

**Gas
Transmission**

Gas Operational Forum

MS Teams

31 March 2022

10.02am

Questions

MS Forms (link in the chat)

Teams Chat

nationalgrid



**Gas
Transmission**

Introduction & Agenda

Martin Cahill
Senior Operational Liaison Officer

nationalgrid



Presenters

National Grid Gas

Martin Cahill – Senior Operational Liaison Officer

Mathew Currell – Senior Operational Liaison Officer

Sam Holmes - Operational Liaison Analyst

Anna Stankiewicz – Codes Change Lead

Simon Burdis - IT Project Manager

Craig James – Head of Operational Delivery

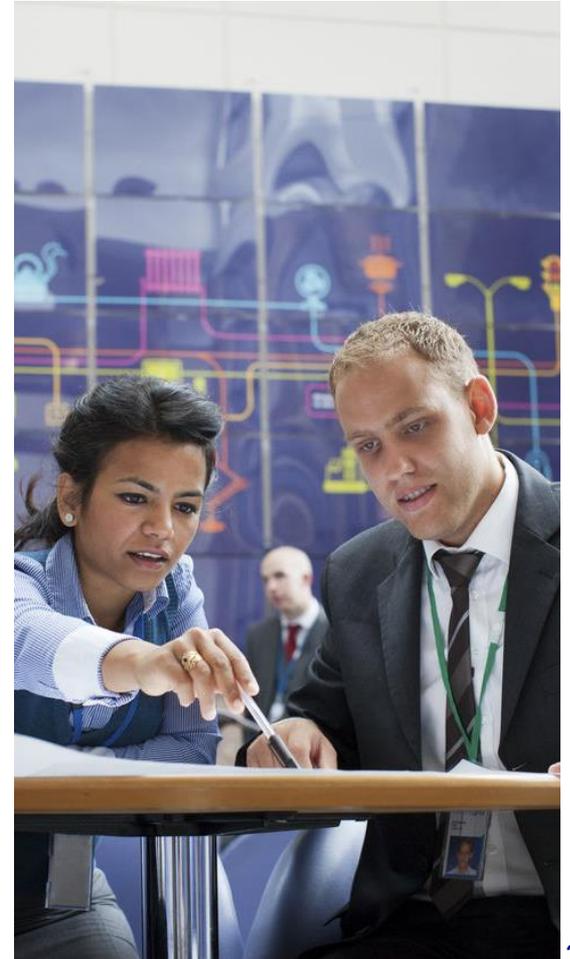
Correlia on behalf of Xoserve

Richard Genever - Delivery Lead Gemini & CMS

ICIS

Thomas Rodgers – European Gas Analyst

Kaja Sillett – Deputy Energy News Editor



Calendar year 2022 Operational Forums

The forums will be hybrid via Microsoft Teams and at the Clermont Hotel, London (exc. January).

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Online	Clermont & Online	Clermont & Online	X	Clermont & Online	Clermont & Online	X	X	Clermont & Online	Clermont & Online	Clermont & Online	X
20/01	24/02	31/03		19/05	30/06			15/09	20/10	24/11	

Registration is open for the May 2022 event at:

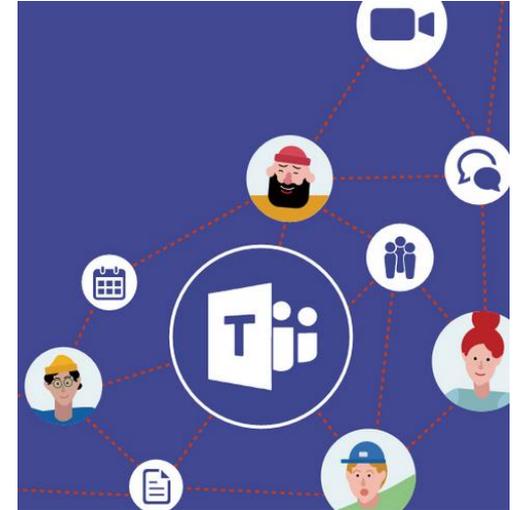
<https://www.eventbrite.co.uk/e/gas-operational-forum-may-2022-in-person-tickets-310030839587>

The Clermont Hotel
Charing Cross
London
WC2N 5HX

Housekeeping for Forums

For Microsoft Teams participants;

- Attendees will be automatically muted on dial-in and cameras will be unavailable.
- You can use the 'raise a hand' function if you would like to speak and we will enable your camera and microphone options.
- You will then need to un-mute yourself and turn your camera on to ask your question.
- We will be taking questions via the chat function, or if you would like to remain anonymous please use Microsoft Forms (link in the chat)



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.

Registration is open for all events at:

<https://www.nationalgridgas.com/data-and-operations/operational-forum>

Gas Distribution List

<https://subscribers.nationalgrid.co.uk/h/d/4A93B2F6FAF273DE>

Join the conversation

Registering for the site will enable you to access further content and take part in discussions and voting. We are keen to ensure that we hear the views of all market participants, and registration will help us to ensure that relevant content can be developed for discussion.

Register for access

For updates and interaction with National Grid please visit;

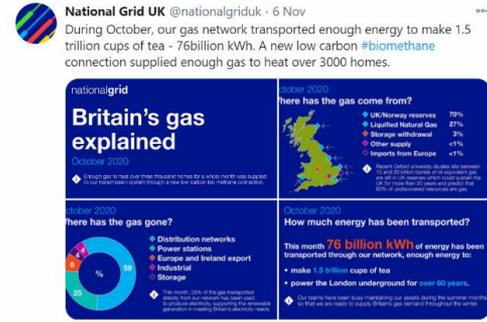
<https://datacommunity.nationalgridgas.com/>

For the National Grid Gas Website, please visit;

<https://www.nationalgridgas.com/about-us>

Maintenance Planning

<https://www.nationalgrid.com/uk/gas-transmission/data-and-operations/maintenance>



For the monthly Gas Explained information please visit;
<https://twitter.com/nationalgriduk>

Or follow our personal accounts on LinkedIn

Modernising energy networks data

We're modernising data from the energy networks, bringing together gas and electricity networks to address data issues, access new datasets and identify opportunities in existing datasets.

Energy Data Request Tool:
[Microsoft Forms Link](#)

How to contact us

Operational Liaison Team

Martin Cahill: Martin.Cahill@nationalgrid.com

Mathew Currell: mathew.currell@nationalgrid.com

Operational Liaison Email:

Box.OperationalLiaison@nationalgrid.com

For updates and interaction with National Grid Gas please visit;

<https://datacommunity.nationalgridgas.com/>

For the National Grid Gas Website, please visit;

<https://www.nationalgridgas.com/about-us>



Agenda for Today

01	Welcome and Introduction	10:02
02	Gas Company Sale Update	10:10
03	Operational Overview	10:15
04	Guest Presentation: ICIS	10:25
05	Potential for UK Transit	10:55
06	Gemini Spring Release	11:15
07	Gemini Service Update	11:30
08	Mercury Survey Update	11:45
09	Updates	11:55

Please ask any questions using the chat function, or through Microsoft Forms (link in the chat).

Questions will be covered at the end of each agenda section.

Gas
Transmission

Gas Company Sale

Martin Cahill
Senior Operational Liaison Officer

national**grid**



GT & M Company Sale

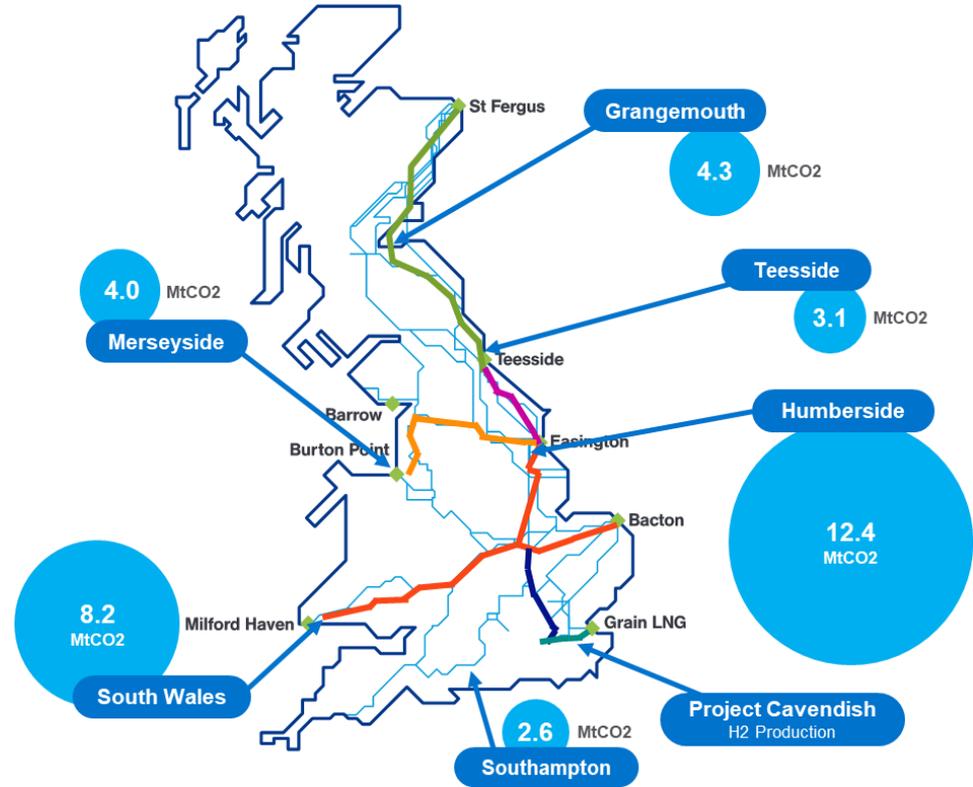
On Sunday, National Grid Group announced the acquisition of a 60% equity stake in our gas business by the consortium comprising of Macquarie Asset Management and British Columbia Investment Management Corporation.

We're delighted that the consortium recognise that the gas National Transmission System will play a leading role as a critical enabler of the UK energy transition. Their significant investment will support the expansion of hydrogen's role in the energy mix to deliver a competitive edge to the UK and its industry, while working with the Government and Ofgem to maintain security of supply.



Hydrogen Innovation

GT&M is already at the forefront of hydrogen innovation through Project Union, our plan to develop a hydrogen backbone for the UK and FutureGrid, which will help us demonstrate the safety case and any modifications required to transport up to 100% hydrogen in the National Transmission System.



Next Steps

While the transaction has been agreed, GT&M remains part of the National Grid Group until the transaction completes, which we expect will take us to the second half of this calendar year. Steps ahead of completion will include regulatory approval by Ofgem and a review against the National Security and Investment Act.

▶ **Gas
Transmission**

Operational Overview

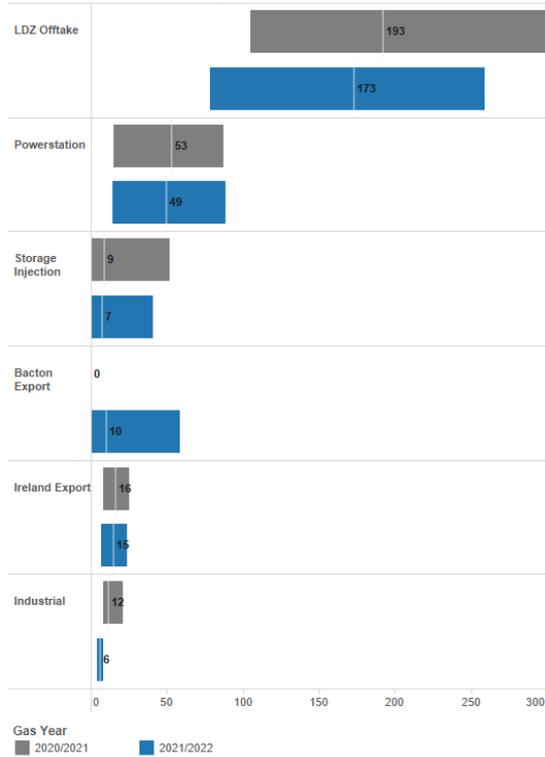
Martin Cahill
Senior Operational Liaison Officer

nationalgrid

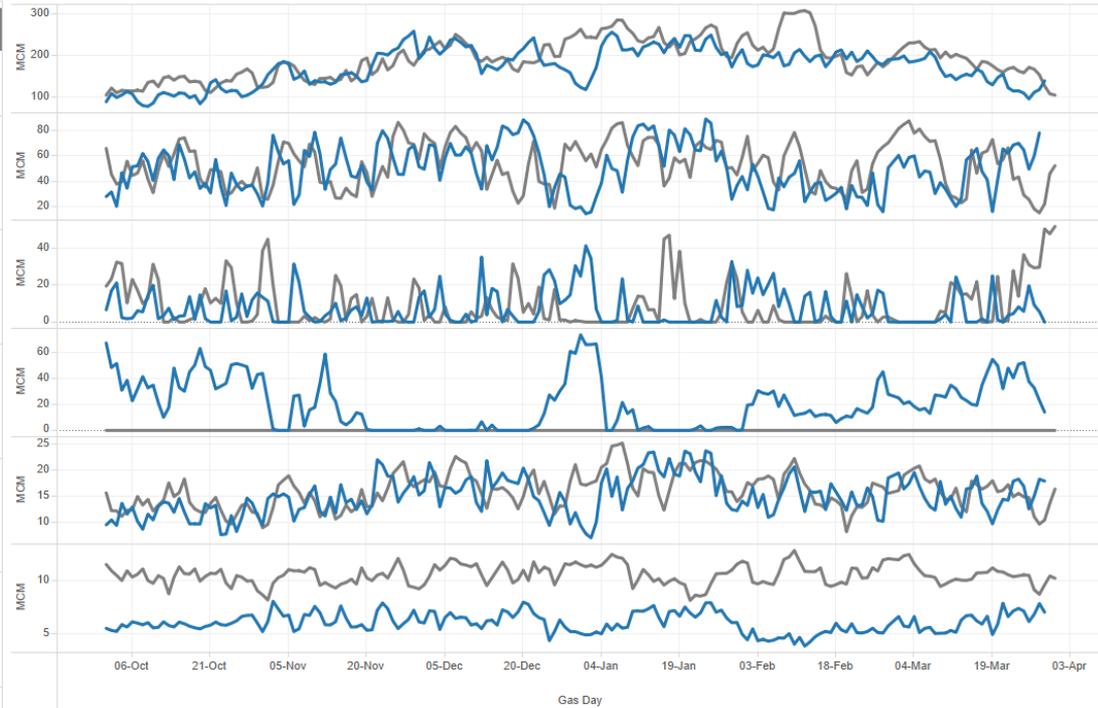


Components of NTS Demand

Average Daily Volume and Range (Winter)



