



# Gas Operational Forum

**Clermont Hotel & MS Teams**

23<sup>rd</sup> February 2023

10:02am

**Questions**

**SLIDO = OPSFORUM**



# Introduction & Agenda

Bridget Hartley

Head of Operational Delivery



# Housekeeping for Forum

- For Microsoft Teams participants;
- Attendees will be automatically muted on dial-in and cameras will be unavailable.
- You can ask questions via Slido (#OPSFORUM)
- We have included some time to answer questions following the presentations



Joining as a participant?

# OPSFORUM|



# Agenda for Today

Welcome and Introduction	Bridget Hartley – Head of Operational Delivery	10:02
Introducing National Gas	Nicola Lond - Operational Liaison & Business Delivery Manager	10:05
Supply & Demand Patterns / Summer Outlook	Jon Dutton - Engagement and Publications Manager	10:15
Future Grid Project Update	Haroon Khan – Future Grid Project Manager	10:30
Summer Maintenance Plan	Ffion Davies-Cale – Network Access & Short-Term Risk Manager	10:55
Information Provisioning Update	Rachel Hinsley - Operational Liaison & Business Delivery Manager	11:10
Milford Haven ECR Consultation Update	Bridget Hartley – Head of Operational Delivery	11:30
General Updates	Nicola Lond - Operational Liaison & Business Delivery Manager	11:40
AOB & Close	Nicola Lond - Operational Liaison & Business Delivery Manager	11:45

Please ask any questions using Slido: #OPSFORUM  
Questions will be covered at the end of each agenda section.

# January Stat

This month, 100,000 GWh of energy has been transported through our pipes – enough to power the entire London Underground network for the next 83 years!



# Introducing National Gas


Nicola Lond

Operational Liaison & Business Delivery Manager



# Welcome



 national gas  
transmission  
 national gas  
metering



# Purpose and Priorities

## Consumer priorities

*The things that are important to UK energy consumers*

I want an affordable energy bill

I want to use energy as and when I want

I want you to deliver a sustainable energy system

## Our Purpose

*Why we are here*

Leading a Clean Energy Future for Everyone

## Our Priorities

*Where we will focus our efforts*

Operate safely, reliably and flexibly

Deliver sustainable value for our customers and shareholders

Drive a positive environmental and community impact

Invest in our people, grow our capability and value everyone's contribution

Shape the Energy Markets of the Future



# What does this mean to you...



We will work closely with Customers and will ensure there is **no impact** on the service received

We look forward to working with all our stakeholders to ensure that the **NTS is ready for the net zero transition, supporting the expansion of hydrogen's role in the energy mix and delivering continued energy security**

**Contacts** will stay the same but with new email addresses. Existing addresses will continue to work as they will be auto-forwarded

# Keep up to date

<https://www.nationalgas.com/>



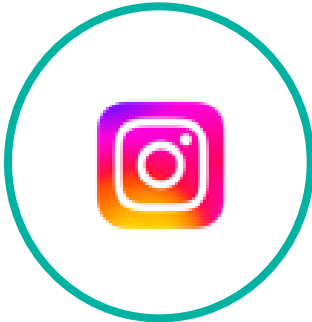
@Nationalgas\_uk



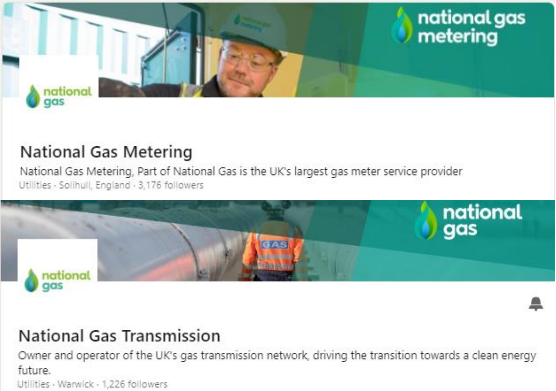
National Gas Transmission  
National Gas Metering



@Nationalgasuk



@Nationalgas\_uk



# Summary

[Introducing National Gas Webinar-20230206\\_135444-Meeting Recording\\_Trim \(brightcove.net\)](#)



Leading a Clean Energy Future for Everyone

No Major impacts for our customers

Follow us on Social Media - keep in touch



[Transmission](#) [Metering](#) [About us](#) [Careers](#) [Contact us](#)

[Balancing](#) [Capacity](#) [Charging](#) [Connections](#) [Data and operations](#)

