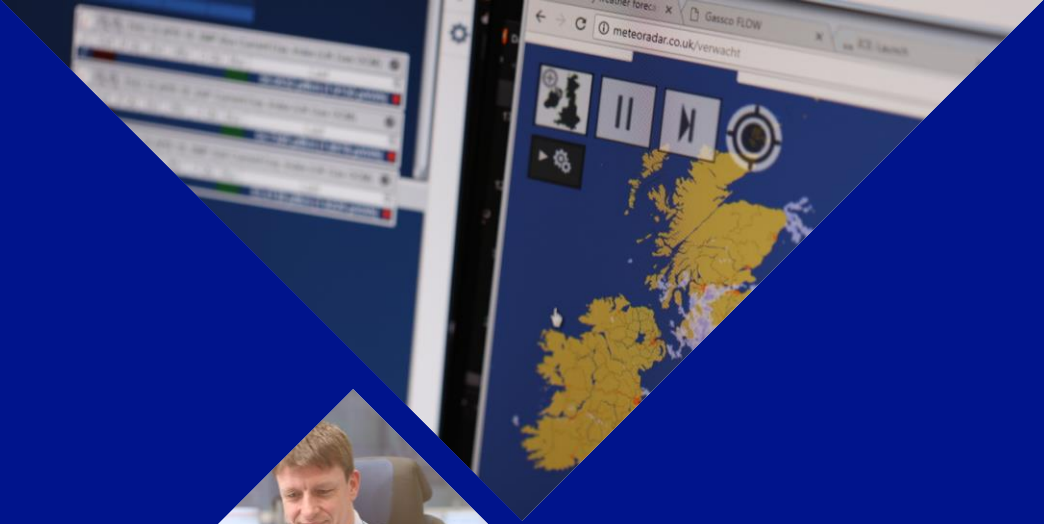
Gas Transmission

Gas Operational Forum



Amba Hotel, Charing Cross

20th February 2020

nationalgrid

Gas
Transmission

Introduction & Agenda

Josh Bates
Operational Liaison & Business Delivery Manager

nationalgrid

Site Layout

No Fire Alarm testing is planned for today

In case of an alarm, -please follow the fire escape signs to the end of the corridor

Catering will be served in the room

Morning Break will be around 10:25, with lunch available following presentations

National Grid and Xoserve Attendees

nationalgrid

- Ian Radley
- Josh Bates
- Martin Cahill
- Sarah Carrington
- Harj Kandola
- Phil Hobbins

xoserve

- Matthew Smith

nationalgrid partners

- Iliana Portugues
- James Garlick

argus

Today's Guest Slot is from Matthew Monteverde of Argus Media

Calendar year 2020 Ops forums

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lon	Lon	Lon	X	War	Lon	X	X	Lon	Lon	War	X
23/01	20/02	19/03		14/05	18/06			17/09	22/10	19/11	

New Location:

Amba Hotel
Strand
Charing Cross
London
WC2N 5HX

Registration is open for all 2020 events at:
https://www.nationalgridgas.com/data-and-operations/operational-forum

Feedback & Questions

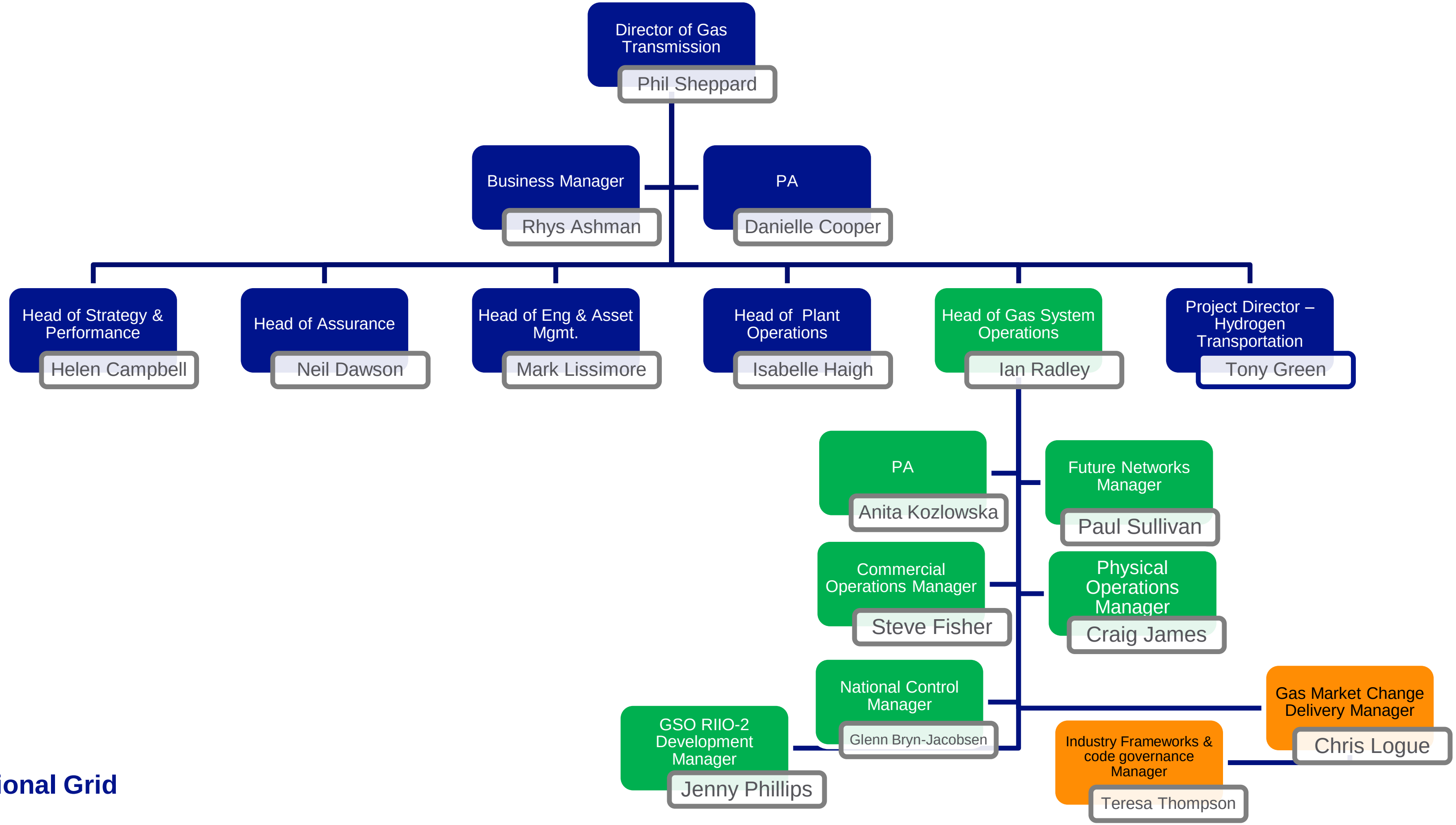
For any questions during the forum you can:

- Ask during the presentations
- Speak to an NG representative during the break
- Utilise the Query Surgery time at the end of the Forum

Actions & Feedback since Last Forum

Item	Action/Feedback	Detail
Negative Implied Flow Rate Changes	There were a few questions on this topic to clarify	Detailed answers to questions on NIFR included in the January Forum minutes, as well as updates section in today's presentation
ANS Communications during Locational Actions	Question if NG can post an ANS after locational bids/sells are accepted, as well as initially for inviting offers	Are reviewing this in a bit more detail to assess any potential changes to comms – e.g. is an ANS provided just when offers, accepted, or once we are no longer accepting

New Gas Transmission Structure



Agenda for Today

01	Introduction, Feedback since last Forum and Agenda	09:30
02	Operational Overview	09:40
03	European Gas Prices (Argus Media)	09:55
04	New Prevailing View Screen	10:55
05	Innovation at National Grid	11:10
06	Margins Notice Update	11:25
07	Charging Review	11:40
08	GEMINI Re-Platforming Project	11:50
09	Updates – Negative Implied Flow Rate & Unaccounted for Gas	12:00
10	Signposting	12:10

Breaks:

Morning Break

10:25 – 10:55

Lunch Break & Query Surgery

12:15

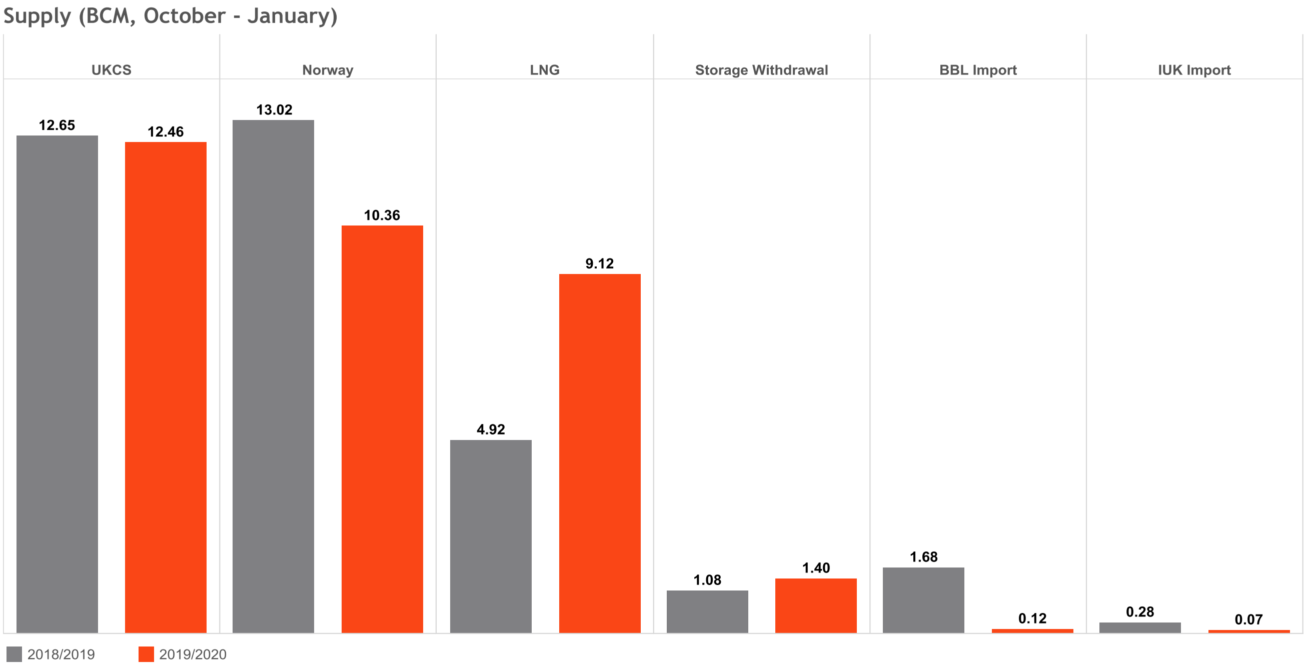
Gas Transmission

Operational Overview January 2020

Martin Cahill
Operational Liaison Lead

nationalgrid

Supply - Components



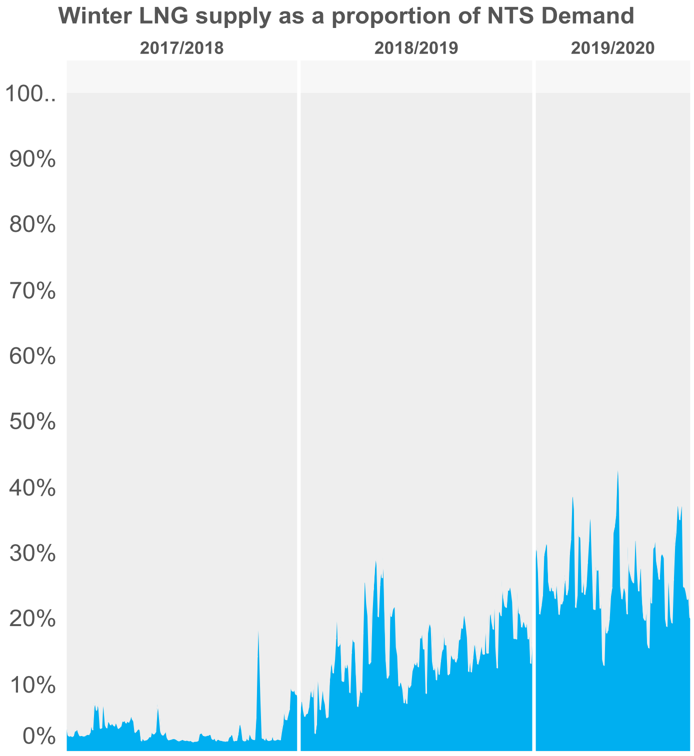
Winter whole supply:

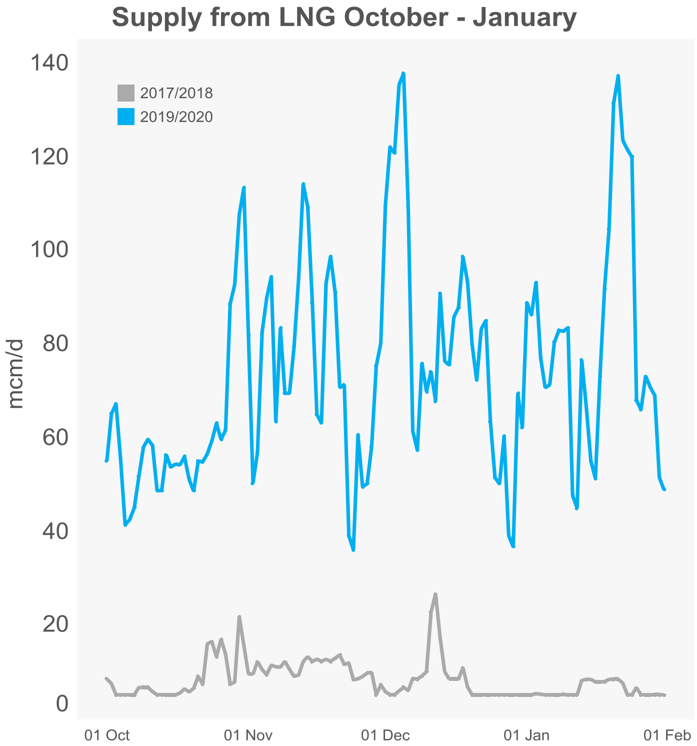
- Increase in LNG and reduction in Norway supply
- Very little interconnector imports

Last Month supply:

- LNG reached similar levels to the December record in January
- Storage withdrawal has edged up since last month

LNG Supply

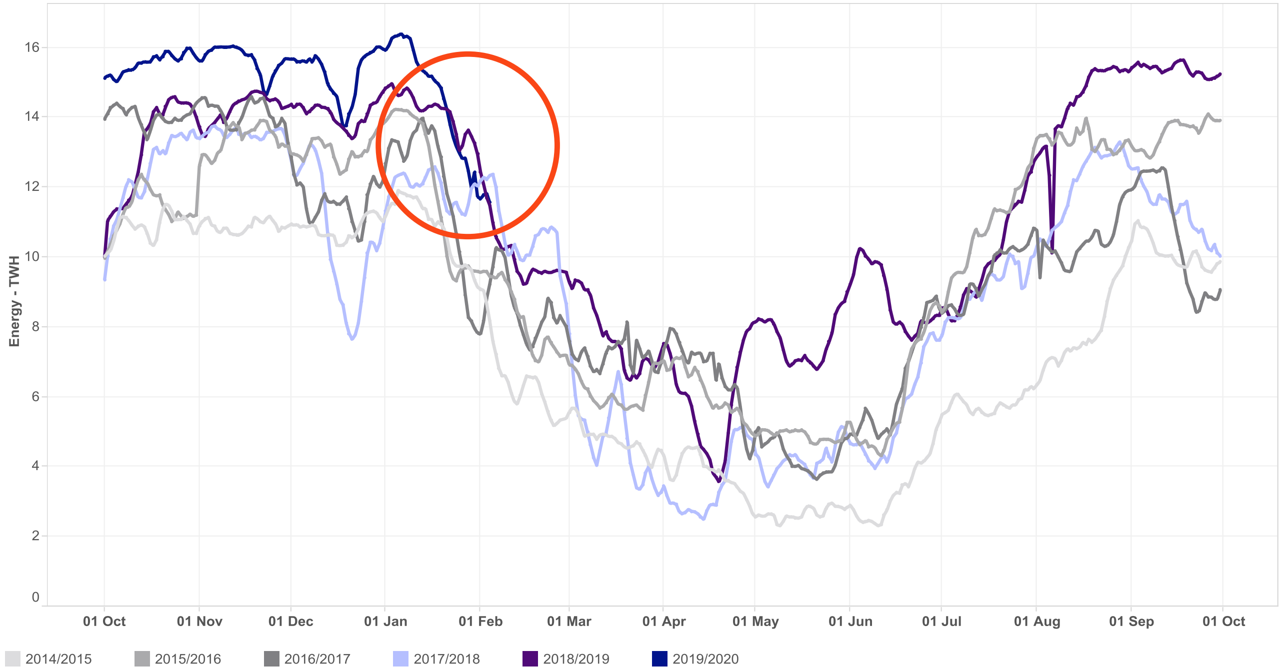




In January LNG supply levels reached near the record levels set in December last year

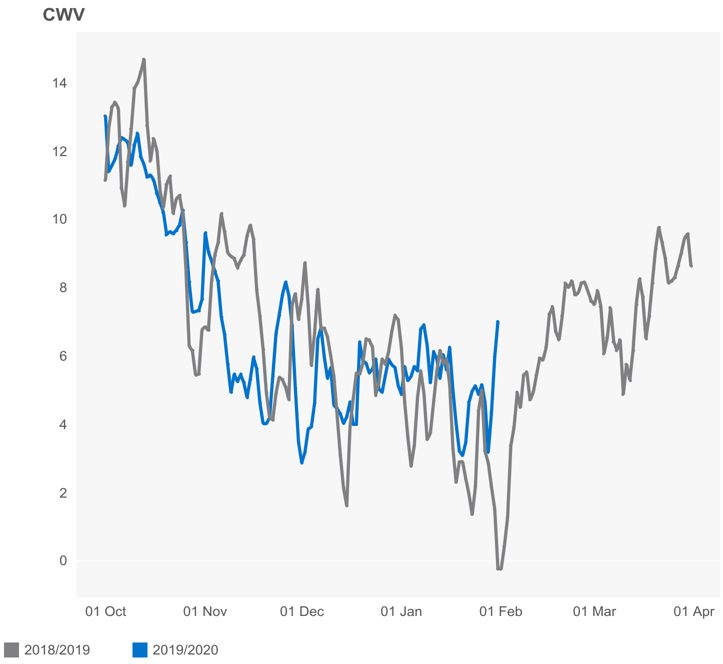
Medium Range Storage Stocks (MRS)

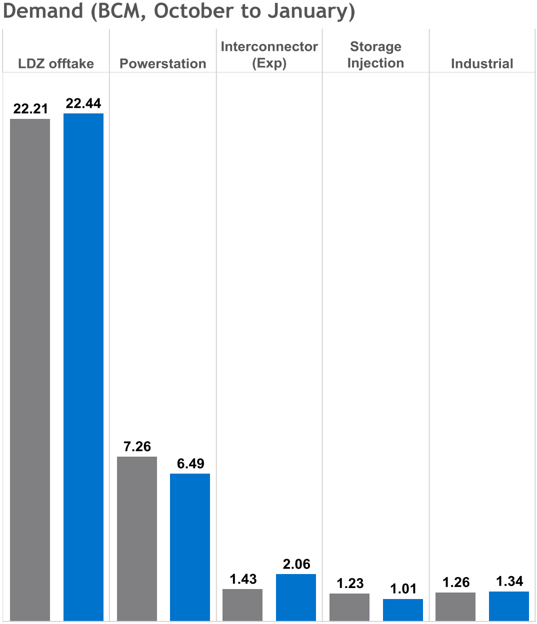
For last 6 years



Storage Stocks are still fairly high for the time of year, but have reduced to more normal levels with withdrawals in Jan

Demand – CWV & Components





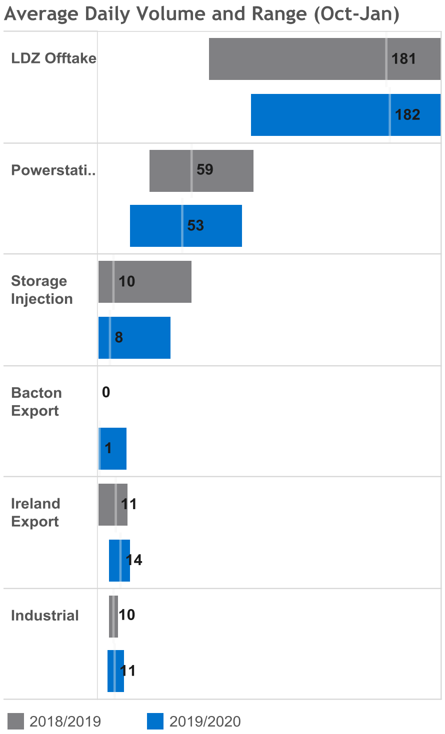
Winter Demand:

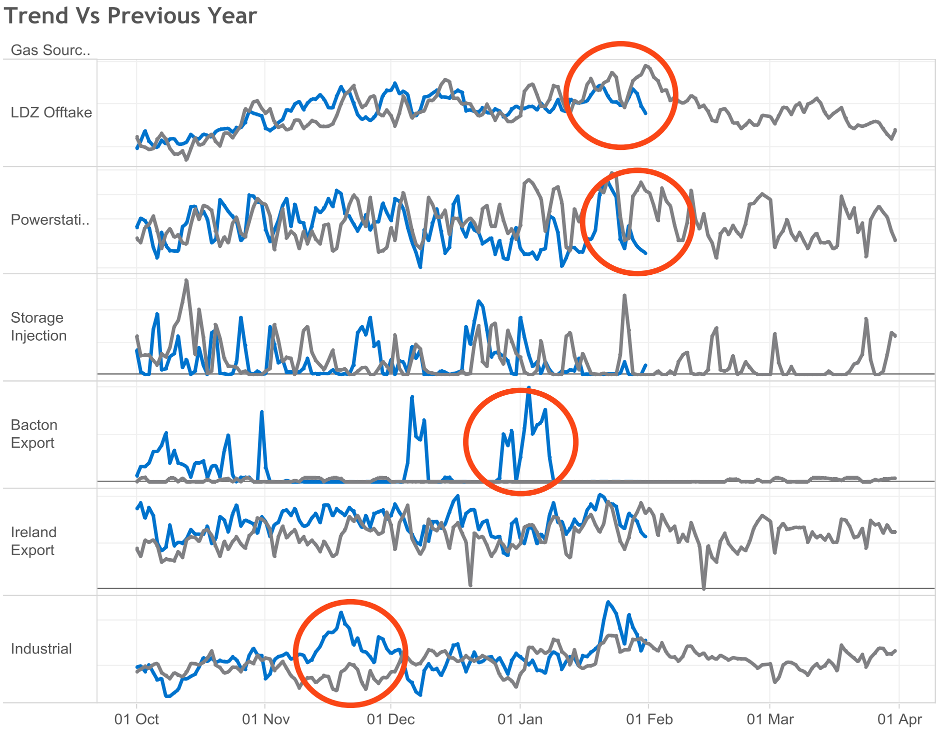
- Very similar LDZ offtake total to last year (mild winter)
- Some Bacton exports, even in colder months

Last Month Demand:

- January was warmer than previous years, accounting for a decrease in LDZ demand
- Last month there was a larger gap between 18/19 and 19/20
- Recent Gas Power Station utilisation has also been lower

Components of NTS Demand



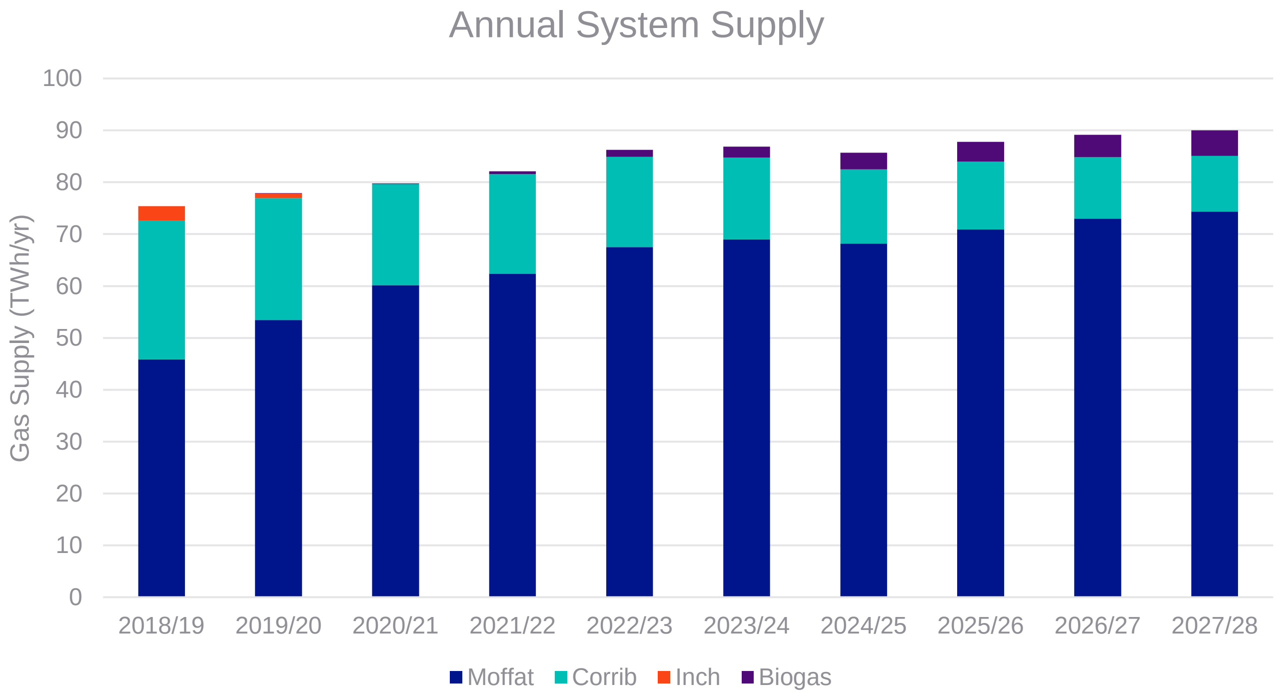


1. Demand reduced in January with mild weather
2. Gas Power station demand has also dropped
3. Sporadic exports at Bacton have continued
4. Industrial flow has fluctuated in line with Shell Backhaul use

Industrial Flow Fluctuation

- Shell Backhaul is an offtake connected at the Shell Brent Terminal
- Capable of taking large volumes and variation in flow
- This has a large impact on the Industrial Total

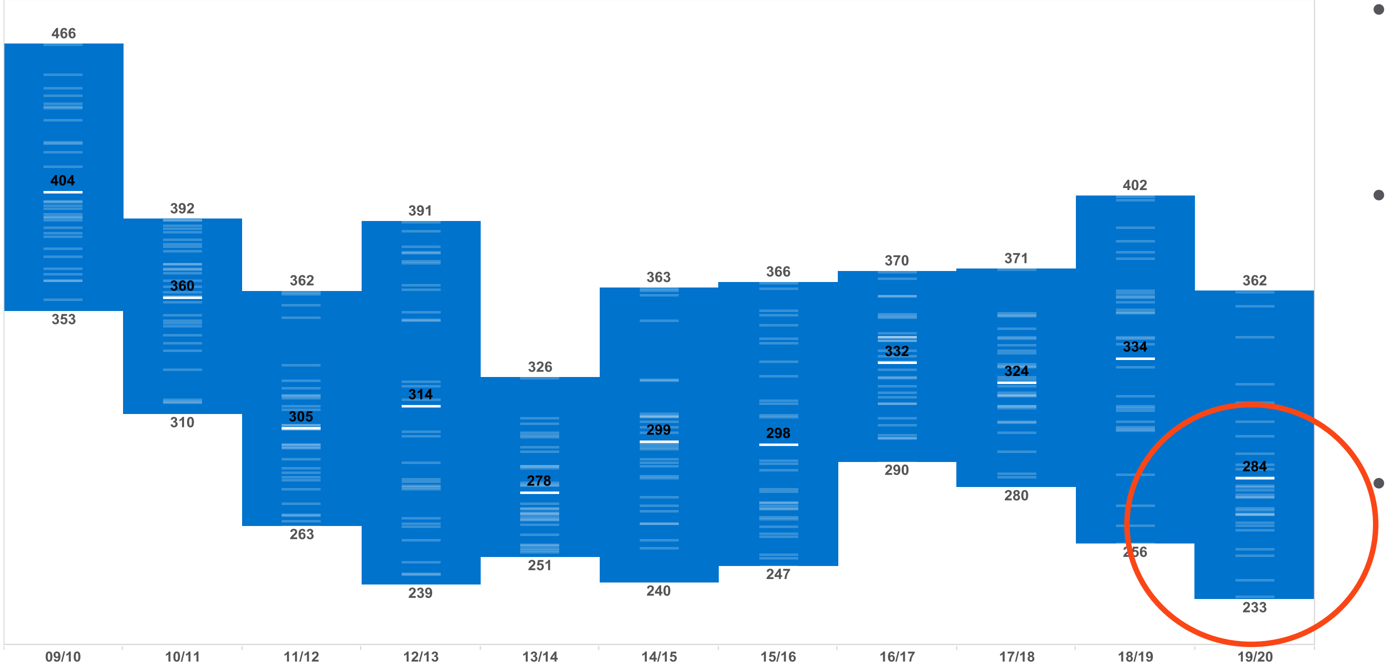
Moffat Demand



- **Moffat Demand is increasing gradually year on year**
- **There is an overall slight increase in Irish Demand expected, but main reason is the depletion on the Corrib field**