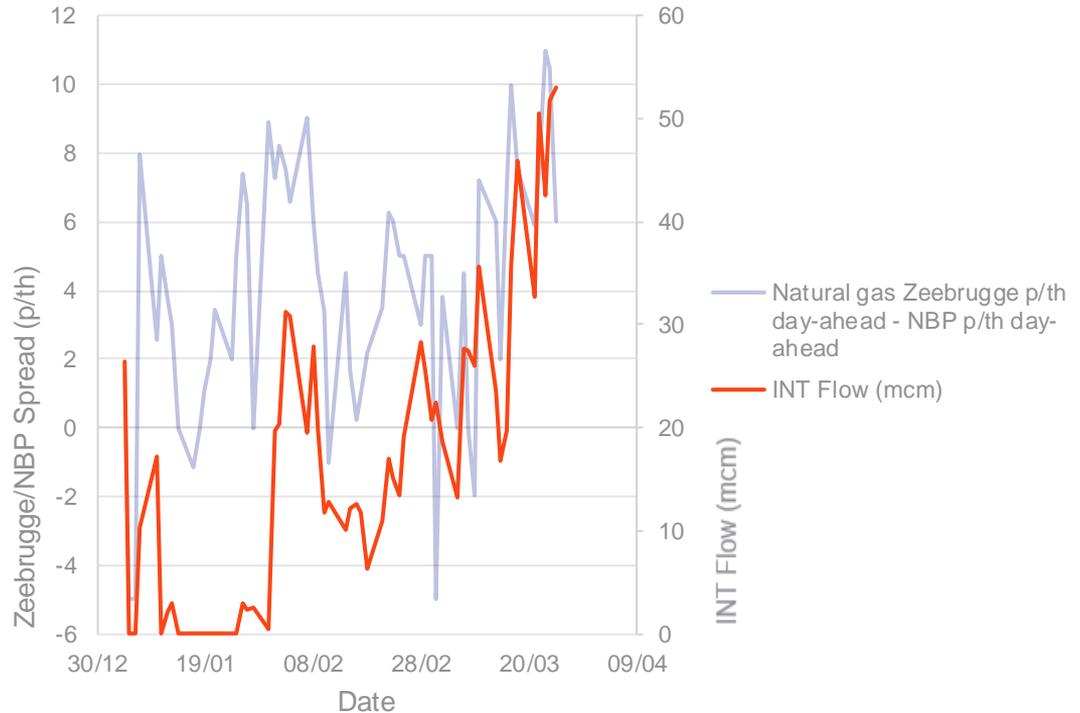
Trend Vs Previous Year



High Interconnector Flows

Interconnector Flows have increased in line with price spread towards continent

BBL will also start exporting from 1st April



Industrial Demand Suppression

Covered in more detail at
Februarys Operational Forum

High Gas Prices have resulted in a mix of
Industrials which have shut down and
others which have reduced consumption