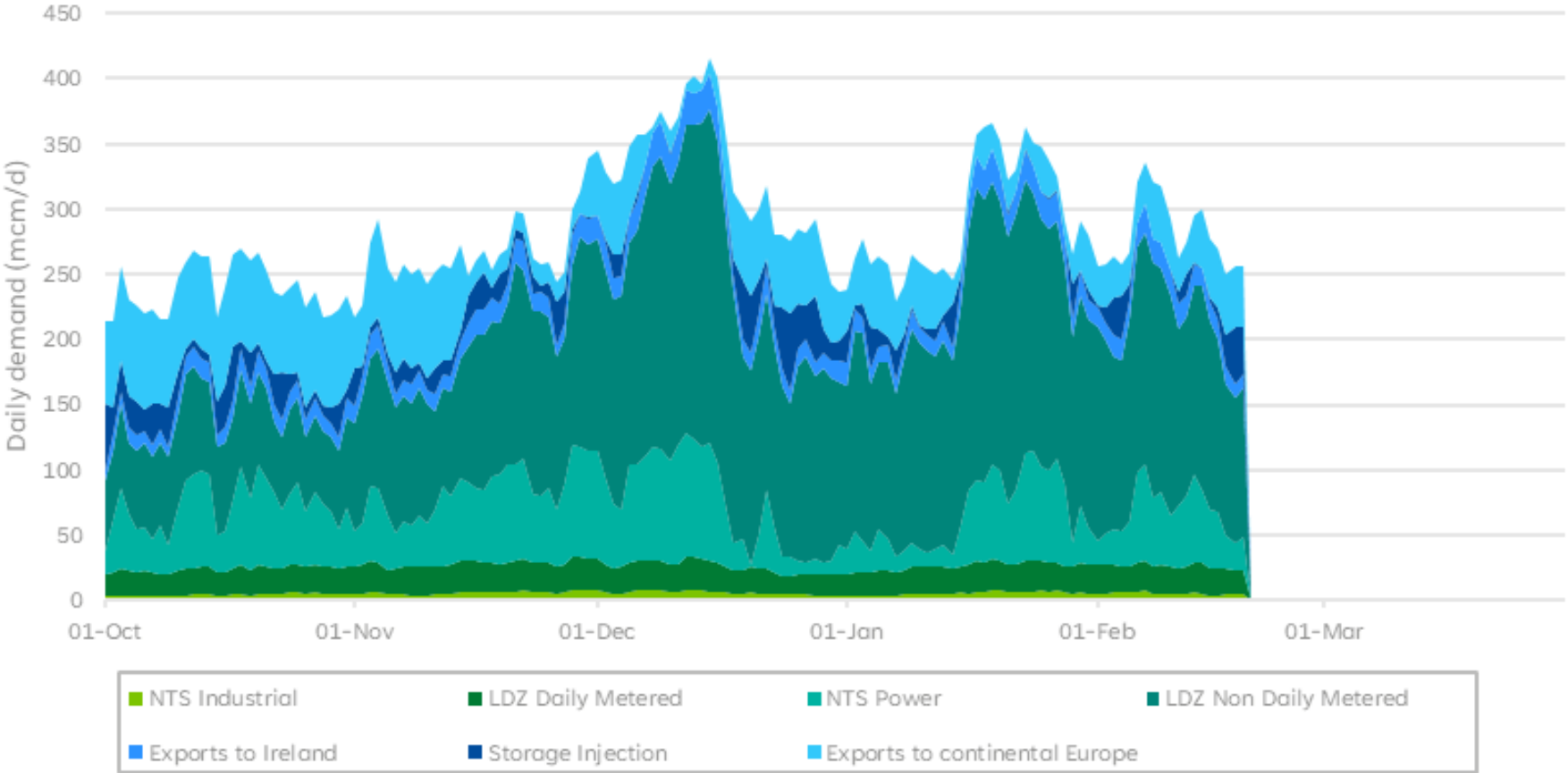


# Demand & Supply Patterns

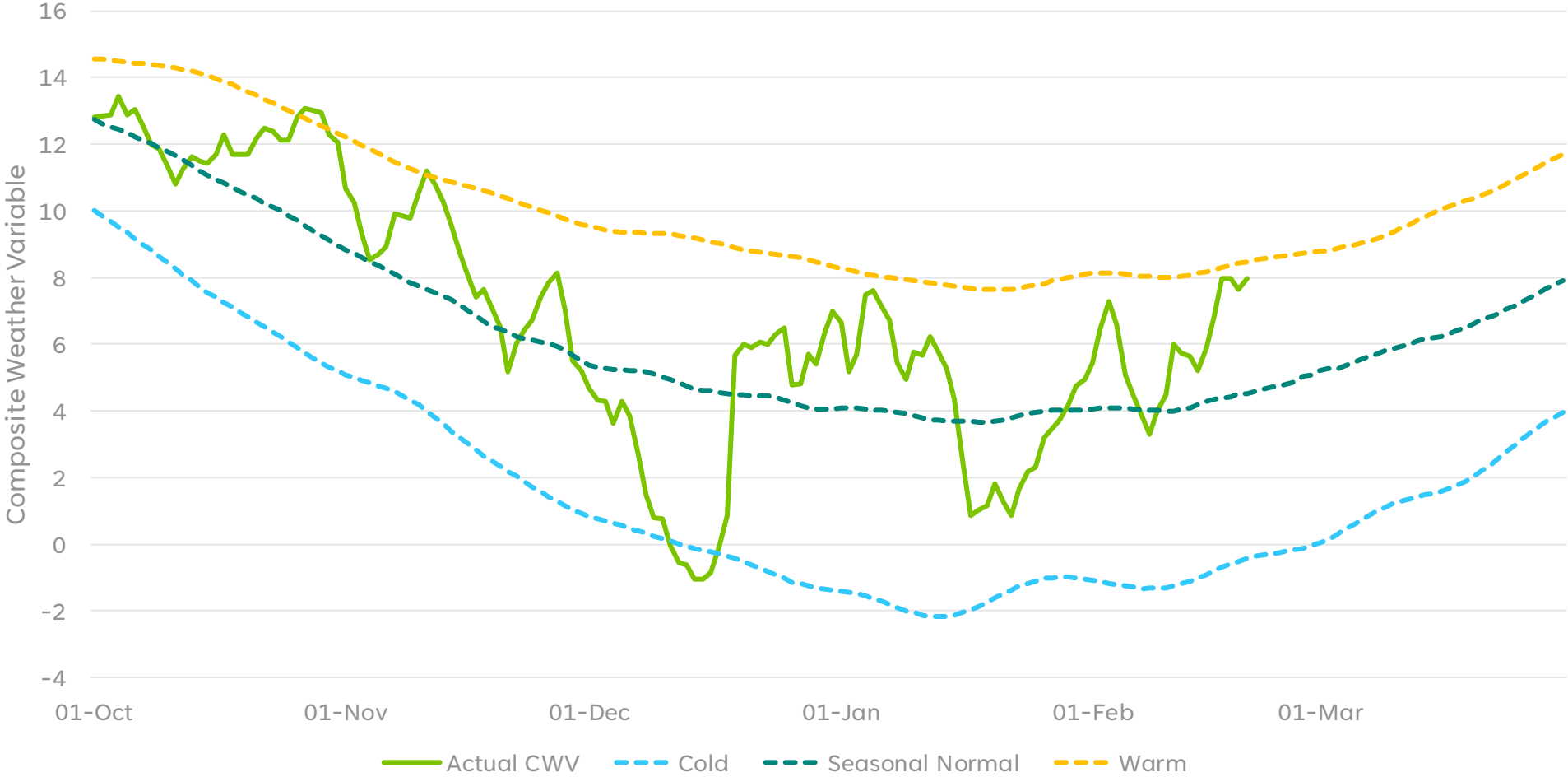
Jon Dutton

Engagement & Publications Manager

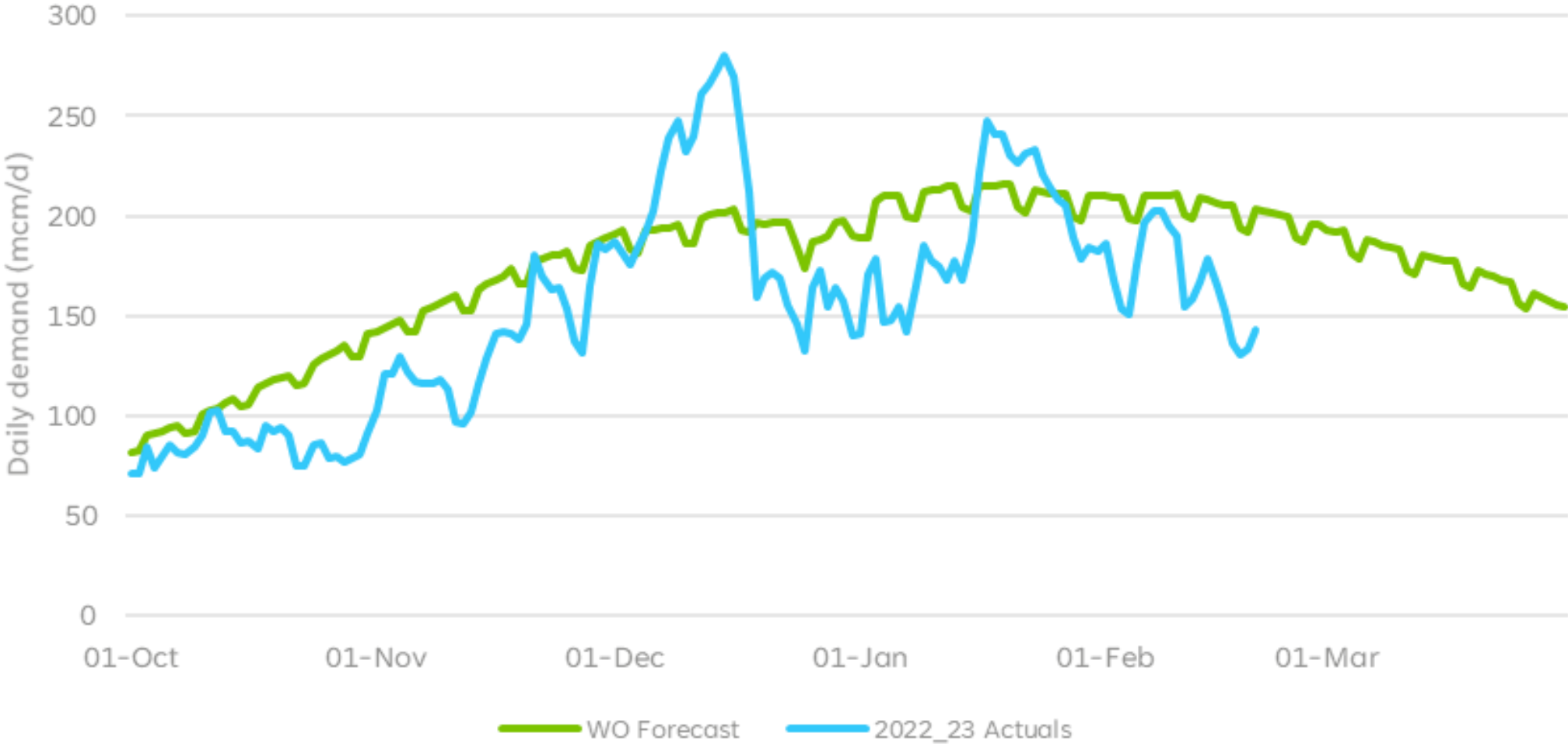
# NTS Demand



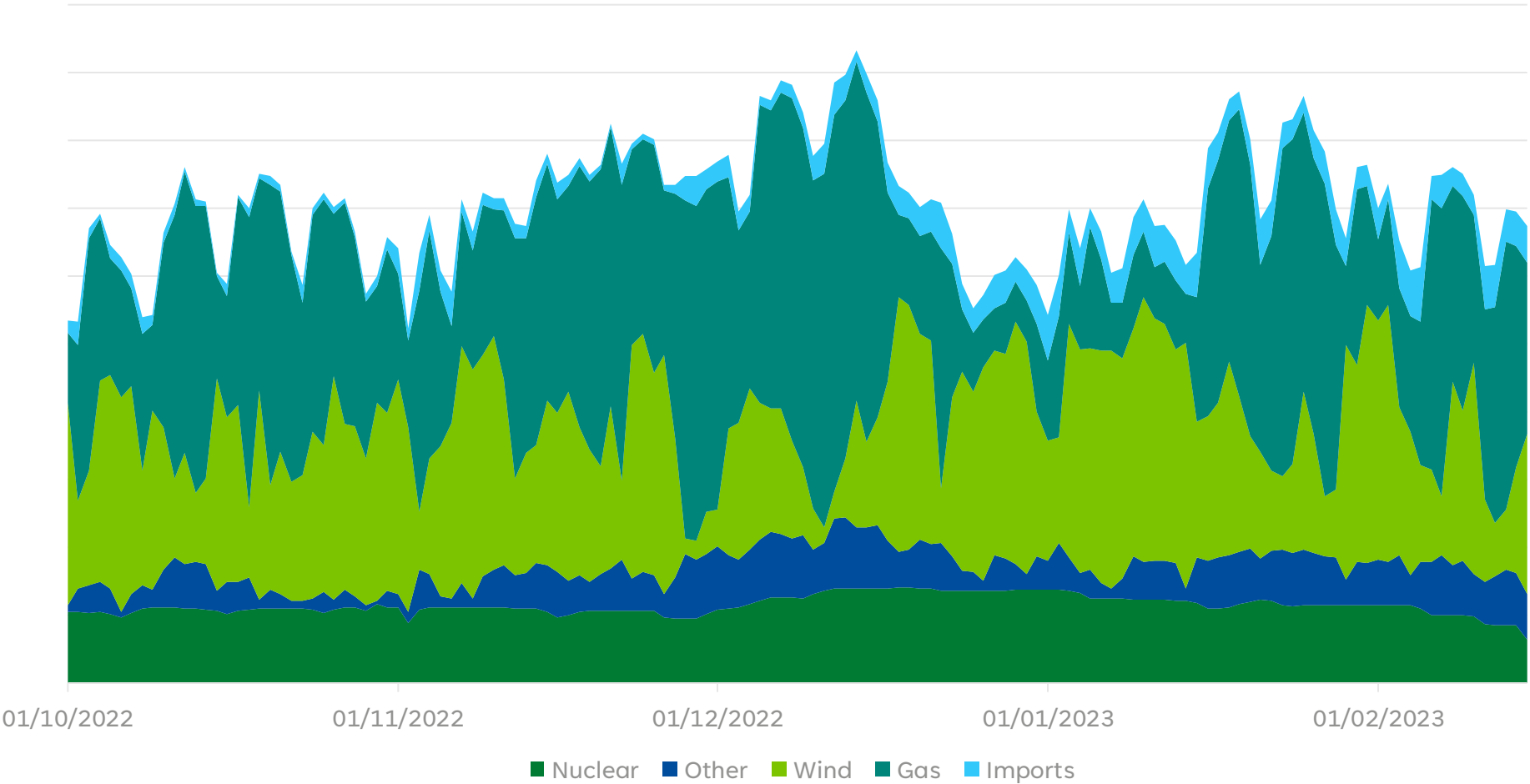
# Composite Weather Variable



# LDZ Offtake Demand

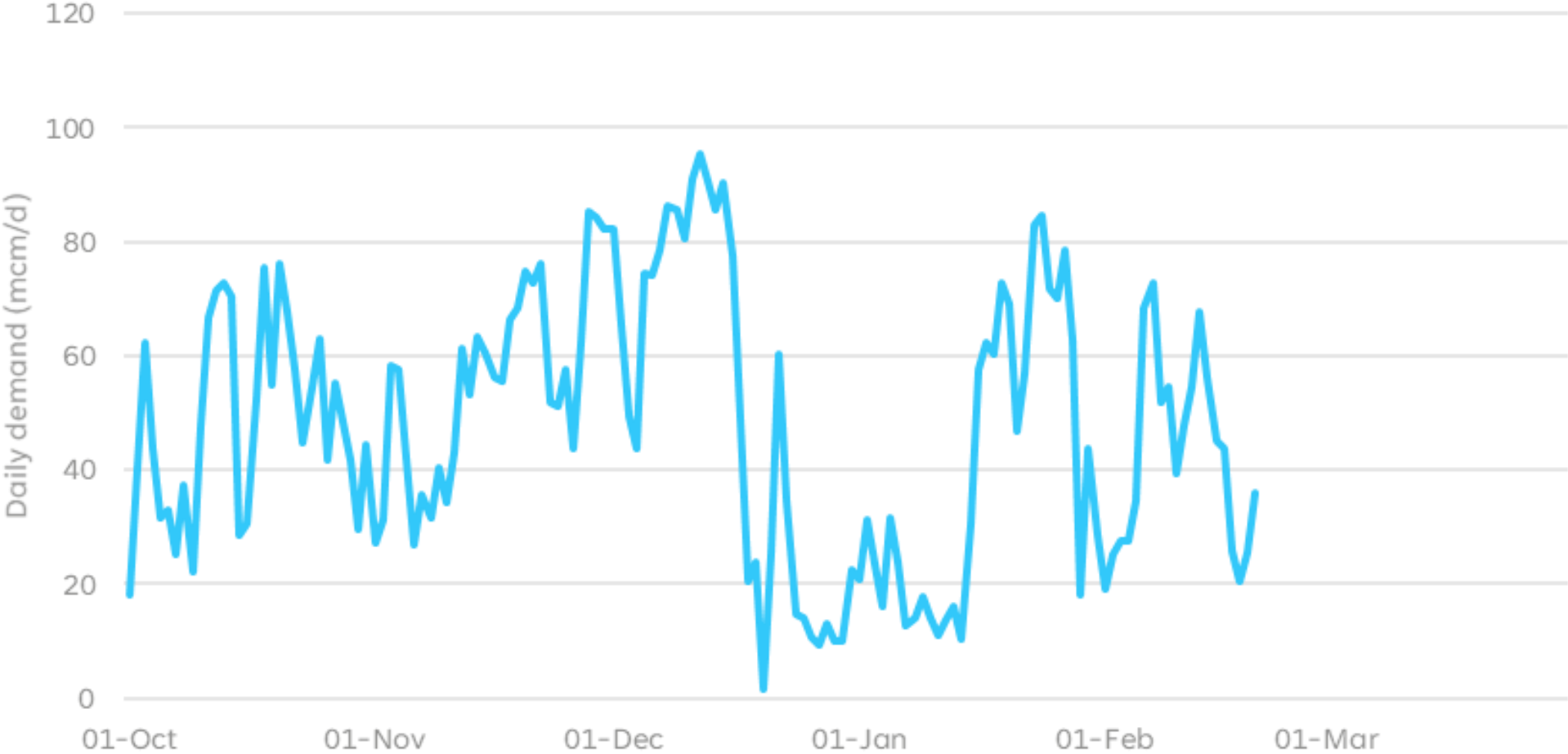


# GB Electricity Generation Mix

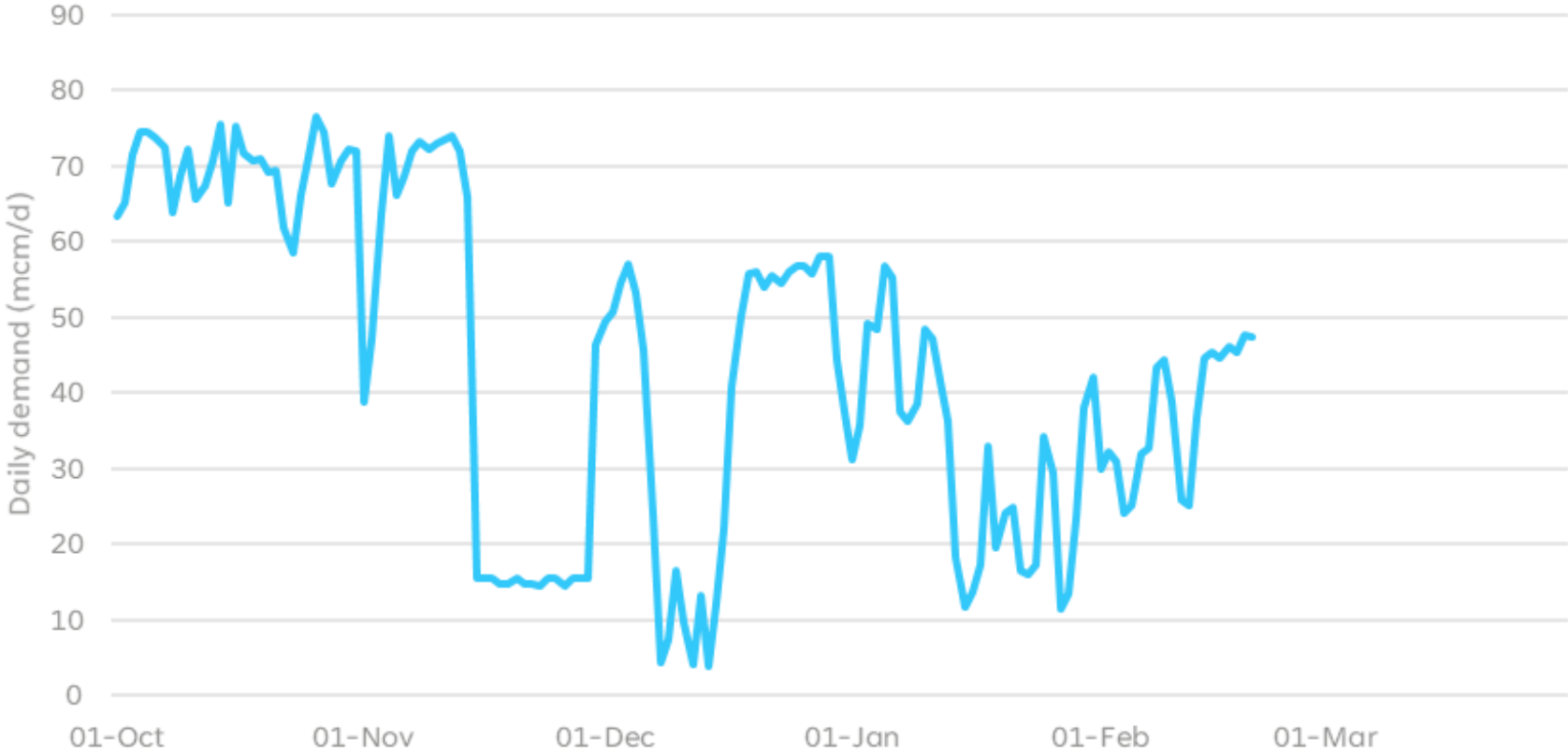




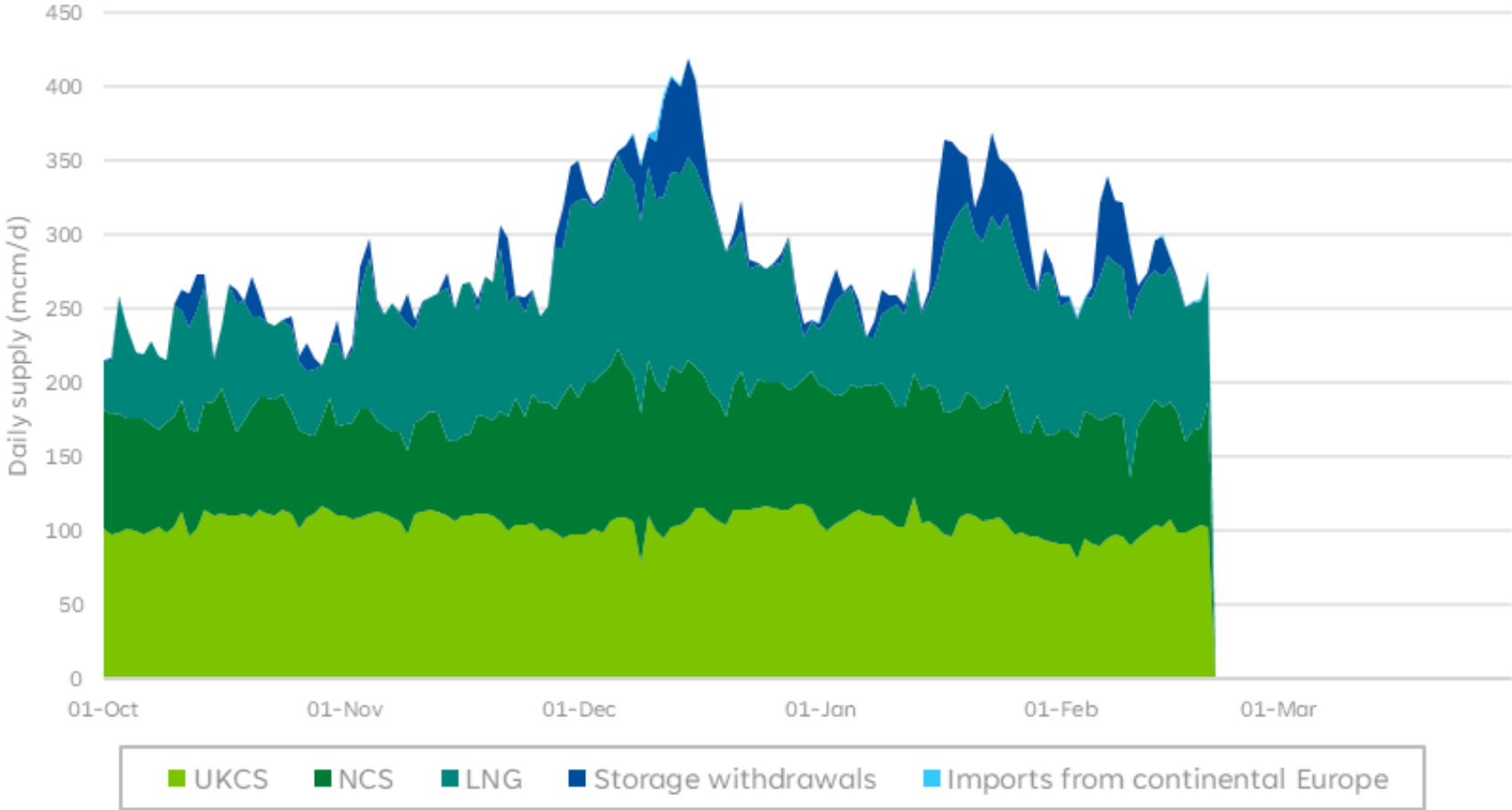
# NTS Power Generation demand



# Exports to continental Europe



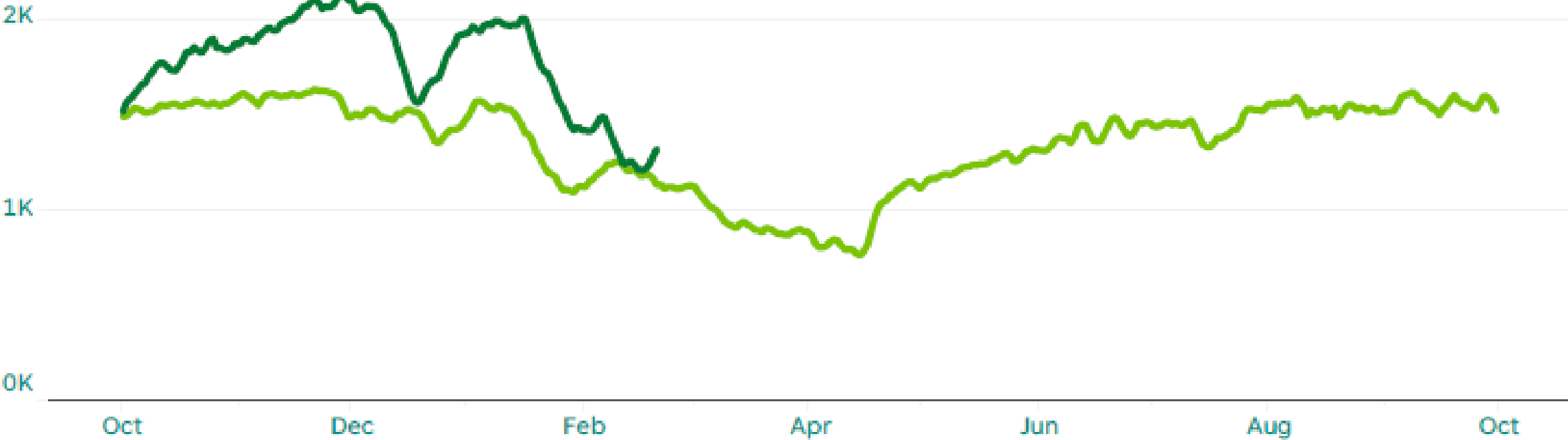
# NTS Supply



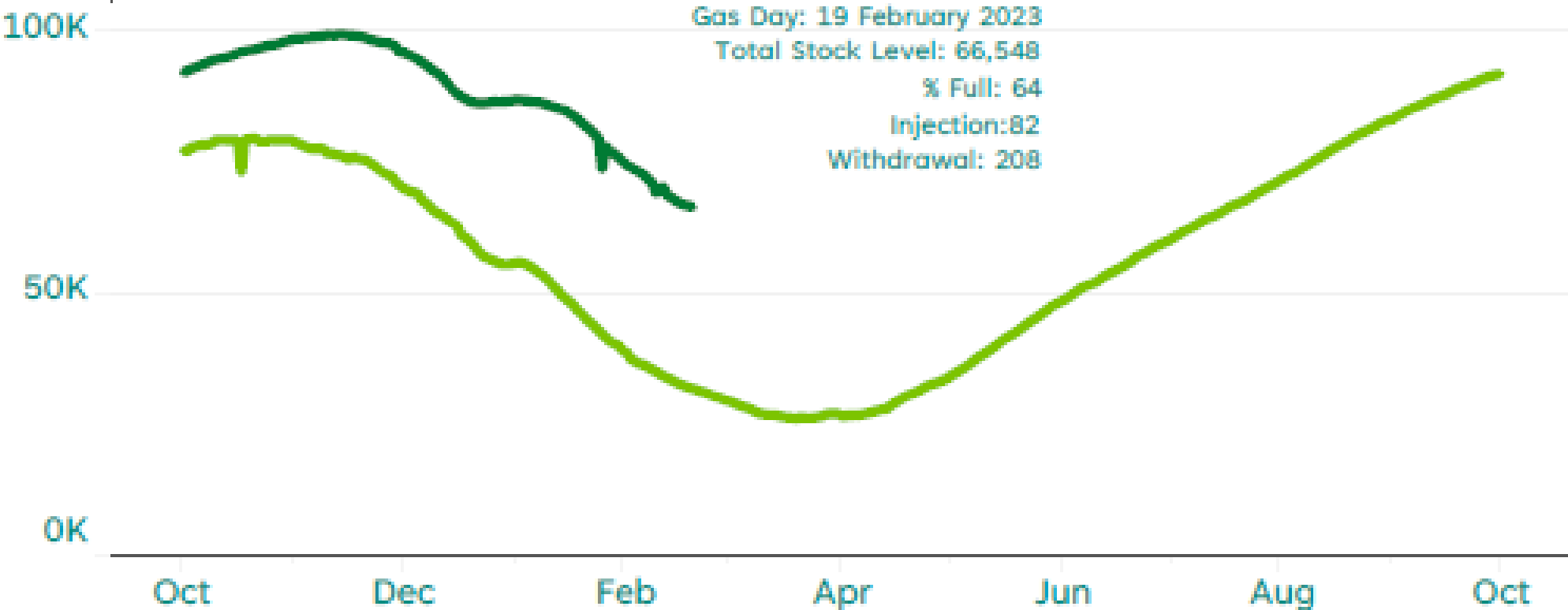
# LNG Supply



# GB Storage Stocks



# European Storage Stocks





# Gas Summer Outlook 2023

Early view  
February 2023



# Draft Themes

## Standard content that is included every year:

- Supply and demand forecast (alongside the numbers from previous years)
- Overview of EU exports and storage
- Overview of GB storage
- Operational overview

In addition to the usual supply/demand forecasts that we share in the summer outlook, we are planning on including information and analysis on these key areas:

- Higher than normal levels of Norwegian supply outages due to maintenance
- Factors influencing the level of LNG imports and European exports
- **Scenarios**
  - Scenario 1 – average/low exports to continental Europe
  - Scenario 2 – high power demand, high exports to continental Europe
- A brief look forward to next winter, covering any steps we are currently taking to prepare for it and how what happens in the summer could impact the outlook for winter.