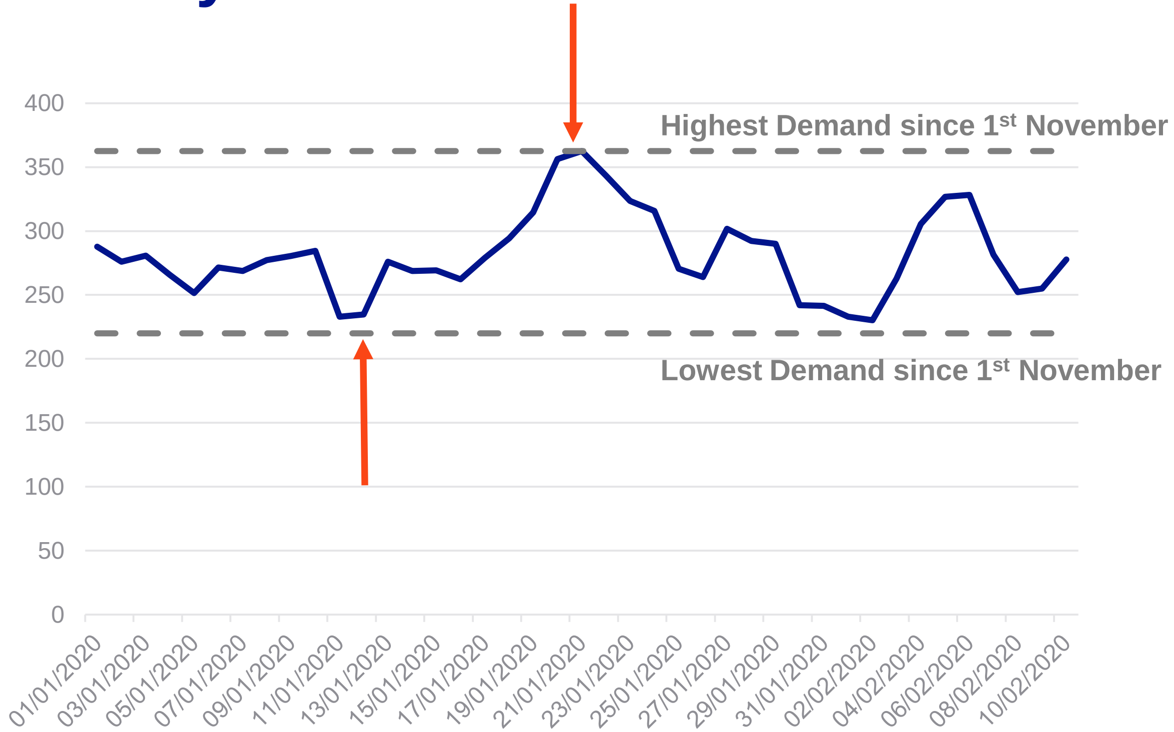
January Demands

January Gas Day Demands: Minimum, Maximum and Avergage



- January Demand has been particularly low
- Only one recent year (13/14) has had a lower average than 284 mcm this year
- We had the lowest January demand day in recent years - 233 mcm

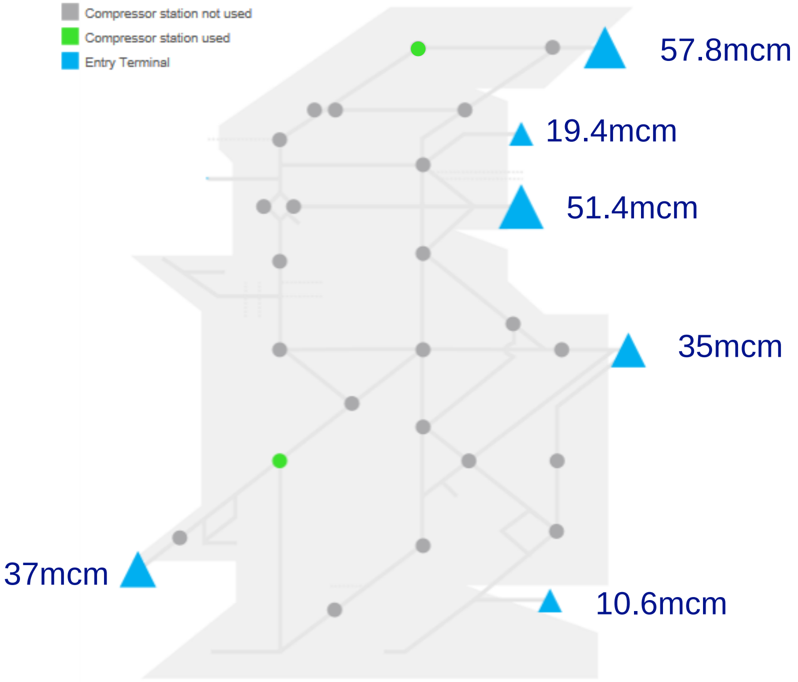
January Demands



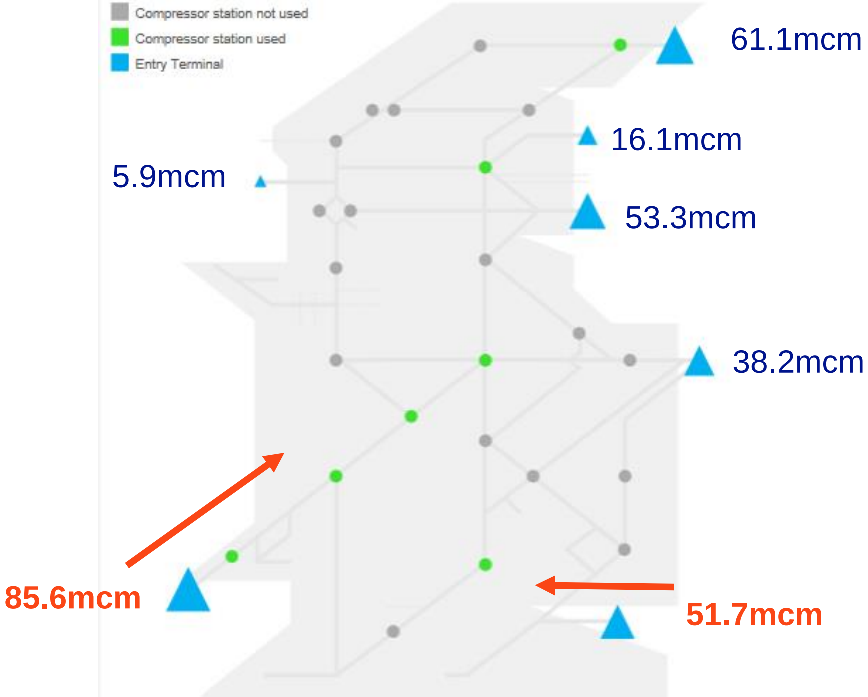
- **January has seen the highest demand day of the gas year (362mcm) on the 21st, with the lowest January demand day just 10 days earlier – close to early November demand**

Comparison of days – Terminal Supply

11 Jan



21 Jan



Storage – main difference Stublach withdrawal

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argusmedia.com

European gas market update

Low prices, LNG, China and how we might think about the future

National Grid Operational Forum

Matthew Monteverde

20 February 2020

London
Houston
Singapore
Moscow
Dubai
New York
Portland
Calgary
Santiago
Bogota
Rio de Janeiro
Beijing
Shanghai
Tokyo
Sydney
Astana
Kiev
Cape Town
Riga
San Francisco
Washington

Market Reporting

Consulting

Events

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Prices are low

And unusually shaped

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Events

European spot gas prices are low

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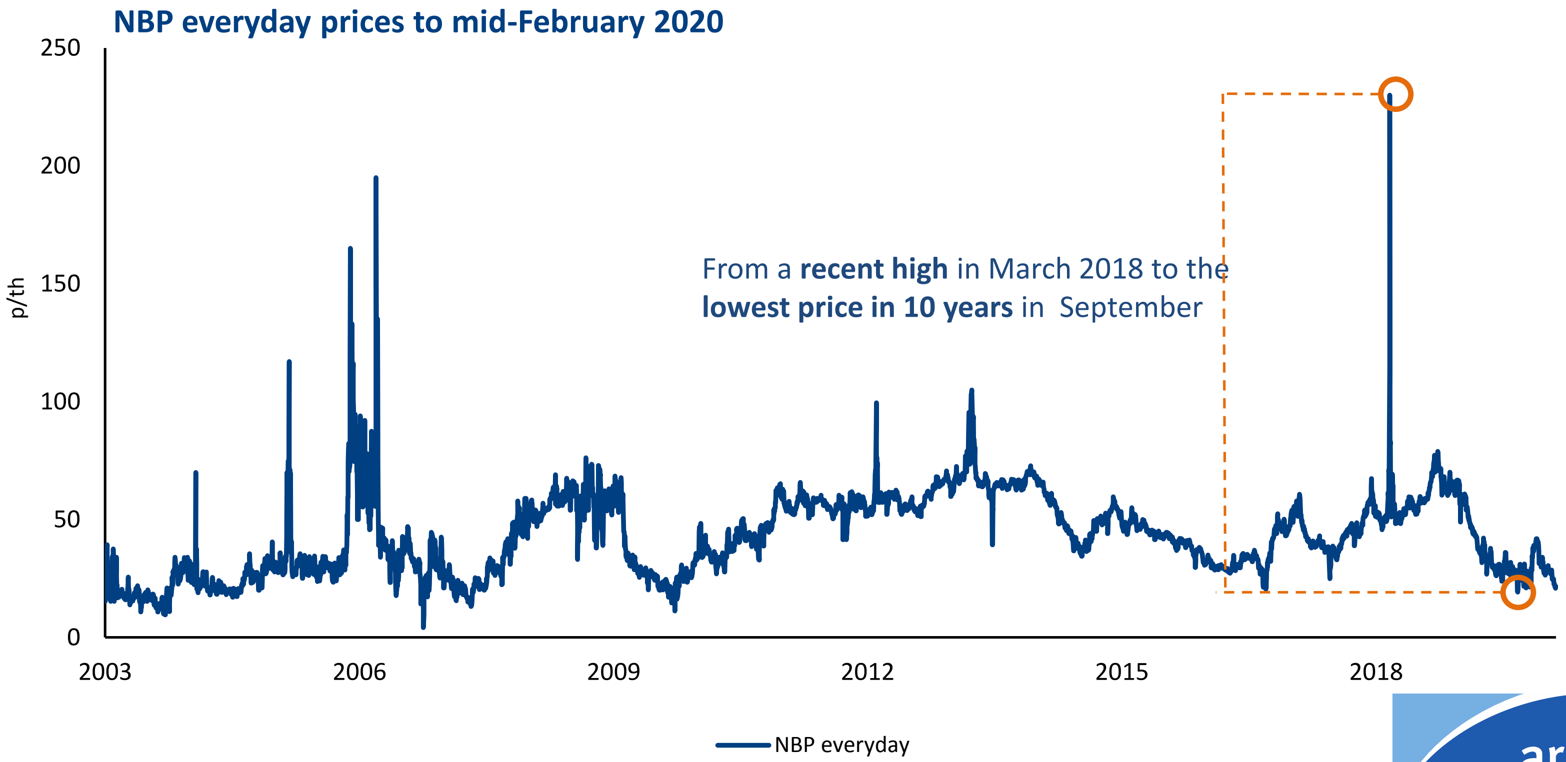
European spot gas prices are low



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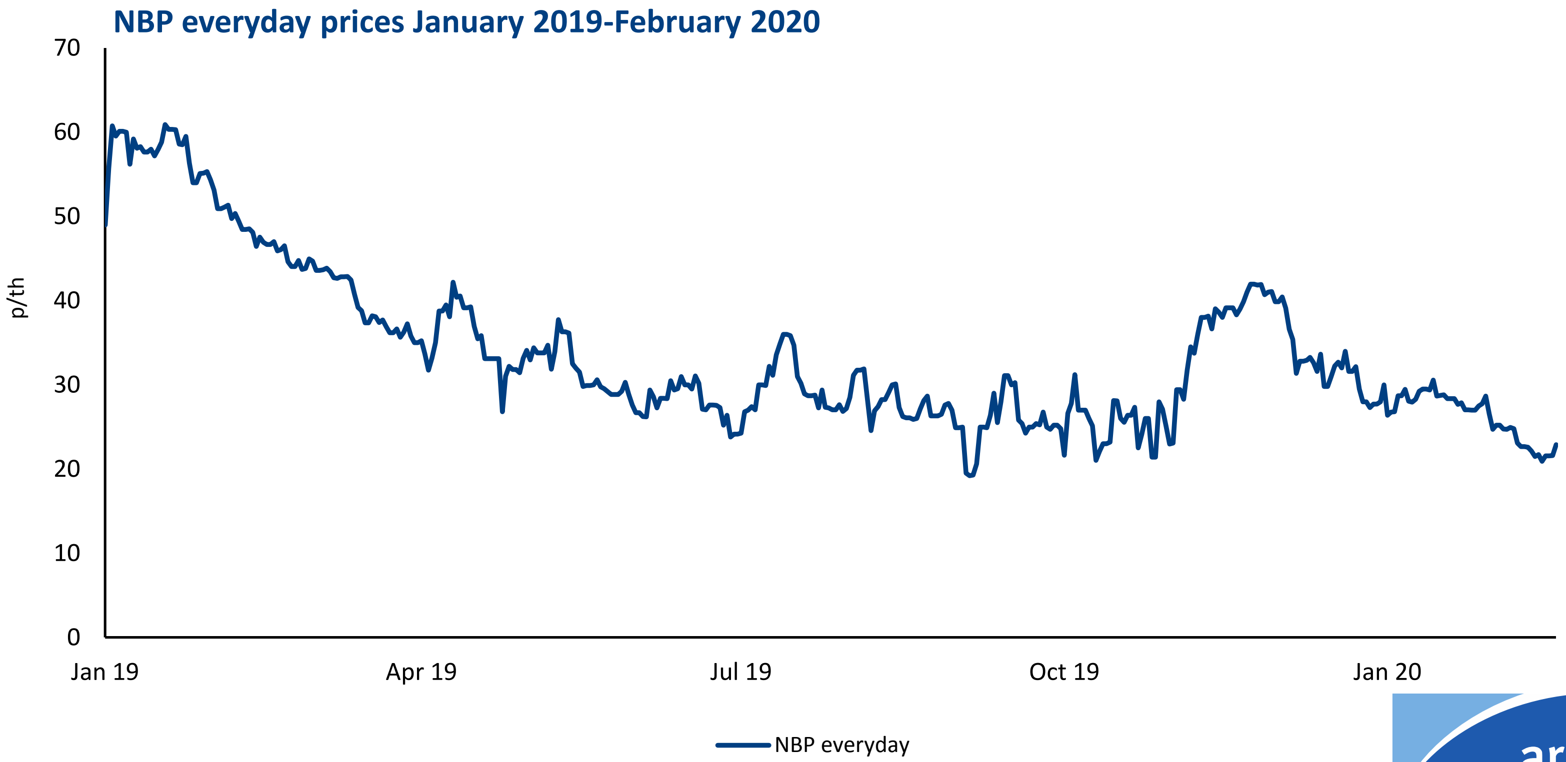
European spot gas prices are low



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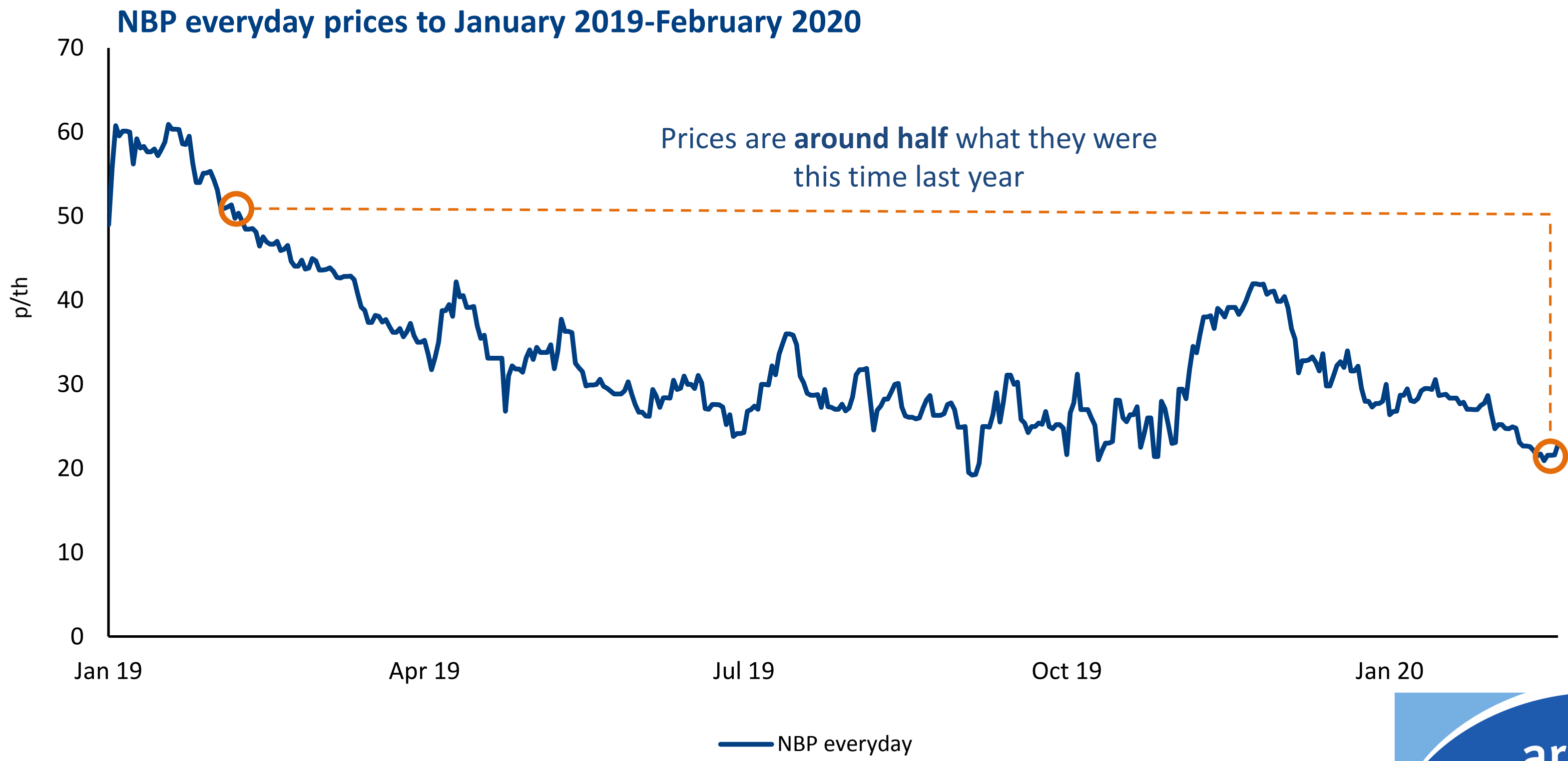

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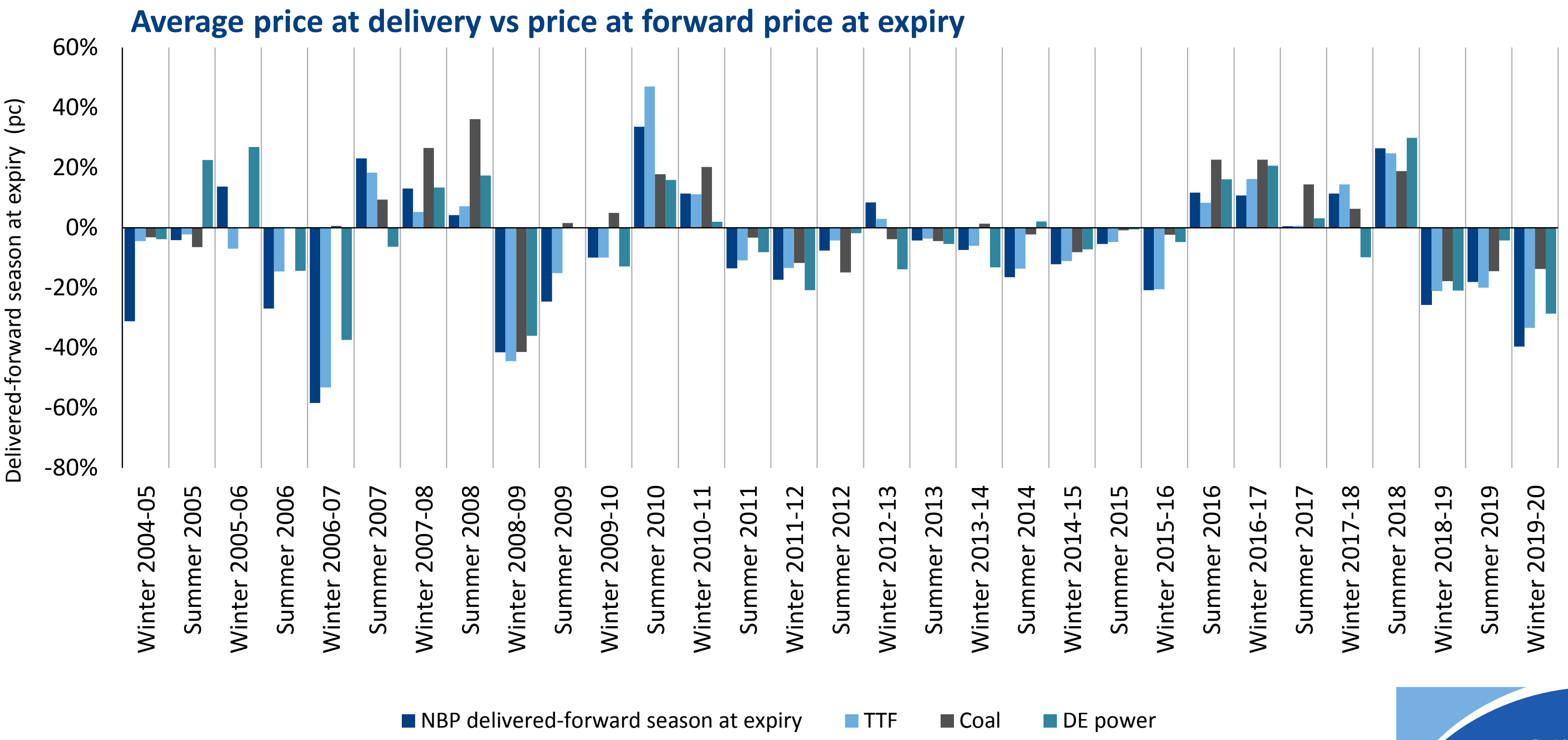
Winter 2019-20 on pace to under-deliver



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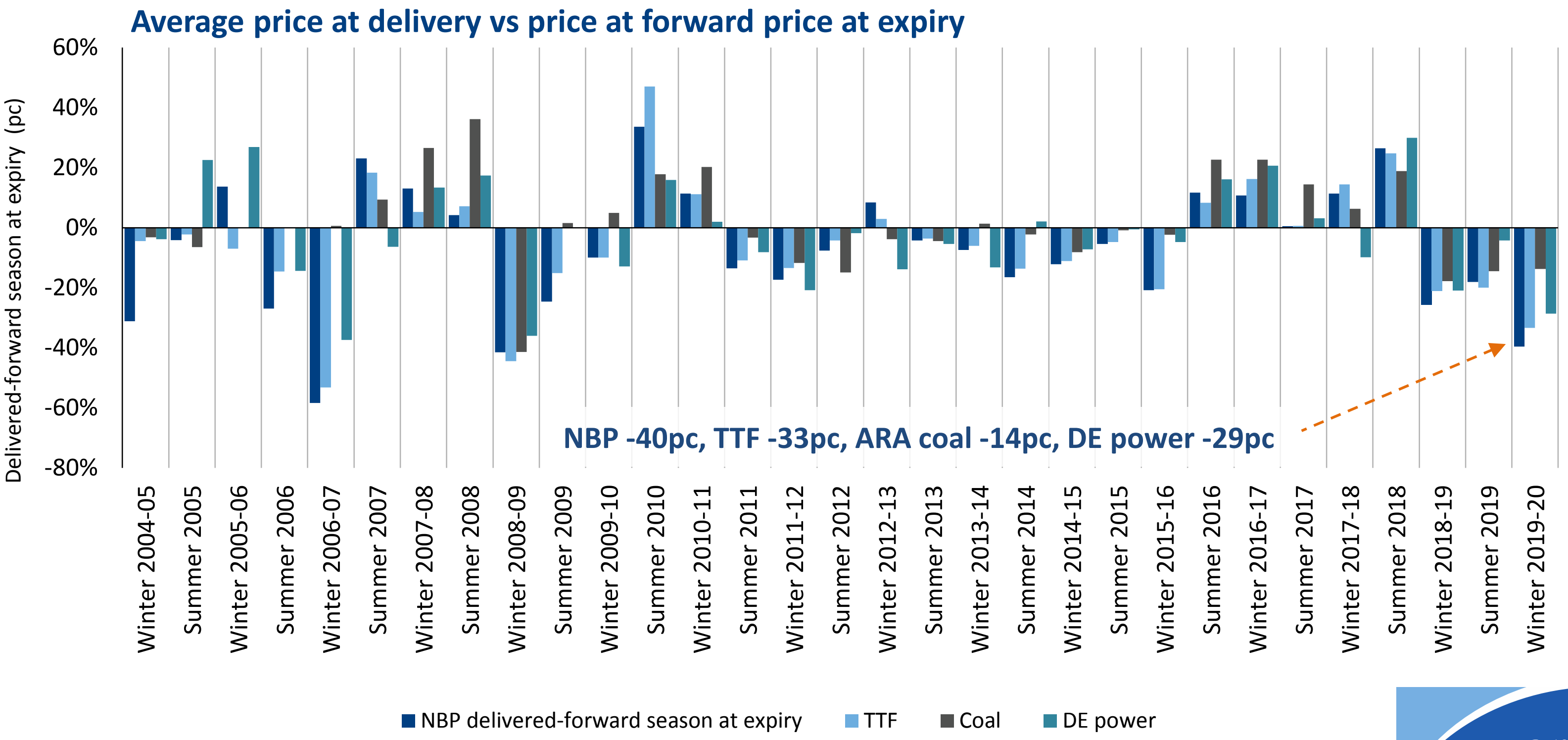

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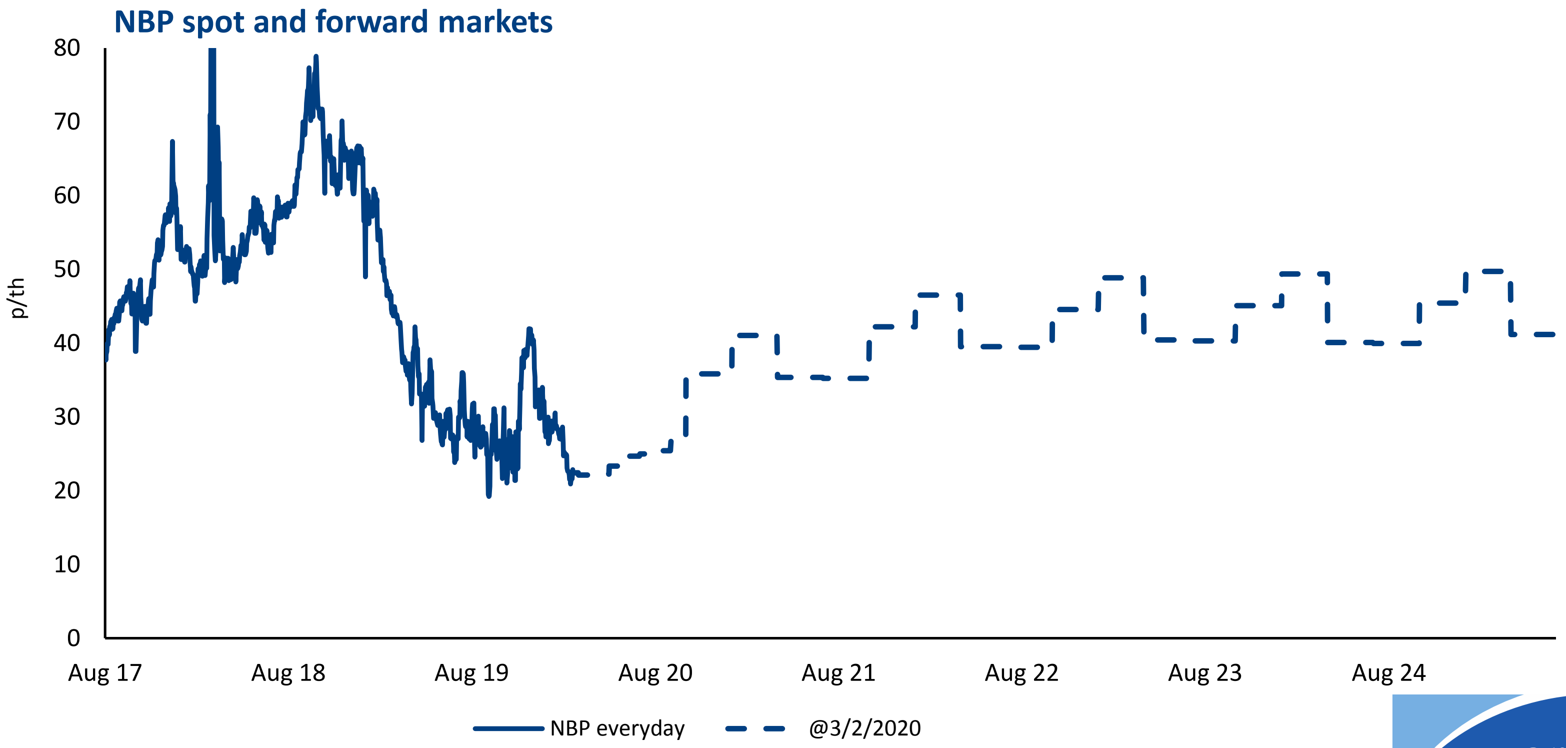
Forward curve unusually shaped for mid-February