Large drop in chemicals sector

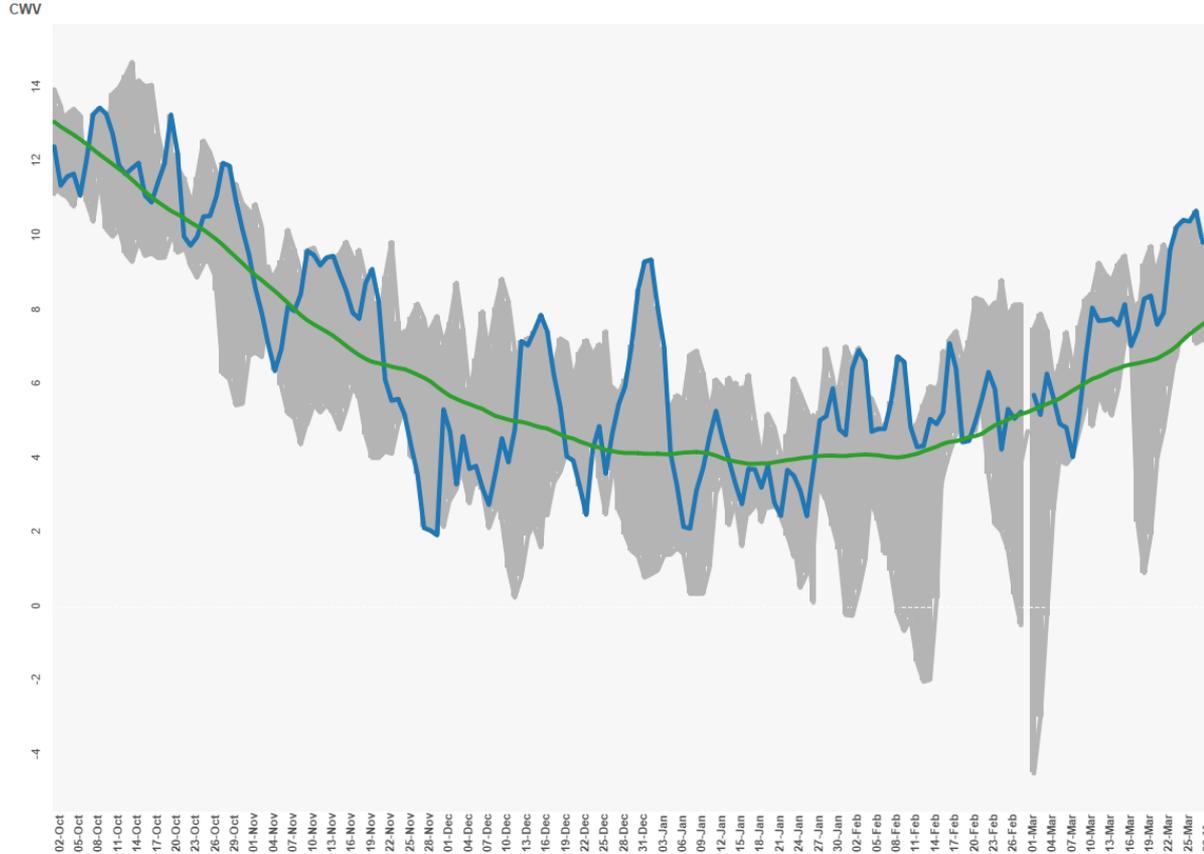
Chemicals



Combined Heat and Power



CWV – Last 5 Years



This Winter

Seasonal Norm

Last 5 year range

Coldest Days – 2021 and 2022

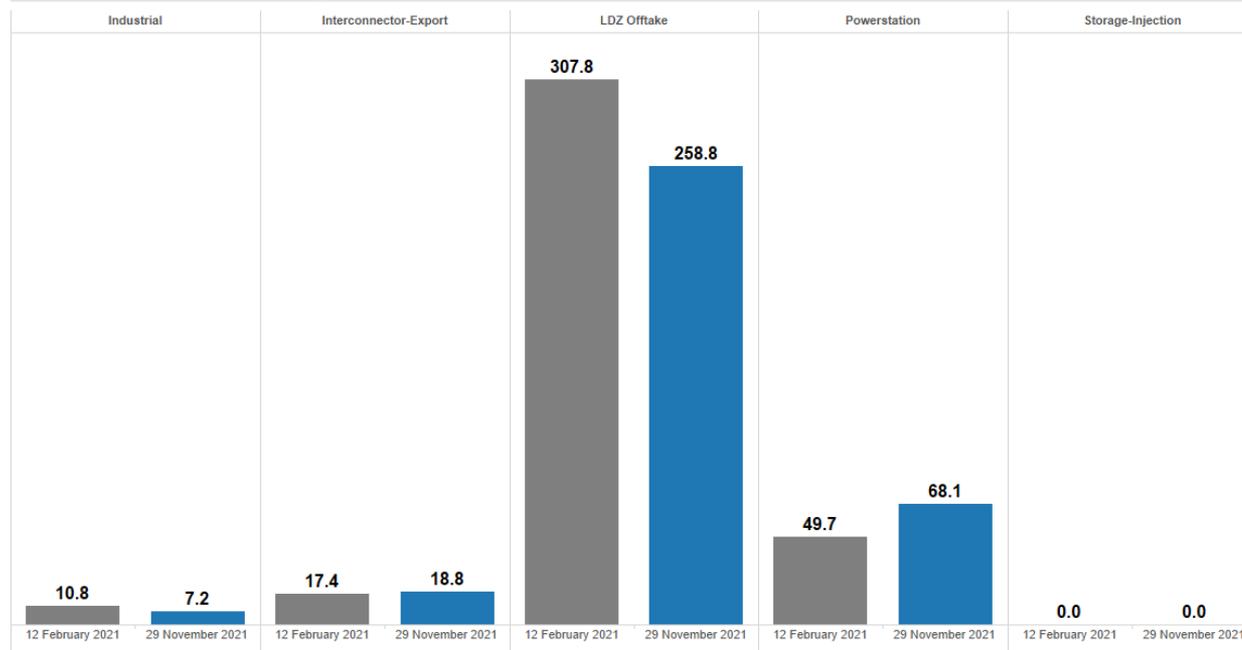
Total NTS Demand

12 February 2021

29 November 2021

385.72

353.00

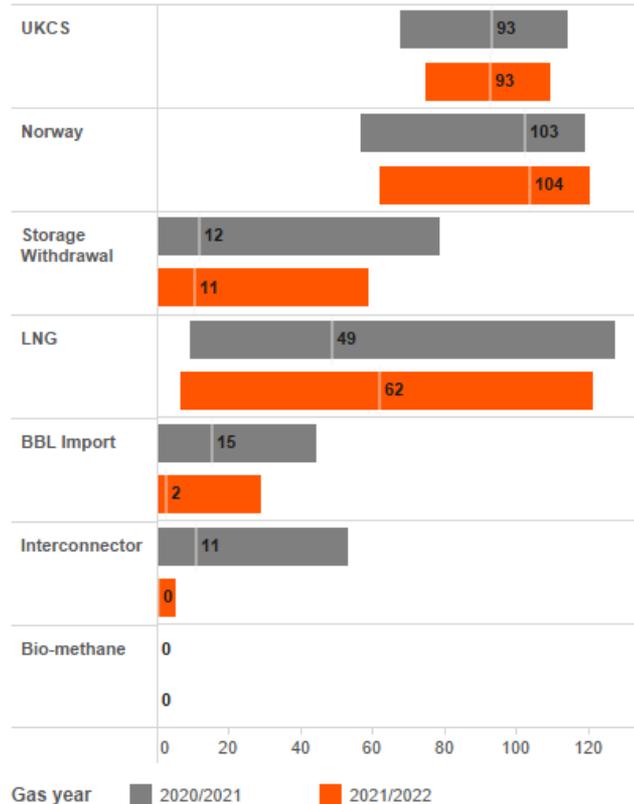


Demand – Comparison to seasonal norm

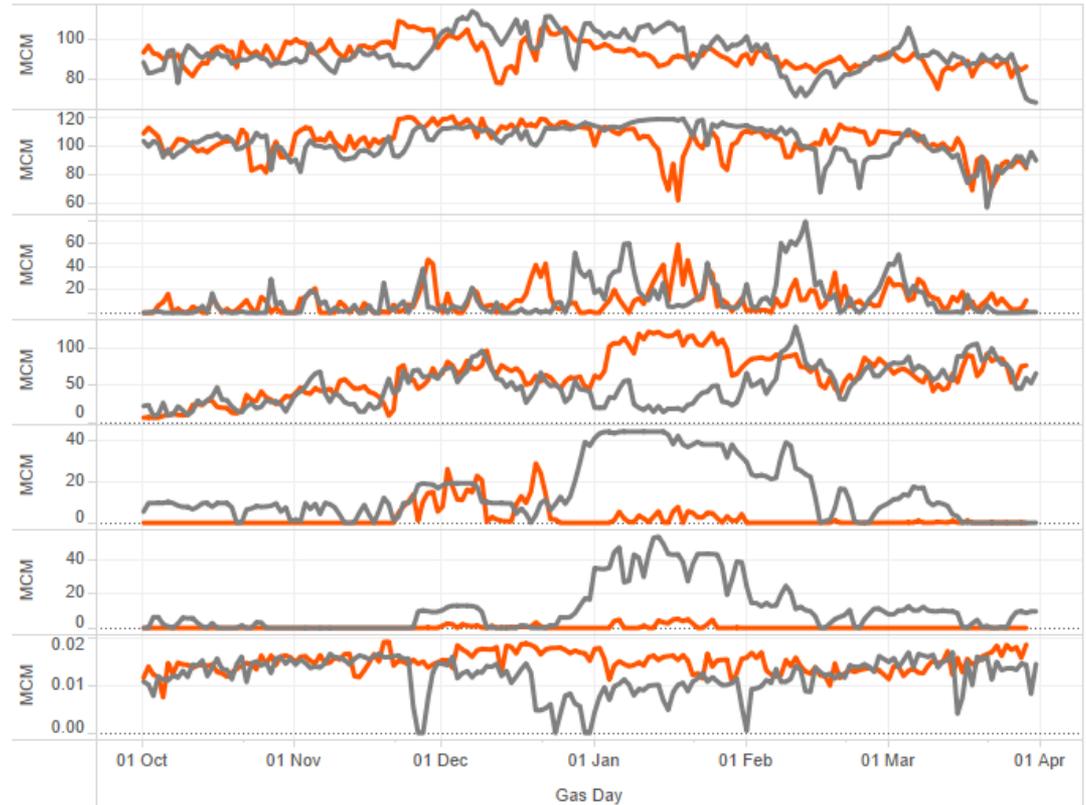


Components of NTS Supply

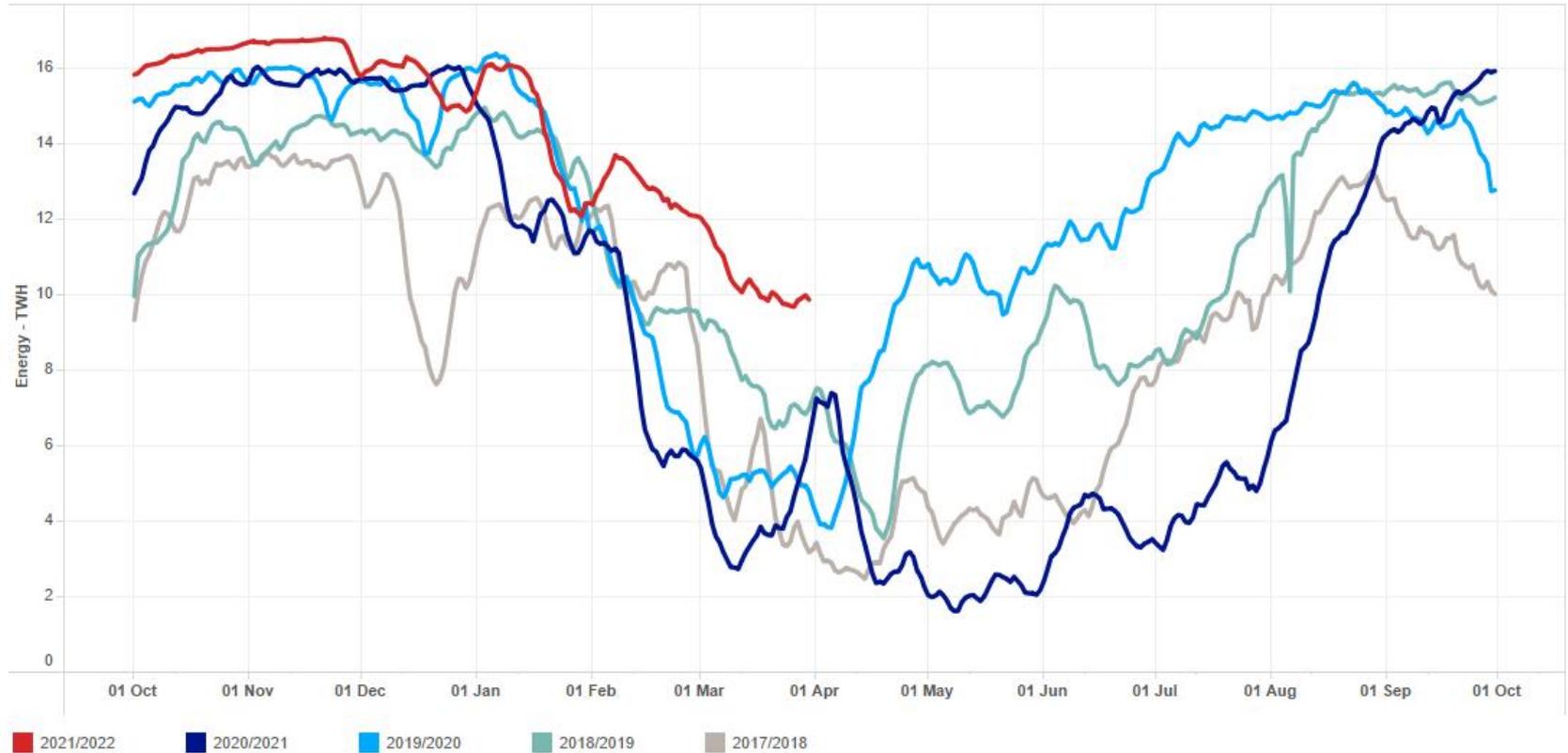
Average Daily Volume and Range (Winter)



Trend Vs Previous Year



Medium Range Storage Stocks (MRS)



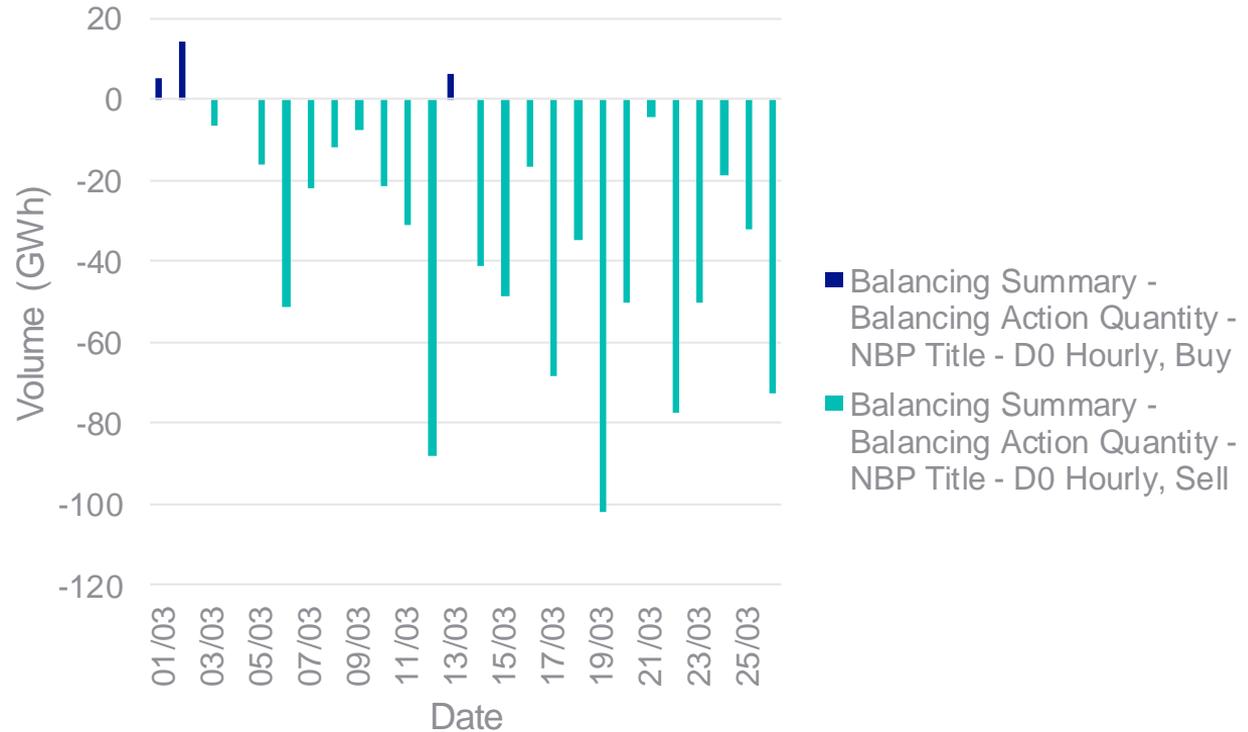
Residual Balancing

Over-delivery of Market over recent weeks

High volume of sell actions required by GNCC

Often limited market response

Residual Balancing Actions



Winter – Key Headlines

- **High Exports at Bacton**
- **Industrial Demand Suppression**
- **Mild Weather**
- **High Storage Stocks**
- **High Prices and Market Volatility**

2021–2022 global gas crisis

National Grid Ops Forum - March 2022

Thomas Rodgers – European Gas Analyst

Kaja Sillett – Deputy News Editor



Agenda



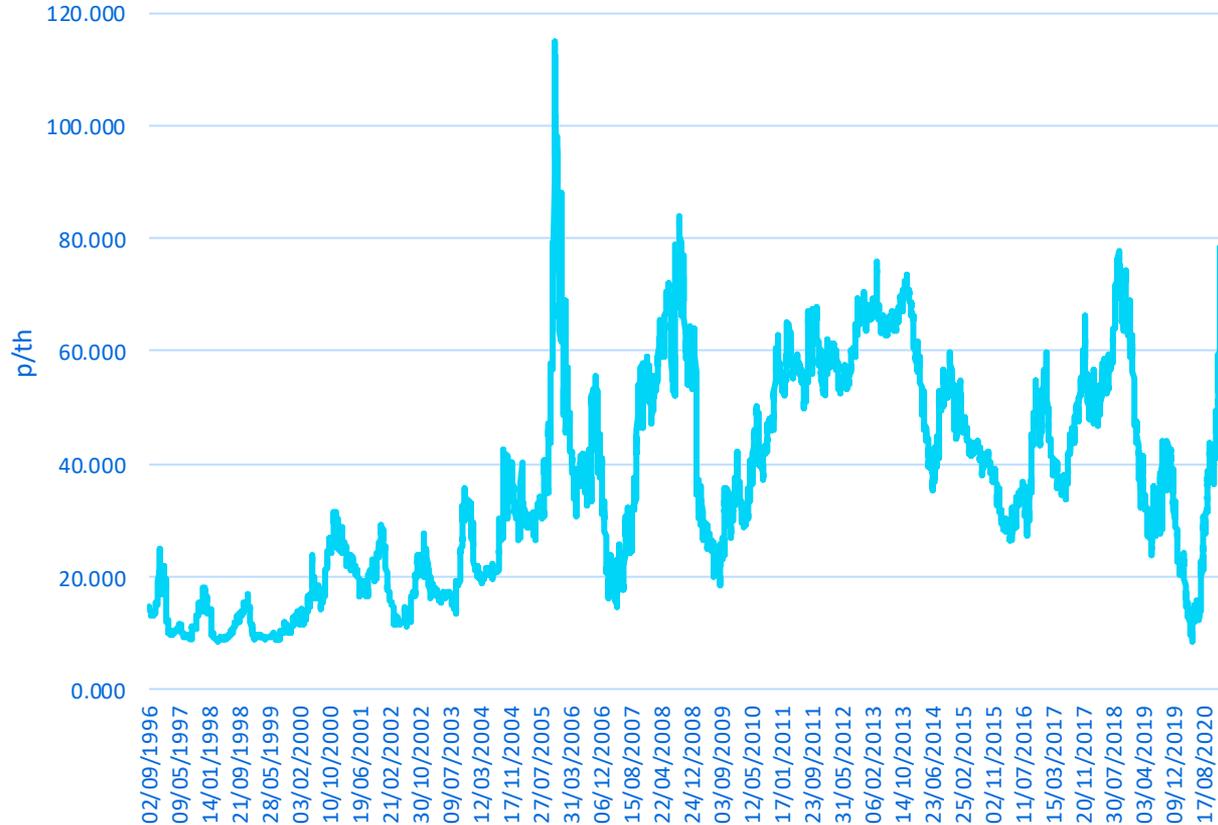
1. Eye-watering prices
2. Russian flows in focus
3. Structural shifts
4. GB market role



Eye-watering prices



ICIS NBP month+1 by end of 2020/21 winter



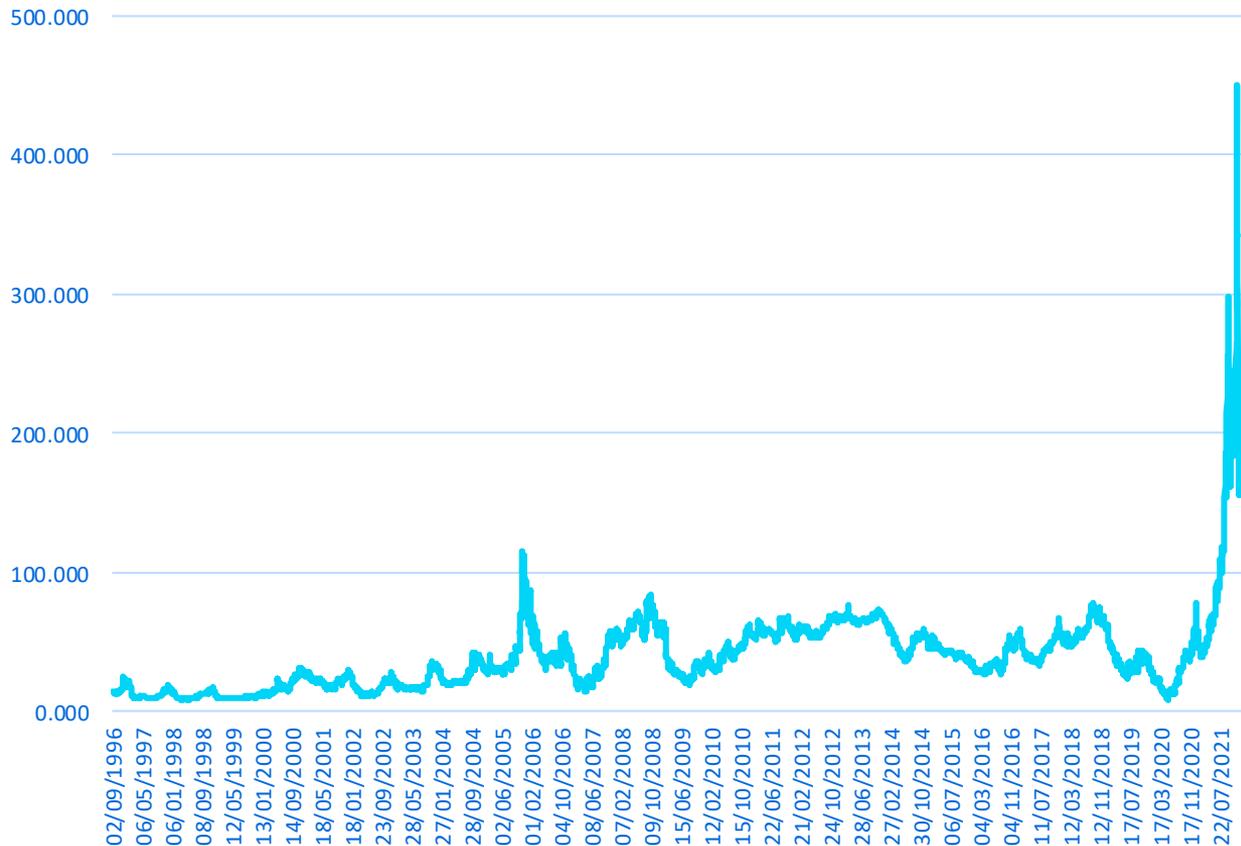
115p/th

November 2005 peak

34.95p/th

Largest daily swing

AII ICIS NBP



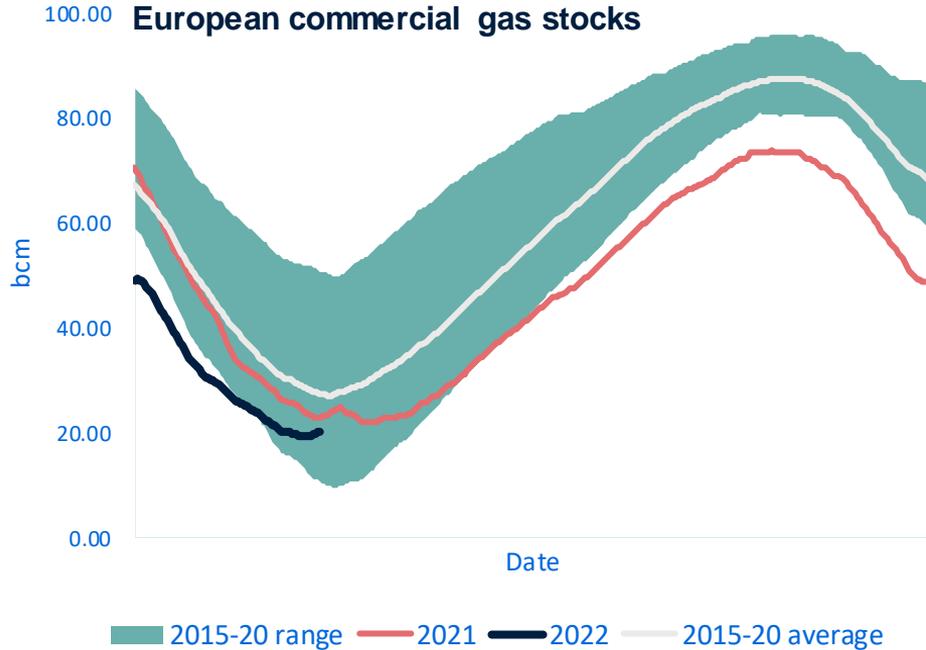
503.75p/th

New high

132p/th

Highest swing

How did we get here?