SLIDO Poll

#OPSFORUM

*“What would you like to see  
in the Gas Summer  
Outlook?”*

# FutureGrid Update

Haroon Khan  
FutureGrid Project Manager

# FutureGrid

## GSO Ops Forum

23<sup>rd</sup> February 2023

# FutureGrid project team



**Tom Neal**  
FutureGrid Manager



**Shaun Bosomworth**  
Senior Delivery Engineer



**Haroon Khan**  
Project Manager



**Lloyd Mitchell**  
Hydrogen Engineer –  
Materials



**Dan Knowles**  
Hydrogen Engineer –  
Electrical & Instrumentation



**Simon Avery**  
Hydrogen Engineer –  
Operations & Maintenance

# FutureGrid

A high-pressure hydrogen test facility built from decommissioned assets to demonstrate the National Transmission System (NTS) can transport hydrogen. Testing will commence in April 2023, with 2%, 5%, 20% and 100% concentrations of hydrogen being tested to demonstrate how a future hydrogen system will operate.



### Phase 1 Overview

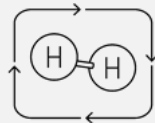
**Lead** **Project Partners**

#### Objective

FutureGrid is an ambitious programme to build a hydrogen test facility from decommissioned assets at DNV's facility in Cumbria to demonstrate the National Transmission System (NTS) can transport hydrogen.

<b>Duration</b>	April 2021 – November 2023
<b>Status</b>	Live
<b>Funding</b>	NIC Project
<b>Value</b>	£12.7m

#### Offline hydrogen test facility



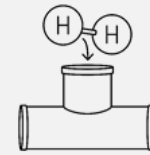
NTS assets of different types, sizes & material grades will be tested with 2, 5, 20 & 100% hydrogen

Testing 4 concentrations of hydrogen:

- 2%
- 5%
- 20%
- 100%

Understanding the impact on a range of key NTS assets including:

#### Standalone hydrogen tests



Standalone hydrogen tests will provide key data required to feed into the main facility

Conducting a range of standalone hydrogen tests to feed into the main facility:

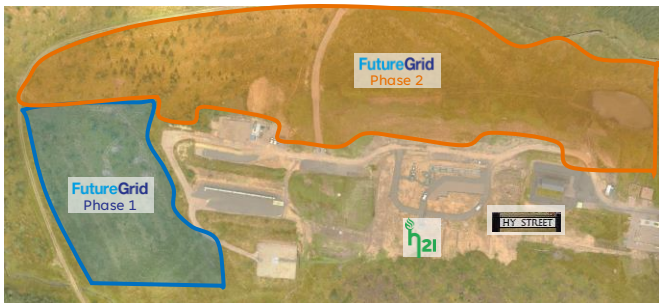
- Materials testing
- Pipe coating testing
- Fatigue testing
- Flange testing
- Asset leak testing
- Rupture testing

#### NTS hydrogen safety case review

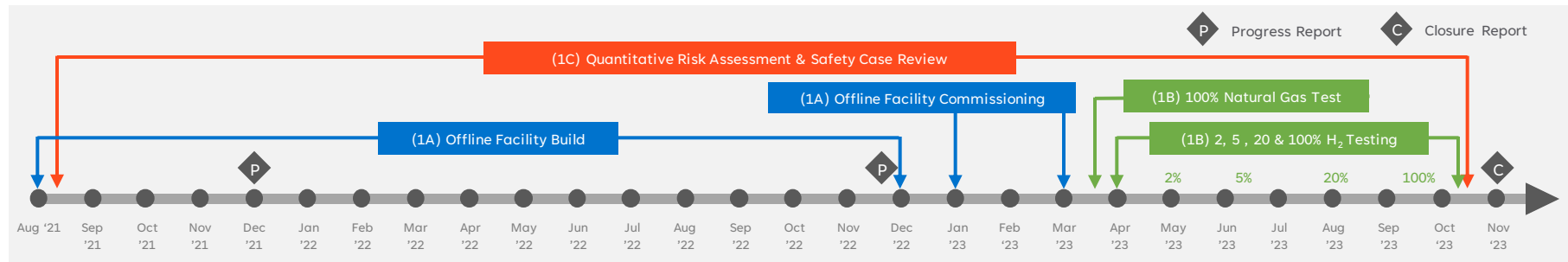
Understanding the impacts of difference concentrations of hydrogen and develop our safety standards:

**Get in Touch** [FutureGrid@nationalgrid.com](mailto:FutureGrid@nationalgrid.com) [www.nationalgas.com/insight-and-innovation/transmission-innovation/futuregrid](http://www.nationalgas.com/insight-and-innovation/transmission-innovation/futuregrid) Innovation at National Gas Transmissionn

#### Location on site



#### FutureGrid Phase 1 Timeline



# FutureGrid

A high-pressure hydrogen test facility to demonstrate the National Transmission System (NTS) can transport hydrogen



# FutureGrid

Construction is nearing completion –  
image was taken in October 2022 just  
before recompression unit groundworks





# FutureGrid

Construction is nearing completion –  
image was taken in October 2022 just  
before recompression unit groundworks



# FutureGrid

Full site inspection conducted with Jeremy Hunns during January Project Review Meeting (PRM)





# FutureGrid

Compression  
& Deblending

Realising the full potential of  
**FutureGrid**  
by creating a world class hydrogen test  
and demonstration facility

# FutureGrid

Hydrogen asset fatigue testing 36" X60  
pipe with 9 different weld types used  
twice. 75k cycles ~ 200 years service



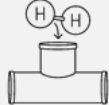
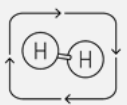
**18,500**  
pressure cycles  
completed

As of 15 February 2023

### Phase 1 – Test Facility Overview

FutureGrid is an ambitious programme to build a hydrogen test facility from decommissioned assets at DNV's facility in Cumbria to demonstrate the National Transmission System (NTS) can transport hydrogen.

Testing will be conducted in two parts:



#### Offline Hydrogen Test Facility

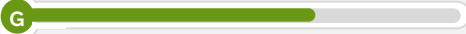
NTS assets of different types, sizes & material grades will be tested with 2, 5, 20 & 100% hydrogen

#### Standalone Hydrogen Test Modules

Standalone hydrogen test modules will provide key data required to feed into the main facility

This will help us understand how hydrogen interacts with our assets, so that we can develop appropriate safety standards required to operate our network.

### Project Spend Performance



£10.1m

January's application of payment is under review. The total spend is £7,073,191. A bank account mirror request has been conducted in September



### Overall Status Update



In January, DNV have completed the build stage of the project and started preparation for the commissioning stage. The facility's final build stage was visited by National Gas's chief engineer to provide further technical assurance. The documentations required for commissioning are being reviewed currently. The overall project is in amber as DNV have re-organised their commissioning programme to enhance activities, there hasn't been any effect to the overall key programme dates.

### 5 Key Activities to Remove Programme Delivery Risk

#### 1 Pressure on Supply Chain providers

Increase pressure on LMF to minimize delays of the Recompression Unit and ENW to progress with the relevant electrical infrastructure upgrades to the current timeline.

#### 2 Escalating key delivery elements

Senior DNV engagement to ensure workstreams at risk of delay are reviewed by team and prioritized with additional effort to ensure no slippage of outputs or quality.

#### 3 Dedicated DNV Resources

DNV are splitting key resources across too many programmes affecting delivery performance. Key people identified and DNV instructed to improve performance to increase effective delivery.

#### 4 Pause all non-essential site activity

All obstacles to working on site removed to ensure full access during working hours to optimise project delivery. All site visits except VIPs (agreed via Hydrogen LT) are paused to support this.

#### 5 Programme Re-baseline

Full programme overhaul with a re-baseline of milestones which cannot be recovered to provide a realistic delivery plan to be agreed at Senior DNV management level.

Stage	Activity	Due	Status	Progress
1A Facility Build	Groundworks ( <i>Offline H2 Test Facility</i> )	Nov-21	Complete	<ul style="list-style-type: none"> <li>→ <b>Asset Pre-Assessments:</b> Orifice plate skid valves will be replaced. NRV tests has completed to ensure functionality of valve. PMC scheduled to re-grease valves after hydrotest.</li> <li>→ <b>Leak tests:</b> DNV will provide the final test report in Feb.</li> <li>→ <b>Lab tests:</b> Permeation test report due in February</li> <li>→ <b>Construction:</b> Build has been completed. Re-compressor SAT is penciled for 27<sup>th</sup> Feb.</li> <li>→ <b>Commissioning:</b> The plan has been created and issued.</li> <li>→ Preparations underway for testing phase, review of the testing programme complete including agreement of the flows and order of operation of the facility for each test.</li> <li>→ <b>Stand Alone Testing:</b> Testing has commenced. 18,000/150,000 cycles have already been conducted. Testing will continue till the fatigue rig delivers final results later in 2024.</li> <li>→ <b>Procedure Review:</b> The report has been reviewed by internal teams and the comments are being incorporated.</li> <li>→ <b>Safety Case Review:</b> NG have issued comments on the report to DNV.</li> <li>→ PPR 2022 completed</li> <li>→ PPR Launch event completed on 12<sup>th</sup> December.</li> </ul>
	Leak Tests ( <i>Standalone Test Module</i> )	Dec-22	Complete	
	Lab Tests ( <i>Standalone Tests</i> )	Feb-23	On track	
	Construction ( <i>Offline H2 Test Facility</i> )	Feb-23	On track	
	Rupture Tests ( <i>Standalone Test Module</i> )	Feb-23	On Track	
1B Hydrogen Testing	Commissioning ( <i>Offline H2 Test Facility</i> )	Feb-23	Not Started	
	100% Natural Gas Test	Apr-23	Not Started	
	2% Hydrogen Testing	May-23	Not Started	
	5% Hydrogen Testing	Jun-23	Not Started	
	10% Hydrogen Testing	Jul-23	Not Started	
	20% Hydrogen Testing	Aug-23	Not Started	
1C QRA & Safety Case	100% Hydrogen Testing	Oct-23	Not Started	
	Fatigue Tests ( <i>Standalone Test Module</i> )	Oct-23	On Track	
	Procedure Review	Aug-22	Complete	
	Hazardous Area Impact	Apr-23	On Track	
	Quantitative Risk Assessment (QRA)	Oct-23	Not Started	
1D Engagement & Reporting	Overpressure Risk	Mar-23	Not Started	
	Safety Case Review	Feb-23	On Track	
	Progress Report 2021	Dec-21	Complete	
	Progress Report 2022	Dec-22	Complete	
	Closure Report 2023	Nov-23	Not Started	
	Engagement & Dissemination Events	Nov-23	On Track	

#	Opportunities
1	Learning from FutureGrid can be used to enhance other NG Hydrogen Projects
2	Identifying efficiencies in commissioning stage to reduce any timescale impacts

#	Top 3 Risks
1	Severe weather conditions may impact commissioning and testing phase
2	Risk of Re-compression unit not functional during commissioning stage
3	Assets will fail during master test plan

### Progress This Month

- Build stage has been completed
- Fatigue rig has conducted 18,000 cycles
- Continue installation of infrastructure
- National Gas chief engineer site visit
- Commissioning plan issued
- Transient test set up and procedure issued
- Revised Master Test plan agreed
- Commissioning interactions agreed
- Site visit for projects interacting with FG
- Comms plan created for re-branding

### Actions Next Month

- Hydrotest of facility
- Pre-Commissioning & Commissioning activities
- Standalone test report to be delivered
- Site hazardous area drawings to be delivered
- EC&I Final Detailed Design
- Complete infrastructure activities
- Continue operational improvements of site
- QRA: Complete compressor station drawings
- Complete all asset installation including instrumentation
- Continue with HAZOP/ HAZID Actions.