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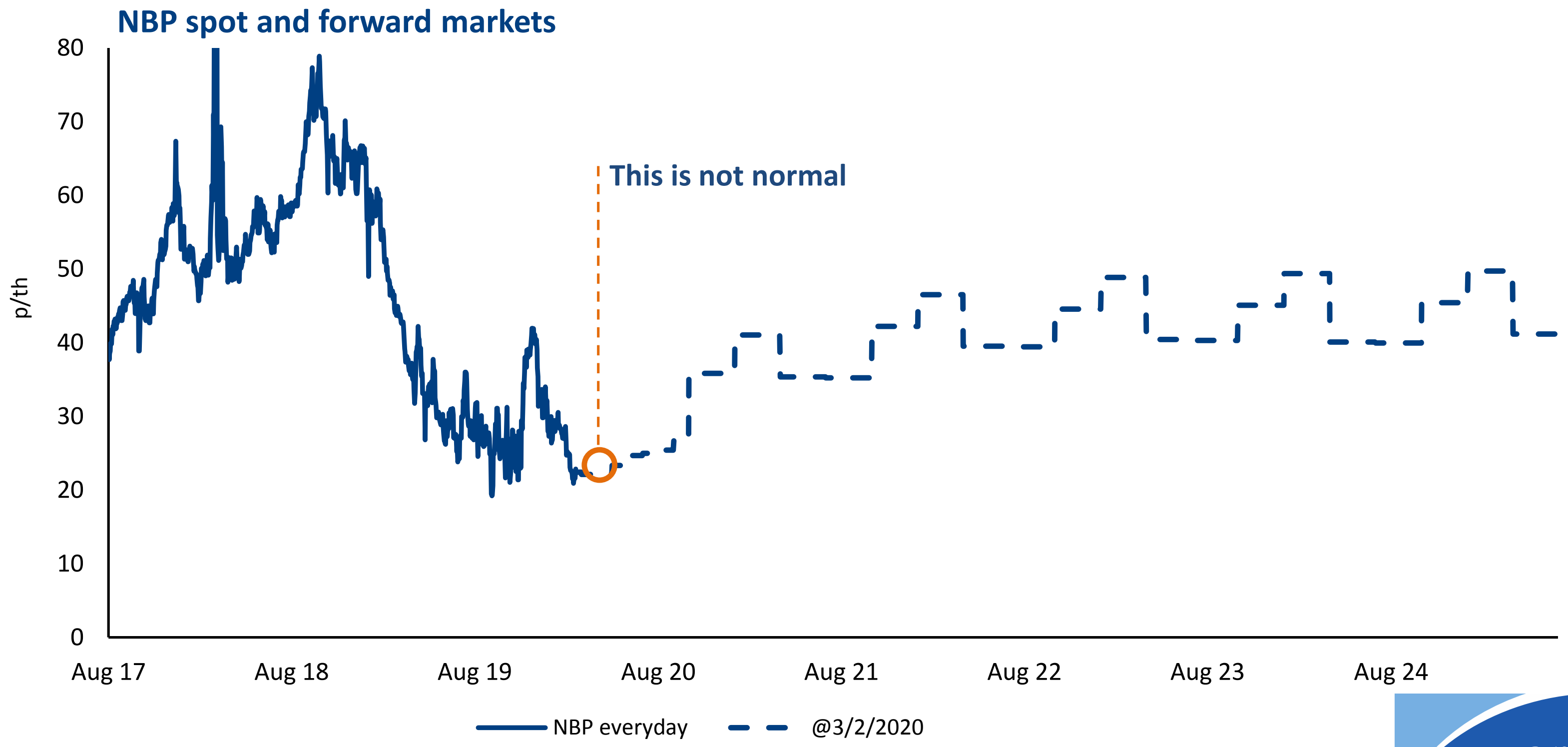

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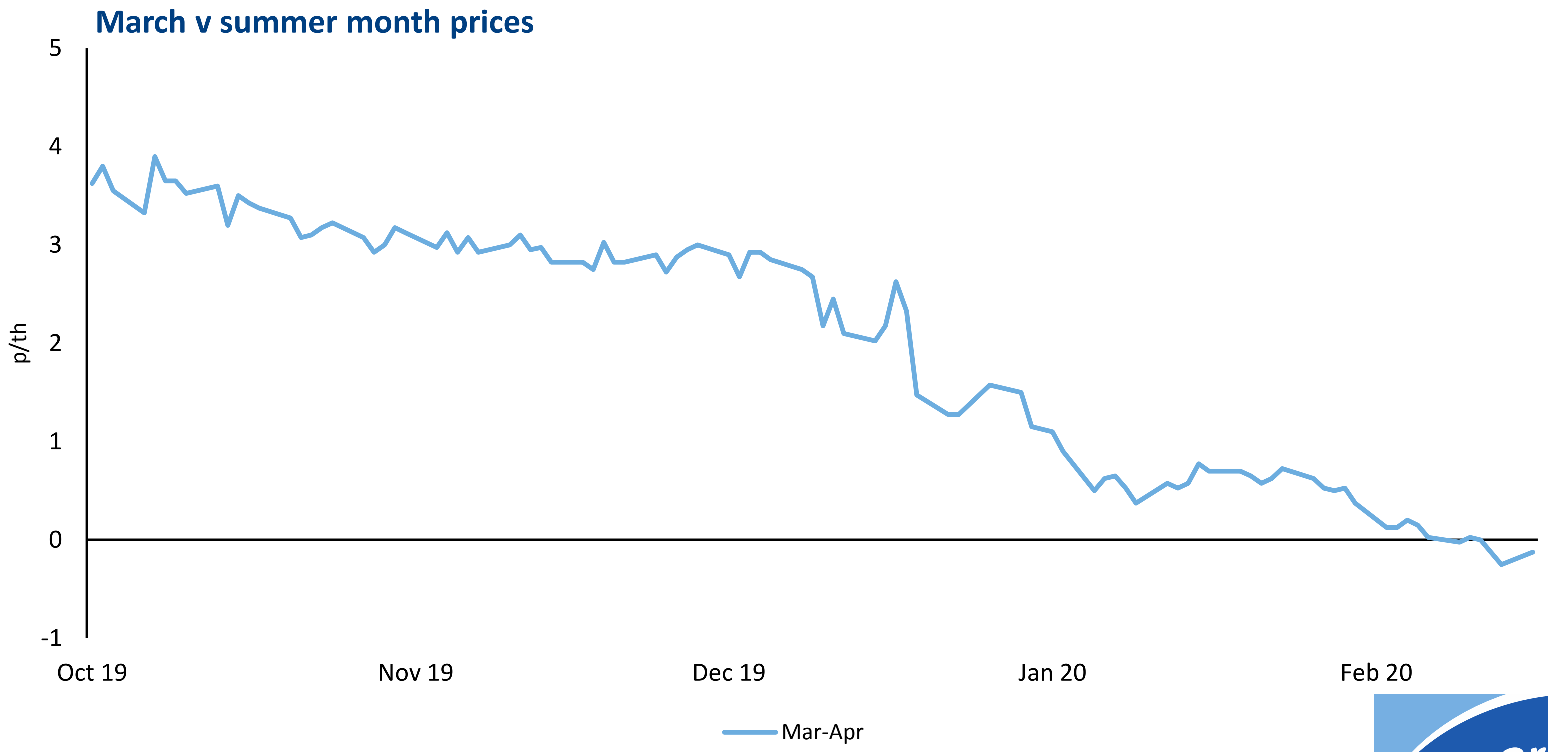
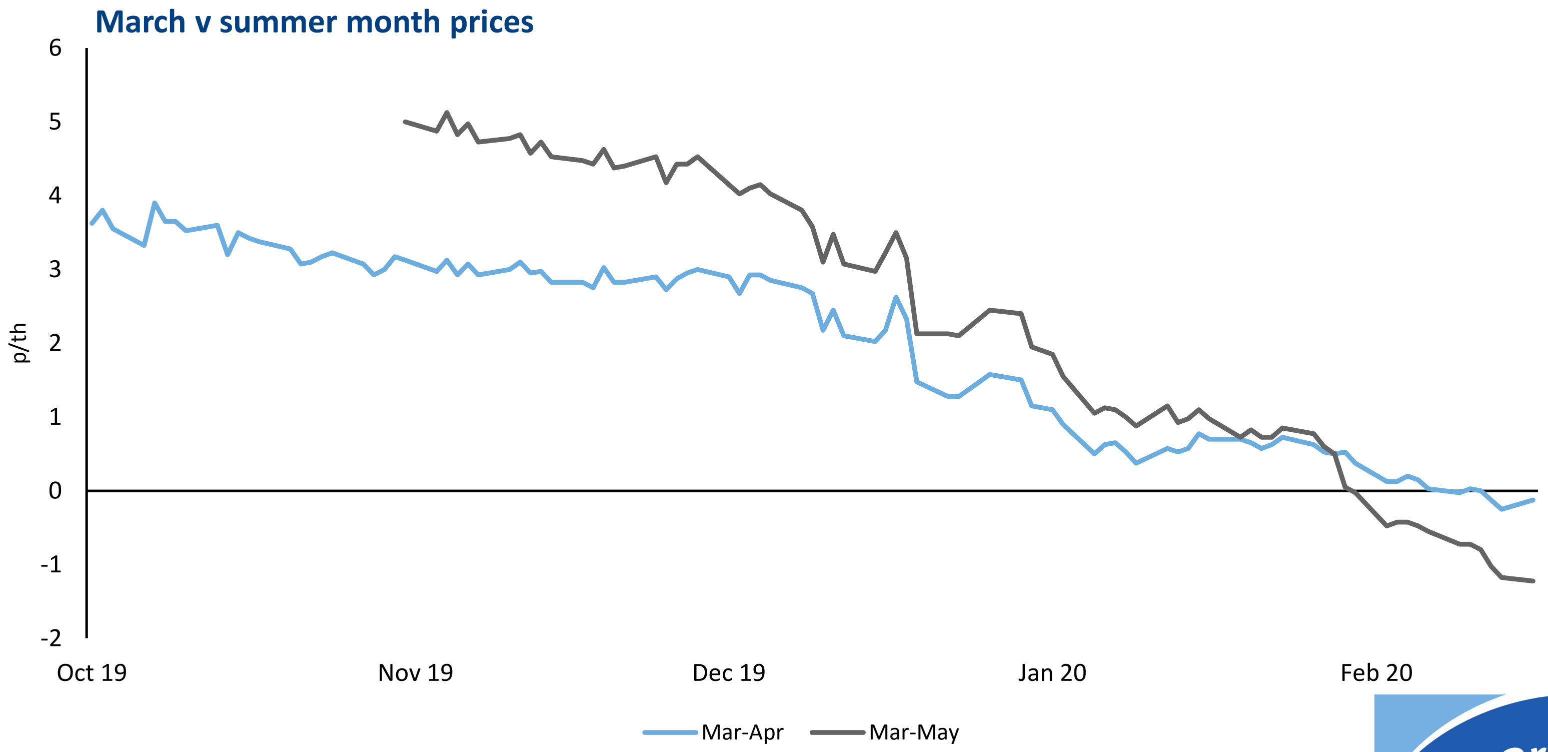
March below April



And below May



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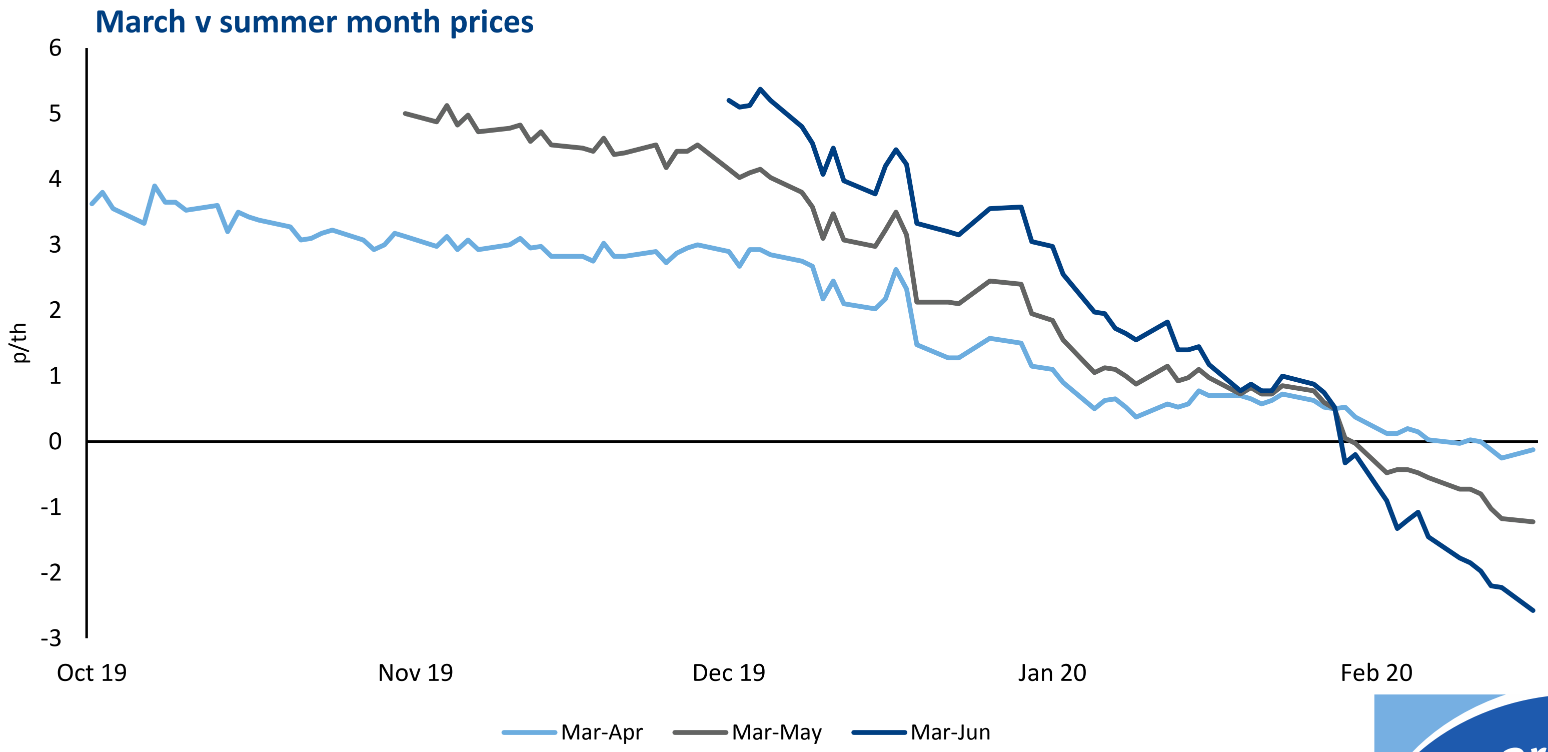
And below May, June



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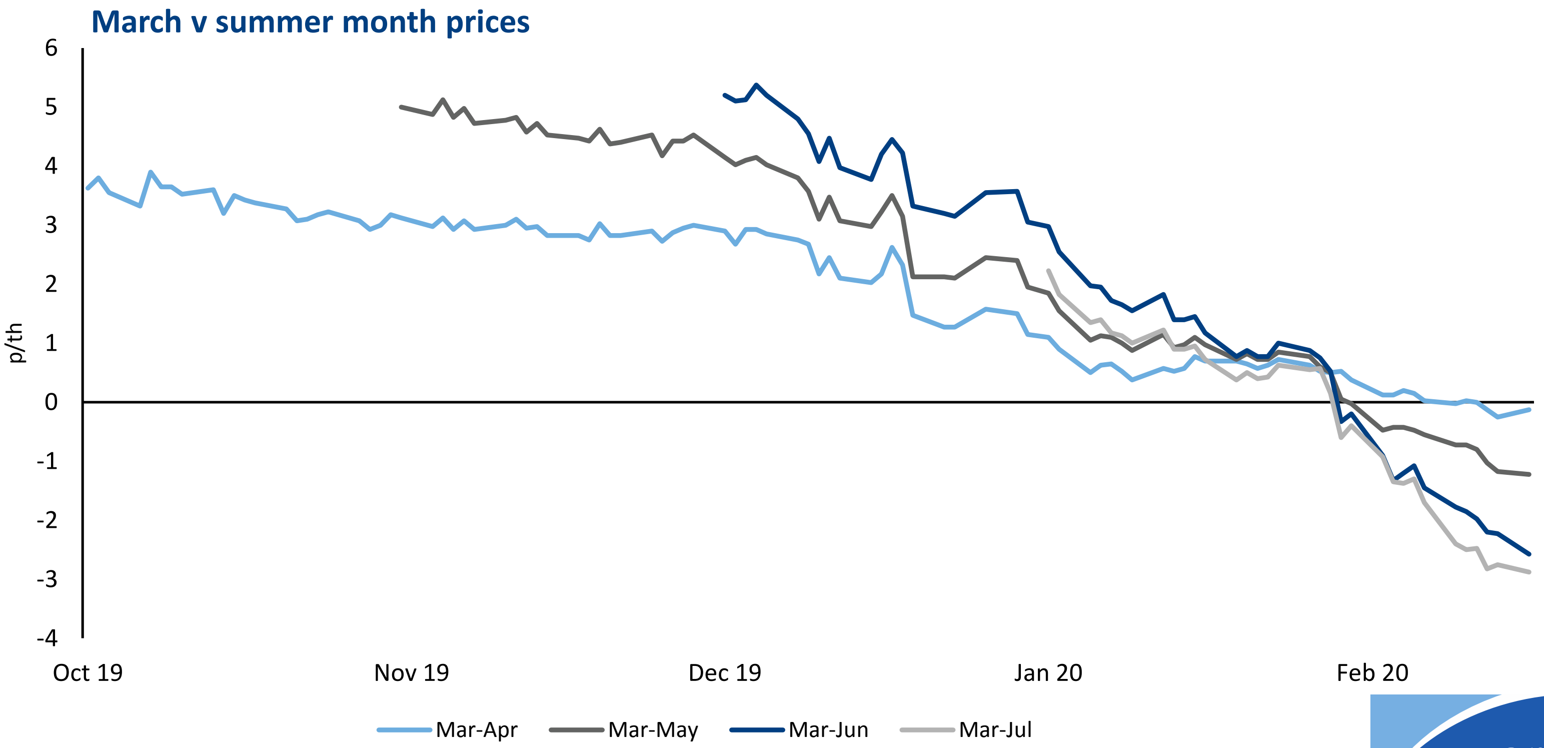
And below May, June, July



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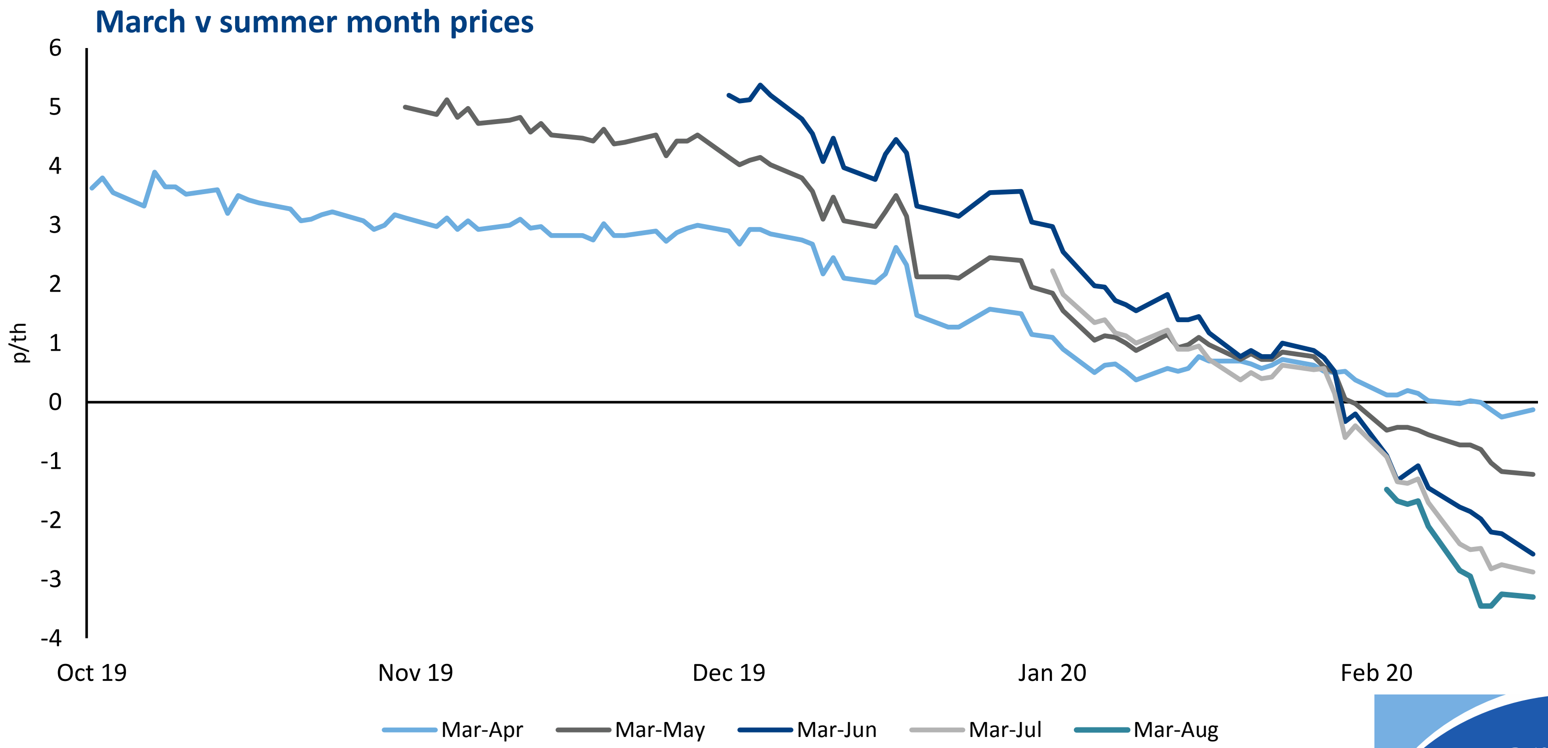
And below May, June, July, August



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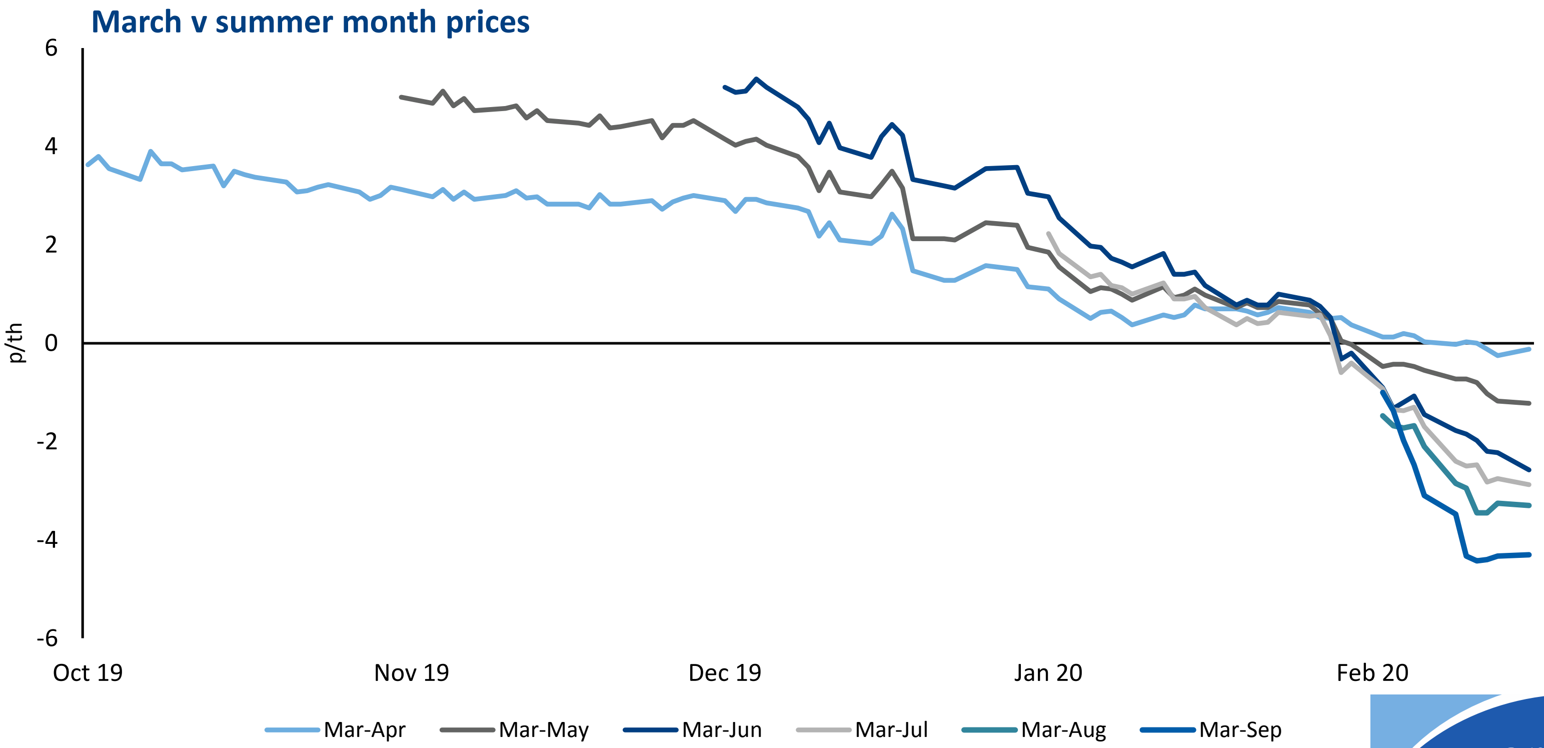
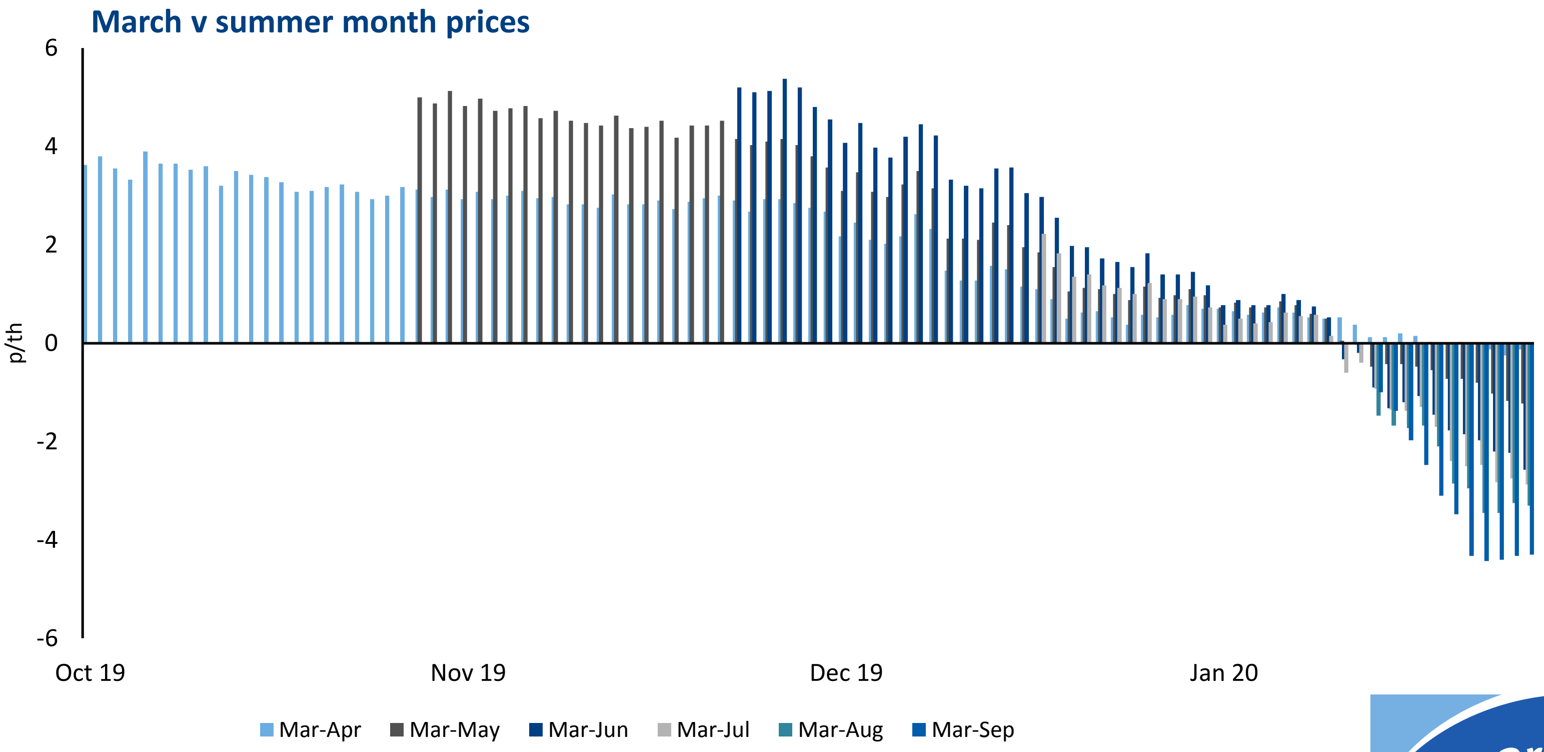
And below May, June, July, August and September