- COVID-19 demand rebound
- Cold 2020/21 winter
- China coal shortages
- Brazil drought
- Falling European production
- Weak French nuke availability
- Low Russian flows
 - Disruption risk

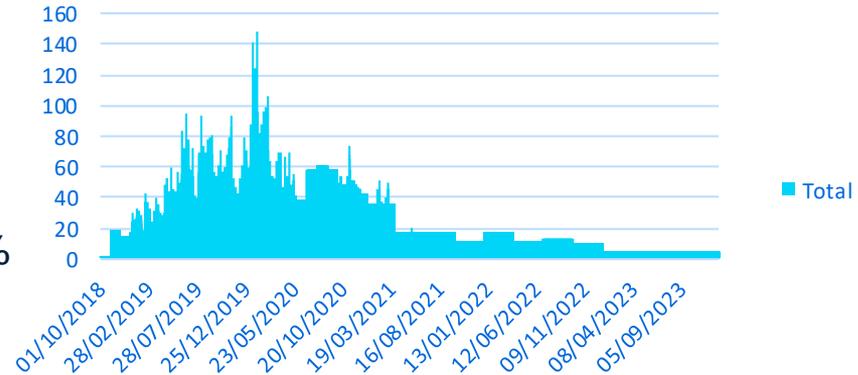


Russian flows in focus

Dynamics

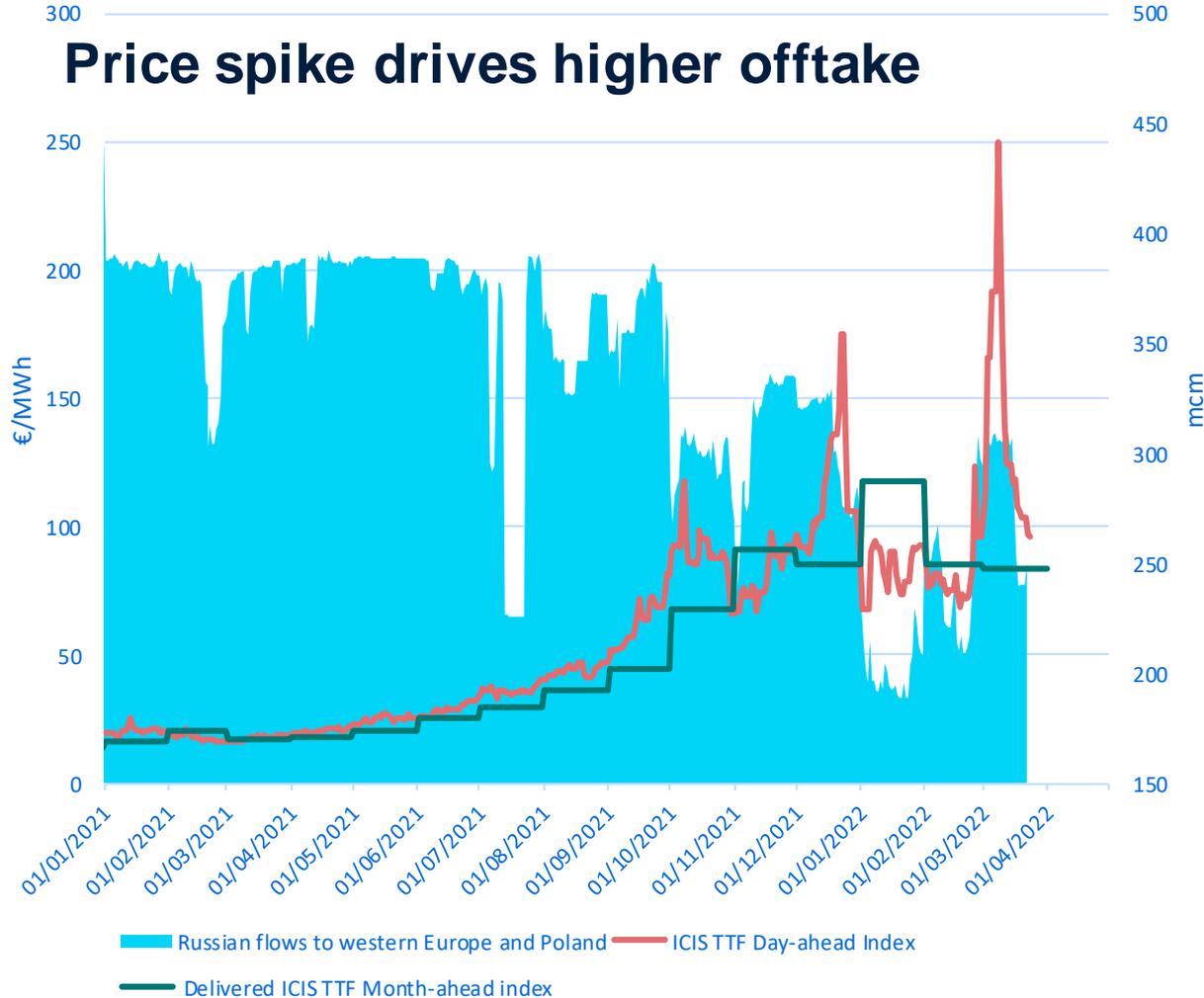
- Almost volumes underpinned by long-term, take-or-pay contracts
 - Annualised volume, typical 80-120% flex for buyers
 - Significant 1-0-1 spot indexation
 - Some oil product indexation
- Spot sales (ESP) dried up
- Renegotiation clauses
- Contractual buyers from Poland and Hungary to the Netherlands and Italy
- Four main transit routes

Delivered ESP volumes





Price spike drives higher offtake



-92%

January imports year on year

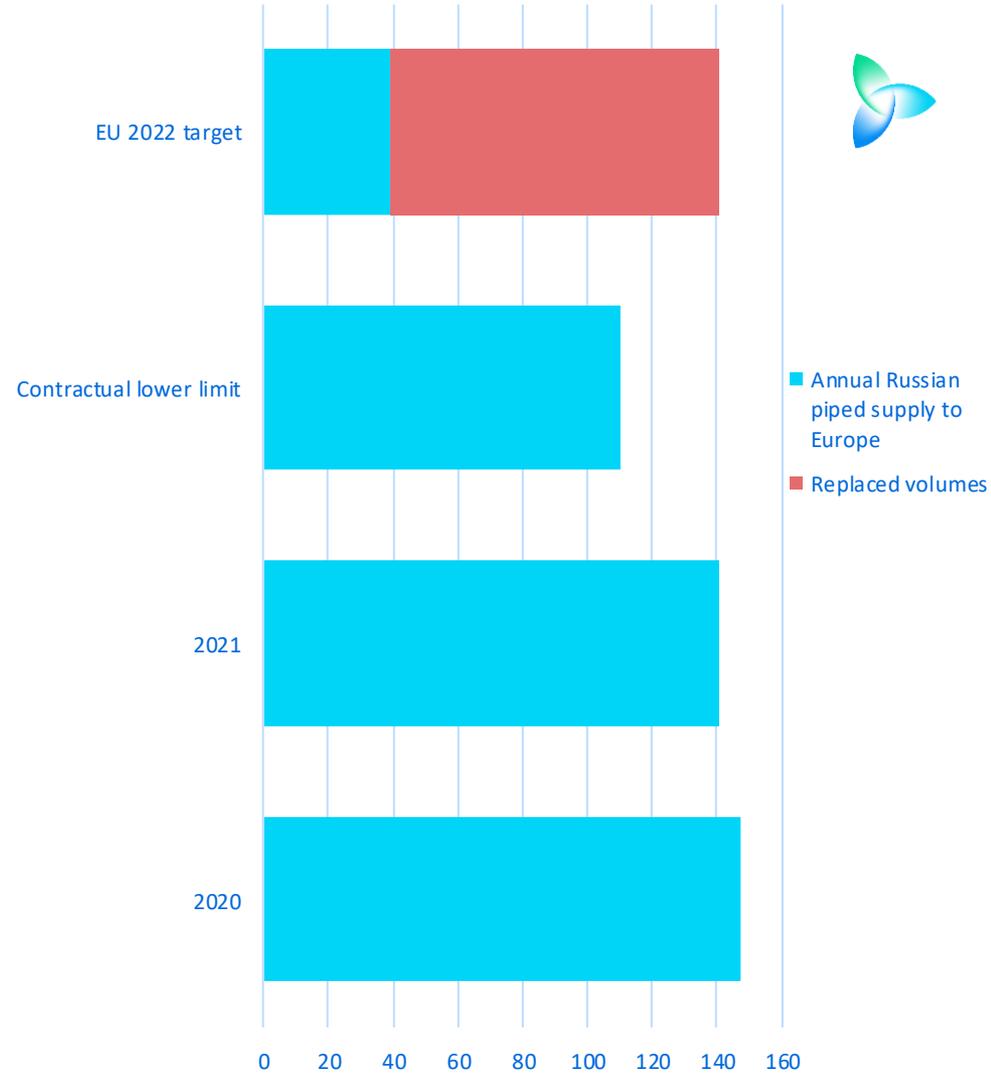
0

Restrictions on flows due to the conflict or from sanctions

EU 2022 target unrealistic

Ørsted has a long-term take-or-pay gas purchase contract with Gazprom Export. The contract was entered into in 2006 and expires according to its terms in 2030. **The contract cannot be terminated at this point in time.** The contract will not be extended.

Press release, 07/03/2022



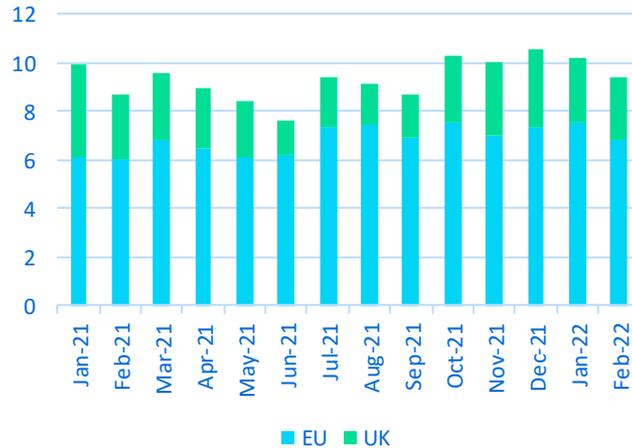


Structural shifts

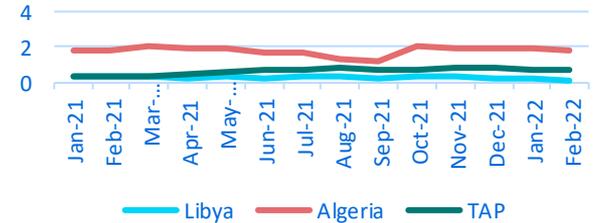
Piped response at max

LNG import record

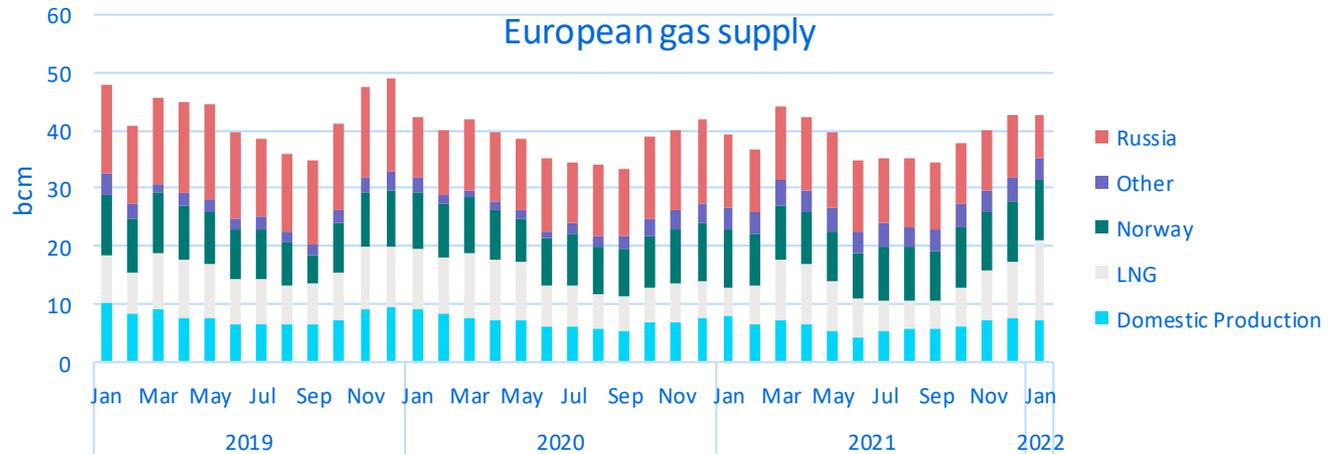
Norwegian exports tick higher in October



