | 2027/2028 | 19.99 |  |  |
| Max Possible CV  | Upper Limit | 2028/2029 | 19.99 |  |  |
| Max Possible CV  | Upper Limit | 2029/2030 | 19.99 |  |  |

[Download as CSV](#)      [Print all data](#)

# Requesting Data from Gas Quality Data APIs



## GET

The GET method is used to retrieve information from the server.



## POST

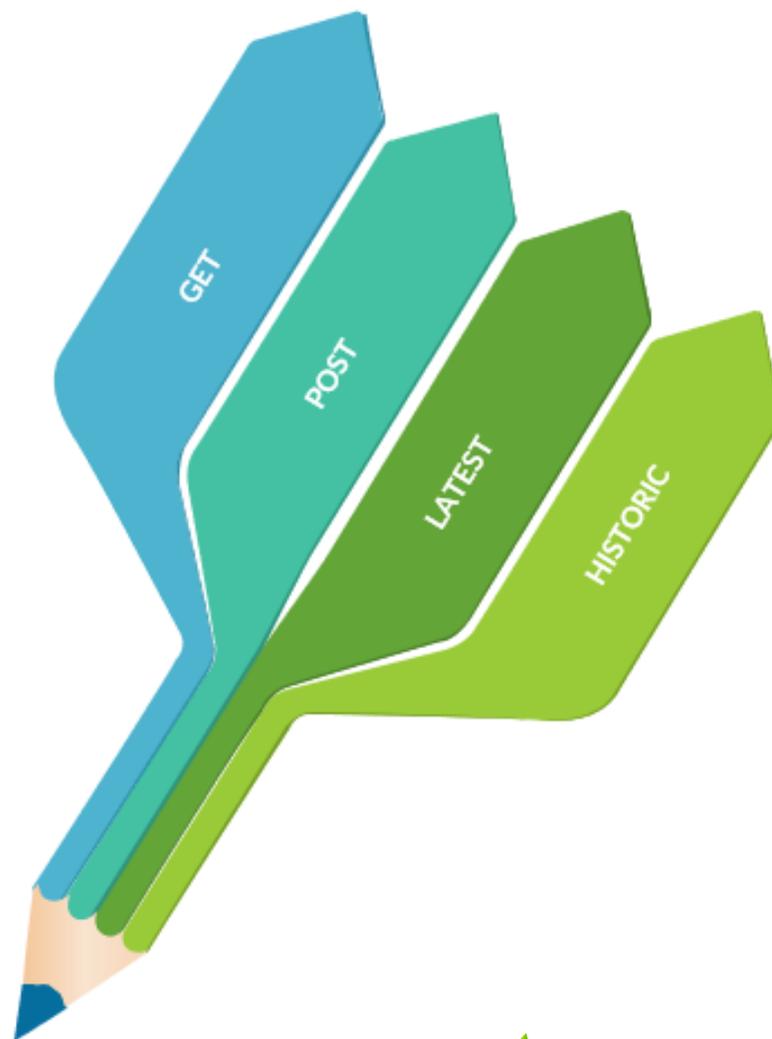
The POST method is used to create a new resource on the server.

## Using REST APIs

There will be Two distinct URLs that will be able to be called to retrieve Gas Quality Data from National Gas.

The Latest Data URL will be a GET Function to fetch the latest 12 min worth of Gas Quality Data

The Historic Data URL will be a POST Function to help to download Historic Gas Quality Data from the last 3 years



# Gas Quality Data – FAQs

## Frequently Asked Questions

### **When does this new feature go live on the National Gas Data Portal?**

This feature will be implemented on 15 September 2025. There will be no impact to other aspects of the Data Portal and there will be no downtime during business hours.

### **When will we have access to use the new Gas Quality Data APIs?**

You will have access to use the new Gas Quality Data APIs from 05:00 hours on 15 September 2025.

### **What supporting documentation will be available?**

An easy-to-follow step by step guide will be available via a link on Gas Quality Data landing page to assist navigation through the new features. If you know anyone else who would benefit from this documentation, please email [Box.OperationalLiaison@nationalgas.com](mailto:Box.OperationalLiaison@nationalgas.com).

### **What support will be available to users?**

There will be enhanced support available for 4 weeks post go live. After this period, if you experience any issues or have any questions, then please continue to email [Box.OperationalLiaison@nationalgas.com](mailto:Box.OperationalLiaison@nationalgas.com) as per the normal process.



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**Ali Tann**

**Operational Delivery Manager  
National Gas**



# Capacity Auctions data entry errors

In recent months we have seen an increase in the number of capacity auctions errors

- The purpose of this section is to:
  - highlight the importance of entering correct capacity auctions data
  - clarify the possible consequences and process to follow, if a mistake is made
  - encourage the use Gemini's Bid Validation Parameters as a preventative measure

As a reminder of the context....