March vs forward months



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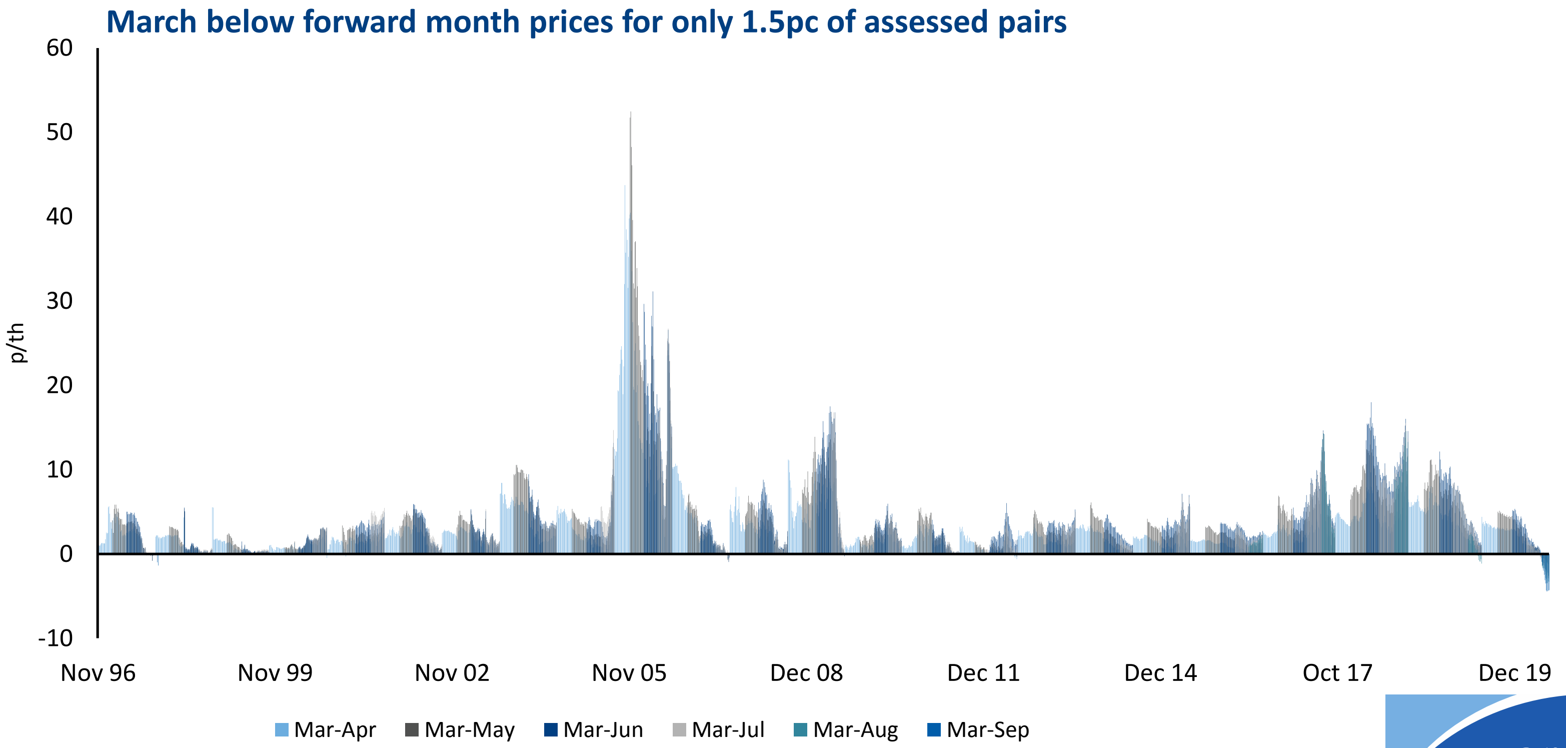
March vs forward months



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Global LNG prices

Tightly clustered – and waiting for news from China

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Market Reporting

Consulting

Events

Global gas benchmarks are all falling

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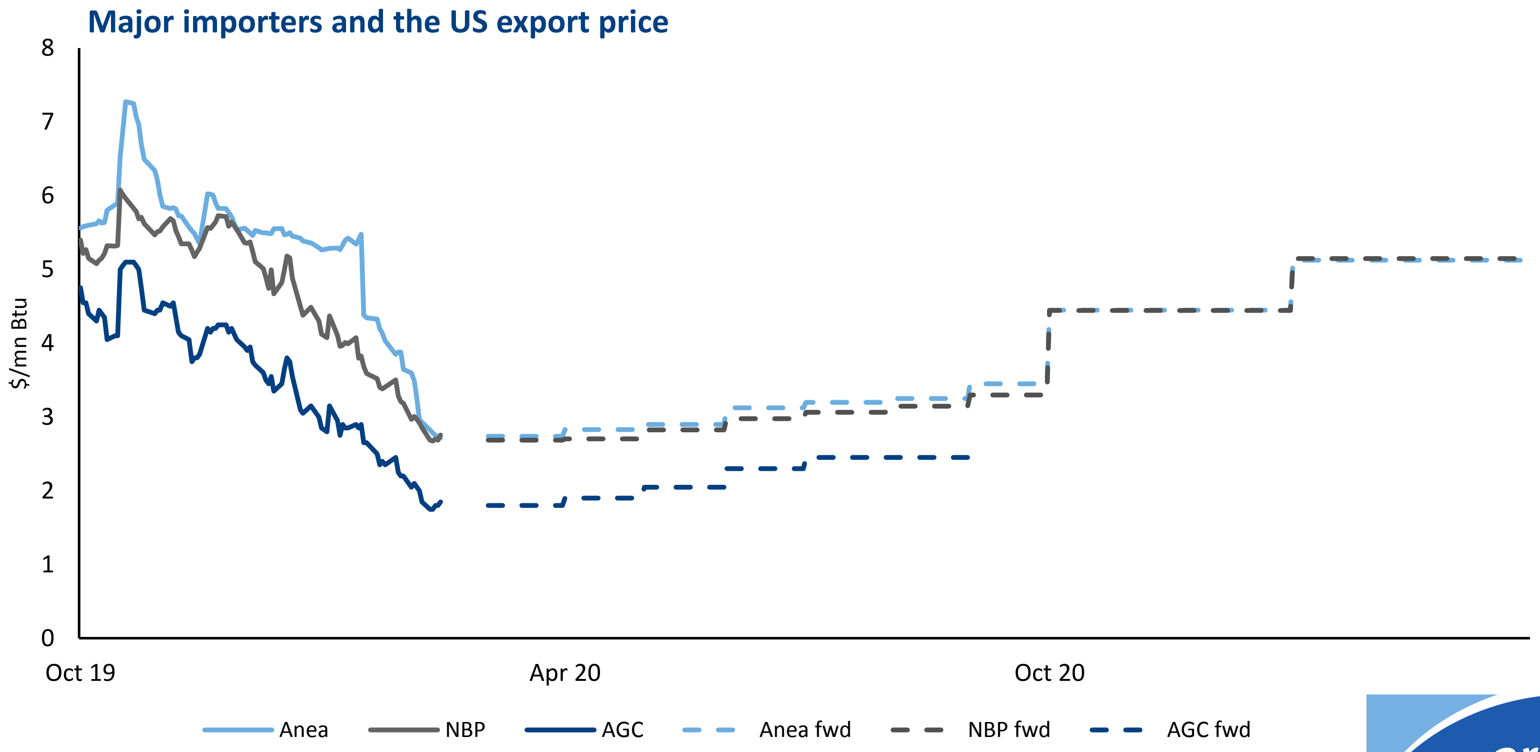
Atlantic-Pacific arbitrage mostly shut



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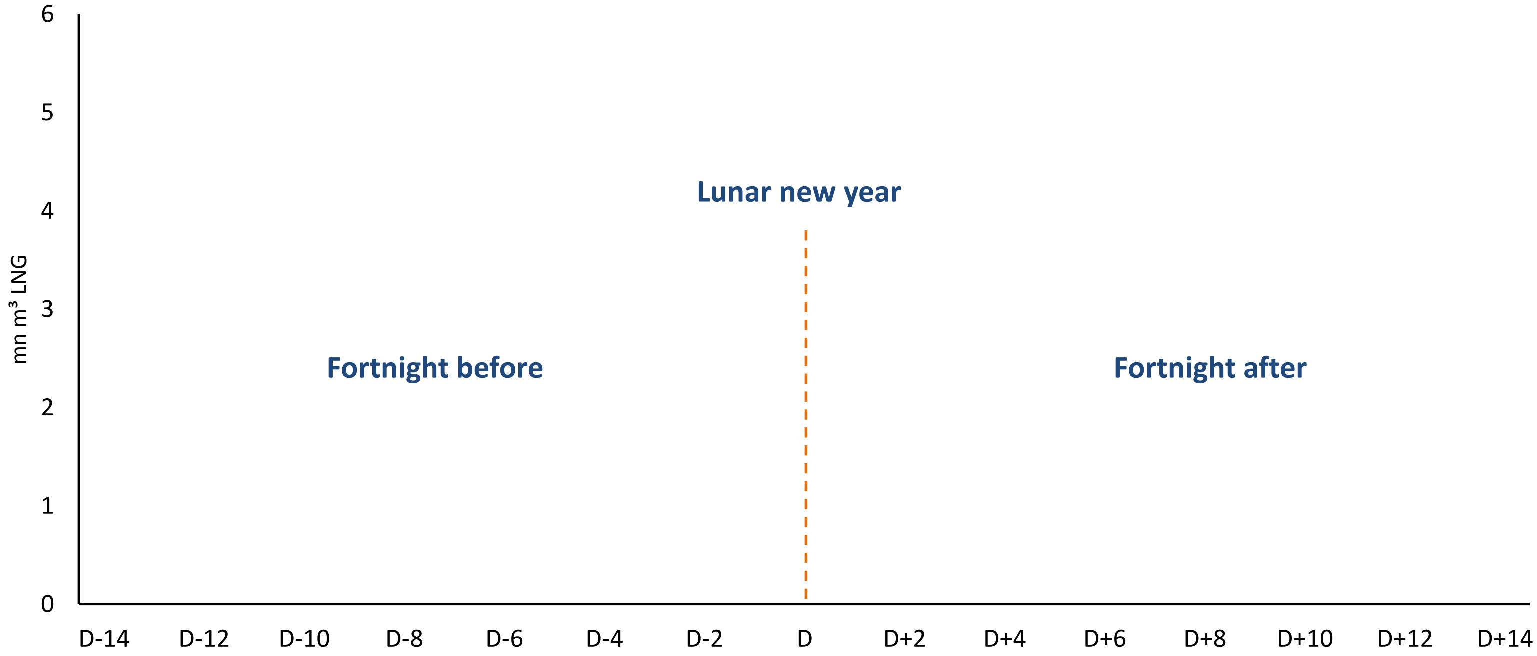
Chinese LNG imports around Lunar New Year



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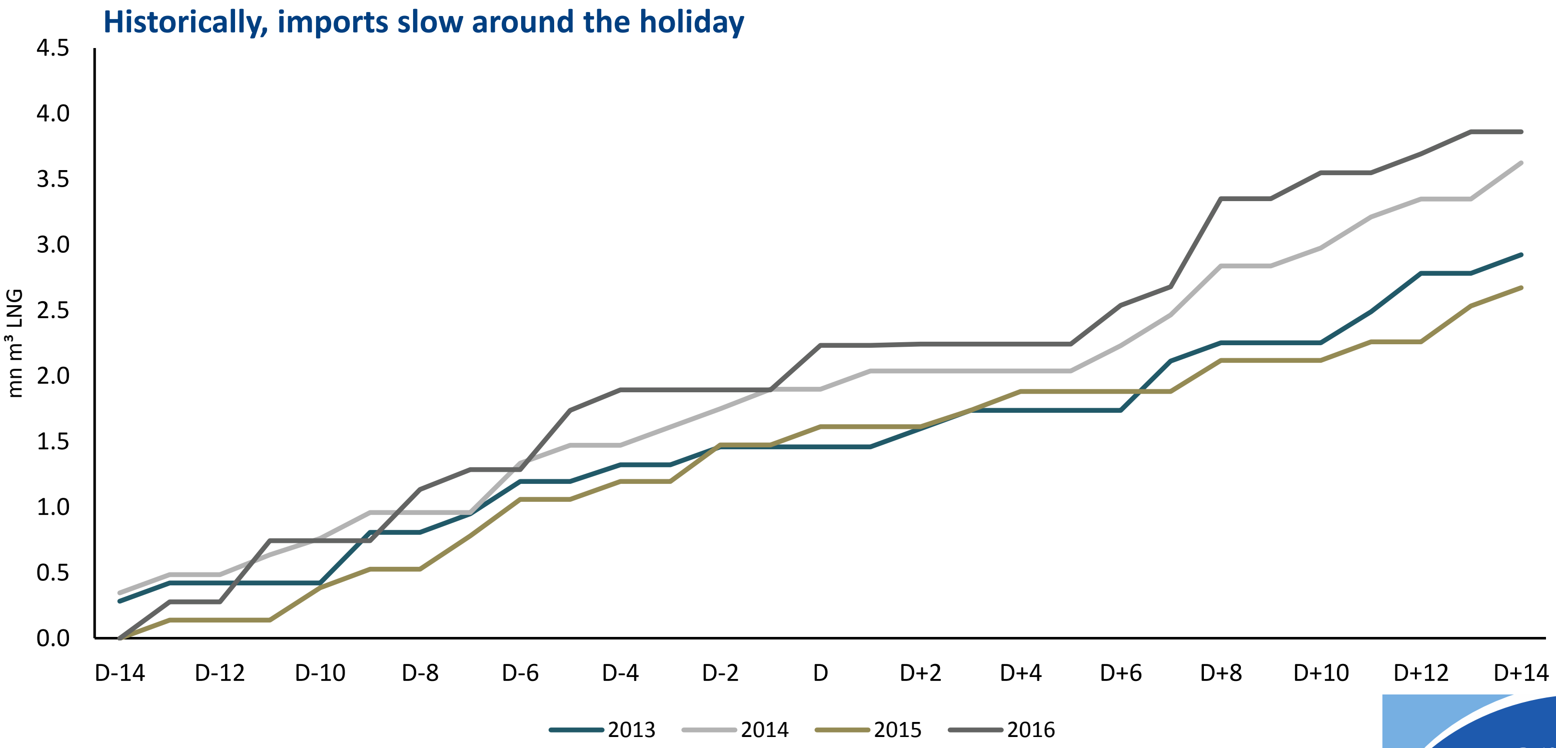

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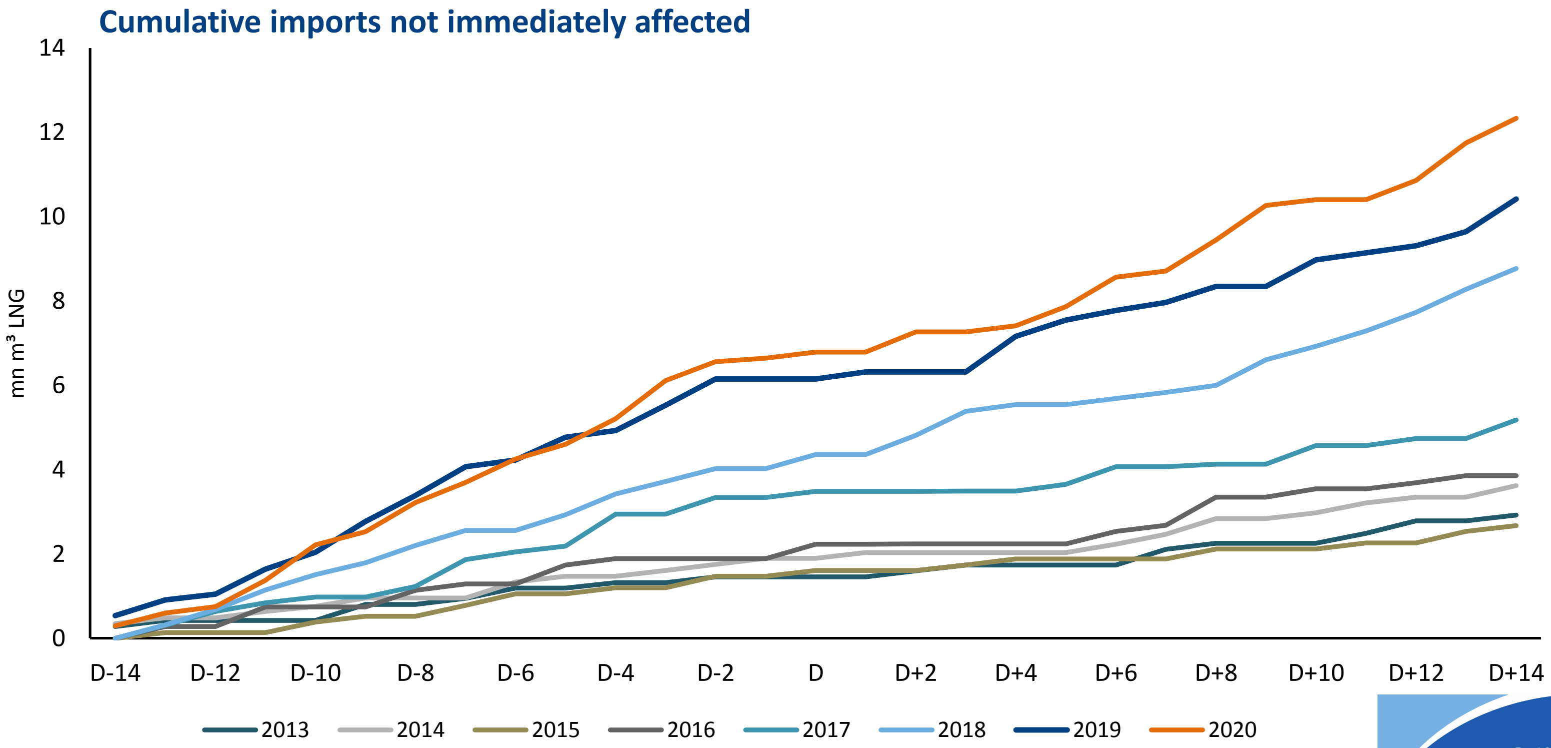

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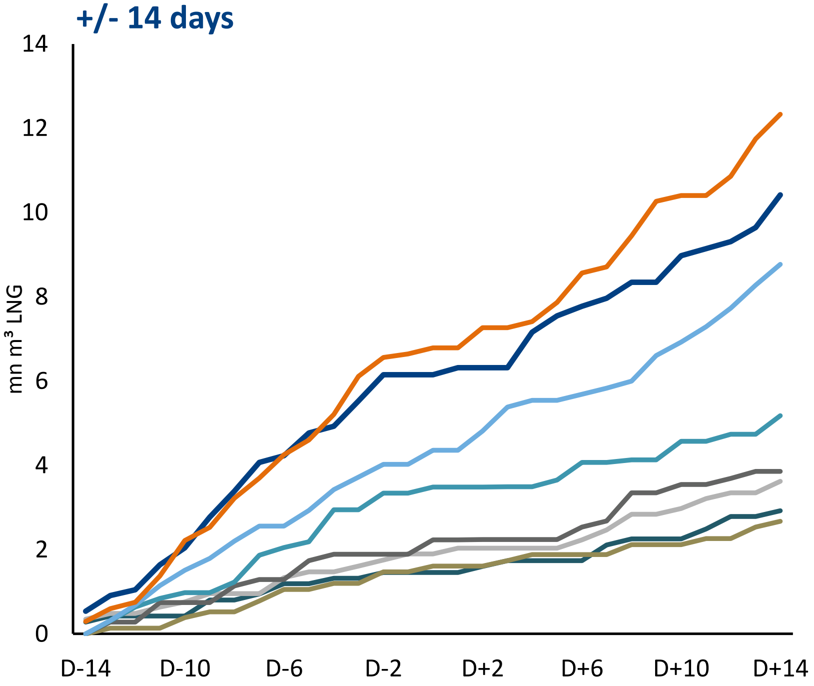

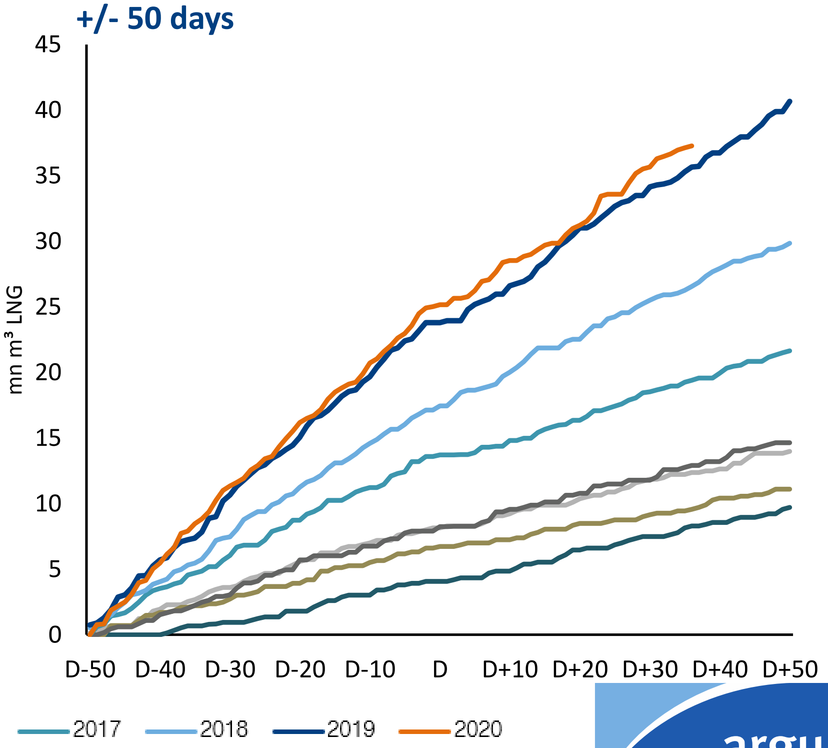

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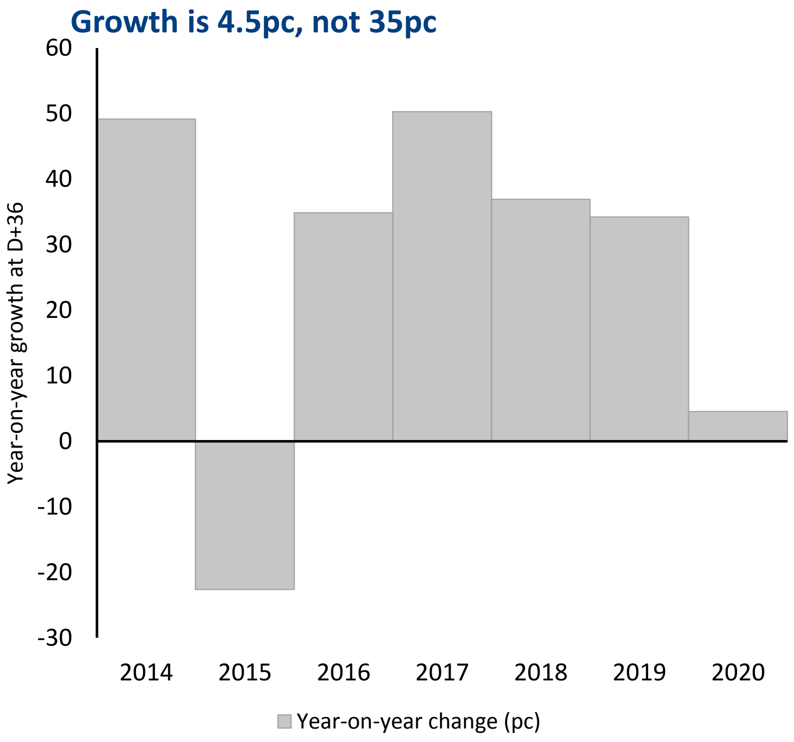

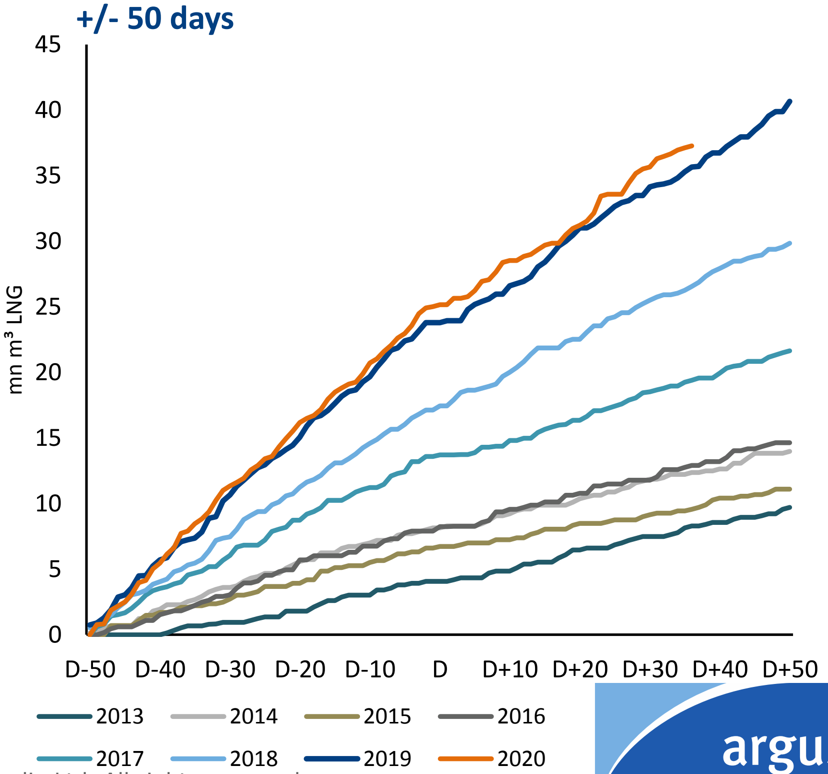

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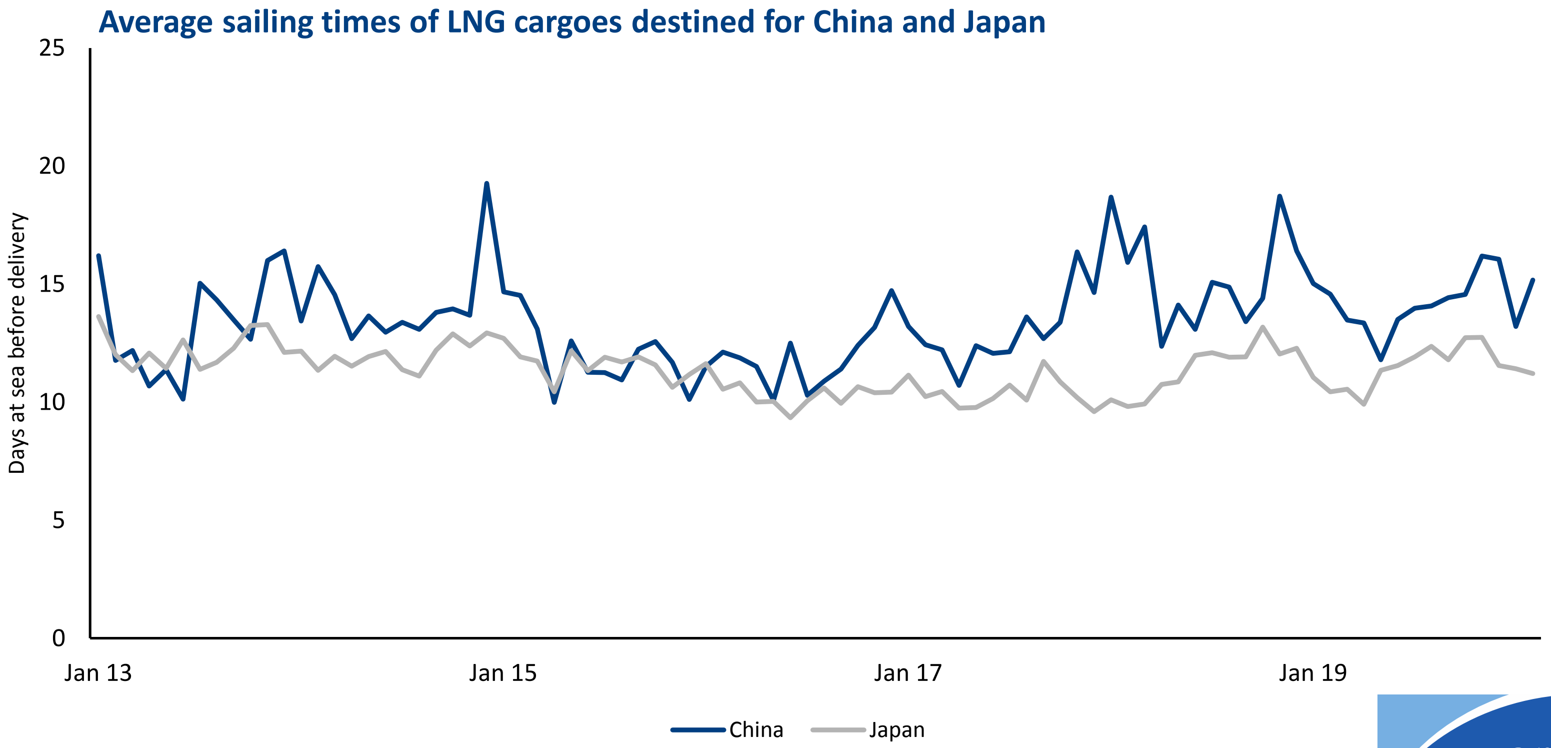
Sailing times up only slightly