Azeri flows ramp up as Algerian exports to Italy remain seasonal

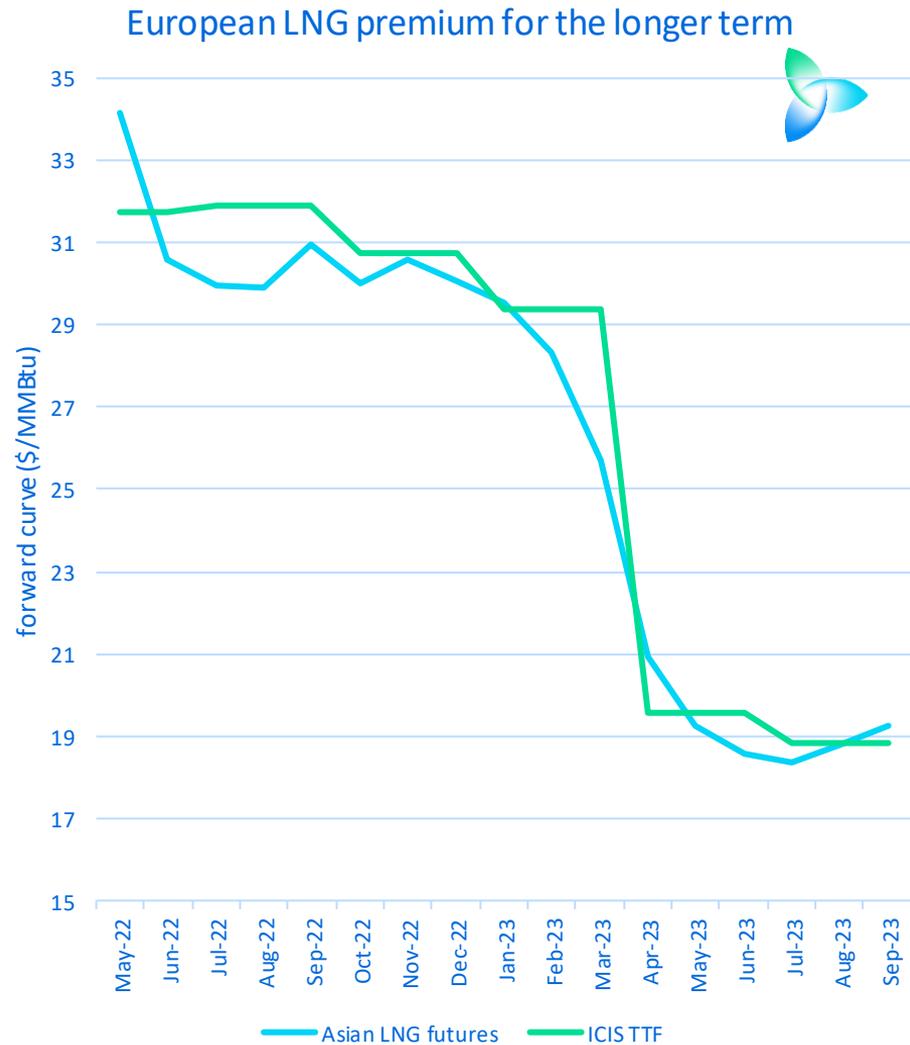


European gas supply



Marginal LNG

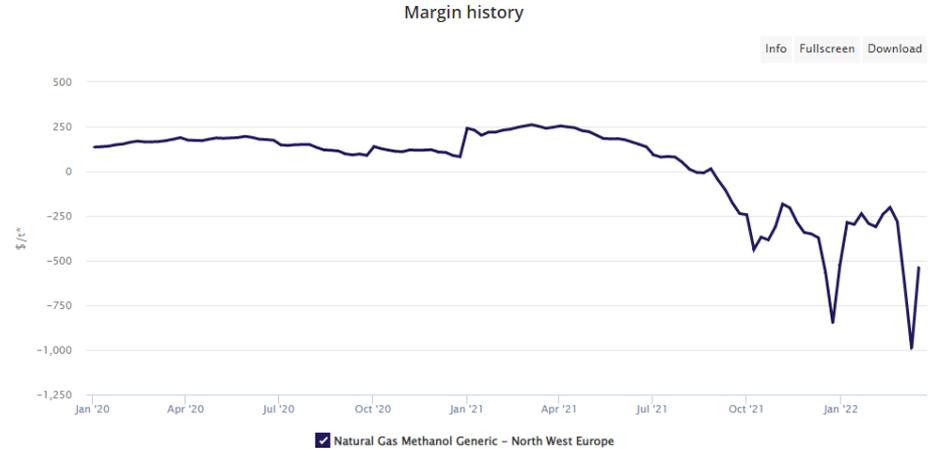
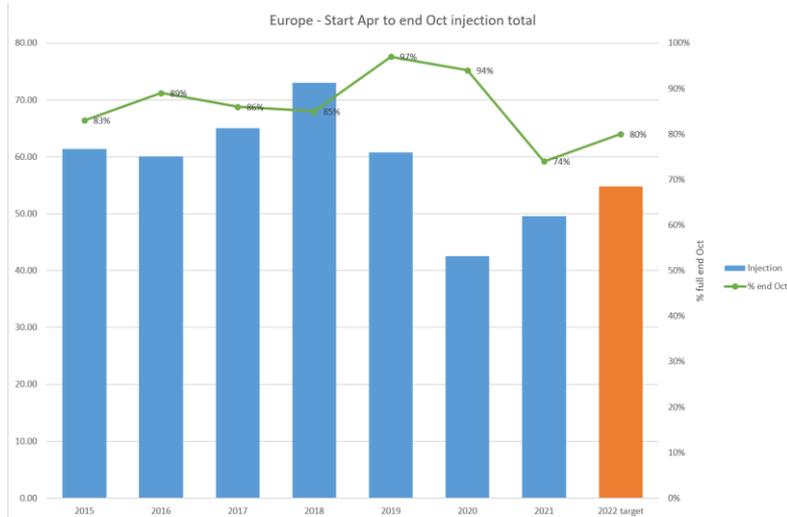
Europe can no longer be seen as a market of last resort for global LNG supply



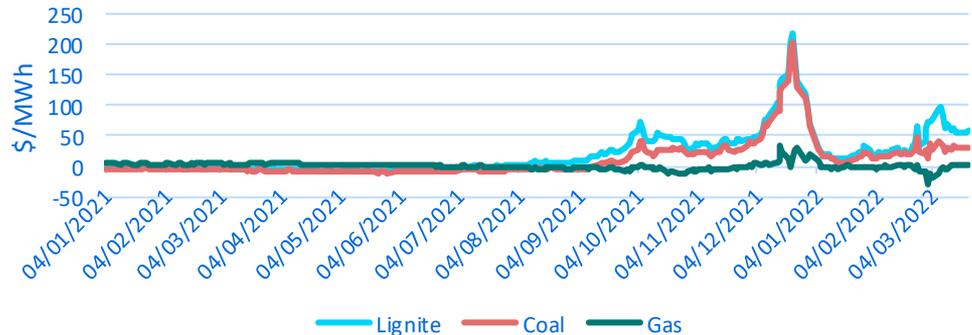


Long-term impacts

- Nord Stream 2 'dead in the water'
- New LNG import infrastructure
 - Land terminals and FSRUs
 - Collective buying?
- Mandated storage levels before winter
- Nuclear, lignite, coal phase outs postponed?
- Industrial destruction



German Year +1 power plant margins



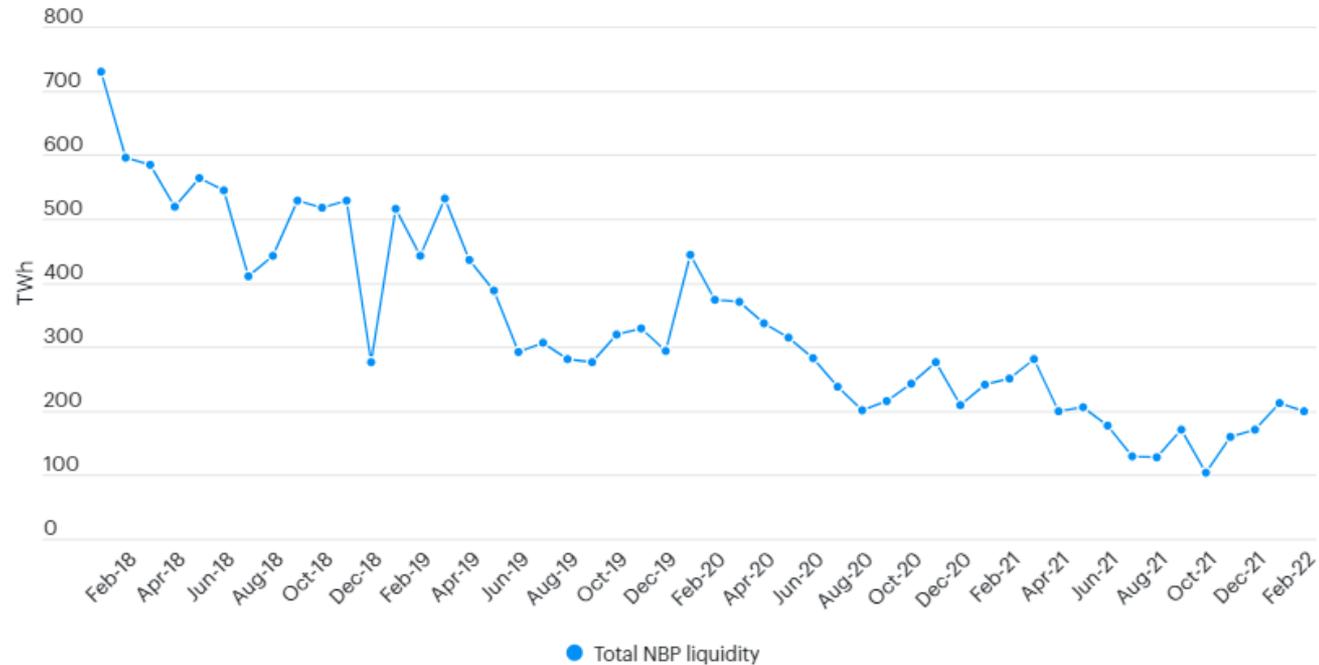


GB market role



Liquidity squeeze

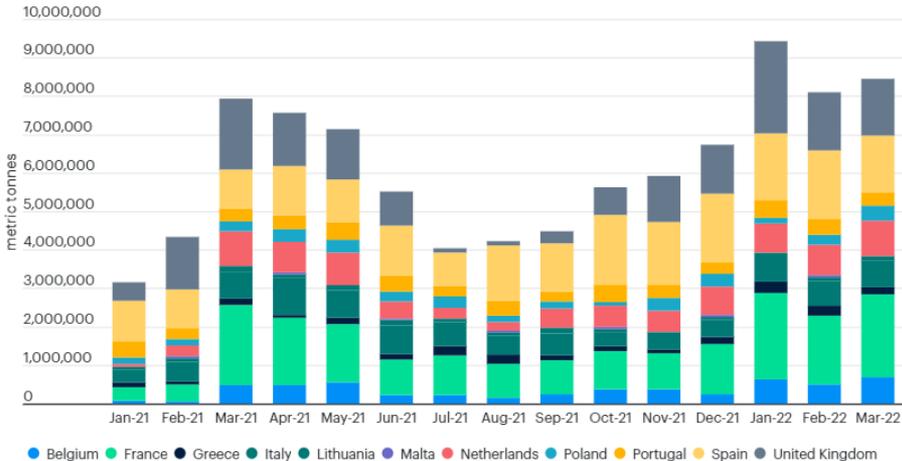
- Volatility has suppressed liquidity
- LNG import role could drive some liquidity recovery



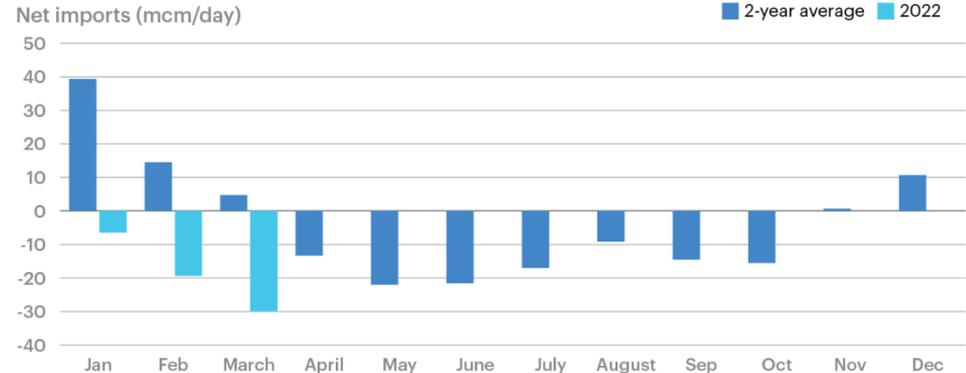


LNG import location for Europe

- UK has imported around 1/5 of European LNG in 2022
- Dominantly exporting to the mainland so far in 2022
- Mainland interconnectors still provide a key source of short-term flexibility (lack of storage)
- EU storage obligations will solidify this dynamic
- Russian ship ban not cargo ban