### February Top 3 Activities

**1** Completion of hydrotest

**2** Completion of pre-commissioning activities

**3** Completion of pneumatic tests

### March Top 3 Activities

**1** Gas Fill + Commissioning Runs

**2** Metering Audits

**3** Commence 100% Natural Gas test

### GT&M resource requirements for next 2 months

- Discussion with W1 Ops for resource requirement
- Discussion with PMC for resource requirement

### Internal visits in the next 2 months

- **13<sup>th</sup> Feb:** Project Team + Welding SME
- **14<sup>th</sup> Feb:** Project Team + Jeremy + Rupture test

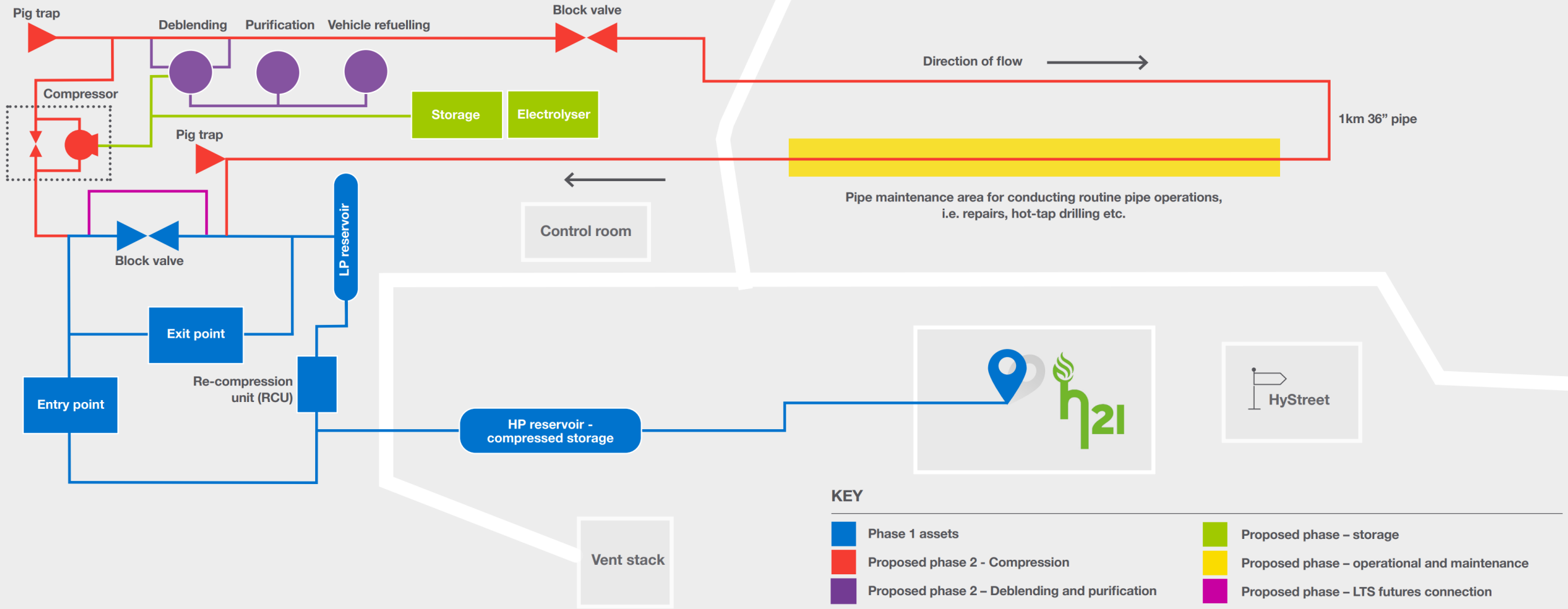
\*\*\* Visits postponed after these to all but VIP as agreed by Hydrogen LT \*\*\*

### External visits in the next 2 months

- **22<sup>nd</sup> Feb:** BEIS Hydrogen Visit

\*\*\* Visits postponed after these to all but VIP as agreed by Hydrogen LT \*\*\*





Key SIF Applications

### HyNTS Compression

This project investigates the key challenges associated with compression of hydrogen using existing national transmission system (NTS) assets. This project will also provide the capability for critical operations such as In-Line Inspection (ILI) to be tested at FutureGrid.

### HyNTS Deblending & Purification

This project aims to provide an offline demonstration of gas separation or 'deblending' technology on a gas network scale. The project aims to develop a skid mounted, mobile solution to demonstrate hydrogen fuelling from the NTS for the future transport network.

Additional SIF's

### Fuel cell gas analyser & data analytics

This project aims to demonstrate a fuel cell gas analyser for blends of hydrogen and natural gas for up to 100% hydrogen in the NTS.

### Hydrogen metering

This project will explore options for gas metering equipment for use with hydrogen. There will be scope for demonstration of new technology potentially at FutureGrid.

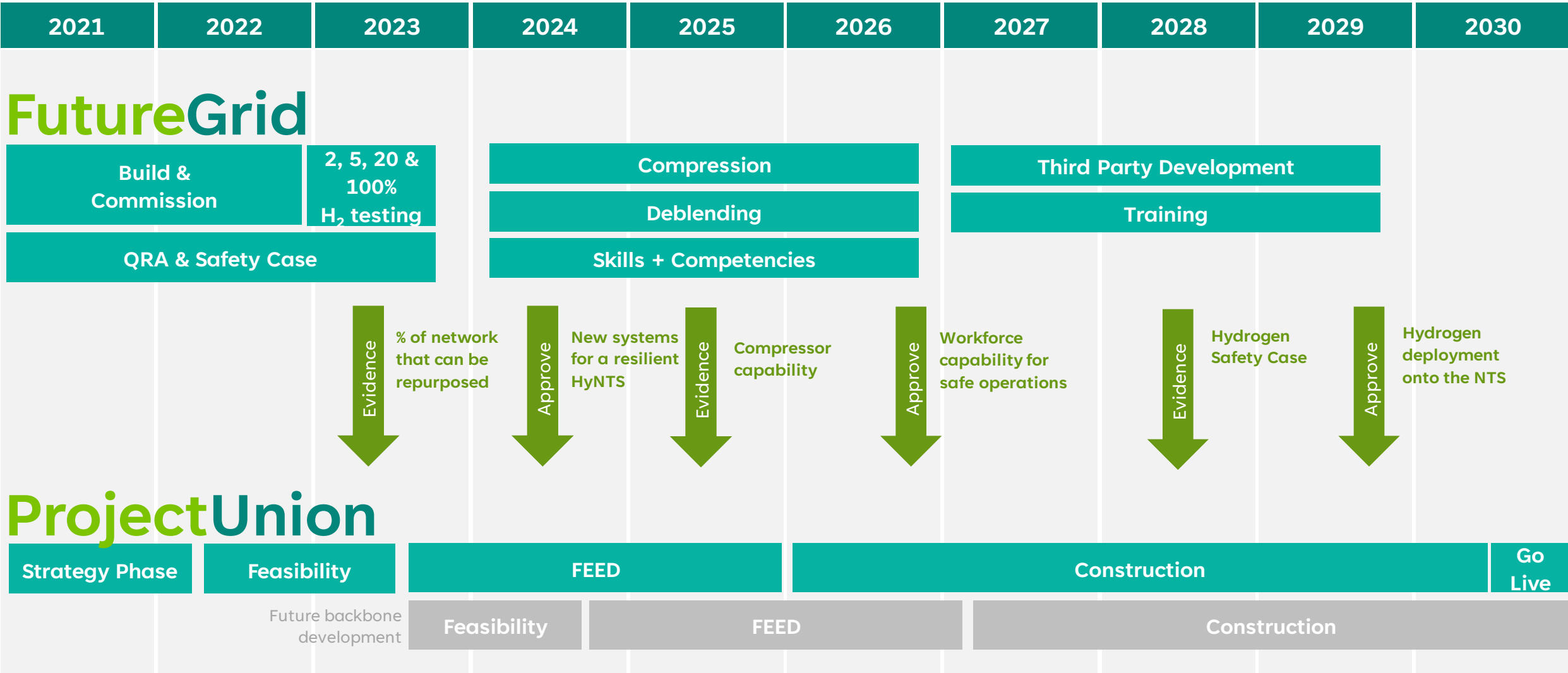
### HyNTS pipeline data set

This project will aim to obtain information on the current condition of pipelines for the transition to hydrogen to determine suitability of pipelines for repurposing.

### Hydrogen barrier coatings for gas network assets

This project looks into the potential for deployment of hydrogen barrier coatings via electrodeposition onto the internal surface of a pipelines and other assets.

There is a critical pathway of evidence development that feeds into the development and deployment of 100% hydrogen in our high pressure gas pipelines. Time is a critical factor to deliver a hydrogen transition at pace to meet net zero targets.





# Thank you

You can find out more and get in touch:



[hydrogen@nationalgrid.com](mailto:hydrogen@nationalgrid.com)



[nationalgas.com](http://nationalgas.com)



National Gas Transmission

# Summer Maintenance Plan

Ffion Davies-Cale

Network Access and Short-Term Risk Manager

# Maintenance Plan

The maintenance plan is published 4 times a year (end of the month):

- January (Summer Draft)
- March (Summer Final)
- August (Winter Draft)
- September (Winter Final)

<https://www.nationalgas.com/data-and-operations/maintenance>

The plan aims to give an overview of what maintenance is taking place in the Summer and Winter periods.

Winter periods have very little maintenance planned (if any)

## Minor works agreement

We can help parties to agree different maintenance approaches through a mutual contract with directly connected customers.

Minor works



## Maintenance plans

When working with our customers to plan our system access requirements, we consider maintenance requirements, forecast supply, and demand patterns, as well as outage programmes from relevant and affected industry parties. This facilitates the alignment of work where feasible to reduce its impact.

If the dates of your planned outages change, please **contact us** as early as possible so that we can consider whether we can also realign our works to reduce any impacts.

Search by name

Published	Name
31 Jan 2023	Summer 2023 Maintenance Programme Draft
5 Jan 2023	Quarterly_mtc_2022 Dec Deliverability
14 Nov 2022	EU Harmonisation Capacity Summary Table 2023
12 Oct 2022	Quarterly_mtc_2022 Sep Deliverability
30 Sep 2022	Winter 2022 Maintenance Programme Final
2 Sep 2022	Winter 2022 Maintenance Programme Draft
29 Jun 2022	Quarterly_mtc_2022 Jun Deliverability



# What's Included

Information that is included:

= Confirmed period     = Provisional period

Compressor Station Outages	2023								2024			
	Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	
Aberdeen												
Alrewas												
Avonbridge 1												
Avonbridge 2												
Aylesbury												
Bishop Auckland												
Carnforth												
Cambridge												
Chelmsford												
Churchover												
Diss												
Felindre												
Hatton												
Huntingdon												
Kings Lynn												
Kirriemuir												
Lockerley												
Moffat												
Nether Kellat												
Peterborough												
Warrington												
Wisbech												
Wooler												
Wormington												

= Pressure Restriction

= Pipeline Shutdown

= Provisional period

Area	Pipeline	2023								2024				2025				2026
		Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
EA	Feeder 5 Yelverton to Stowmarket																	
SC	Feeder 11 Lockerbie to Longtown																	
SC	Feeder 24 Aberdeen to Lochside																	
EA	Feeder 27 Kings Lynn Tee																	
NE	Feeder 9 Pannal to Towton																	
SC	Feeder 11 Aberdeen to Woodlands																	
NE	Feeder 13 Elton to Baldersby																	
NE	Feeder 7 Pannal to Thrintoft																	
SE	Feeder 18 Gravesend to Farningham																	
WA	Feeder 2 Llanvetherine to Dowlais																	
WA	Feeder 2 Dyffryn Clydach to Dowlais																	
NW	Feeder 4 Warburton to Partington																	
EA	Feeder 3 Whitwell to Royston																	
SC	Feeder 13 Parkneuk to Gullane																	

= Confirmed period

= Provisional period

Area	In Line Inspections	2023								2024				2025				2026
		Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
WA	Feeder 23 Treaddow to Gilwern																	
WA	Feeder 2 Treaddow to Dowlais																	
WM	Feeder 2 Churchover to Wormington																	
NO	Feeder 29 Pannal to Nether Kellat																	
WA	Feeder 28 Three Cocks to Tirley																	
NE	Feeder 29 Asselby to Pannal																	
NE	Feeder 29 Easington to Asselby																	
WA	Feeder 28 Felindre to Three Cocks																	
EM	Feeder 22 Goxhill to Hatton																	
EM	Feeder 9 Hatton to Peterborough																	