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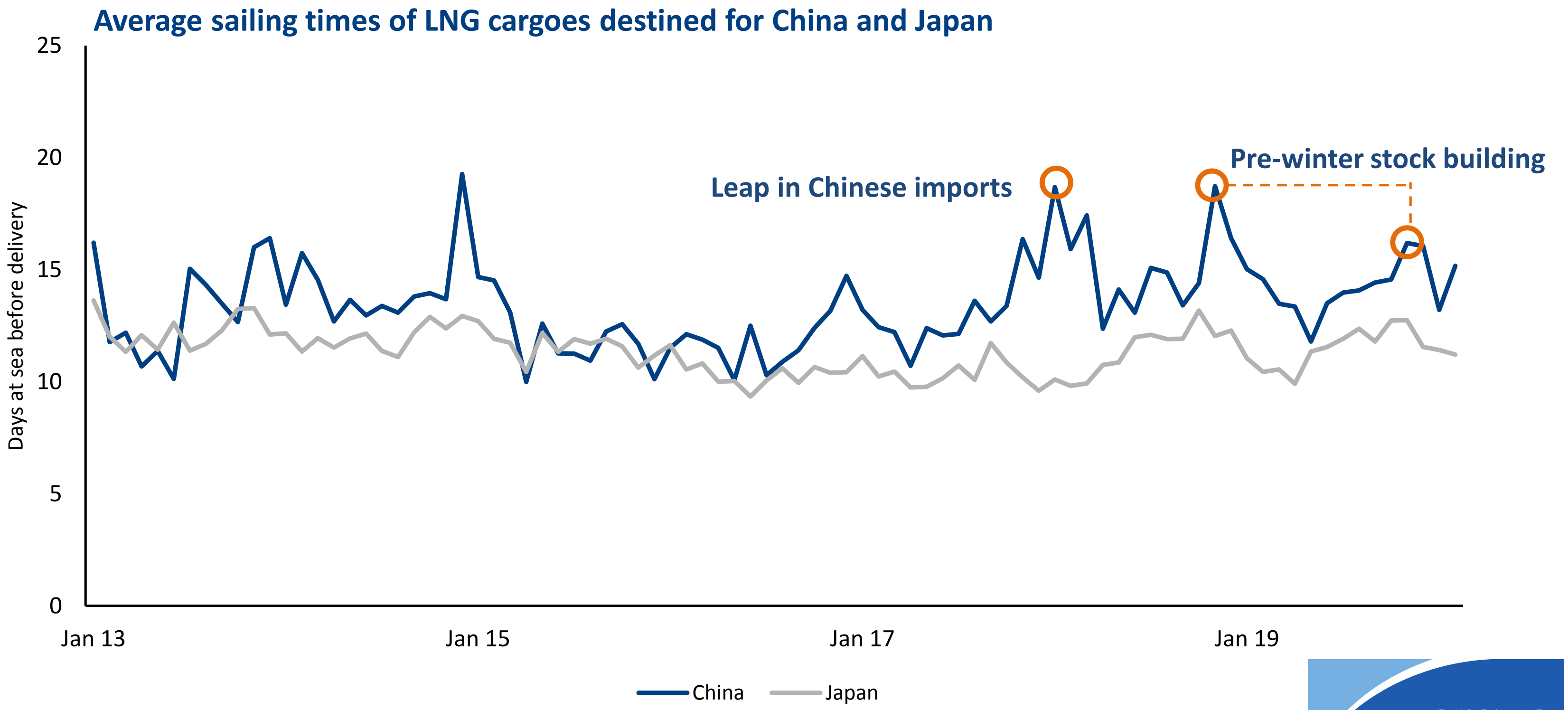

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More proximate issues

Rearranging EU gas flows and what to do about storage

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Market Reporting

Consulting

Events

Storage

The argument for even lower prices?

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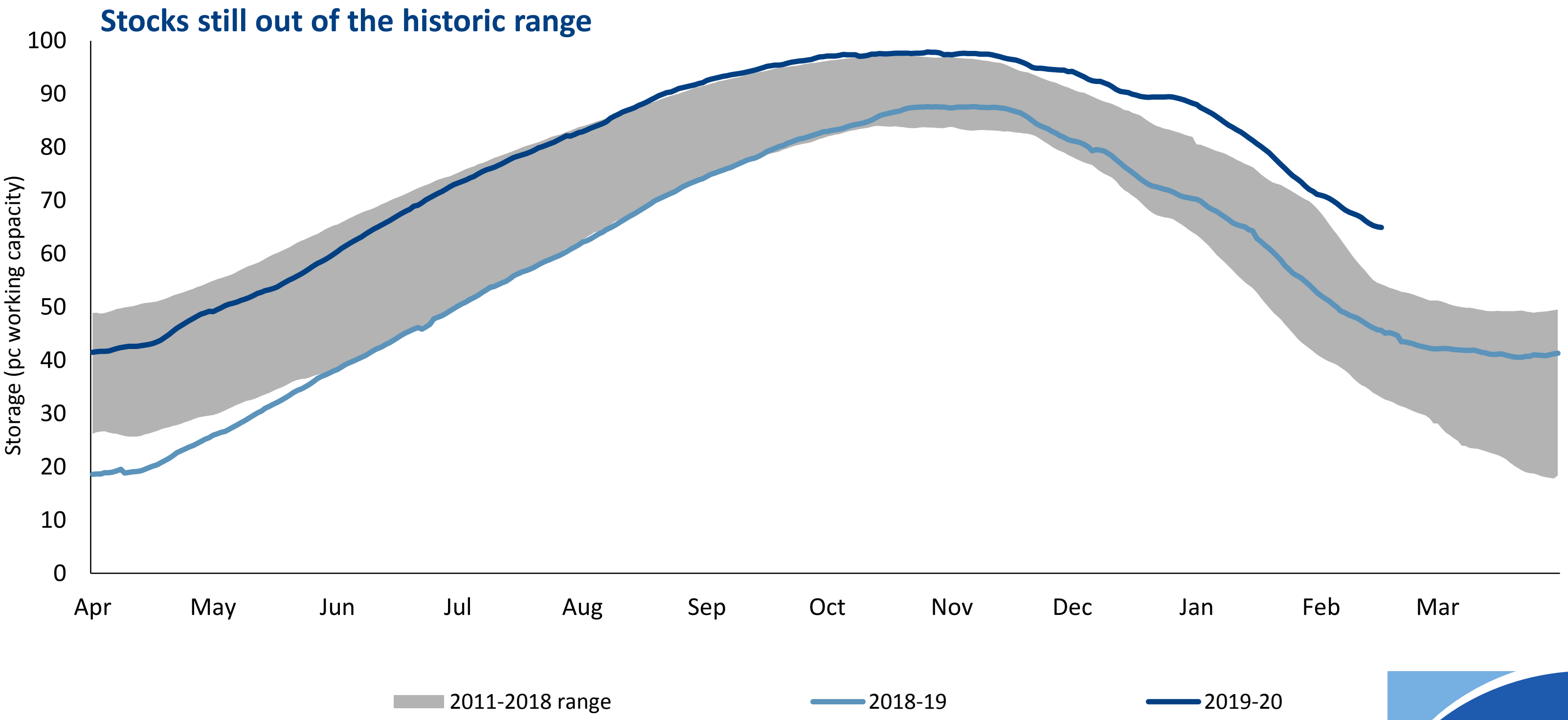
Events

The storage dilemma



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The storage surplus rose in November

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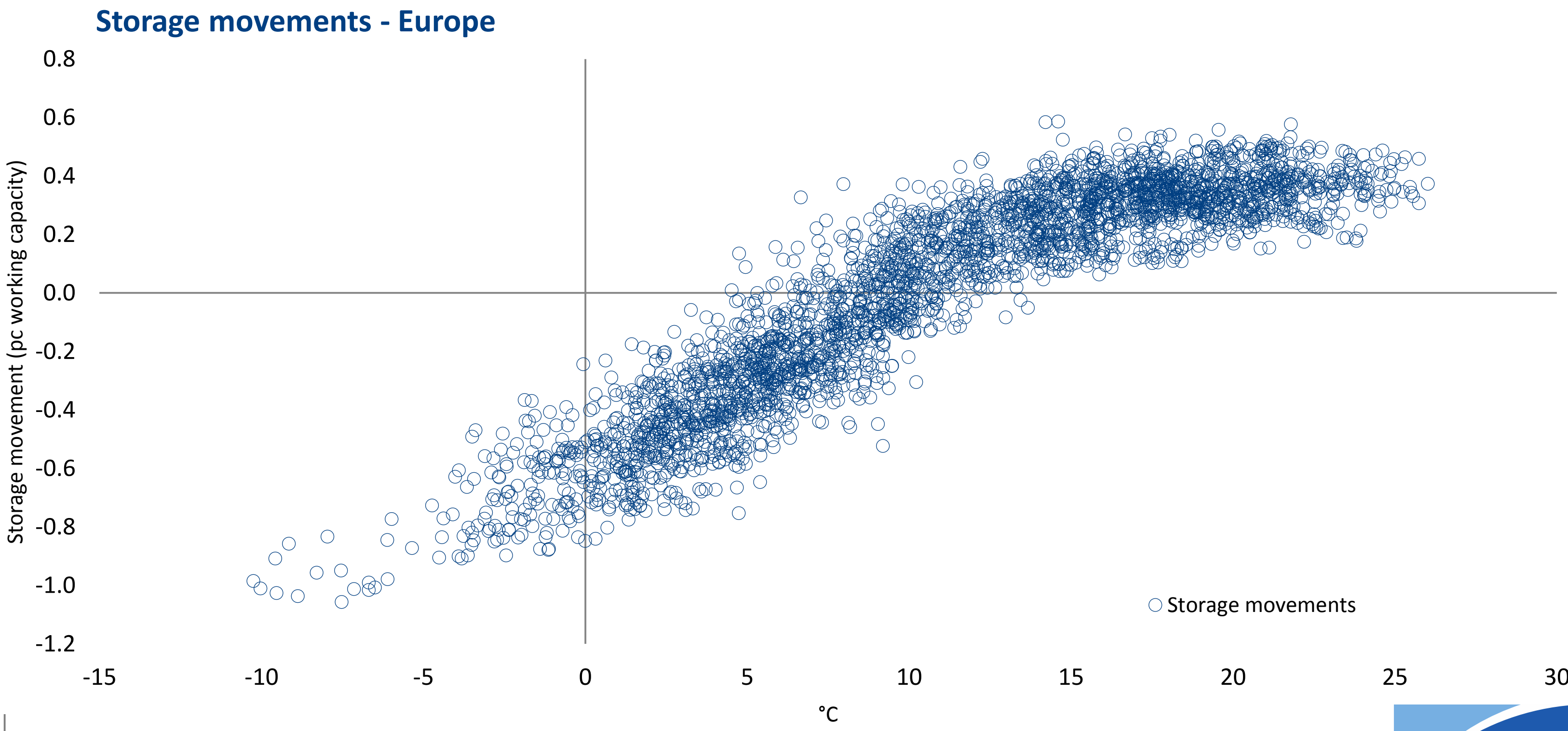
Understanding storage



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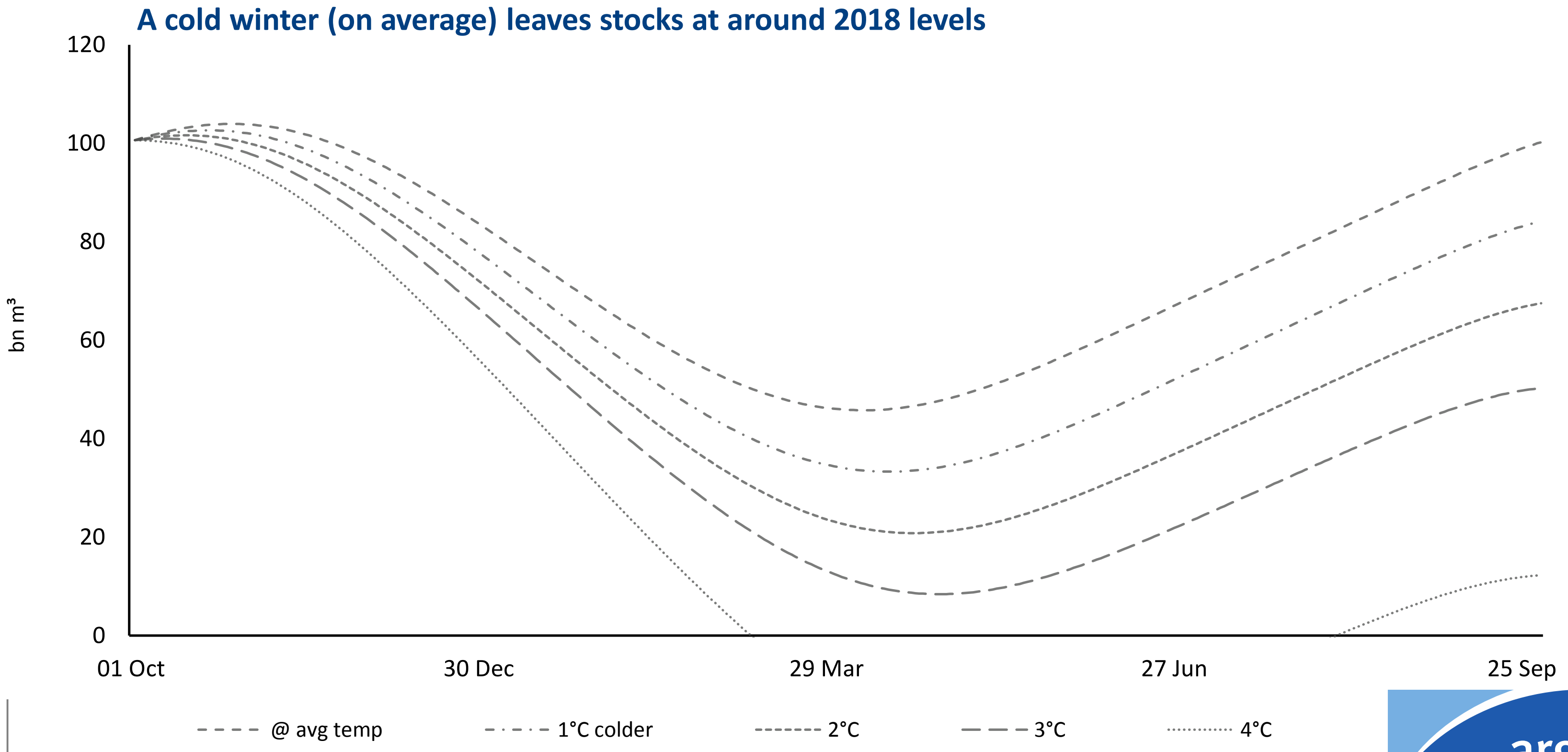
Storage-temperature models



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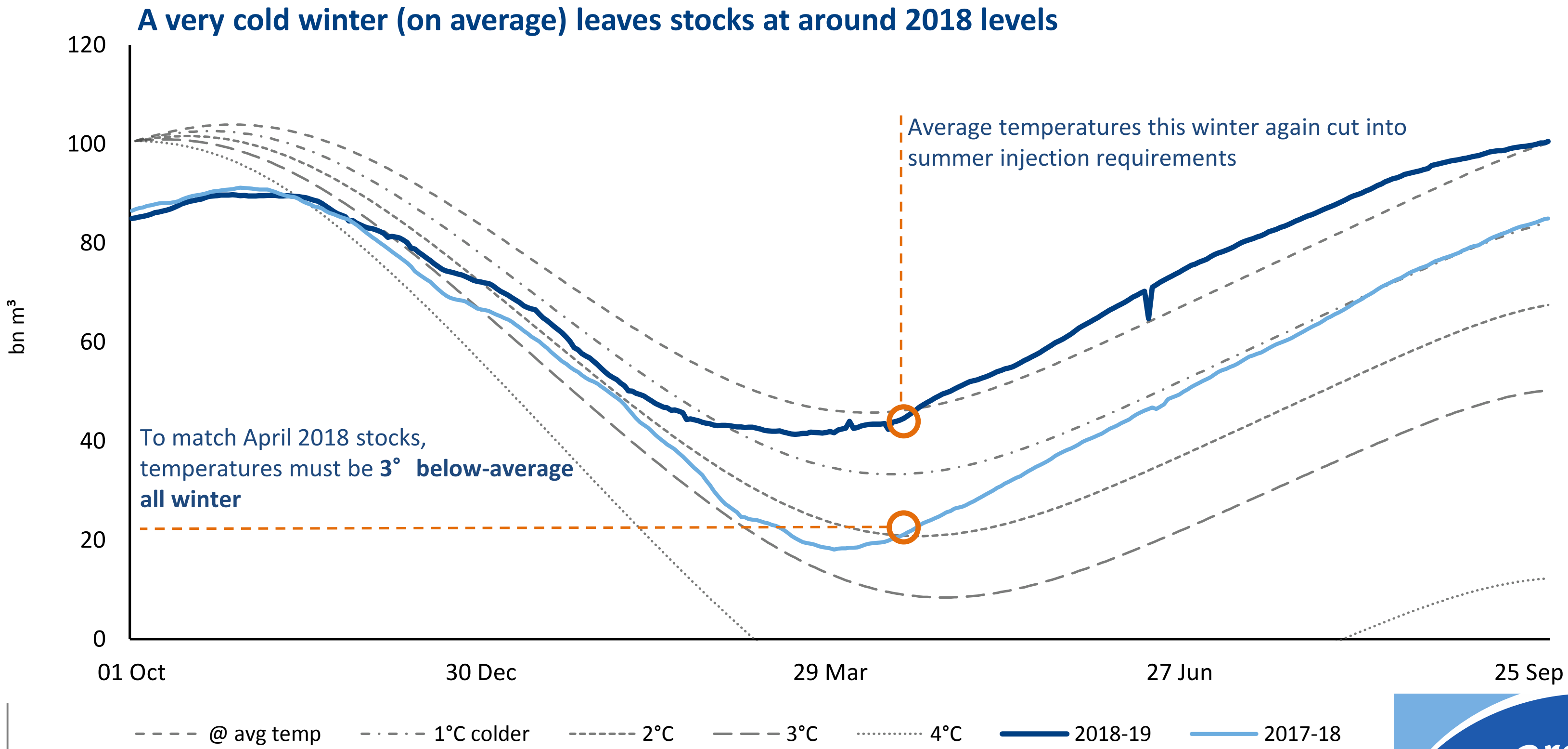

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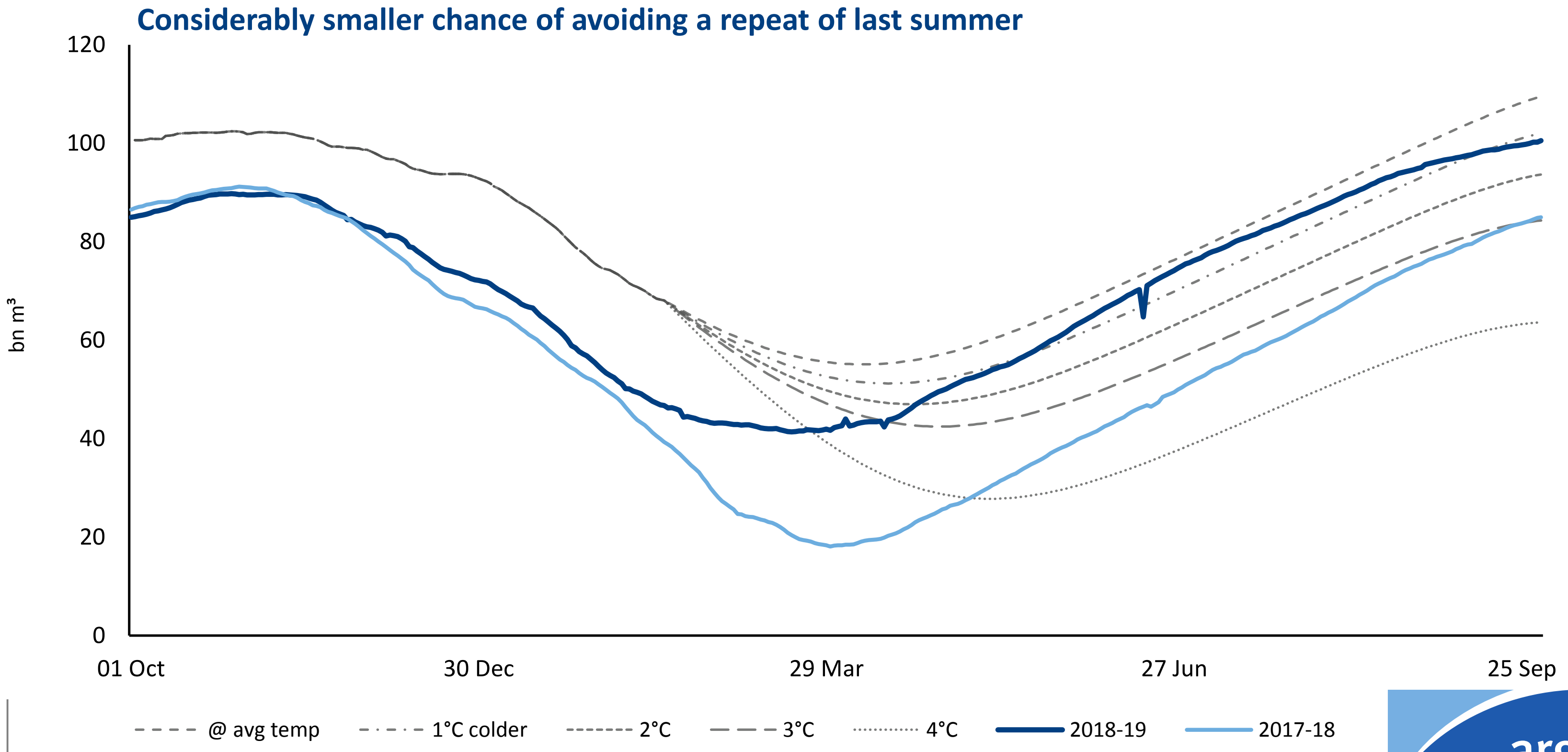
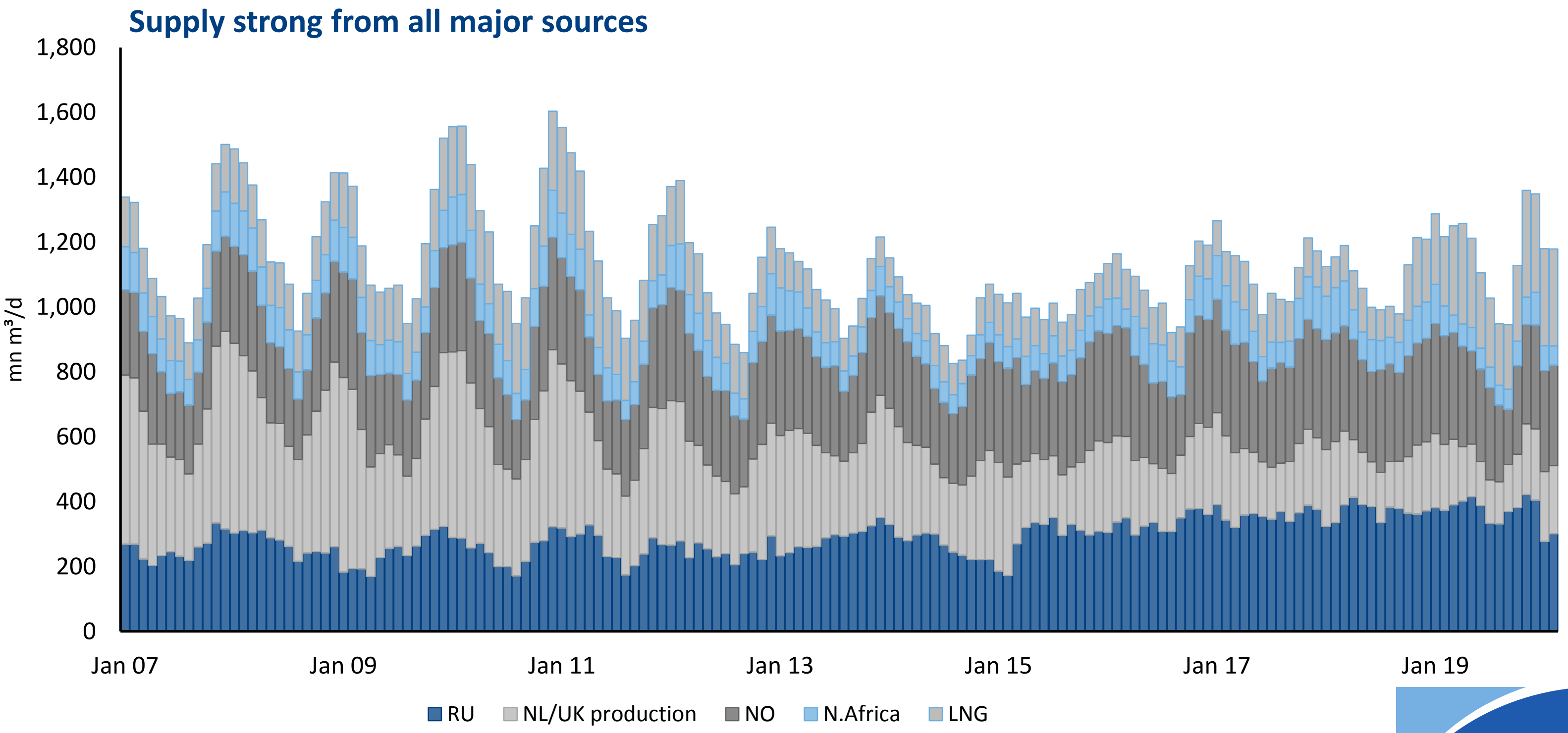
Storage-temperature models



Supply

LNG, more LNG and Russia-Ukraine

Russian turn-down hits overall supply



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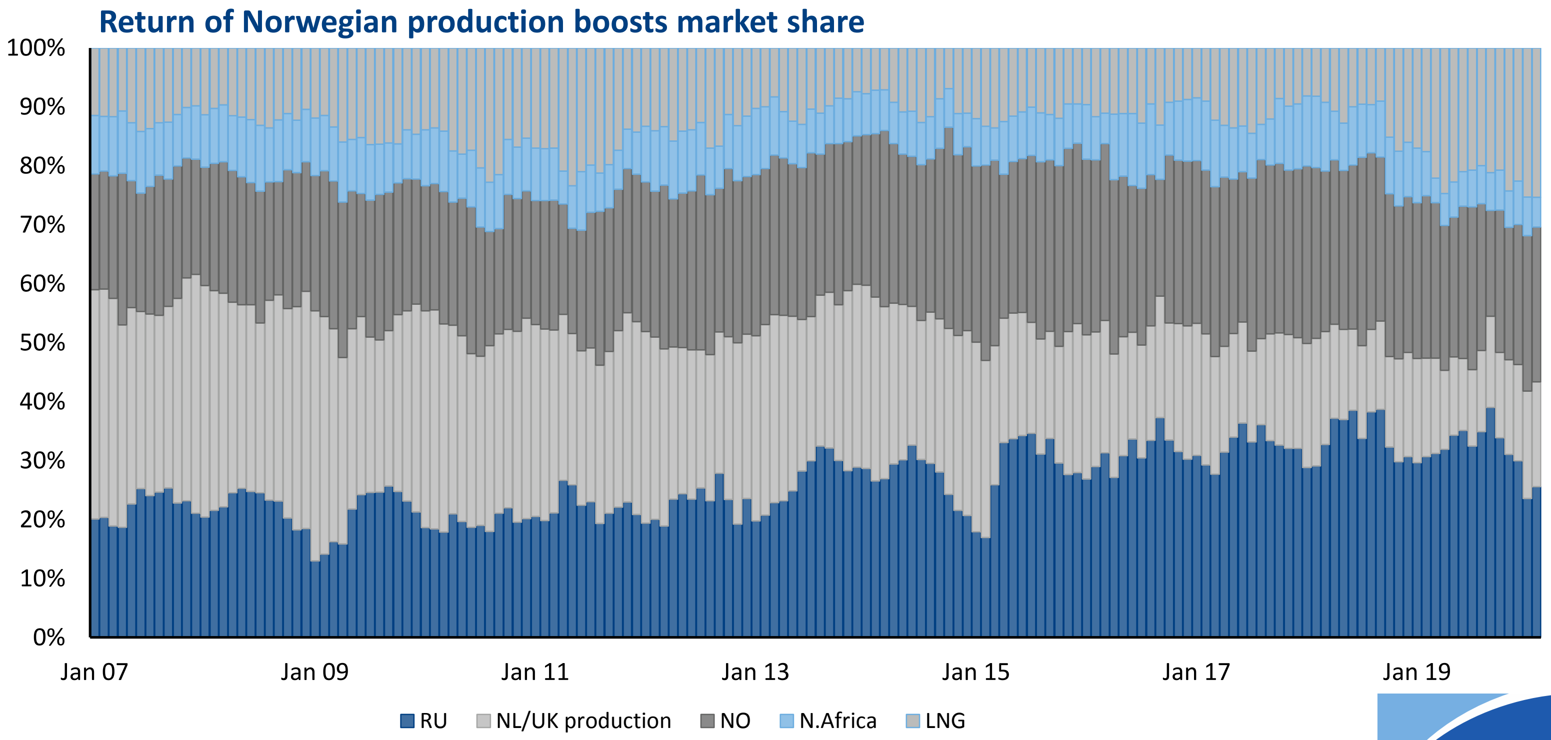
LNG market share at new high