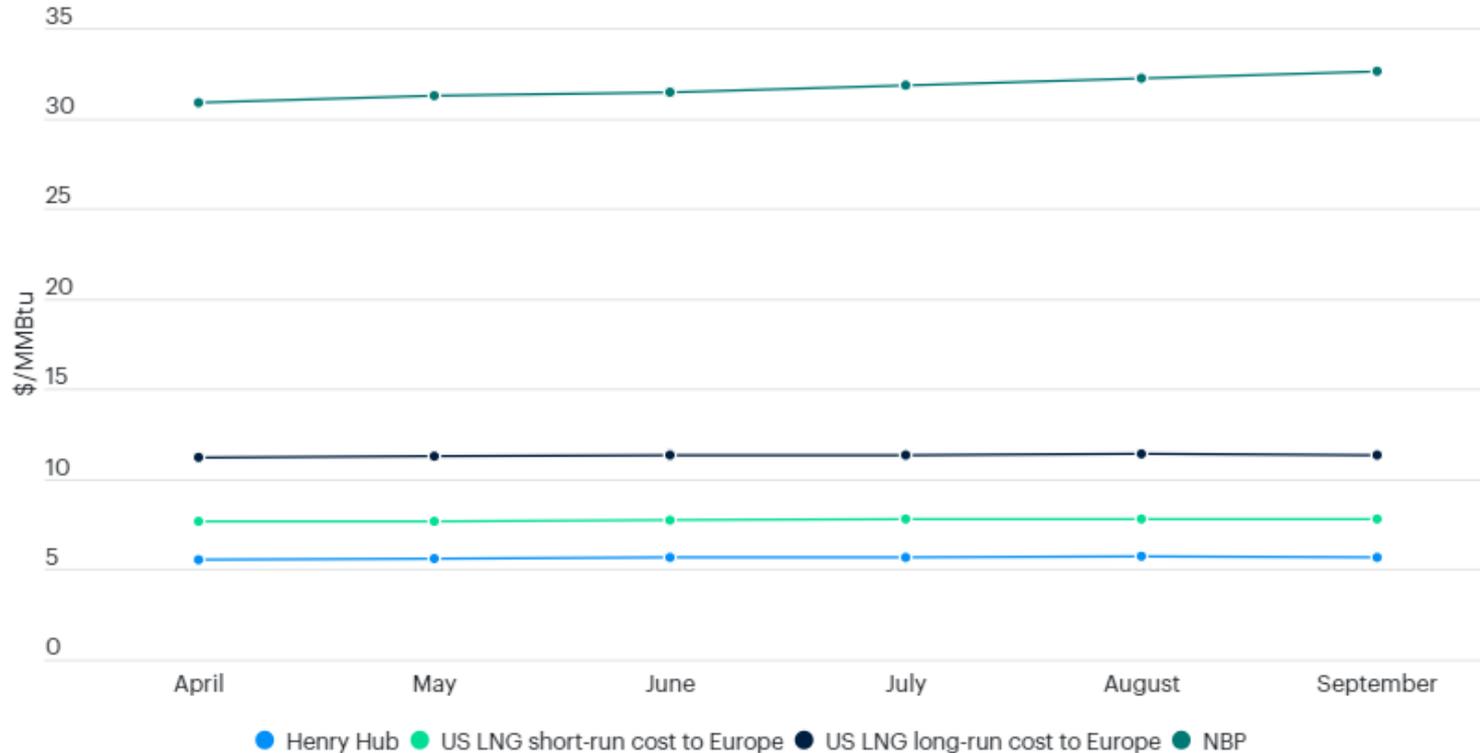


British shippers flip to exports during winter months in 2022



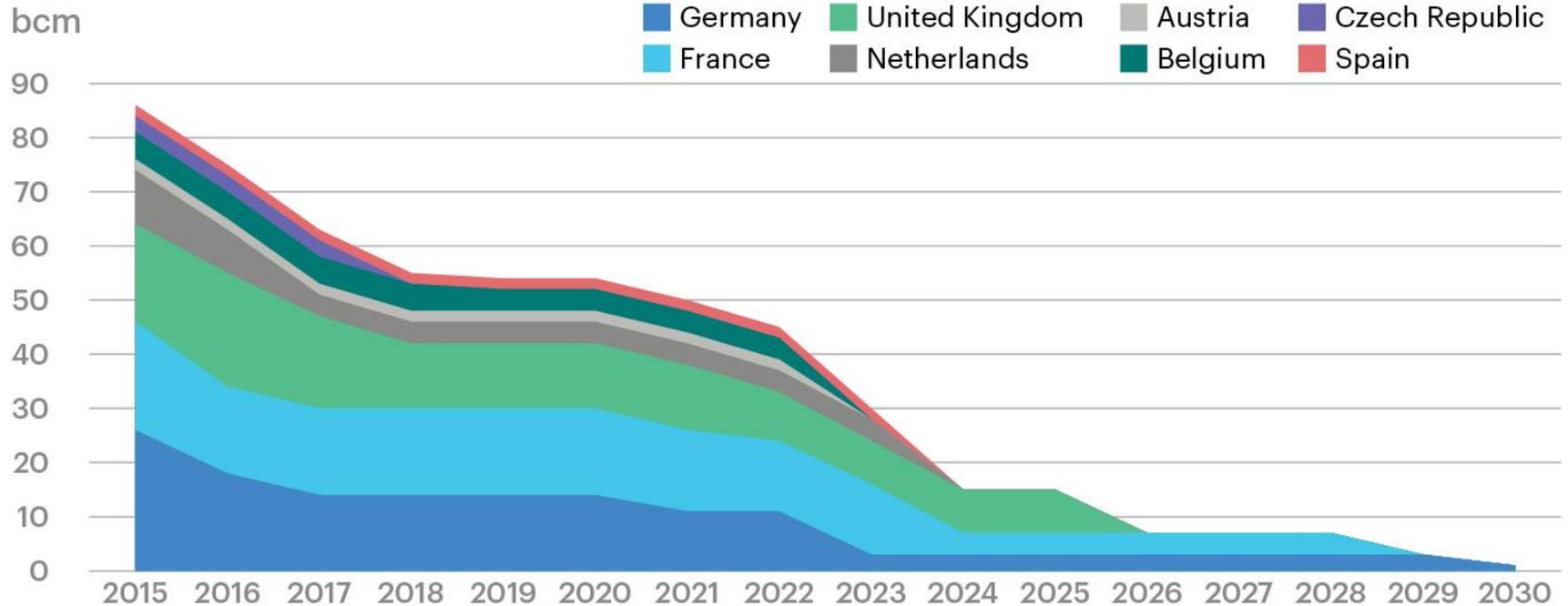
Source: ICIS

Profitable US LNG imports to the UK without intervention



Source: ICIS

Norwegian short-term sales and flexibility set to rise



Source: ICIS Analytics

Thanks!

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Kaja.Sillett@icis.com
<https://www.linkedin.com/in/kajasillett/>

Gas
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Potential for UK Transit

Craig James
Head of Operational Delivery

national**grid**



Potential for UK Transit - Background

UK has high flexibility of supply during the summer months with strong reserves available from the UK and Norwegian Continental Shelves and a large LNG regasification capability

Continued concern over the availability of Russian gas combined with a requirement to refill bulk strategic storage in the EU is driving the potential for high UK to EU exports over the summer.

- Circa 60 bcm of continental injection expected to be required to provide adequate winter storage stocks
- Bacton interconnectors capable of supplying over 10 bcm in a 6 month period
- As UK demand is suppressed due to warmer temperatures and lower demand for domestic heat, surplus supply can drive continental exports



How is the NTS designed?

Obligated Baseline Capacity

National Grid is obligated to release daily capacities to the baseline as defined within its license; however, this does not mean that the network is capable of meeting those baselines on an enduring basis throughout the year

Winter vs Summer

The network is designed to be able to transport gas to meet the 1-in-20 peak demand forecast, during the winter high demand allows for greater volumes of gas to be transported. At low summer demand levels network capability typically drops below baseline capacity levels

Key Factors for UK Transit

UKCS/Norway

These sources are typically delivered into the network in Scotland and on the north east coast of England. Historic supply patterns (majority UKCS) resulted in significant reinforcement at these entry points and main transmission routes meaning there is a significant capability in the network to accept and transport these supply source to the south

LNG

LNG is delivered into the Isle of Grain and Milford Haven, as the most recent terminals built on the network, the network has been designed to meet the maximum flows as signalled by long term capacity sales.

Network capability typically drops in the summer months as lower localised demands result in a reduction in the network's ability to transport gas

Bacton Exit Capability

The baseline exit capacity (652 GWh/day) at Bacton for Interconnector Limited and BBL is lower than the technical capability of the two interconnectors. National Grid may release non-obligated capacity above the baseline level if it anticipates there is sufficient network capability available

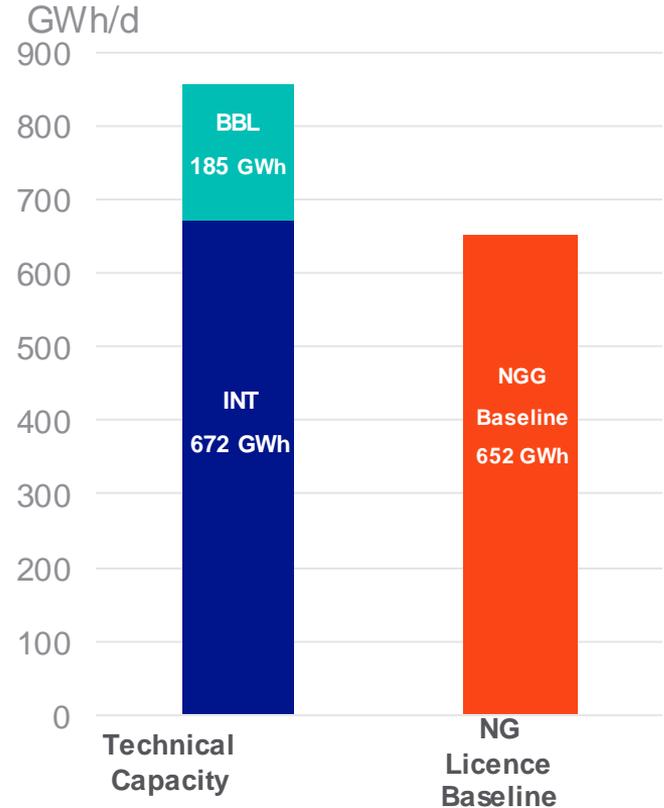
Bacton Exit Capacity

Bacton Exit Point Aggregation

Following a statutory consultation by Ofgem, National Grid's license was changed to aggregate the Bacton Exit Point on 15th December 2021

The exit capacity baseline at Bacton is approximately 80% of the badge capacities of the interconnectors

The amount of capacity NG offers on PRISMA is automatically bundled with adjacent TSOs where possible. Sales of adjacent TSOs' Implicit Allocation products mean that not all capacity products



Non-Obligated Capacity

National Grid can make additional non-obligated capacity available on a discretionary basis. Key considerations are:

- a) Sufficient system capability**
- b) Evidenced market need**

Whilst b) is expected to be realised throughout the summer, system capability will depend upon a number of factors which will vary from day to day

Release of Non-Obligated capacity is risk assessed – insufficient capability will mean that non obligated capacity will not be released

The factors that determine capability are in the most part external to National Grid, and are reiterated in the next slide...

What factors determine Capability?

Network capability varies on a daily basis throughout the year. It is strongly linked to the prevailing supply and demand patterns across the network and the availability of network assets

Asset Availability

National Grid typically aims to ensure all assets are available during the higher demand winter periods and uses the summer months where demands are lower to remove assets from service to complete required maintenance, including those required by legislation. We aim to phase our activities where possible to ensure we meet anticipated supply and demand flows

Demand

Demand has a high impact on the capability of our network, with maximum capability available at the highest demands. From the perspective of entry points, local demand reduces the volume of gas that needs to pass through the pipeline and compressor network

Our role in supporting potential UK transit over the summer

As a prudent operator, we recognise the criticality of our role in ensuring the UK and European gas industry has the tools required to achieve an adequate security of supply position as we enter next winter

Key to this will be ensuring that our network can maximise entry capability across key system entry points and maximise potential deliveries across to the EU, should it be required. We will endeavour to:

- Maximise asset availability
- Further improve information transparency to equip the industry with the tools required to maximise interconnector exports
- Continue to work with industry to adapt our processes over the coming summer

What are we proposing at Bacton this summer?

Week Ahead RAG status for Non-Obligated capacity release

- Provision of an indicator of additional Non-Obligated capacity being made available – currently this is at D-1
- Assessments would be based on forecasts of Demand, Supply, Pressure, Assets
- Network conditions are constantly changing – there may be a difference between the week ahead indication provided and D-1 release
- The week ahead assessment will be made based on the key considerations and capability assessment, using the information we have at the time
- Likelihood ratings will have a tolerance and robust process to determine these – we appreciate that a constant Amber may be viewed over time as unhelpful
- This would be a temporary provision due to the current exceptional circumstances

Gas
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Gemini Spring Release

Anna Stankiewicz
Codes Change Lead

nationalgrid



UNC0752S Introduction of Weekly Entry Capacity Auction

- Most long term auctions sell capacity in advance, for flat gas send-out profiles.
 - Unreflective of the realities of LNG deliveries (results in overbooking of capacity=increased delivery costs for LNG suppliers)
 - Could reduce the attractiveness of the GB market for LNG deliveries
- The timing and volume constraints around the daily auction result in reliance on the monthly auction
 - In the event of planned or unplanned maintenance or constraint, daily capacity is not always available



Introduction of Weekly Entry Capacity Auction

Type of capacity	Y-2 to Y-16	Y to Y-1	M-1	D-10	D-1	D
FIRM	Quarterly (QSEC)	Annual Monthly (AMSEC)	Monthly (RMTnTSEC)	Weekly (WSEC)	Daily (DADSEC)	Daily (WDDSEC)
INTERRUPTIBLE					Daily (DISEC)	
What	Weekly (WSEC)					
Quantity of capacity available	Unsold NTS RMTnTSEC Entry Capacity					
Auction timing	Bid Window: D-10, 08:00 – 17:00 D = first Gas Day of the weekly period, being a Monday First Bid Window: 20th May (D-10) for w/c 30th May (Mon)					
Allocation	D-9					
Price applicable	Standard reserve price. Charges will be included under the existing DFC charge type within the NTS Entry Capacity (.NTE) invoice.					
Interconnectors	N/A - not compatible with CAM					

Gemini change

The screenshot shows the Gemini Bid Capture interface in Internet Explorer. The top navigation bar includes the Gemini logo and the National Grid logo. Below the navigation bar, there are tabs for Contract, Product, Trade, Deal, Constraints, Nominations, OCM, and Invoice. The main content area is titled "Bid Capture" and contains a form with the following fields:

- Product*: ENTRY CAPACITY FIRM PRI*
- Method of Sale*: WSEC
- Transaction Period*: 30-May-2022 to 02-Apr-2023
- BA Code*: [Redacted]
- BA Abbr. Name*: [Redacted]
- BA Name*: [Redacted]
- Location*: Bacton UKCS
- Sub Transaction Period*: 20-Mar-2023 to 26-Mar-2023
- Currency: £

Buttons for "Query" and "Clear" are located below the form. At the bottom of the page, there are buttons for "Add", "Modify", and "Withdraw".

- New method of sale: WSEC
- A number of short term auction reports will change and show Weekly Entry NTS auction records
- Bookings will be possible via APIs

UNC0755S Enhancement to Exit Capacity Assignments

- Capacity assignments exist on Exit as a concept – the process allows Annual and Enduring capacity to be transferred between different Users at the same Exit Point, it's an opportunity to transfer capacity which they don't need.
- UNC currently allows for **full** assignment of Capacity and **liability** between Users at an Exit Point.