# What's Included

	Apr	May	Jun	Jul	Aug	Sep	Oct
St Fergus	95 (1045)	69 (759)	79 (869)	88 (968)	81 (891)	84 (924)	No impact
Teesside	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Barrow	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Easington	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Theddlethorpe	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Bacton*	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Isle of Grain	No impact	41 (451)	40 (440)	35 (385)	35 (358)	48 (528)	No impact
Milford Haven**	64 (704)	62 (682)	62 (682)	62 (682)	62 (682)	66 (726)	No impact

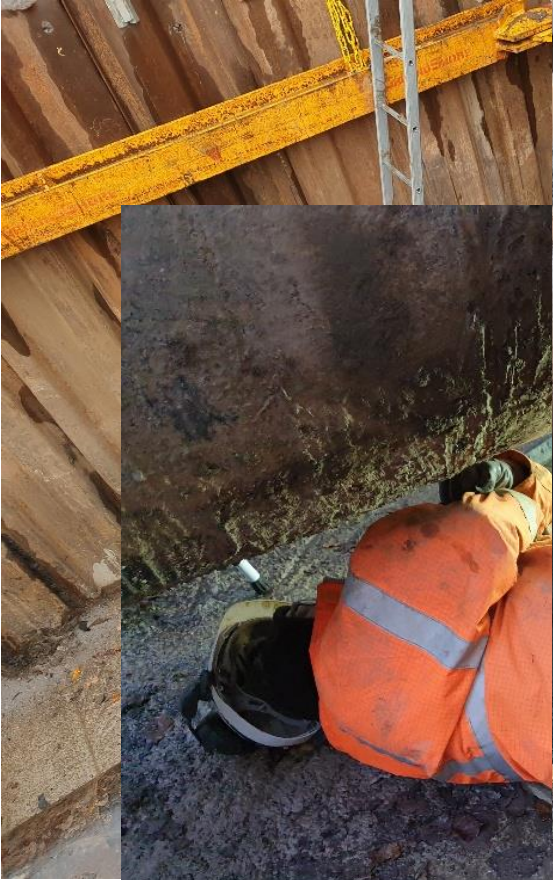
Capability Numbers (Summer Maintenance Plans only) - capability in summer can be impacted by reduced demands.

These numbers give an indication of capability at each terminal that is impacted by Maintenance.

# Examples of what we do



# Examples of



# SLIDO Poll

#OPSFORUM

*“Do you find the maintenance plan useful?”*

&

*“Are there any additional things you’d like to see included or changed in the plan?”*



# Information Provisioning

Rachel Hinsley

Operational Liaison & Business Delivery Manager

# Digitalisation Strategy Journey

October 2018

Energy Data Task Force (EDTF) established to provide Government, Ofgem and Industry with a set of recommendations on:

*“How data can assist with unlocking the opportunities provided by a modern, decarbonised and decentralised Energy System at the best value”*

2019

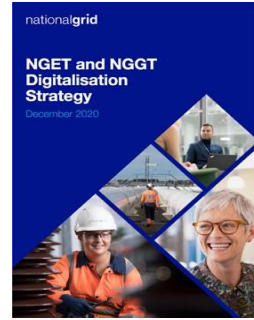
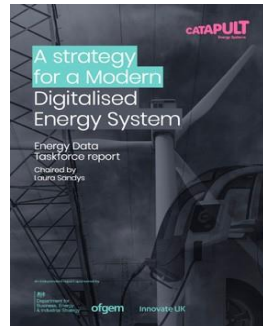
June 2019

EDTF published their report:

“A strategy for a Modern Digitalised Energy System”

The report strongly advocated further digitalisation and made recommendations for focus areas.

[National Gas Transmission |](#)



December 2020

We published our Digitalisation Strategy (Joint strategy with National Grid Electricity Transmission (NGET))

2020

October – November 2020

We engaged on our draft Digitalisation Strategy asking for feedback via webinars, workshops and our Independent User group.

Reached out directly to some groups with particular interest in topics such as our data platform (MIPI) rebuild.

2021

June 2021

We published our updated Digitalisation Strategy Action Plan (DSAP) setting out how we plan to deliver the Digitalisation Strategy



November 2021

Ofgem published:

- Data Best Practice Guidance
- Data Best Practice Principles

2021

Over the course of 2021 we engaged with energy networks and organisations from other industries to share knowledge on:

- Technology
- Skills
- Culture

We produced materials and held events to support stakeholders use of data, such as the Data Webinar – Your data, today and tomorrow

2022

March 2022

We shared our updated Digitalisation Strategy



January 2022

EDTF published a new report with further recommendations. We reviewed this report to understand the implications

# Focus Areas

## Industry Data Triage Process

We proactively supported the development of the industry Data Triage process within the Energy Network Association Digital Data Strategy Steering group workstream. In parallel the process has been embedded into the Gas Transmission organisation to ensure ownership and transparency and timely response to the requester of data. This has enabled us to publish usable data sets to the personas described within the strategy to support optimisation.

## Data Discovery Improvement Project Initiated

Customer & Stakeholder feedback during data webinars & work towards delivering Energy Data Taskforce recommendations we have initiated a Data Discovery Improvement project for the MIPI data platform. We will look to work with the persona groups on how we can improve data discovery e.g., machine readable data, common API standard, searchable data sets and interoperability.

# Information Provision - Future Projects



Information Provision Project

Continuous improvement (including data triage and sharing of additional data)

Data Discoverability Project

Rebranding

Potential future changes:

- API solution
- Replace data item and report explorer
- Updating data to Metadata Standards

# What is MIPI?

- MIPI (Market Information Provision Initiative) is the **web-based information platform** that serves market participants with a wide-ranging view of **Gas Transmission Operational Data**.
- Data is managed by Gas Transmission and is available via the **Transmission Operational Data Webpage** on our Website
- The data is made available in **multiple different formats** on different sections of the MIPI Platform including:

Prevailing View

Data Item  
Explorer

Report Explorer

API

Instantaneous  
Flows

# Transformation project - outline

*What*



MIPI is a portal that provides historic gas data

*Why*



The portal needs to be updated and improved for all persona groups

*When*



The upgrade project is running from Apr 22 to test and delivery in Apr 23

*Who*



All persona groups have been involved in setting the scope for improvement

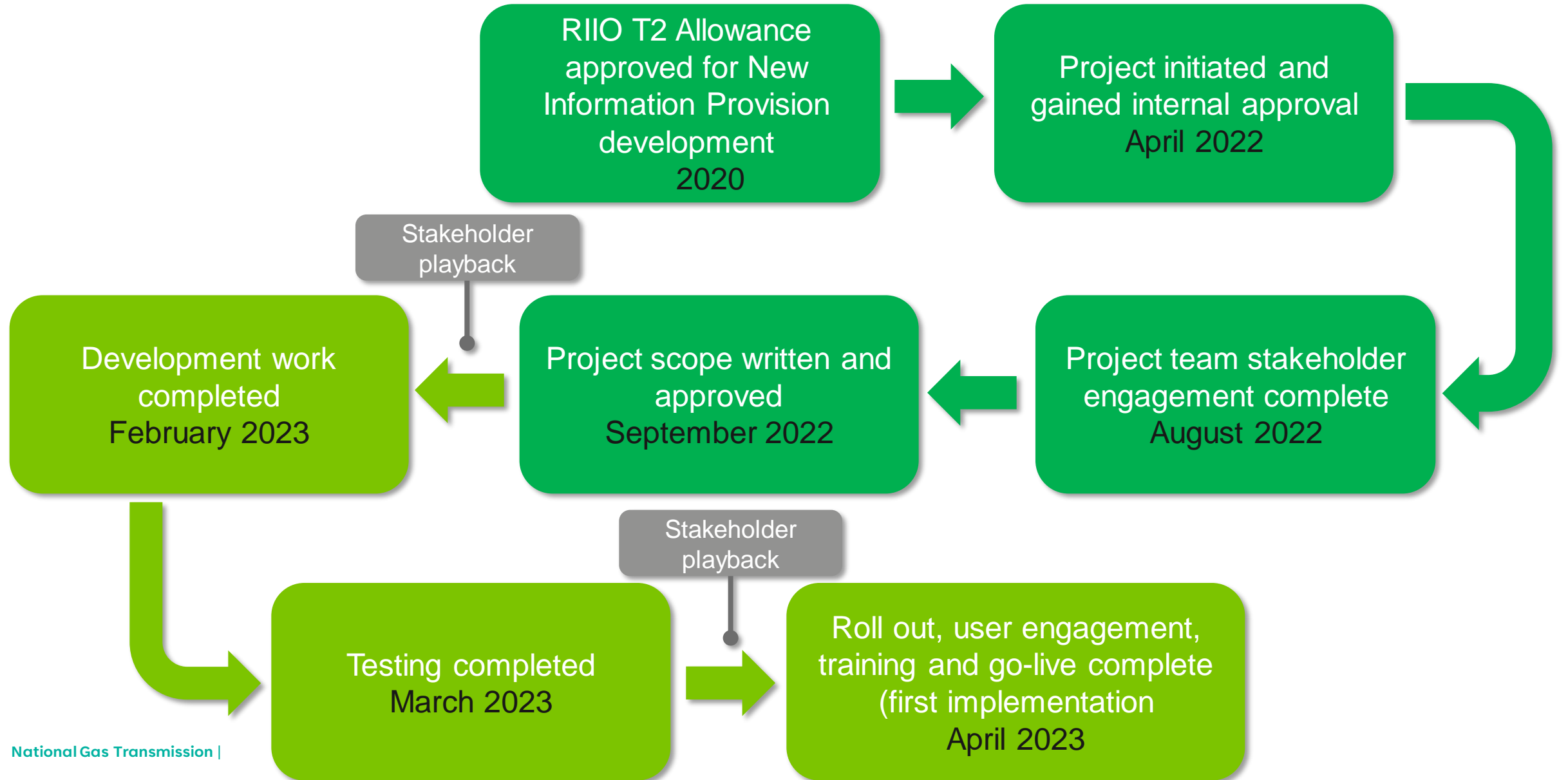
*How*



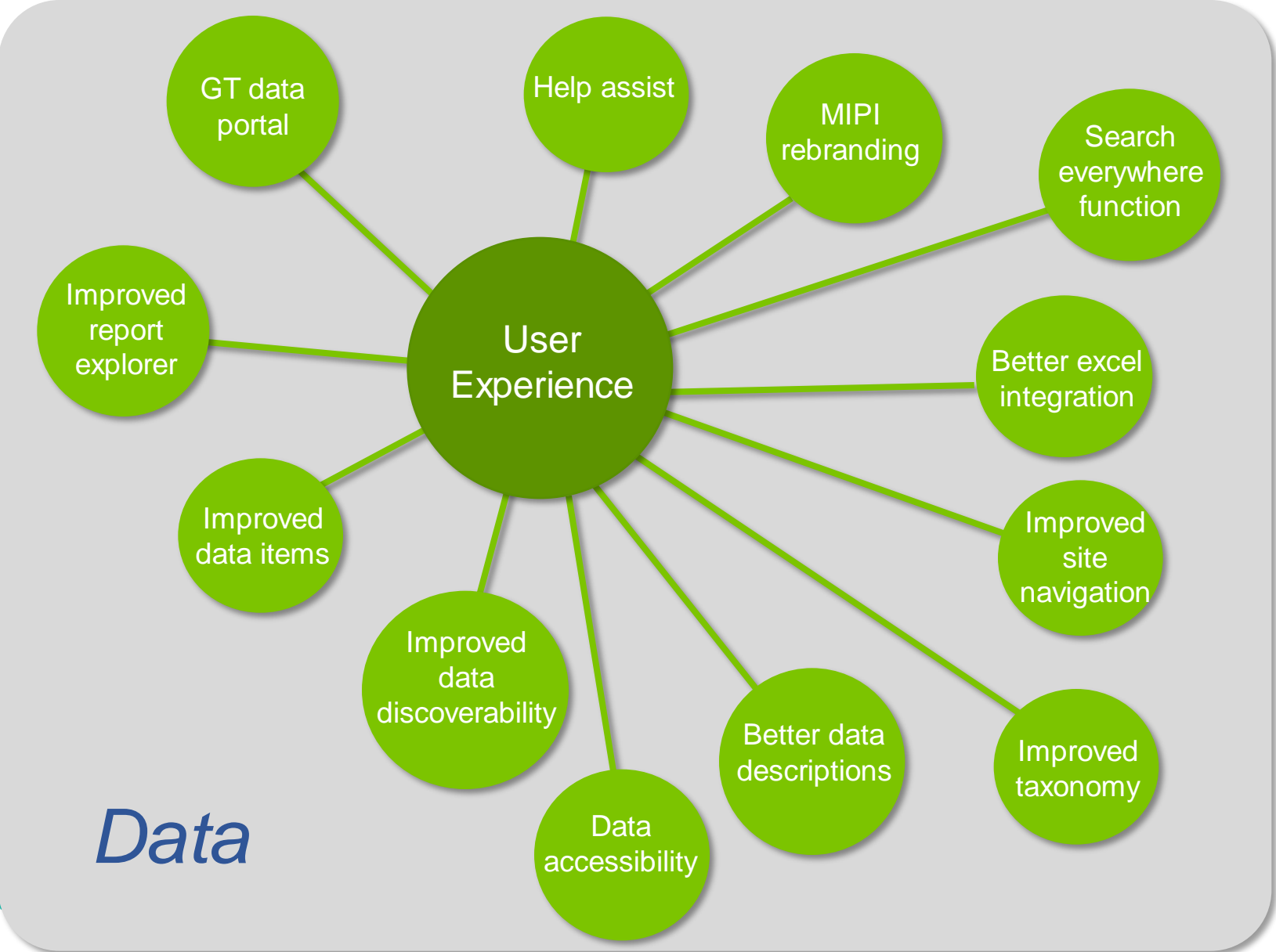
Development team within National Gas Transmission