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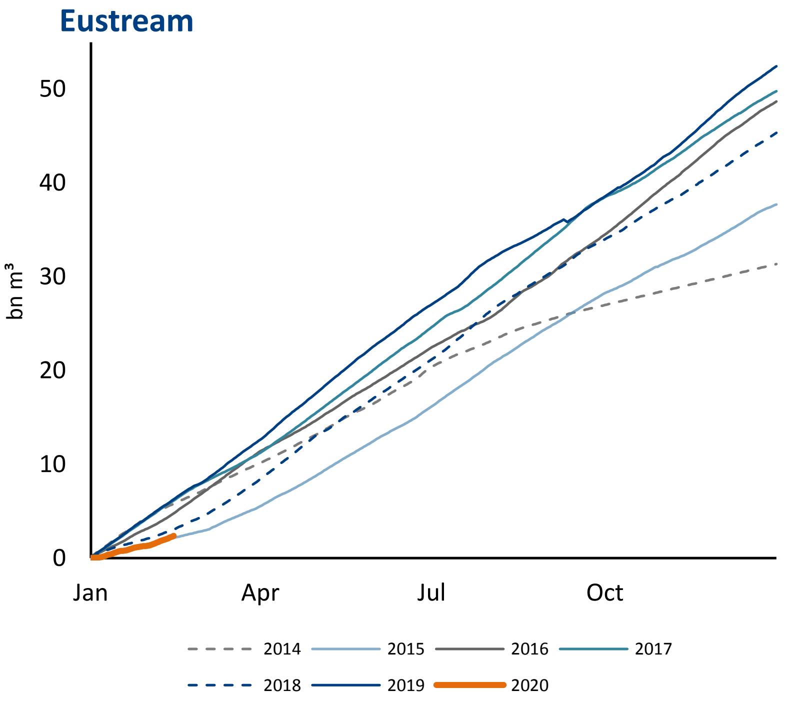
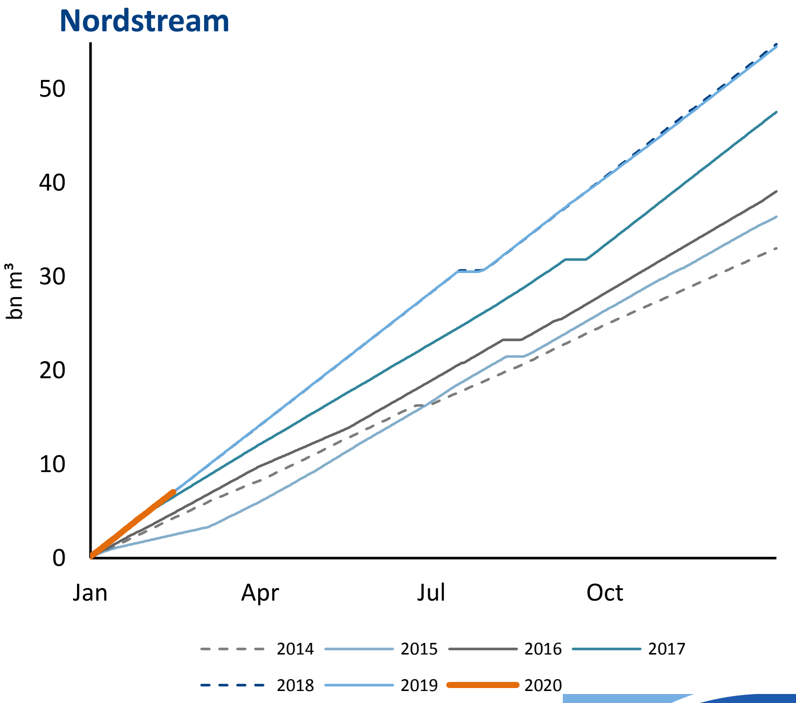
Nordstream and Eustream





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The map, rearranged

Emergency measure or the shape of future supply?

Market Reporting

Consulting

Events

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This is a map (really)

RU

Nel
pipeline

DE

PL

CZ

UA

FR

SK

CH

AT

HU

RO

IT

BG

GR

TR

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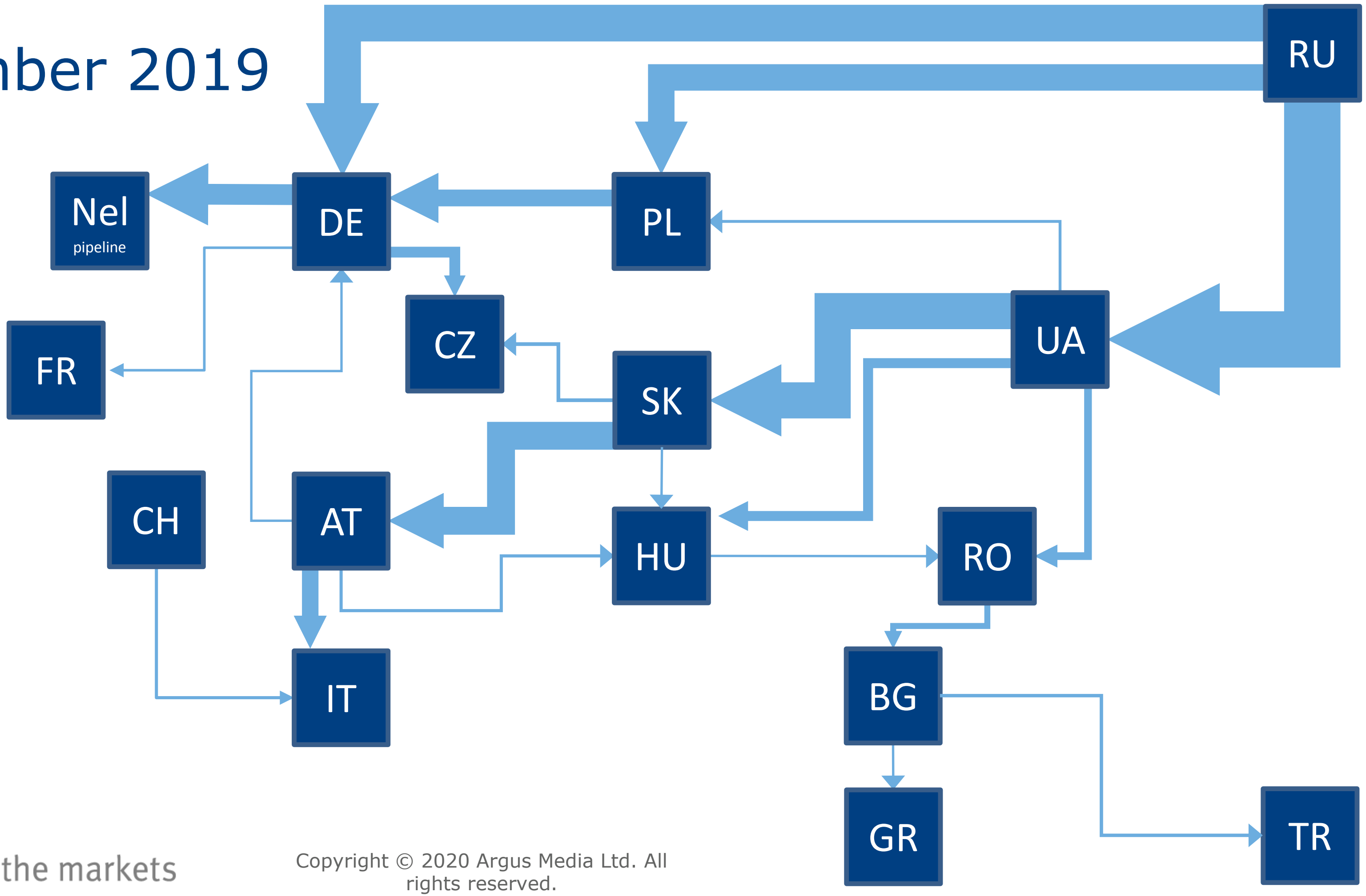
December 2019



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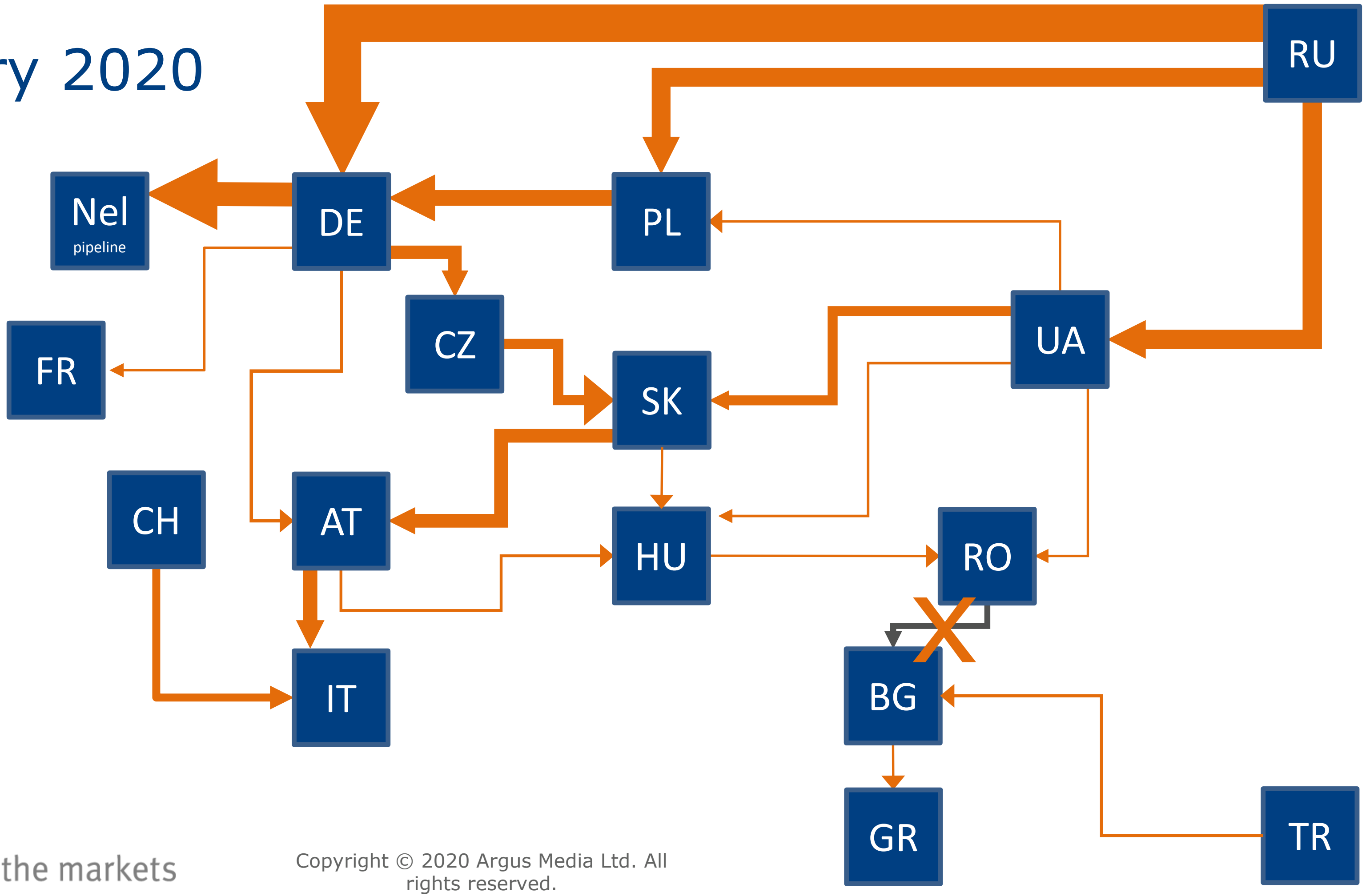
January 2020



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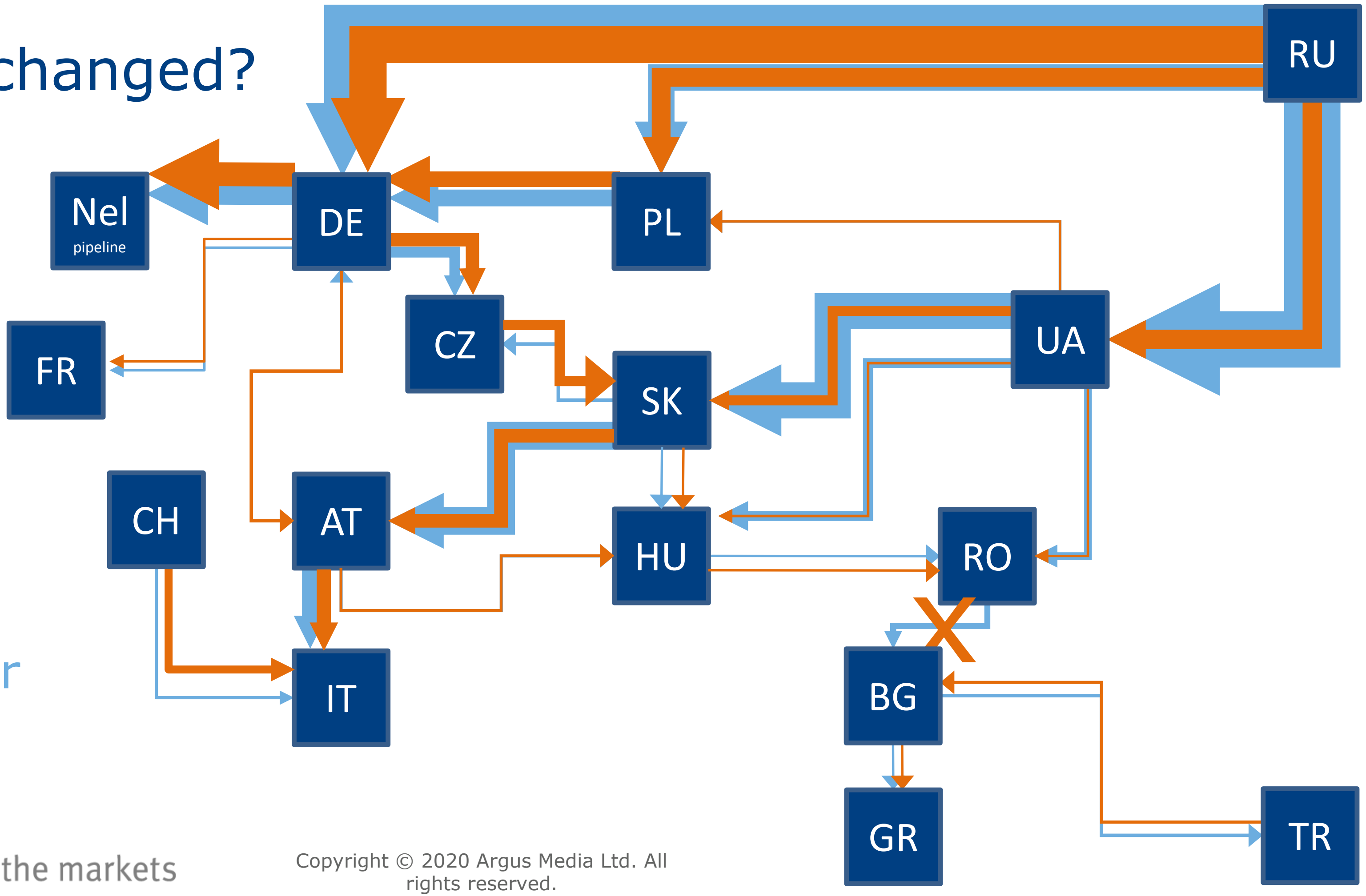
What changed?



December
January

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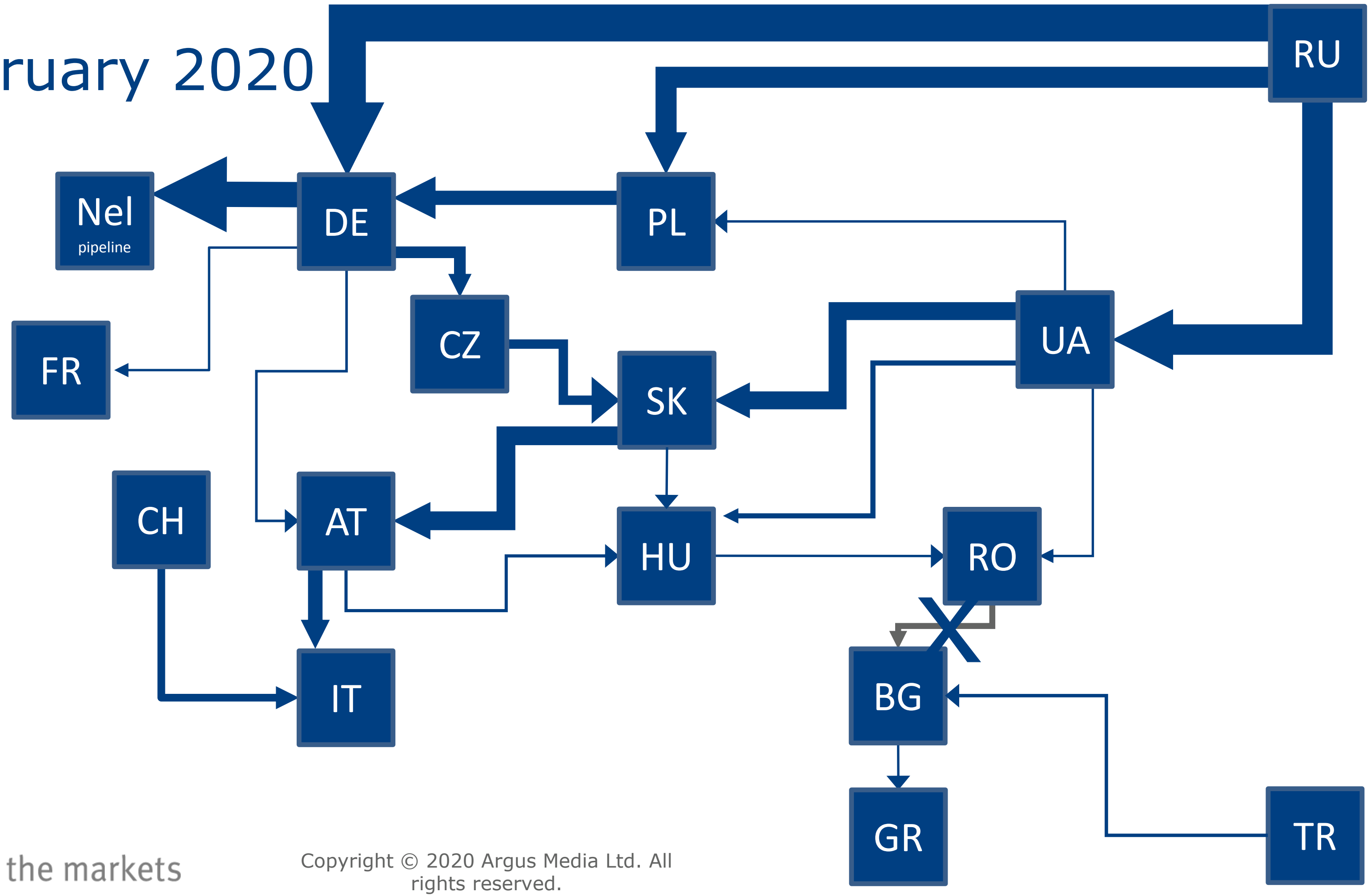
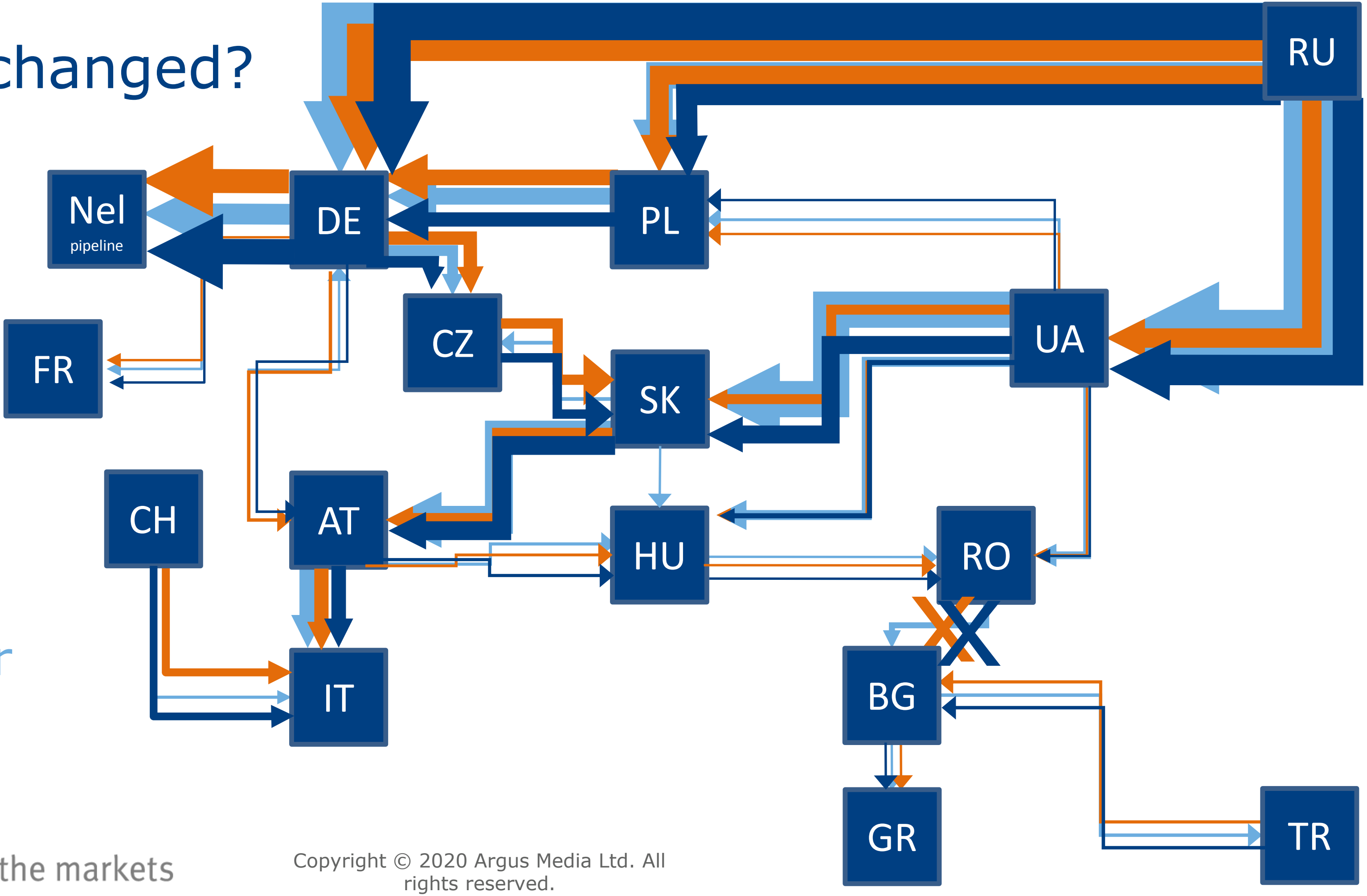
½ February 2020



What changed?



December
January
February

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LNG

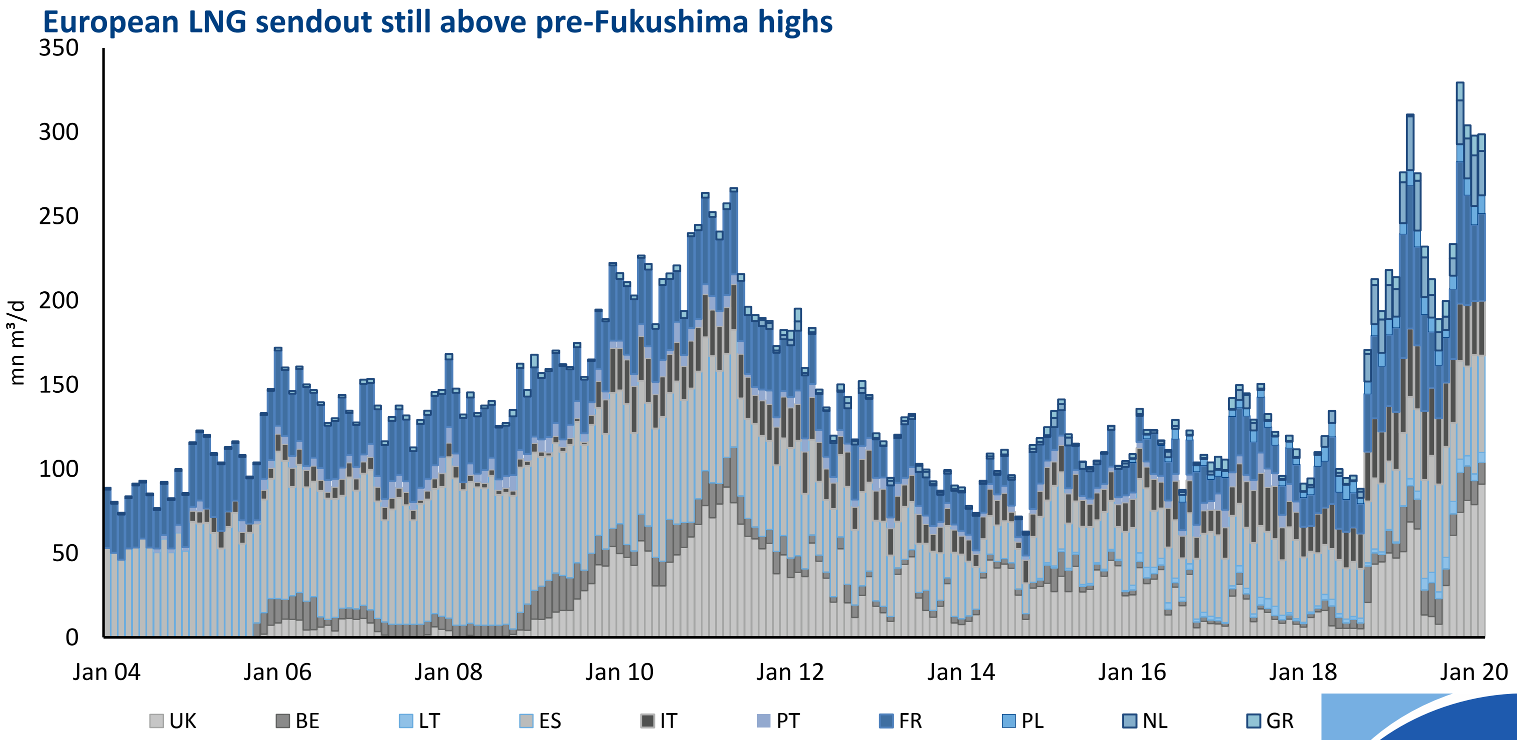
Still a lot

Market Reporting

Consulting

Events

European LNG sendout sets another record



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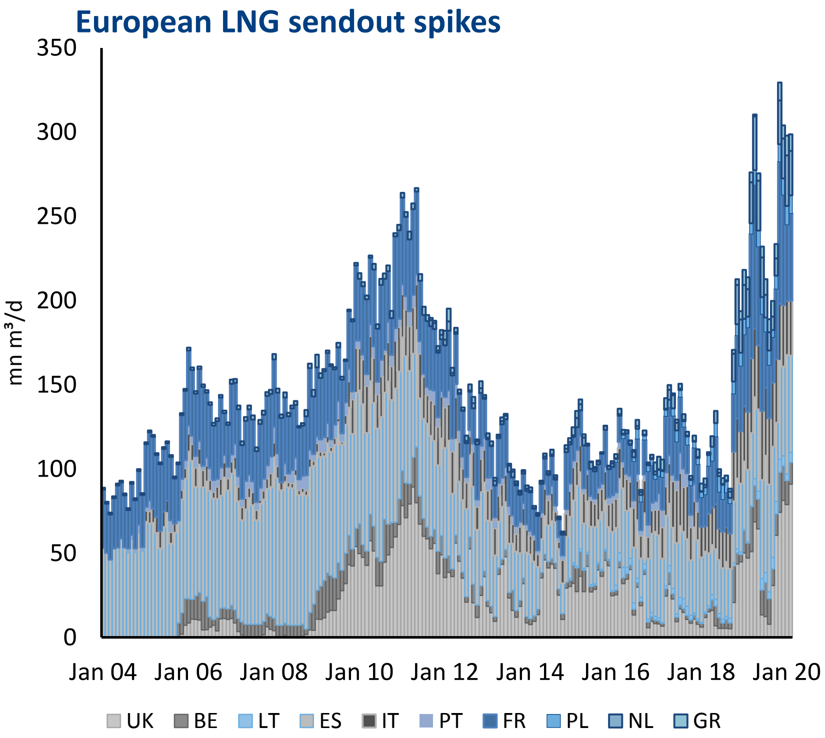
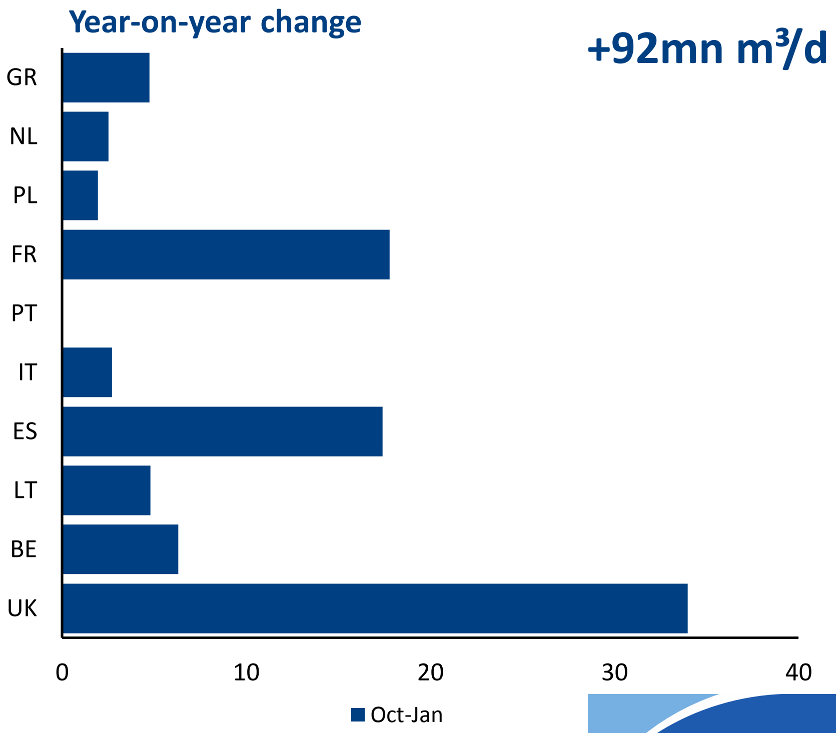
European LNG sendout up in most markets