Current rule	New rule
Assign all or nothing	Assign any quantity
New User Commitment	User Commitment for the remainder of the period only (based on assigned value)
Interconnections Point are excluded from the Assignment process	Unbundled Interconnection Capacity can be assigned
As assignment might lead to a negative Entitlement	An assignment will not be permitted where it conflicts with any NTS Exit (Flat) Capacity Transfer (Trade) already in place and accepted by National Grid NTS

Gemini change – Capacity Assignments



Contract	Product	Publish	Deal	Constraints
----------	---------	---------	------	-------------

Messages-438  User Name: XXX BA: XXX User Role: EXIT007

Gemini Exit Environment: You are here : Home > Deal > Assignment > Assignment Registration > Modify Deal

Assignment Registration - Add

Assignor: XXX XXXX XXXXXXXX

Assignee*:

Location*:

Type Of Assignment*:

Class Of Assignment*:

Assignment Start Date*: 

Assignment Quantity*: 

Remarks*:

Gemini change – Capacity Assignments










Contract
Product
Publish
Deal
Transfer
Assignment
Invoice

Messages - 0
User Name: ENTRY1001
BA
User Role: ENTRY001

Gemini Exit
Environment: Prototype
You are here : Home > Deal > Assignment > Assignment Registration > Add
Product

Assignment Registration
 - IP

Request Id	Transaction Period	Entitlement Quantity (kWh)	Type Of Bundled	Actual Price	Indicative Price	Premium Price	Assignment Quantity
XXXMOFFATINTIPAYNEX2489	01-Oct-2021 to 30-Sep-2022	14,608,293	Unbundled	0.2	0.1	1.2	<input type="text" value="5,000"/>
XXXMOFFATINTIPAYNEX2619	01-Oct-2021 to 30-Sep-2022	24,608,293	Unbundled	0.2	0.1	1.5	<input type="text" value="5,000"/>

Gemini change – Capacity Assignments

Gemini Exit

Contract Product Publish Deal Constraints
Messages-4
User Name: xxxx
BA:xxxx
User Role:xxxxxxx

Gemini Exit

Environment:TC20 You are here : Home > Publish > Reports > User Reports > User Commitment Amount Report [Publish](#)

User Commitment Amount Report

BA Code: BA Abbr.Name: BA Name:

Location: Viewed On: 20-May-2022 Commitment View * :

View*: Assignment Reference ID* :

Assignment Reference ID	BA Code	Location	Gas Day From	Gas Day To	Indicative Price (p/kWh)	User Commitment Amount (£)	Actual Price (p/kWh)	Scheduled Invoice Amount (£)	Commitment Satisfied (Y/N)	Invoiced (Y/N)	Action
Effective Increase Start Date: 01-Oct-2012											
97	XXX	ABERDEENOT	01-Oct-2012	31-Oct-2012	0.0001	925.47	0.0054	4,997,543	N	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Nov-2012	30-Nov-2012	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Dec-2012	31-Dec-2012	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Jan-2013	31-Jan-2013	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Feb-2013	28-Feb-2013	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Mar-2013	31-Mar-2013	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>
97	XXX	ABERDEENOT	01-Apr-2013	30-Apr-2013	0.0001	0.00	0.0054	0.00	Y	Y	<input type="button" value="A"/>

User Commitment Total(£): **925.47** Total Scheduled Invoice Amount(£): **4,997,543**

Total Outstanding User Commitment Amount to be Invoiced (£): **0.0**

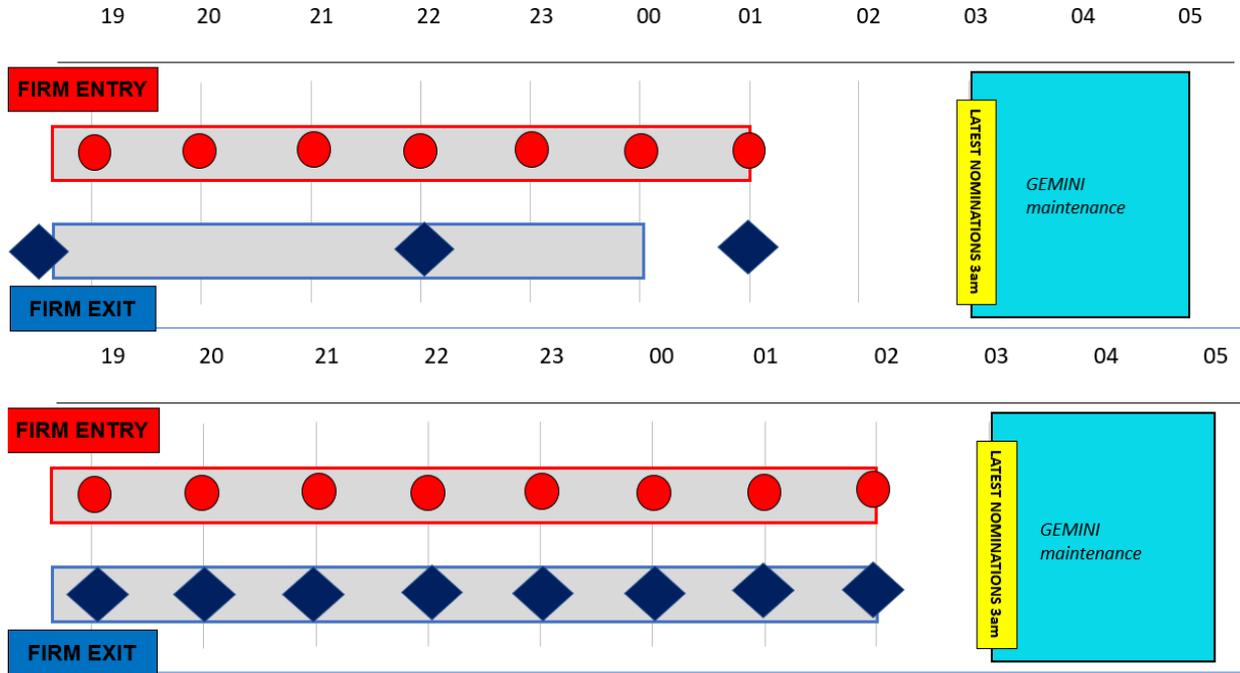
UNC0759S Enhancement to NTS Within-Day Entry and Exit Capacity Allocation

Short term capacity	D-1	D
FIRM ENTRY	<i>Daily</i> (DADSEC)	<i>Daily</i> (WDDSEC)
FIRM EXIT	<i>Daily</i> (DADNEX)	<i>Daily</i> (WDDNEX)

Why change?

- The current firm within day product doesn't allow enough flexibility to rapidly adjust capacity bookings to changes in demand
- Power Stations identified the need to react quickly to changes on the electricity market and therefore would like to amend the existing firm within day product (WDDNEX) to make capacity more frequently accessible
- All Users welcomed the opportunity to adjust their bookings to flows as late in the Gas Day as possible

NTS Within-Day Entry and Exit Capacity Auction



Before change

- Coming up changes
- Introduction of hourly allocations on Exit
 - Adding 2:00am allocation window on Entry and Exit
 - Extending capacity invitation (bid) window to 2:00am on both Entry and Exit
 - Introduction of 30min 'capacity allocation period' on Exit

After change



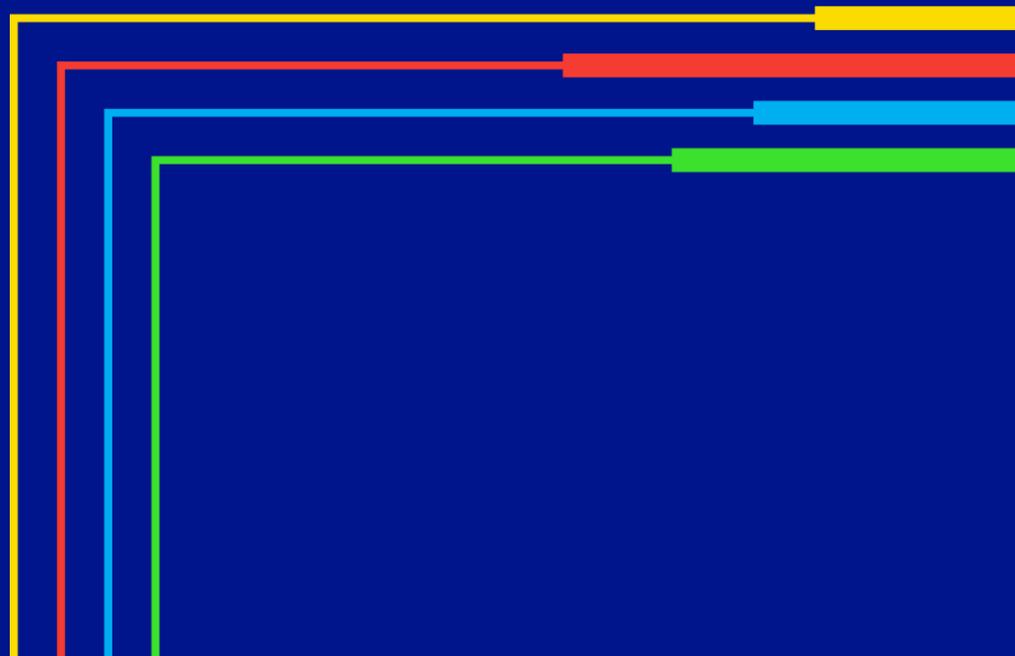
IMPORTANT

- Utilise auctions throughout the day
- Use 'minimum quantity' field when placing bids

0785

Implementation
update

national**grid**



UNC0785 Application of UNC processes to an aggregate Bacton (exit) IP

UNC0785 introduced competitive auctions at an aggregated exit point for Bacton IPs. Following Ofgem approval, this change then became effective for Gas Day 01st March 2022.

The [Change Pack \(xoserve.com\)](https://www.xoserve.com) describing system changes, and a UNC Mod 785 Awareness [Training Module](#) were both published ahead of implementation and are still available as a reference for shippers.

Application of UNC processes to an aggregated Bacton (exit) Interconnection Point

The system implementation of UNC Modification 0785 is a two-part delivery:

- Part A was implemented on the 25th February 2022
 - Part B is scheduled on the 3rd April 2022
-

UNC0785

Bundling Implementation Issue - for gas day 1st March there was a PRISMA configuration issue which led to a request for further assurance testing prior to Interconnector uploading volume on 11th March. Since then, capacity has been offered and bundled successfully at the new Bacton exit IP.

Part B – completes the system delivery of UNC0785 by implementing changes to charging and invoicing ahead of the April invoice calculation. There are no impacts to shippers on the day of part B delivery.

Communications

For further information please visit:

- Shipper Awareness training material is available at Xoserve website:
[Gemini changes overview \(xoserve.com\)](https://www.xoserve.com/gemini-changes-overview)
- Please email: Geminichanges@correla.com

or contact Gas Markets Team:

Anna.Stankiewicz@nationalgrid.com (UNC0752S, 0755S and 0759S)

Malcolm.Montgomery@nationalgrid.com (UNC0785)

Gemini Sustain Change

nationalgrid



Single Sign on (SSO)

Overview of SSO

This change is to simplify the login for Gemini Online Screens, therefore creating a better User experience

- This change follows feedback from the industry about the current need for 2 sets of IDs and passwords (Gemini Citrix and Gemini Application) to log in to the Gemini system.
- It will deliver a single sign on experience with Multi Factor Authentication (MFA) method available over the internet
 - ✓ Along with self serve password reset ability
- This will remove the use of XP1 tokens following implementation

Implementation Date Change:

- This change will now be implemented on **29th May 2022** and not in April as previously indicated. We apologise for any inconvenience this may cause.
- There is a dedicated webpage for [Gemini Single Sign-On change \(Xoserve.com\)](https://www.xoserve.com/gemini-single-sign-on-change), which also hosts a short video showing the changes we hope you find useful.

Gemini Service
Summary Comparison
February 2022



Performance Improvement Indicators

Correlia Triggered Major Incidents Comparison 2020 vs 2021 vs 2022:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2020	2	0	1	5	1	2	4	3	4	1	4	2	29
2021	0	0	1	0	1	1	0	2	0	0	0	1	6
2022	0	0											0

Correlia Triggered Service Interruption Comparison 2020 vs 2021 (timings in mins):

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2020	92	0	182	822	743	212	1232	777	2363	105	258	321	7107
2021	0	0	72	0	136	210	0	135	0	0	0	103	759
2022	0	0											0

Average per Incident service interruption duration 2020: 245 mins.

Average per Incident service interruption duration 2021: 126 mins.

Average per Incident service interruption duration 2022: 0 mins.

Demonstrating a 51.42% decrease year on year (2020 vs 2021)

Service Performance Improvement Contributing Factors

During the course of 2021 a number of service improvements were delivered as part of the Operational Stability initiative. The table below lists some of the key activities that were delivered to improve the stability of the Gemini Service.

Key improvements	Reduce likelihood of incident	Improve time to resolve incident	Reduce manual errors
Introduced Dynatrace Application Monitoring to provide intelligent monitoring to capture performance trends across the infrastructure	✓		
Knowledge Assessment of all Ops Resources conducted and quarterly assessments introduced, including access removal for those who do not meet criteria	✓		✓
Updated all work instructions and created online knowledge portal allowing keyword searching	✓	✓	✓
Introduced additional governance for Change Process to include peer review of all changes from inception through to execution	✓		✓
Automated Daily Health Check processes, Server provisioning and Code deployments	✓		✓
Automated the recovery process for file system encountering "Read only" Issue		✓	✓
Implemented Automation for service restoration for the Citrix VDA environment in case of an issue on that architecture		✓	
Implemented a Document Tracking system for the B2B service to track all file flows and prevent risk of missing files	✓	✓	
Implemented additional monitoring to identify dynamic queue build up on the B2B file flow platform to provide an early warning indicator	✓		

Current Improvement Initiatives

Stream	Issue	Action	Benefit
Xoserve Service Desk	Ticket and voice quality issues.	<p>The Service Now Coaching module has been activated in order to improve ticket content and process adherence. Voice calls continue to be regularly monitored and improvement opportunities identified and acted upon. An opportunity is also being progressed to develop a coaching app to manage voice call quality.</p> <p>The Service Management team have regular interaction with a member of the Control Centre team following a previous issue being raised and addressed in order to further their stakeholder engagement.</p>	Improved customer experience both when logging issues and having these resolved. Improved stakeholder relationship management.
Correla Project Quality	Implementation of project initiated change causing service disruption or associated data fixes.	<p>Feedback provided through project lessons learned process.</p> <p>Gaps identified in testing quality raised directly with Project Managers where necessary and steps taken to address.</p> <p>Proposal to include Tech Ops SME's in review of external project communications which contribute to 60% of issues raised.</p>	Fewer defects identified during P.I.S. phase and beyond. Reduced impacts to "b.a.u". support. Reduced end user disruption.
NG Capacity Reporting	Anomalies being regularly identified with bid by revenue reporting regime.	<p>Regular monthly meeting set up with NG Capacity team to review and track issues (frequency recently increased to fortnightly).</p> <p>Gemini SMEs sharing details of system functionality with NG counterparts.</p> <p>On-site workshop session completed in November at NGH and more being planned.</p> <p>Data source document being worked upon.</p>	Improved customer confidence in the integrity of the reporting data. Better understanding of system functionality. Improved working relationship.
Short-term Capacity Auctions	Continued failures in batch processing regime due to greater reliance on these by Shipper community.	<p>Detailed investigation into the scenarios triggering the failures.</p> <p>Consider ways of reducing manual intervention by GNCC.</p> <p>Remind Shipper community on ways of working.</p>	Less reliance on manual intervention. Improved local knowledge of process and workarounds.