- Gemini will automatically process bids which are in line with system parameters
- We do not validate or check bids prior to processing
- Correct data input is the responsibility of Users under UNC

# Possible consequences and process to follow

The consequences of entering incorrect bid information may include:

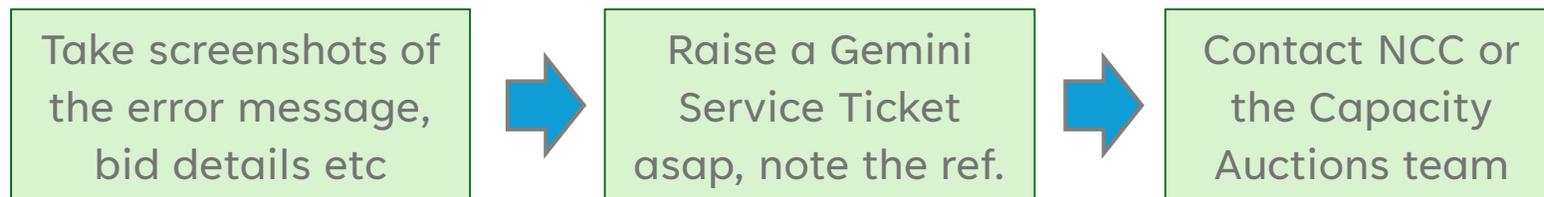
- Unnecessary charges generated from erroneous quantity or price entries
- Overrun charges being applied due to insufficient capacity
- Capacity being unavailable to other Gemini Users

The process to follow if a mistake is made:

If spotted *prior* to the bid window closing, use the Modify/Withdraw functionality in Gemini

If spotted *after* the bid window has closed and not due to a technical issue, the allocation will stand

In the event of a *technical issue* which prevented access or a bid being entered/amended/withdrawn ...



# Gemini Bid Validation Parameters (BVPs)

In Oct-21, mandatory BVPs were introduced as a preventative measure (UNC0745S)

Home / Deal / Capture Bid/Request / Setup User Preferences

1. Go to: Home / Deal / Capture Bid/Request / Setup User Preferences

## Setup User Preferences

Entry Exit

Product: ENTRY CAPACITY FIRM PRIMARY

Location: Bacton IP

BA: [ ]

Method of Sale: ALL

Validation Parameter: Select

- ALL
- CAPACITY
- FORWARD BID LIMIT
- PRICE
- VALUE

2. Choose parameters

Run Query

+ Add Preferences

3. Select Add Preferences

### Add User Preferences

Please complete all the \*Required Information

Validation On: BOTH

Units: kWh

Lower Limit: 100,000

Upper Limit: 10,000,000

Save Cancel

# How to get in touch

## We are here to help !

The Capacity Auctions team can be contacted during working hours

- by email: [capacityauctions@nationalgas.com](mailto:capacityauctions@nationalgas.com)
- by phone: +44 (0)1926 568057

For Gemini issues

- use Gemini functionality to raise a Service Ticket
- contact [servicedesk@xoserve.com](mailto:servicedesk@xoserve.com)

The National Control Centre can be contacted outside of working hours



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# Max Chapman

Ops Liaison & Business Delivery Manager  
National Gas



# Electronic Data Submission Transformation

**Making Data Sharing Easier and More Secure**  
Electronic Data Submission Transformation

**WHAT'S CHANGING**  
Moving from an email-based data sharing process to a secure API-based solution

**WHY THE CHANGE**  
To enable a more secure, faster, and resilient process with enhanced reliability

**WHAT'S THE PLAN**  
Enable a centralised API-based mechanism for data submission, with email as a backup option

**HOW WE'RE INVOLVING YOU**  
Stay informed and involved through:  
• Surveys  
• Focus Groups

**WHAT WE NEED FROM YOU**  
Provide us feedback, inform your impacted IT/third parties and invite impacted colleagues along  
Contact us: [box.gso.systemchange@nationalgas.com](mailto:box.gso.systemchange@nationalgas.com)

**ENGAGEMENT TIMELINE HIGHLIGHTS**

- Initial User Survey (Sep 25)
- Information Forums (Nov 25)
- Second User Survey (Dec 25)

**national gas**

We have sent out a survey to NTS Direct Connects and relevant shippers, if you are impacted, please fill in the survey before 19<sup>th</sup> September 2025.

National Gas - Electronic Data Submission Transformation

A large QR code is centered on a dark grey background, intended for users to scan and access the survey.



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# Thank you for attending today's NGEF!

We look forward to seeing you in person on  
October 23<sup>rd</sup> for 'Dynamics of gas this Winter'

Location: Institution of Mechanical Engineers, One Birdcage Walk  
SW1H 9JJ London.

Time: 09:30-13:00