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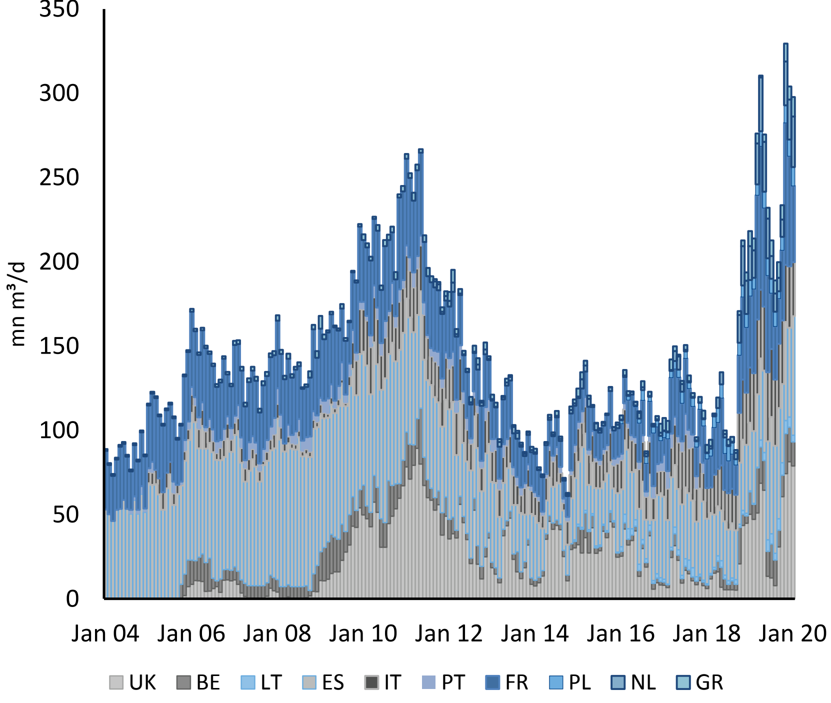
European LNG sendout up in most markets

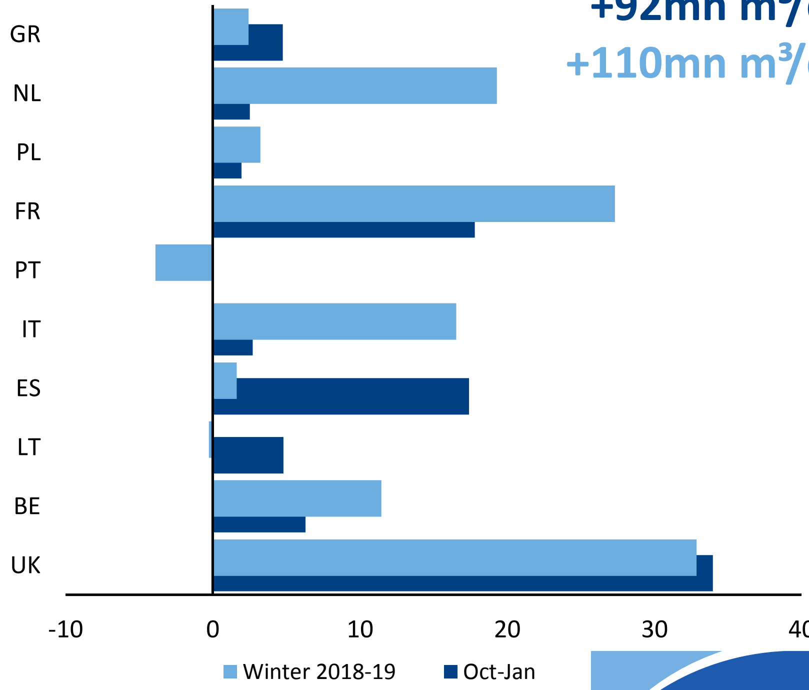
European LNG sendout spikes



Year-on-year change

+92mn m³/d

+110mn m³/d



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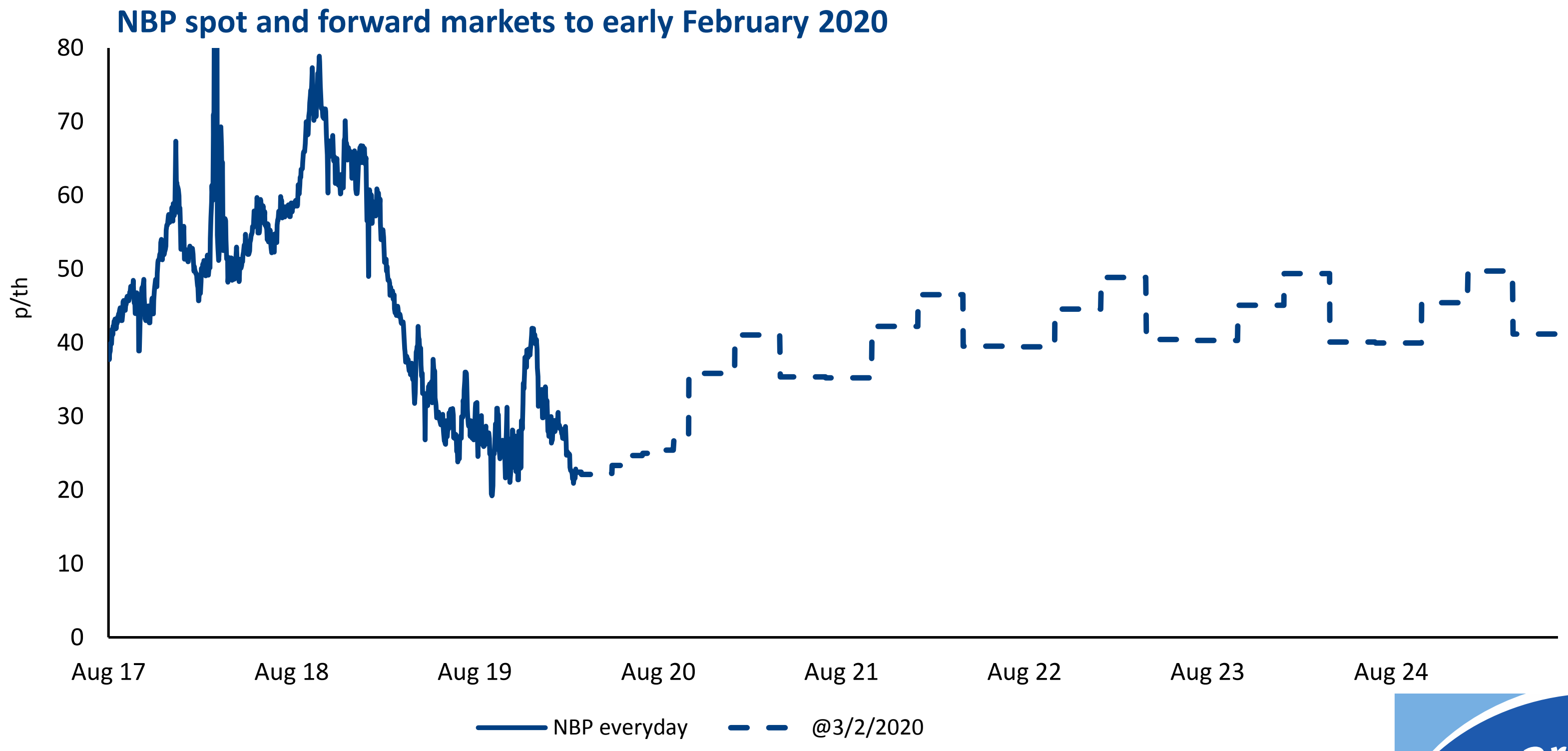
Prices are low and oddly shaped



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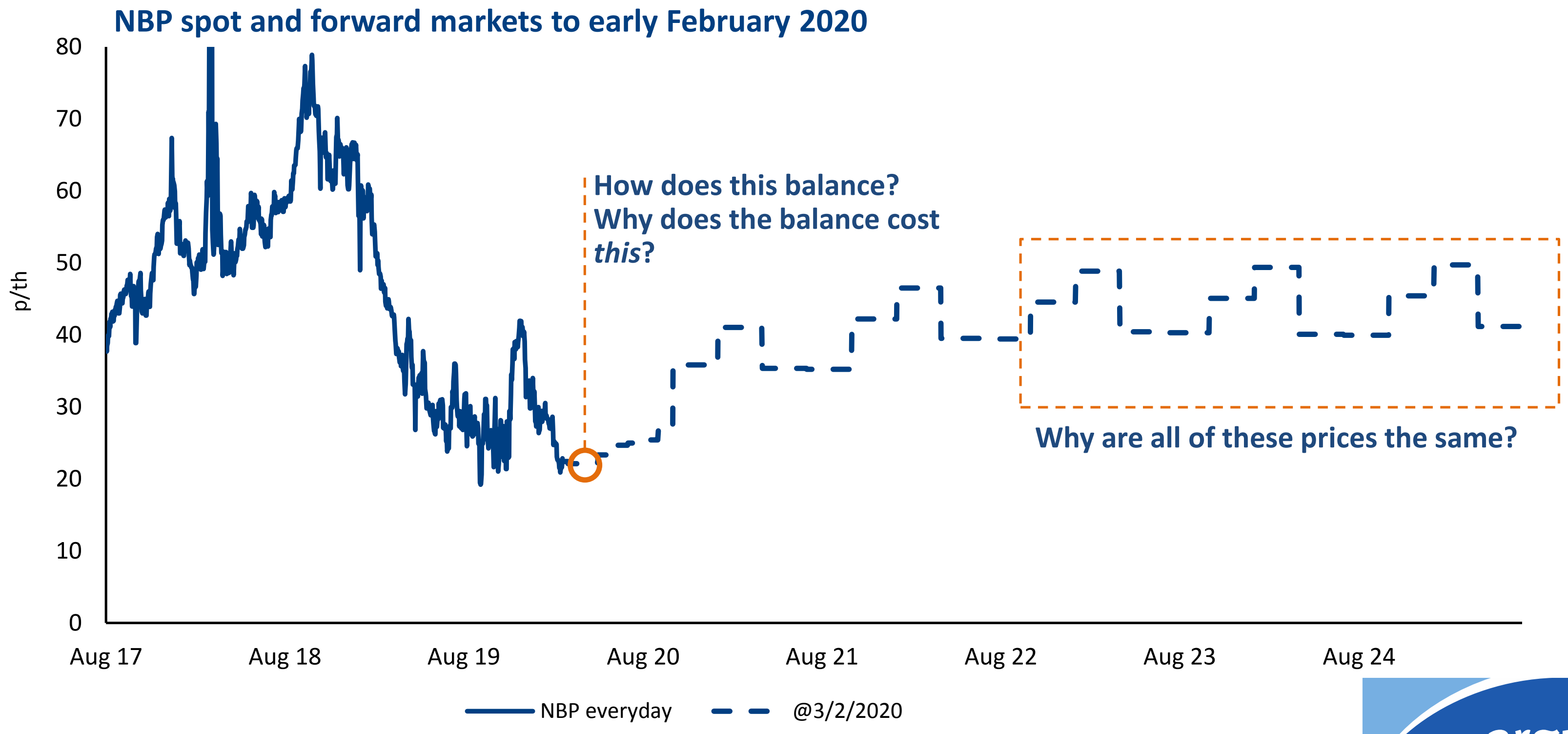
Prices are low and oddly shaped



Conclusion: the long view of European gas prices

Back to the future?

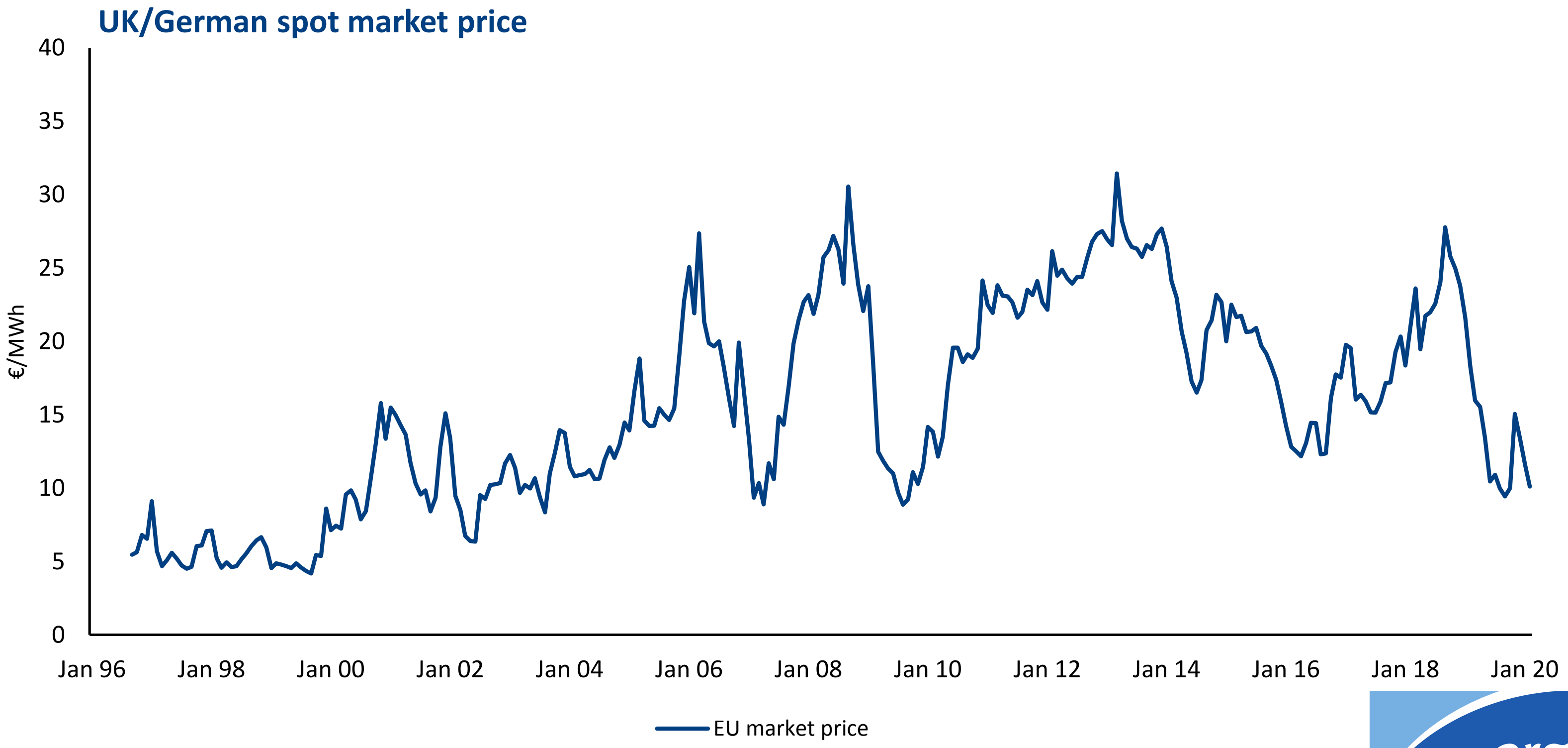
Market Reporting

Consulting

Events

illuminating the markets

European gas market prices



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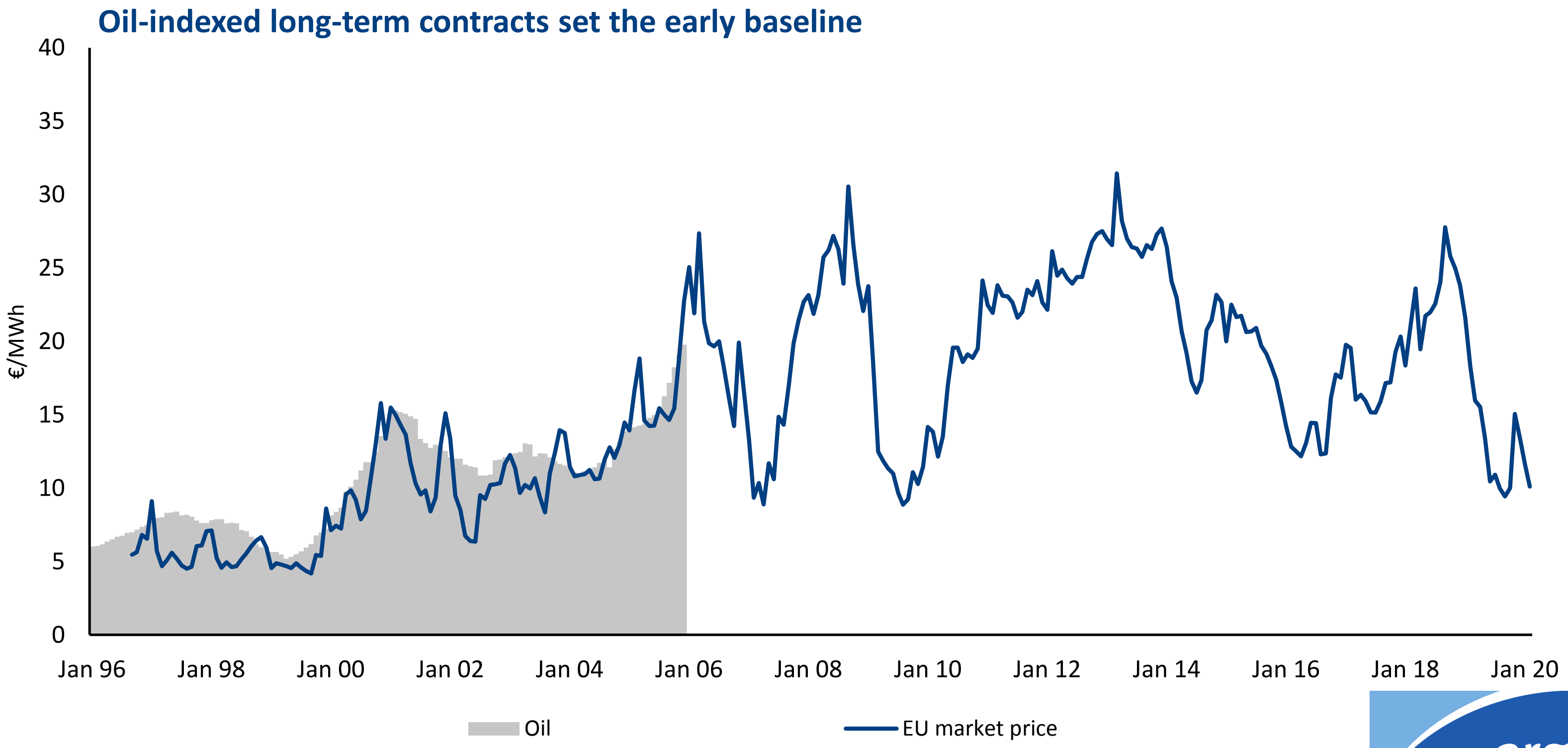
In the beginning: oil-indexation and seasonality



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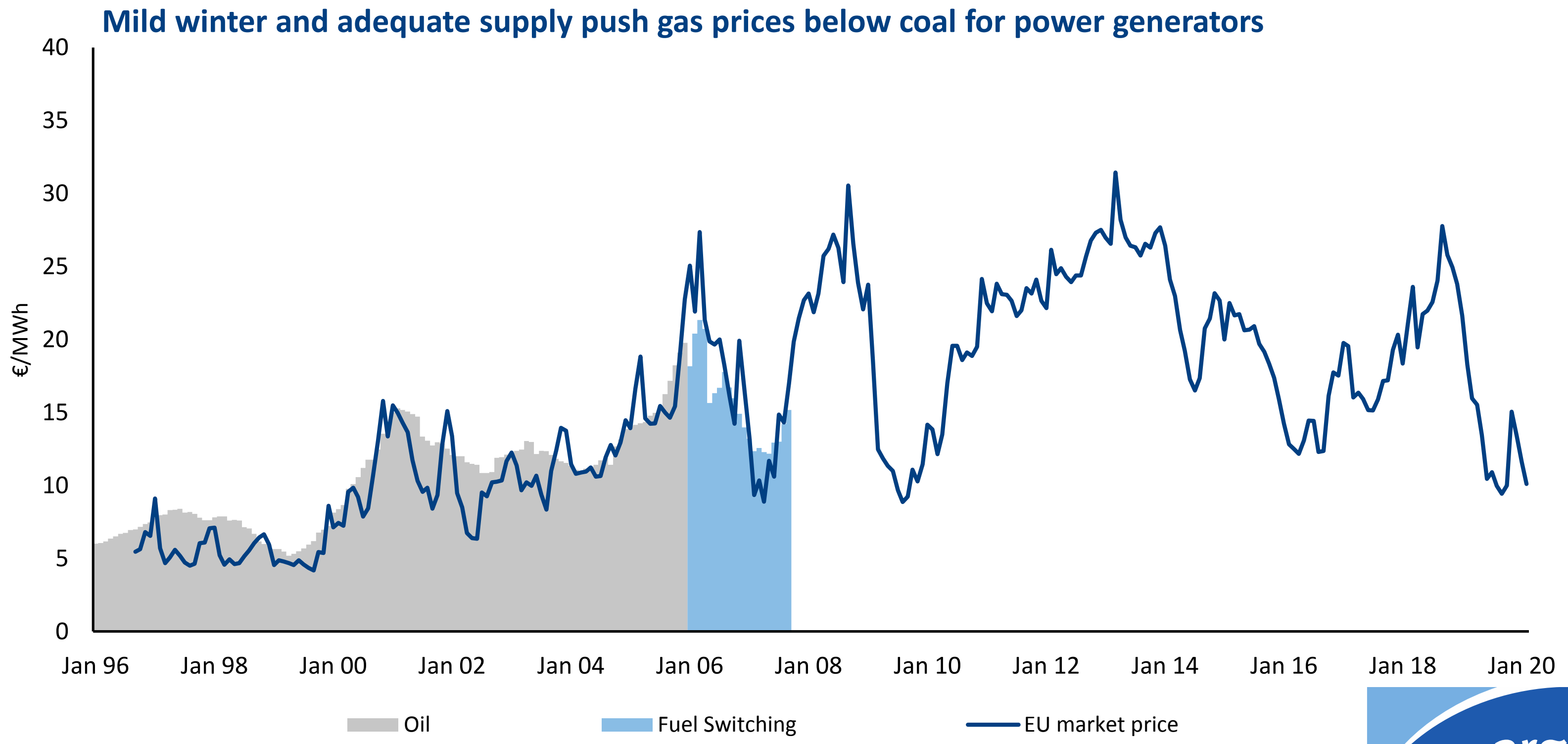
2007: gas and coal in competition



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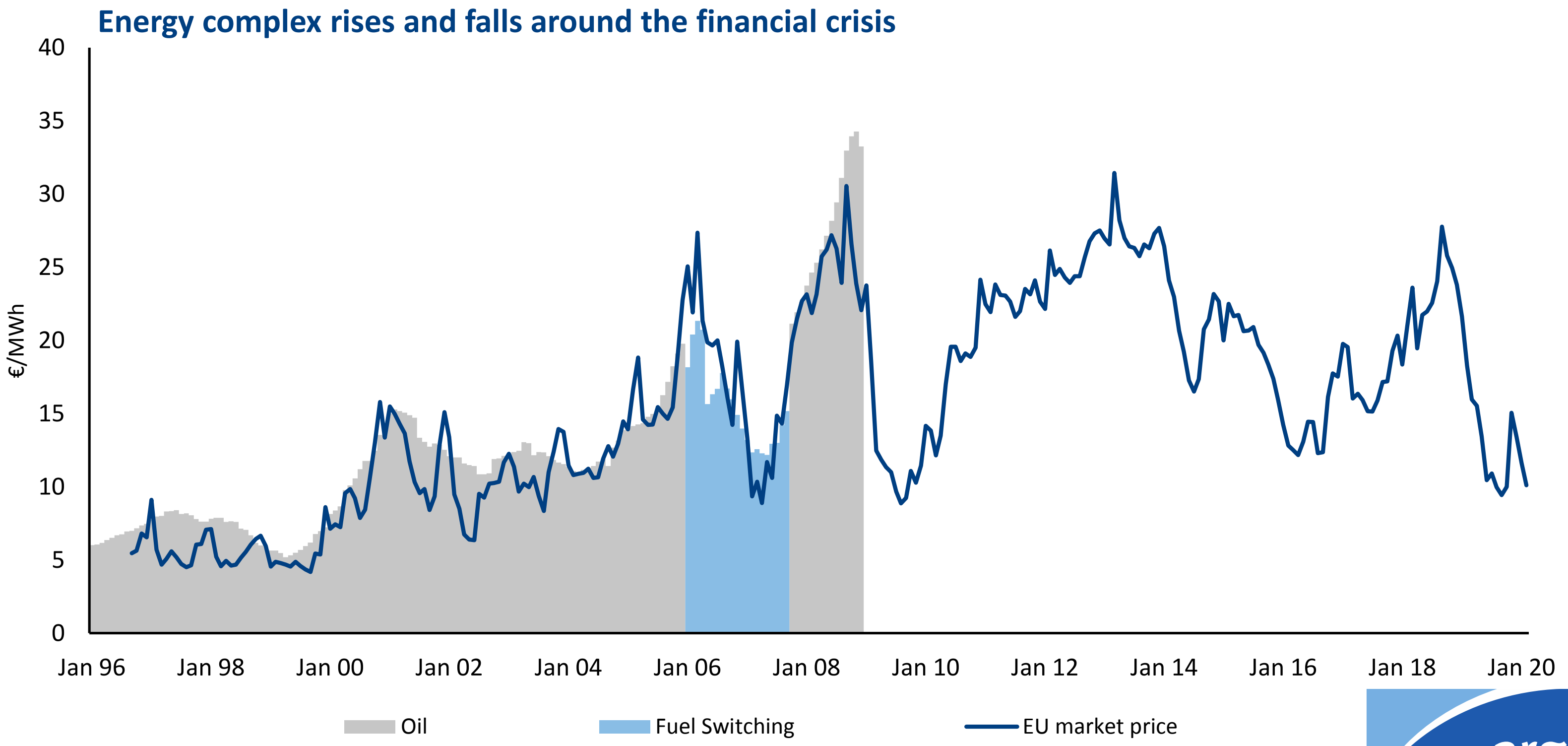
2008: everything up, then everything crashes



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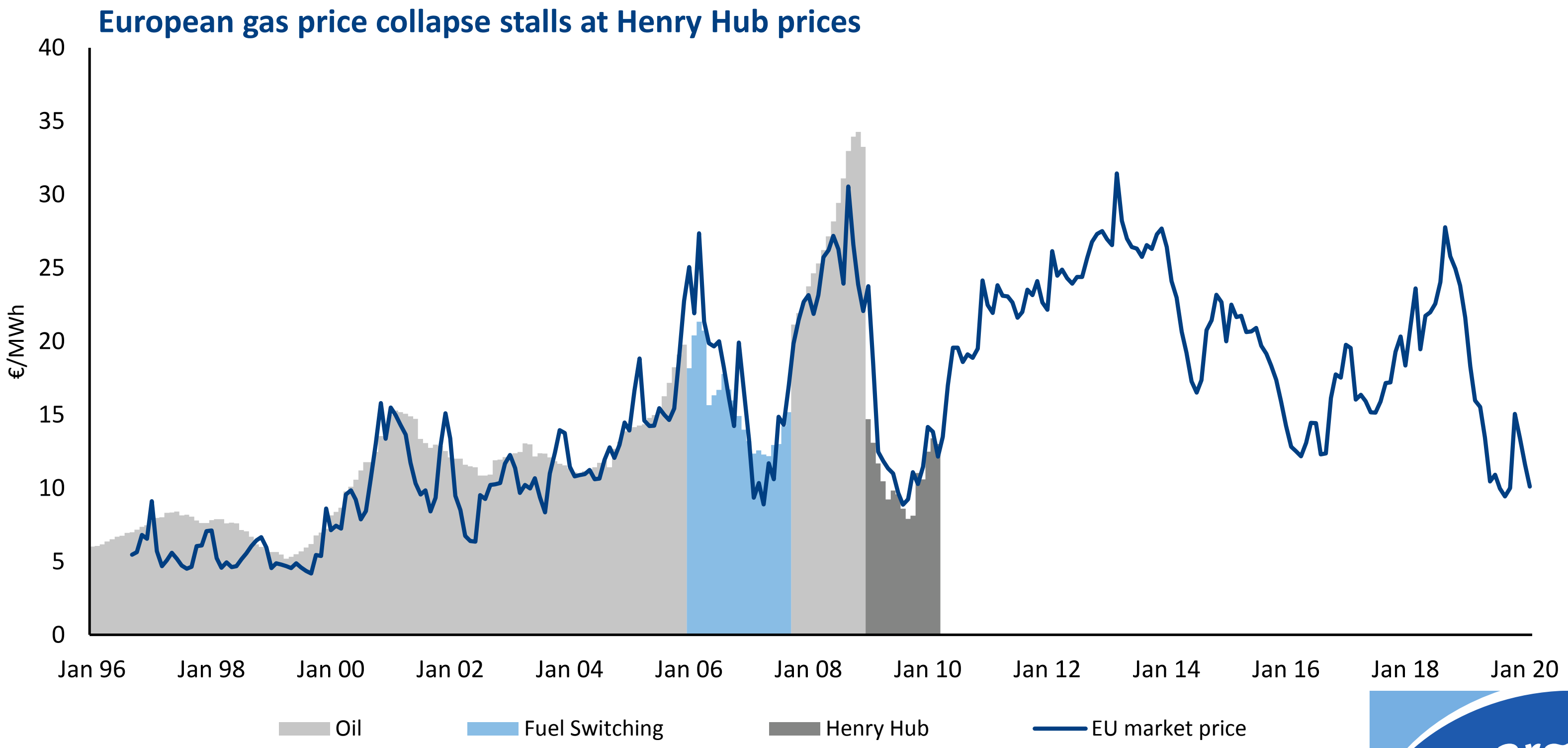
Remember when the US imported LNG?