Making our data portal more intuitive, useful, organised and configurable

# Transformation programme - roadmap



# Transformation programme – deliverables



Stakeholder engagement April to August 2022:

- Webinars
- Workshops
- Survey e-mails
- Questionnaires



# Example screen - Landing Page

The screenshot shows a web application interface for National Gas Transmission data. At the top, there is a navigation bar with a home icon and menu items: 'Real-time overview', 'Terminal data', 'Historic gas data', 'Reports', and 'API'. Below the navigation bar is a teal banner with the text 'GAS DAY' and a calendar icon, followed by 'Monday 9 January 2023' and a close icon. The main content area is divided into several sections. On the left, a dark blue section features the heading 'DATA FROM NATIONAL GAS TRANSMISSION' and a sub-heading 'Data and reports showing live and historic data for the National Transmission System.' On the right, there are two white boxes with green borders. The first box is titled 'Demand Forecast' and displays a flame icon next to the number '365' with 'mcm/d' below it. The second box is titled 'Margin Notice Trigger' and displays a square icon with a degree symbol next to the number '528' with 'mcm/d' below it. At the bottom, there is a dark blue section with two data items: '1500 DATA ITEMS' and '120 DATA GROUPS', both with tree icons. To the right of these items is a section titled 'Historic gas transmission data' with a brief description and a green button labeled 'View gas transmission data >'. The background of the main content area features a faint, abstract pattern of gas pipes.

# Example screen – Summary Landing Page



## REAL-TIME OVERVIEW

View up-to-date data about the status of the National Transmission System, such as the supply and demand of gas, and forecasted demand for the next few days.

[Go to real-time overview >](#)

## REPORT SUMMARY

Lorem ipsum dolor sit amet. Et voluptatibus eligendi quo sunt deleniti aut voluptas facilis eos quia impedit qui unde voluptatem.



### Gas transmission data reports

View gas transmission data in defined formats for a month or a gas day. This data can be exported into CSV or XML format.



### Instantaneous flow data

View up-to-date data for the flow of natural gas through all terminals across the UK.



### Customisable reports

View and download bespoke reports for the data points that you need.

# Example screen - Prevailing View

The screenshot displays a web interface for gas transmission data. At the top, there is a navigation bar with tabs for 'Real-time overview', 'Terminal data', 'Historic gas data', 'Reports', and 'API'. Below this, a header indicates 'GAS DAY Monday 9 January 2023'. The main content area is titled 'Real-time overview of gas transmission' and includes a sub-header 'View up-to-date data about the status of the National Transmission System, which transports gas around Great Britain.' A callout box explains that the data is for the current Gas Day (05:00 to 05:00 UTC or 04:00 to 04:00 UTC during daylight savings time). A sidebar on the left contains a list of filters, with 'Demand forecast and Margins Notices' selected. Below the filters, the 'CURRENT GAS DAY' section features two key metrics: 'DEMAND FORECAST' at 345 mcm/d and 'MARGIN NOTICE TRIGGER' at 532 mcm/d. Explanatory text for each metric is provided below the respective cards.

**Real-time overview of gas transmission**  
View up-to-date data about the status of the National Transmission System, which transports gas around Great Britain.

Most of this data is for the current Gas Day, which is from 05:00 to 05:00 UTC (or 04:00 to 04:00 UTC during daylight savings time).

Demand forecast and Margins Notices

Supply and demand forecast

Actual supply, demand and linepack

Predicted closing linepack

Flow rate by system entry point

Storage stock

Demand forecast and Margins Notices

**CURRENT GAS DAY**

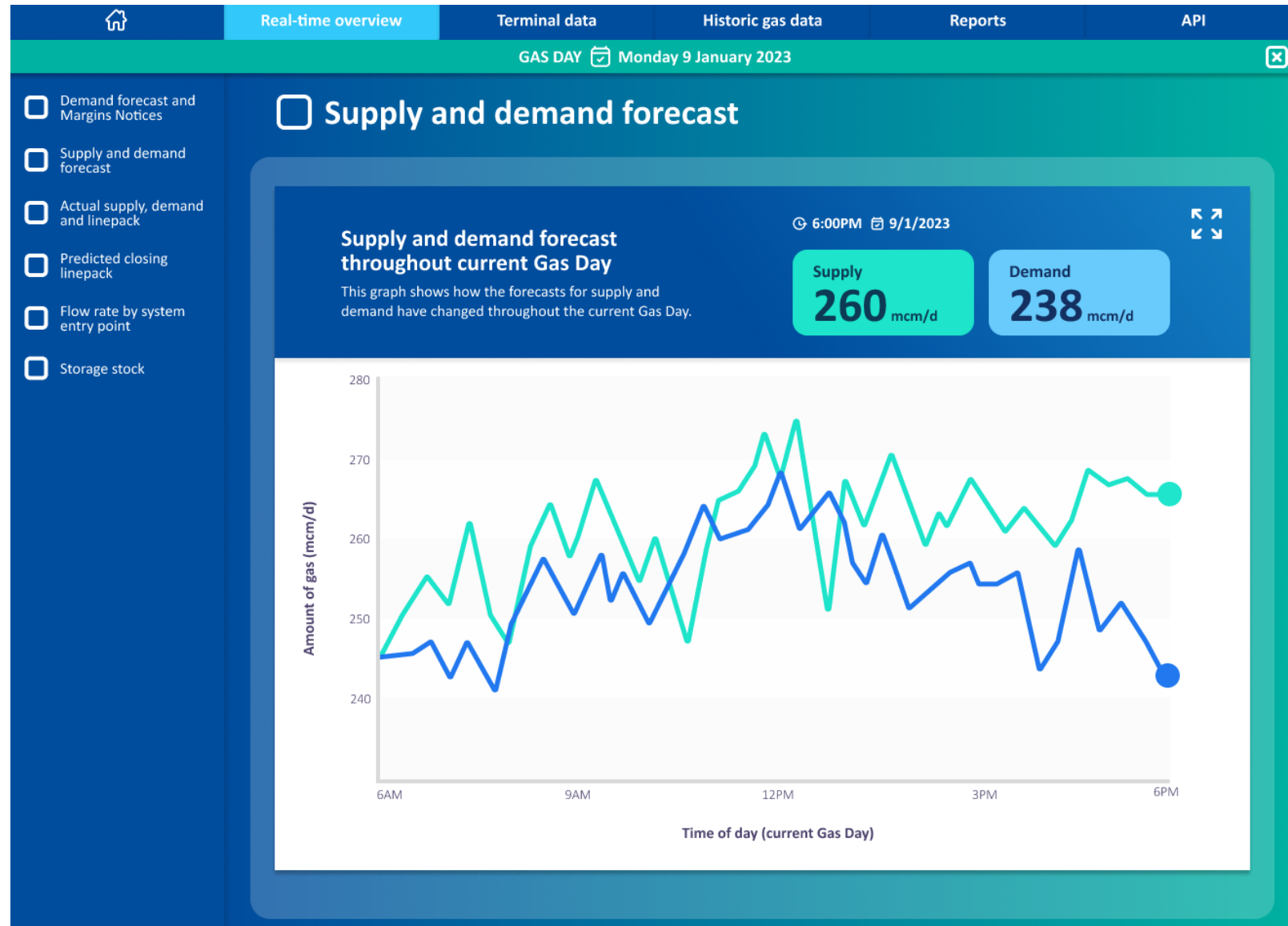
**DEMAND FORECAST**  
345 mcm/d

**MARGIN NOTICE TRIGGER**  
532 mcm/d

Demand forecast is the amount of gas that is expected to be used by customers connected to the National Transmission System.

Margins Notices (MN) and Gas Balancing Notifications (GBN) will only be issued if the demand forecast is close to 532.00 mcm or higher.

# Example screen – Supply and Demand



# Next steps – Transformational Project

- We are currently testing the new system
  - User testing would be welcomed– **would you like to get involved?**
  - Email [Box.OperationalLiaison@nationalgrid.com](mailto:Box.OperationalLiaison@nationalgrid.com) to join in the testing
- Implementation – end of April 2023; training manuals to be provided
- We welcome feedback on this implementation and suggestions for change for future implementations of the new information provision project

# BAU Enhancements

- As well as our projects we are continually **assessing smaller, incremental enhancements** that can be made to our systems
- Examples include **recent changes** to Prevailing View with Margins Notice and Demand Forecast data for week ahead, Interconnector instantaneous demands, and time-based instantaneous flows

## Forecast Margins Notice and Demand D-2 to D-7

Date	17/11	18/11	19/11	20/11	21/11	22/11
Margins Notice	522	522	522			
Demand Forecast	250	275	268			

To view the Daily Margins Notice Report please visit the [Margins Notice page](#) on our website

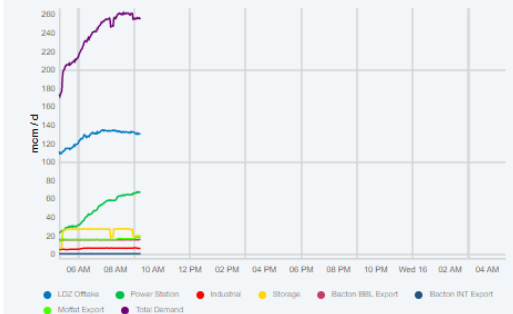
### Instantaneous Flows (mcm/day)

#### Interconnector Export

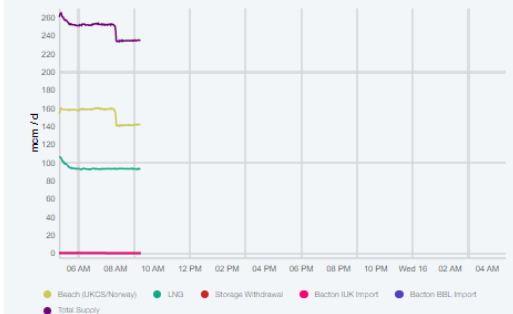
Interconnector Export Totals	09:12	09:14	09:16	09:18	09:20	09:22
Bacton BBL Export	15.30	15.30	15.30	15.37	15.37	15.42
Bacton INT Export	0.00	0.00	0.00	0.00	0.00	0.00
Moffat Export	17.86	17.93	17.98	17.95	17.98	18.06

### Instantaneous Physical Supply and Demand

#### Instantaneous Demand



#### Instantaneous Supply



# Data Triage Process

- Established in 2021.
- A centralised **data request form** is hosted on the ENA Website: [Here](#)
- You can still **request directly** through Networks including National Gas Transmission via: [box.operationalliaison@nationalgrid.com](mailto:box.operationalliaison@nationalgrid.com)



The screenshot shows the ENA Data Request Form. The header includes the ENA logo and the title "Data Request Form". The main content area is blue and contains the following text:

You can use this form to request any type of data from UK energy network operators.

This request form is in the Proof of Concept phase - data will not currently be delivered as part of this request process.