Future Improvement Opportunity

Stream	Issue	Expected Outcome
National Grid Service Desk	Numerous examples where logging high priority calls with the National Grid Service Desk takes a significant amount of time (recent example 45 minutes to raise a Priority 2 call), involves us having to convince the NG Service Desk of the severity, despite the business impact being high, and noted lack of understanding of Gemini means the ticket is often assigned incorrectly to the wrong internal National Grid resolver group.	This improvement is needed to reduce the time to resolve an Incident, where it is not directly within Correla's control – having a positive impact for both National Grid and our joint customers. Reduced wasted effort within Correla teams that could be better utilised on service delivery.
Major Incident Reporting	Align with the GNCC on root cause of High Level Summary reports prior to issue (currently only agreed with IT).	A more collaborative approach to service reporting content, no surprises to GNCC will help us improve the relationship.
Problem Mgmt/Root Cause Analysis	<p>Little or no information root cause or problem management analysis provided to Correla where this lies with NG.</p> <p>Perceived repeat events triggered within NG resulting in Correla Major Incidents being encountered.</p>	<p>Establish a shared approach to Service Management processes and assisting with future improvement though relating past experiences to create a better end to end service.</p> <p>Provides a more productive working relationship.</p>
Improved relationship with NGIT colleagues	Currently there is little interaction with a wider group of colleagues within NGIT and hence this is contributing to some of the issues highlighted above. Ensure that we're engaging with all the right people that can help make a difference to the end to end service. NG resource brought in (Simon Burdis) to consider ways of bridging the current gap. The engagement with internal NG support teams when issues occur is improving and we are now starting to receive updates as issues progress.	Establish a robust and effective working relationship between organisational teams with regular interaction, which we can jointly use to deliver a better end to end service.
Direct engagement with GNCC personnel	Pre-pandemic visits had been arranged to the GNCC to understand their working arrangements and areas causing frustration and concern. These were received very favourably and should be re-introduced when possible to do so. Ensure GNCC stakeholders are included in Service, and Improvement reviews directly with NGIT and Correla.	Build upon the existing relationship towards a trusted partnership approach which will benefit openness and transparency. This will lead to a better relationship, which both Correla and National Grid can leverage to drive service improvements.
Ways of working	Consider opportunity for improvements in logging issues and queries more effectively and efficiently. Withdrawal of Xoserve Service Desk access to NG ServiceNow has introduced additional disruption when managing Incidents and Service Requests. Investigate options for real-time screen sharing with GNCC to aid Incident investigation	More effective Incident investigation and improved resolution times. Improved management of Incidents and Service Requests.

Change Pipeline

Activity	Feb-2022				Mar-2022				Apr-2022				May-2022				Jun-2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Apps Support Deployment				27th																
Gemini B2B DR Test													4th/5th							
FWACV - Flow Weighted Average																				TBC
Spring Release				25th					3rd			24th								
Sustain (SSO)															16th-22nd					
Gemini Sustain APIM Go Live												11th-17th								
XPI Token Replacement				28th																
EFT Upgrade				27th	2nd	6th	13th	17th	20th											
Siteminder Upgrade															8th					
UK Link M2C Migration												15th-17th								
Security Application Monitoring Project Deployment					6th															
Gemini and Gemini Exit Application Support Production Deployment				6th																
Spring Clock Change								27th												
EFT DR (TBC)															21st - 22nd					

Application	Infrastructure	Projects
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Thank You



Gas
Transmission

NTS Specification for Mercury

Martin Cahill
Senior Operational Liaison Officer

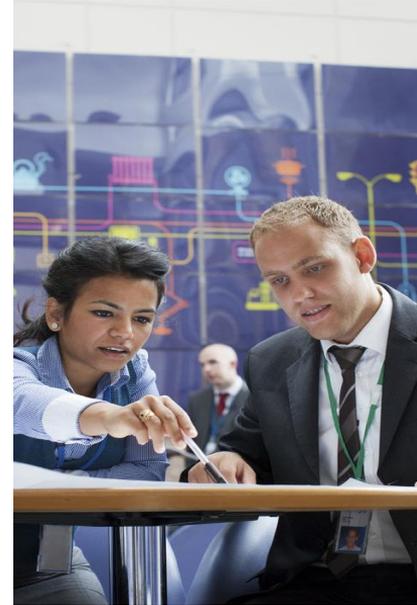
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Background

- Since the LNG storage sites closed, mercury content has not been a concern for NTS assets and we do not currently measure or monitor mercury content at NTS entry points.
- We have recently received enquiries from upstream operators about what level we would regard as acceptable
- Our understanding previously was that a limit of $10 \mu\text{g}/\text{m}^3$ is typically specified for heat exchangers in industrial and power plant which are often constructed of aluminium alloys
- We therefore included a guidance limit in the latest Gas Ten Year Statement of $10 \mu\text{g}/\text{m}^3$ although we do not at present specify a limit for mercury content in our connection agreements with NTS terminal operators
- GS(M)R does not contain a specific limit for mercury content in natural gas, rather it is included within the following statement on impurities

“[the gas conveyed] shall not contain solid or liquid material which may interfere with the integrity or operation of pipes or any gas appliance (within the meaning of regulation 2(1) of the 1994 Regulations) which a consumer could reasonably be expected to operate”.



Survey

We are interested to know whether mercury content in natural gas presents any risks to customers' operations downstream of the NTS and, if so, at what concentration.

We issued a short on-line questionnaire to the industry between 26th January and 21st February to get feedback on this topic.

- We received a good response with 22 responders (from 79) spanning power generation, trade associations, DNs, industrial users, gas storage and TSOs. Thank you for the participation.
- The response to the 2 key questions was mixed with the majority being unsure to both.
- Various concerns and questions were raised.
- Calls for more information due to lack of studies

		Y	N	Unsure	incomplete	Total
Q3	Is 10 µg/m ³ appropriate?	6	3	11	2	22
Q4	Is 20 µg/m ³ a concern?	8	1	11	2	22



Concerns raised – common themes

Power sector assessment and reporting is based on a mercury content of $0.1\text{pg}/\text{m}^3$

Concerns for domestic and commercial properties when as is burnt through gas appliances

What is the current level in the NTS?

I'm unsure/need more information/
what other evidence is there?

Health impacts from exposure to people

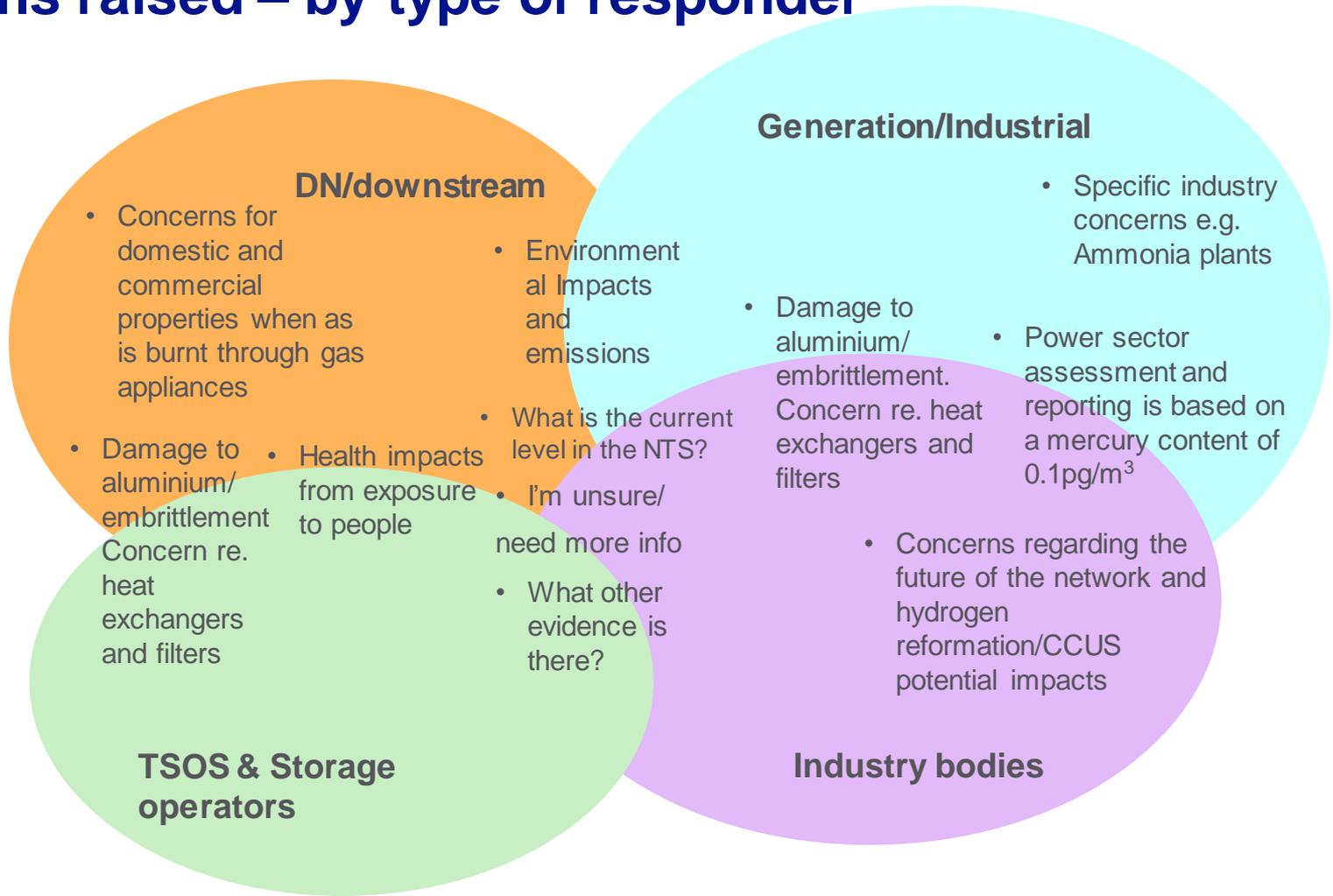
Specific industry concerns e.g. Ammonia plants

Concerns regarding the future of the network and hydrogen reformation/CCUS potential impacts

Environmental Impacts and emissions

Damage to aluminium/ embrittlement. Concern re. heat exchangers and filters

Concerns raised – by type of responder



Proposed Next Steps

- Responses were not sufficiently conclusive to warrant any change to the GTYS limit guidance of 10 µg/m³ currently
- We propose to carry out one off sampling of mercury content at each NTS entry point to gather more information on current levels in the NTS and report back. This will take approx. 6 months to complete.
- If any operators have any sampling of their own that they could share that would be welcome
- We will follow up with responders where requested.

For any queries, please contact either Philip.Hobbins@nationalgrid.com or nicola.j.lond@nationalgrid.com

**Gas
Transmission**

Updates

Sam Holmes
Operational Liaison Analyst

nationalgrid



Shaping the gas transmission system of the future - feedback

Events held at the end of last year used to test our strategic priorities and make sure they are still meeting the needs of Customers & Stakeholders

97% said our refreshed priorities continue to meet their needs

Asked to share more information about what we're delivering for each of these and how we're performing against them – future communications to be shared on these



Shaping the Future

We are planning to hold some further events in July – please let us know if there are any topics you would like us to cover. Events from last time below:

<https://www.nationalgrid.com/uk/gas-transmission/about-us/business-planning-riio/stakeholder-groups/have-your-say-our-current-business-plans/events>

- | | |
|---|--|
| Shaping the gas transmission system of the future - Key note speech | Supporting regional hydrogen transitions |
| Future of Gas | Understanding the skills needed for a net zero world |
| Innovation – broadening the horizon | Digital Strategy and Information Provision |
| Gas Market Plan | Operating the network |
| Transitioning to a hydrogen backbone | FutureGrid 2021 Progress report |
| Managing methane emissions | Annual Network Capability Assessment Report |

GMaP Project:

Benefits to Industry of enhanced Gas Quality data

Why: GS(M)R, Bio-methane, Transparency, Decarbonisation

What: Current Data, Desirable Data, Optionality, Costing

Who: Terminals, GDNs, Direct Connects

When: March 2022



Please contact Jonathan.Cranmer@nationalgrid.com directly or get in touch through our box account Box.FOGForum@nationalgrid.com

Market Insights

Introduction

- We are looking to engage with stakeholders on our Data Enhancements work as part of our New Information Provision funding

What are we looking to deliver?

- Improved User Experience and Data Discoverability
- Customer journey improvements by persona types
- Improving the system design so that new features and data can be more quickly and cost effectively included
- Rebranding of the data platform per sale process
- We will also be including further data from the wider Gas Transmission Business

Next Steps

- We will be planning specific stakeholder engagement on this work going forwards
- If you have any questions or would like to be included in the ongoing stakeholder engagement please contact:
box.operationalliaison@nationalgrid.com

Gas
Transmission

Close

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Next Forum

The next Gas Operational Forum will take place on the 19 May

Please send any topic requests to:

Box.OperationalLiaison@nationalgrid.com

Register now at:

In Person

<https://www.eventbrite.co.uk/e/gas-operational-forum-may-2022-in-person-tickets-310030839587>

Online

<https://www.eventbrite.co.uk/e/gas-operational-forum-may-2022-online-tickets-310032063247>