Energy Networks Association processes these requests on behalf of the Data and Digitalisation Steering Group to gather insights into a standardised approach for handling data requests. The information you provide is managed in line with our privacy practices (<https://www.energynetworks.org/other/policy>)

Please note that this request form does not allow you to save progress and continue later.

If you are having difficulties completing this form, please contact Elena Theodorou at [elena.theodorou@energynetworks.org](mailto:elena.theodorou@energynetworks.org)

Below the blue section, there is a "Requester Information" section with a sub-header "Requester Information" and a note "Please provide details about yourself and your organisation". The first field is "1. Full Name \*" with a text input box containing the placeholder "Enter your answer".

# Data made Available via the Data Triage Process

- We have already **made additional data available** via the Data Triage Process
  - Historical Supply and Demand Data
  - Compressor Information
- We **welcome additional requests** for data
  - All of the information is available on the Gas Transmission Open Data Triage webpage: [here](#)

## Gas Transmission Open Data Requests

In line with our Data and Digital Strategy and the Modernising Energy Data Strategy from the Energy Networks Association, we have created this webpage to share any new information and data that is made available as part of the new Industry-wide data triage process.

## Is there any data that you would like to see which is not currently available?

If you are not sure who the right network is to provide this data then please request for the data using the ENA data request template <https://www.energynetworks.org/creating-tomorrows-networks/modernising-energy-networks-data> and they will ensure your request gets passed through to the relevant network. If there is any data relating to the National Transmission Network that you would like to be made available then you can contact us at the following email address: [box.operationaliaison@nationalgrid.com](mailto:box.operationaliaison@nationalgrid.com) and we will assist you with your data request.

## Enquiries

If you have an enquiry about gas transmission open data requests, please contact the Gas Operational Liaison Team Monday - Friday, 09:00-16:30.

- 01926 656 474
- [box.operationaliaison@nationalgrid.com](mailto:box.operationaliaison@nationalgrid.com)

All of the information is available on the Gas Transmission Open Data Triage webpage: [here](#)



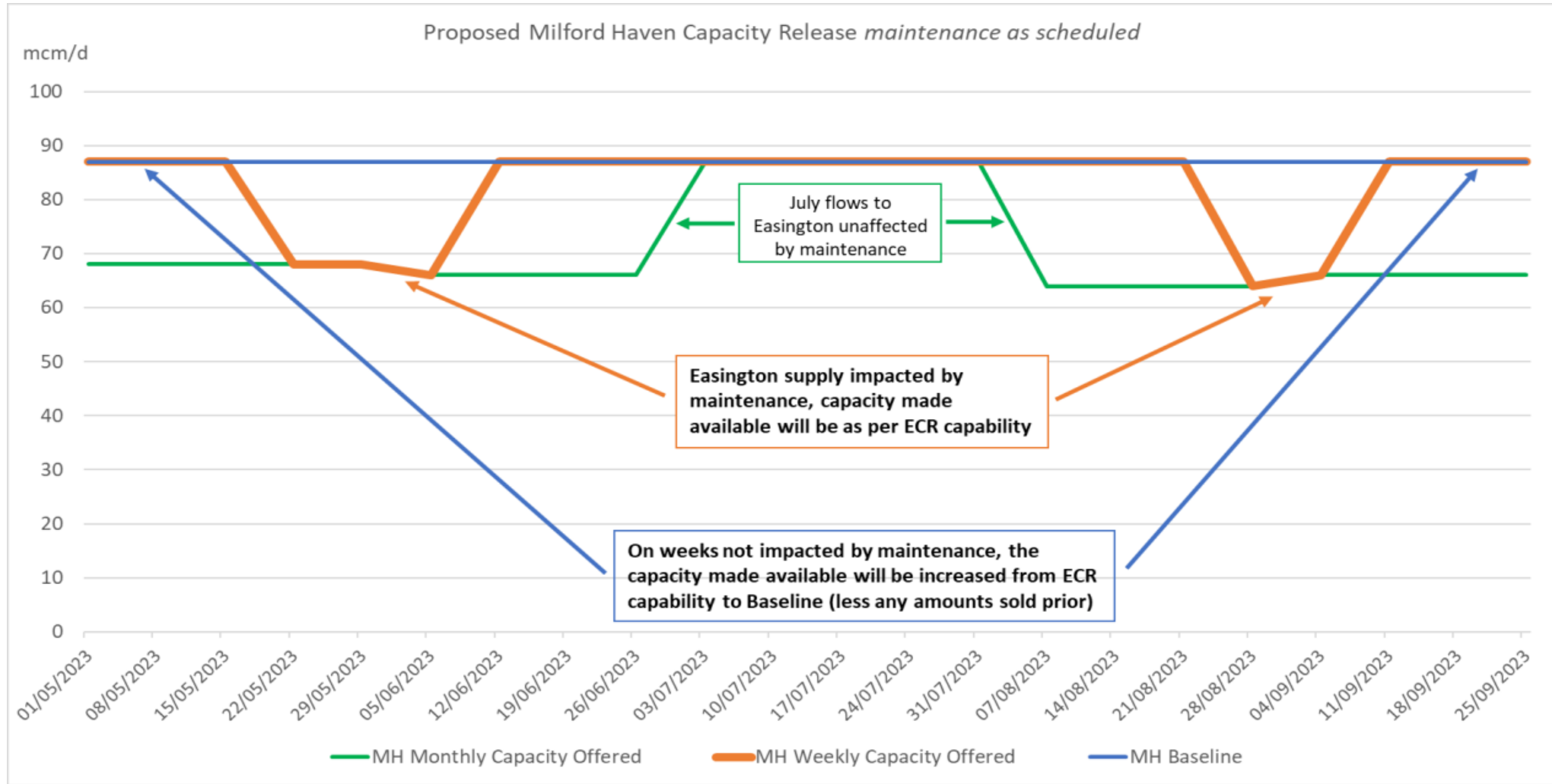
# Milford Haven ECR Consultation Update

Bridget Hartley  
Head of Operational Delivery

# Summary

- Ofgem made a decision to reject the Milford Haven ECR proposal on the 6<sup>th</sup> February
- Two Key reasons:
  - The proposal was materially different to the one originally consulted on and therefore stakeholders hadn't had the opportunity to feed back on the new proposal.
  - Lack of an Independent Examiners Report
- In their response Ofgem urged us to:
  - Re-consult on the proposals,
  - Engage with industry to identify a means of implementing such a proposal and notifying interested parties about capacity release levels in good time, and
  - Address the requirement for any revision to the ECR to be accompanied by a report from an independent examiner

# Modified proposal



# Timelines

- 13<sup>th</sup> February – Consultation Opened
- 13<sup>th</sup> March – Consultation Closes
- April – If approved by Ofgem monthly auctions for May would be the first impacted.
- A link to the consultation can be found here
  - <https://www.nationalgas.com/document/142166/download>
- Any questions please contact Anna Stankiewicz, Code Change Lead;  
[Anna.stankiewicz@nationalgrid.com](mailto:Anna.stankiewicz@nationalgrid.com)

# General Updates

Nicola Lond

Operational Liaison & Business Delivery Manager

# SO Incentive External Report for Q3 2022/23

The report is located here:

<https://www.nationalgas.com/about-us/system-operator-incentives>

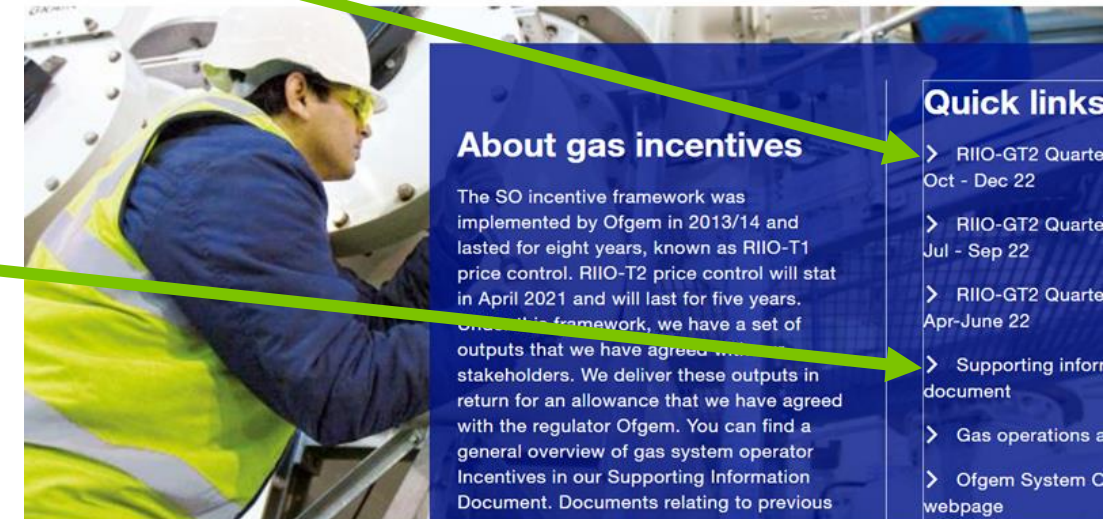
Report is produced every quarter, six weeks after the quarter closes out when our regulatory reporting submissions have been submitted to Ofgem.

The annual incentive support document is also on the website (same location) which covers the first year of RIIO2 and provides a summary of all the incentive schemes.



## operator incentives

system operator (SO) of the gas transmission network. To commercial pressures that would normally apply to a company in a competitive market, we are subject to a number of performance incentives. These SO performance incentives aim to maintain and improve operational efficiency and are subject to renegotiation at set



# Charging Webinar

To attend get your ticket here:

[An update on non-Transmission charges Tickets, Mon, Feb 27, 2023 at 9:15 AM | Eventbrite](#)

Join as we share some updates on our proposed approach to updating General Non-Transmission Services charges for Oct 2023 and future years.



# How to contact us

## Operational Liaison Team

- Nicola Lond: [Nicola.j.lond@nationalgrid.com](mailto:Nicola.j.lond@nationalgrid.com)  
(covering Rachel maternity leave from 23<sup>rd</sup> February to 31<sup>st</sup> December 2022)
- Mathew Currell: [Mathew.Currell@nationalgrid.com](mailto:Mathew.Currell@nationalgrid.com)
- Craig Shipley: [Craig.Shipley@nationalgrid.com](mailto:Craig.Shipley@nationalgrid.com)
- Operational Liaison Email: [Box.OperationalLiaison@nationalgrid.com](mailto:Box.OperationalLiaison@nationalgrid.com)

For the National Gas Website, please visit;

[Gas Transmission | National Gas](#)





# Key resources available to you

## Gas Ops Forums

Throughout the year, we hold regular Operational forum meetings. This forum aims to provide visibility and awareness for our customers and stakeholders to help understand and discuss the operation and performance of the National Transmission System (NTS). We also proactively invite any suggestions for operational topics that would promote discussion and awareness.

Activity	Link
Registration for Gas Ops Forums and Gas Ops Forum materials	<a href="http://www.nationalgas.com/data-and-operations/operational-forum">www.nationalgas.com/data-and-operations/operational-forum</a>
Subscription to distribution list	Please email: <a href="mailto:box.operationalliasion@nationalgrid.com">box.operationalliasion@nationalgrid.com</a>
National Gas Transmission Website	<a href="http://www.nationalgas.com">www.nationalgas.com</a>
Maintenance Planning	<a href="http://www.nationalgas.com/data-and-operations/maintenance">www.nationalgas.com/data-and-operations/maintenance</a>



The monthly Britain's Gas Explained information is on LinkedIn; this is information showing the key role Gas plays that is easy to digest for all; especially end consumers



The Energy Data Request Tool to request the publication of any data is available here: [Microsoft Forms Link](#)

# Confirmed Calendar Year 2023 Operational Forums

*The forums will be hybrid via Microsoft Teams and at the Clermont Hotel, London*

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Clermont & Online	Clermont & Online	Clermont & Online	X	Clermont & Online	Clermont & Online	X	X	Clermont & Online	Clermont & Online	Clermont & Online	X
26/01	23/02	23/03		18/05	22/06			21/09	19/10	23/11	

Registration is open for the March event at:

In Person: <https://www.eventbrite.co.uk/e/541155529757>

Online: <https://www.eventbrite.co.uk/e/541156723327>

**The Clermont Hotel**  
Charing Cross  
London  
WC2N 5HX

**AOB & Questions?**

**Thank you**