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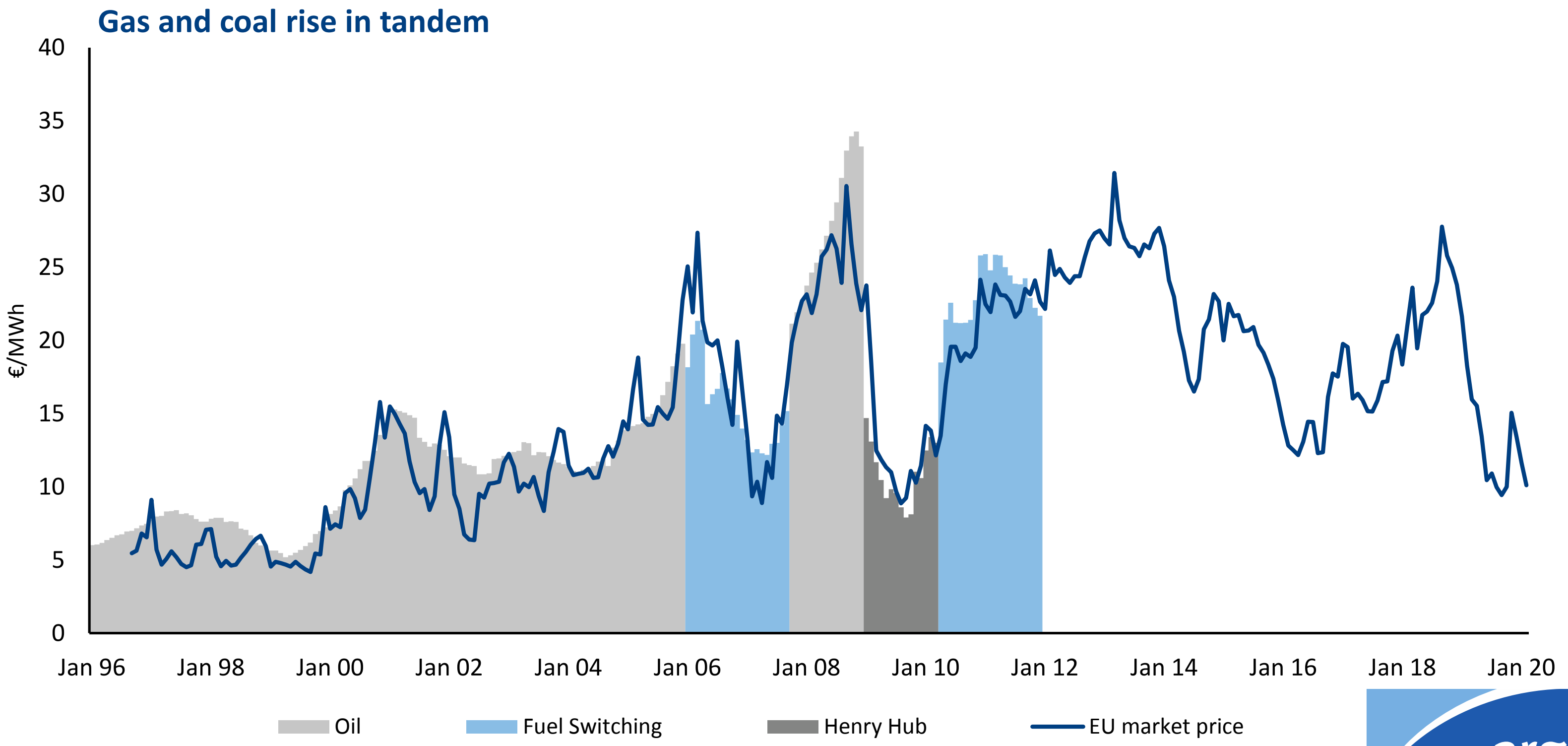
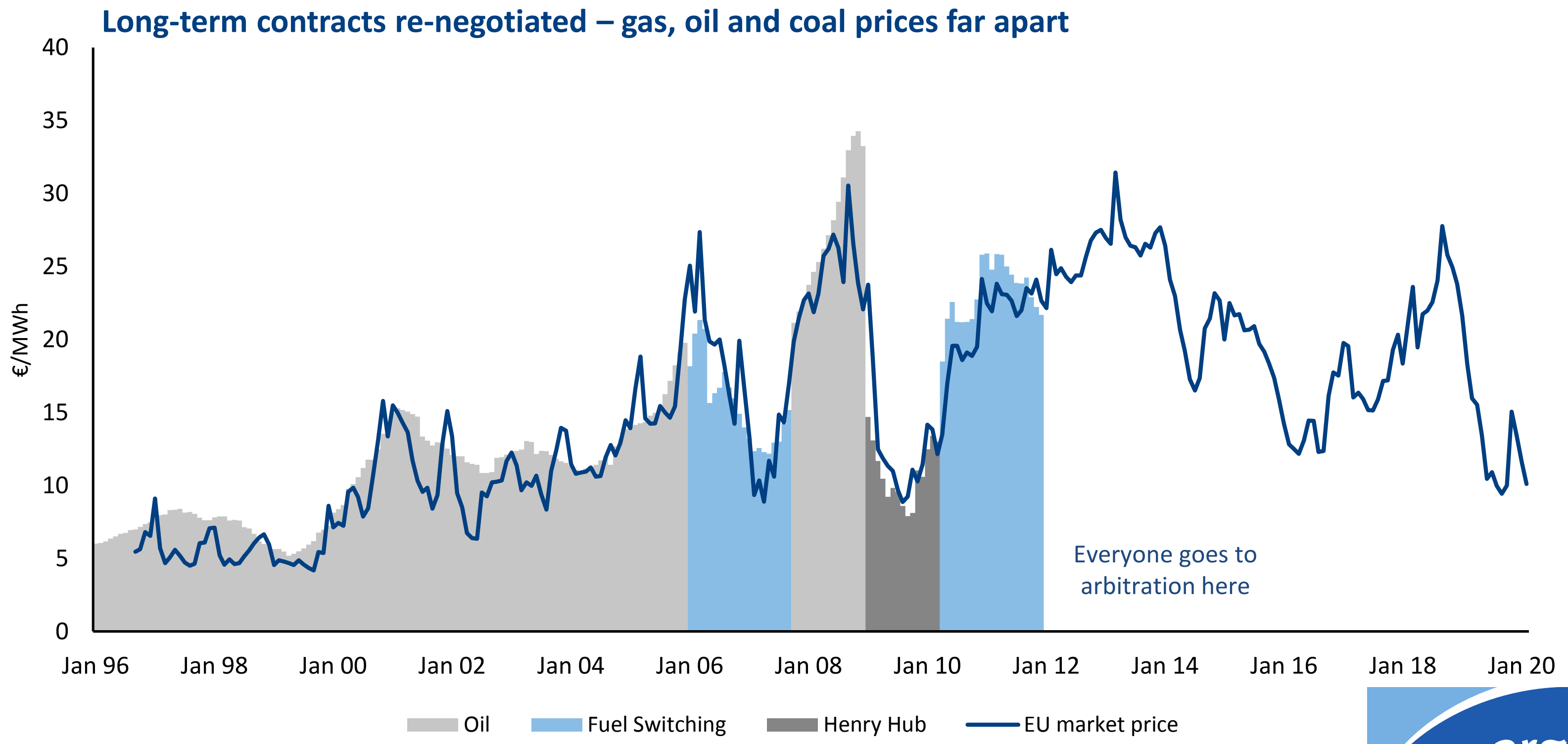
More fuel price competition during the recovery



Pricing mechanisms under pressure



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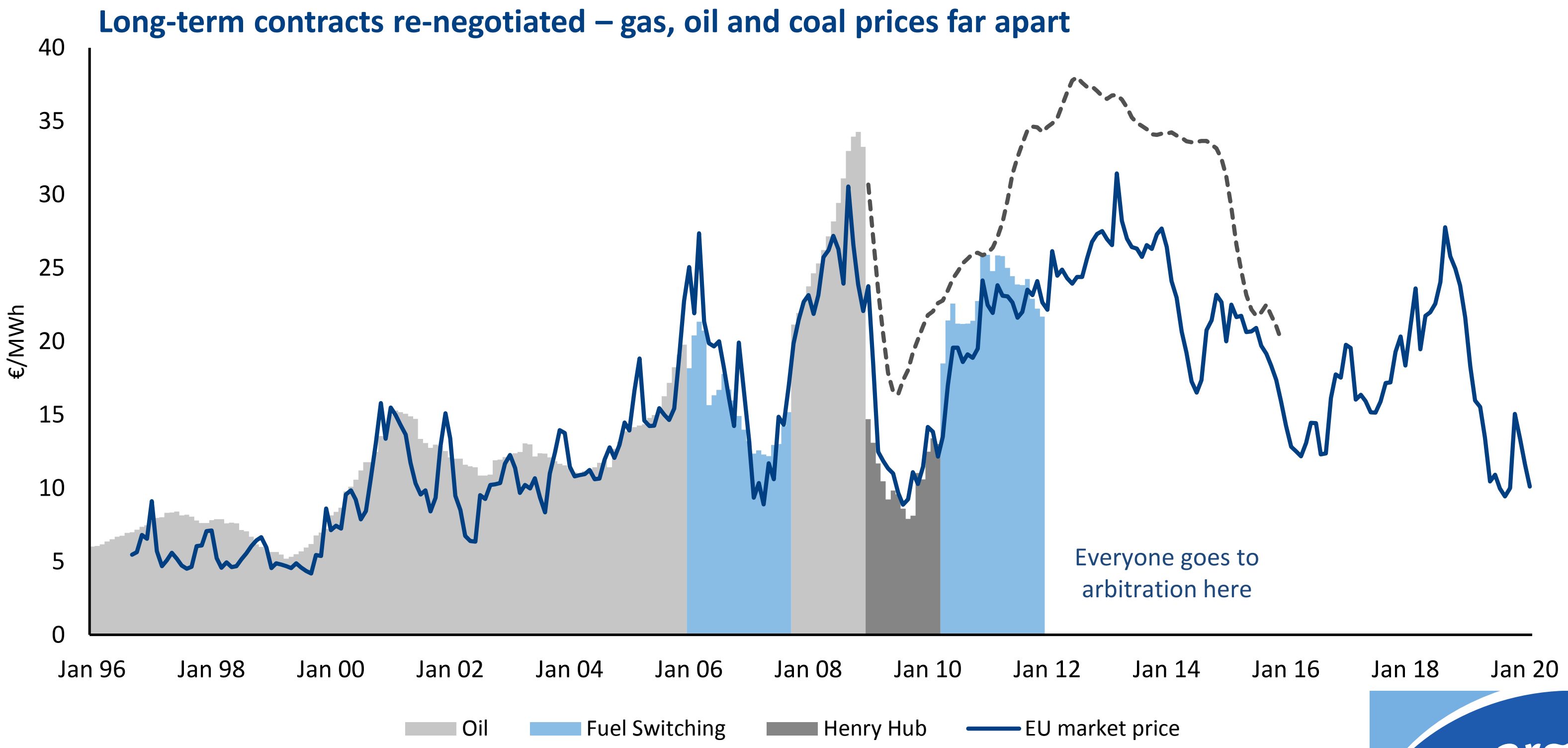
Pricing mechanisms under pressure



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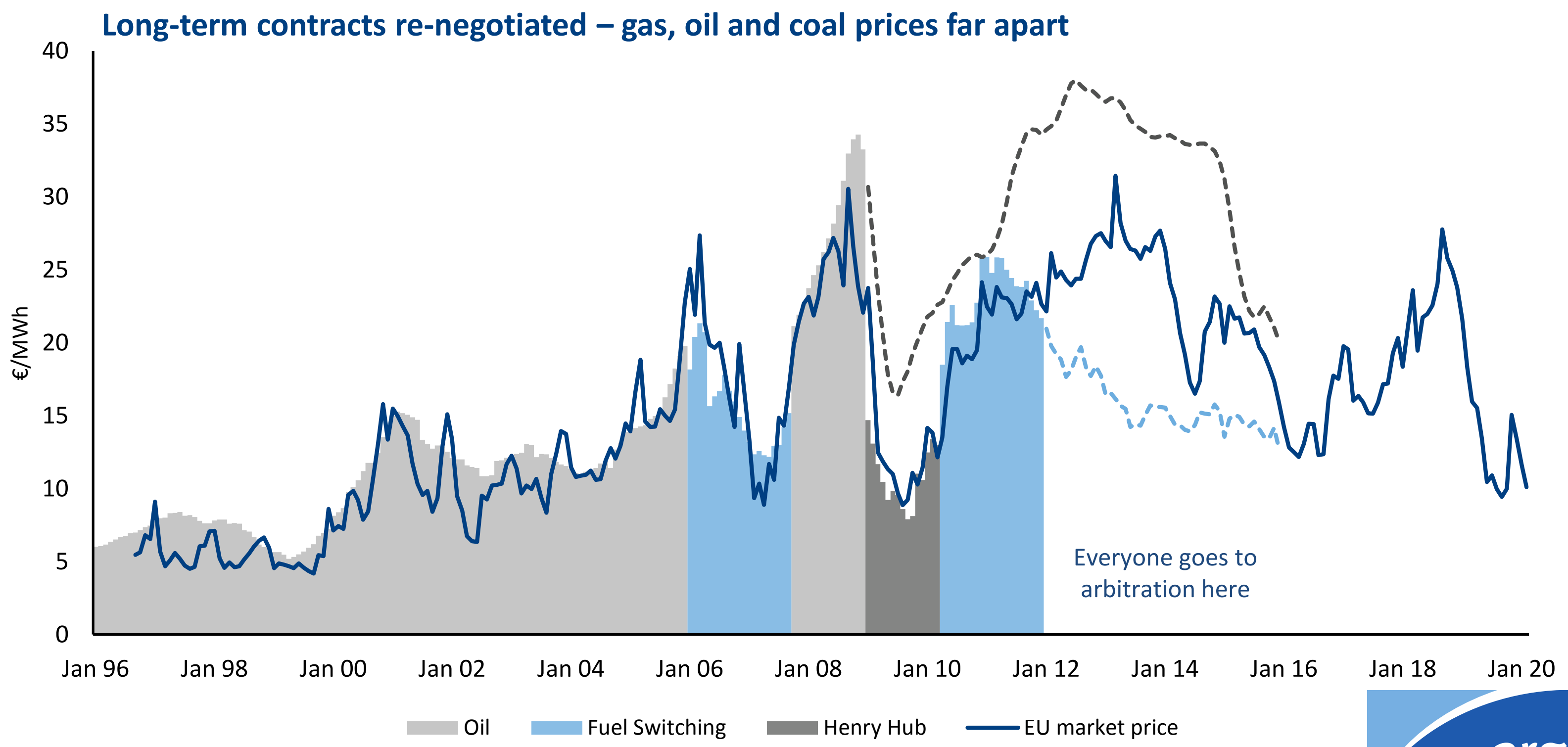
Pricing mechanisms under pressure



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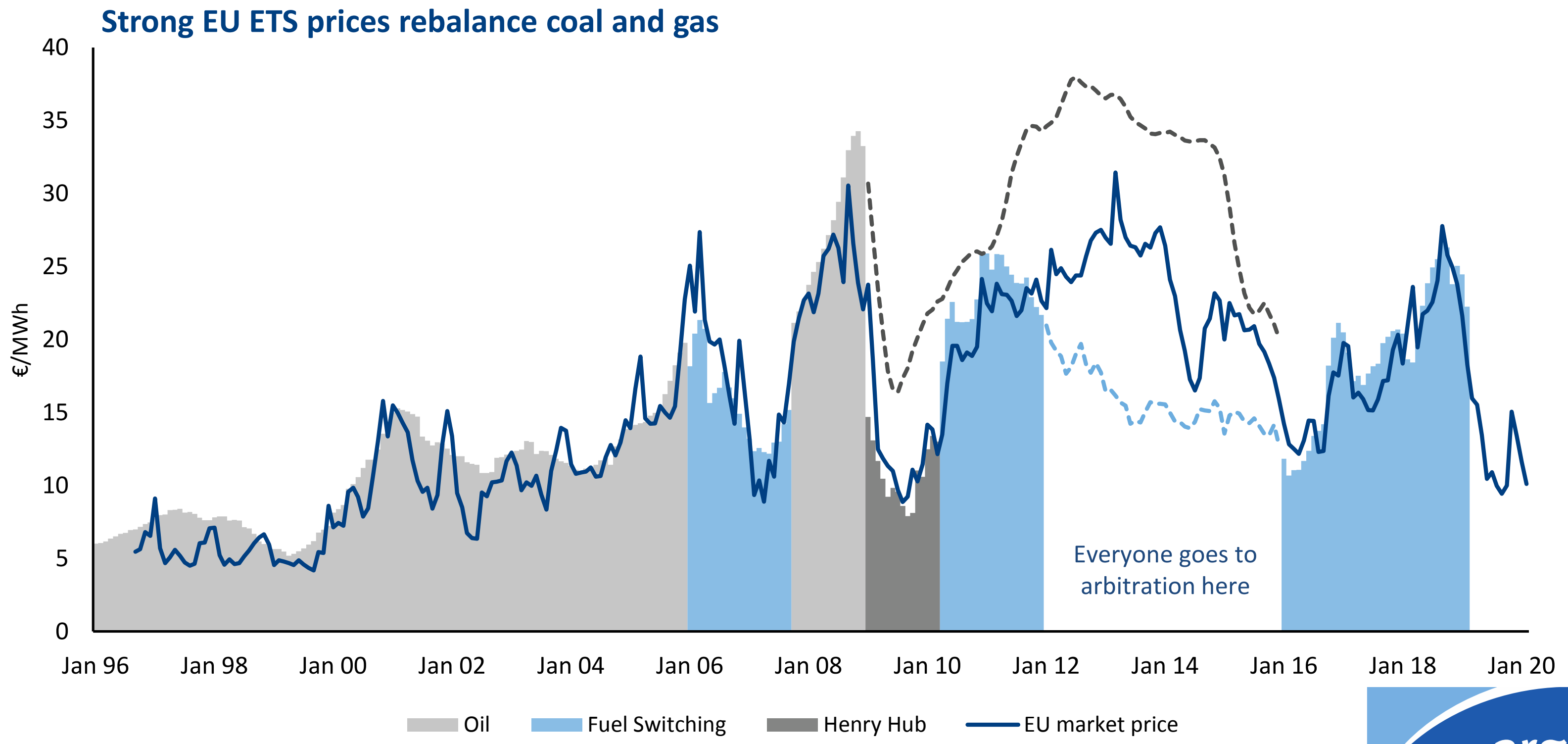
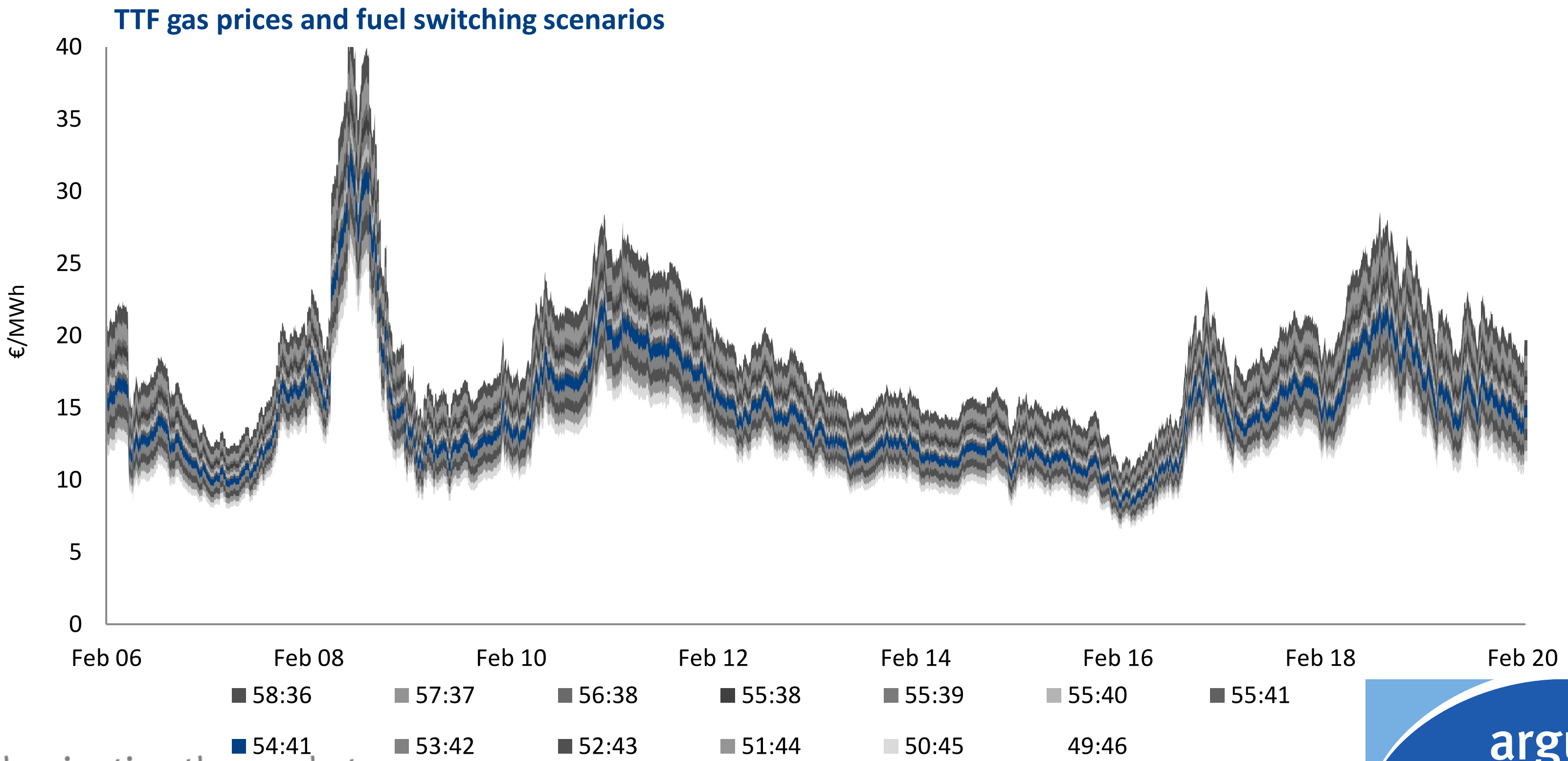
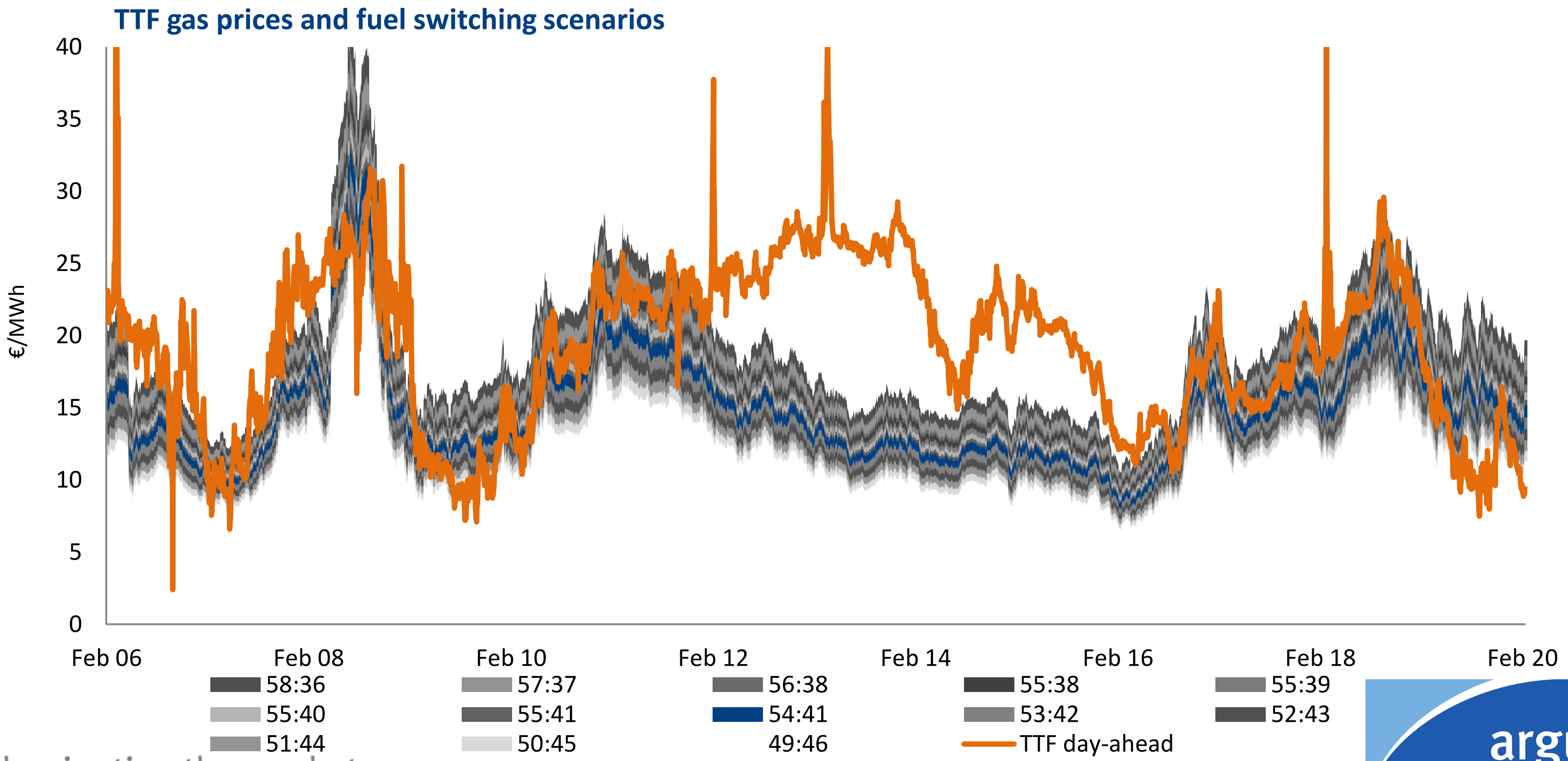
More competition between fuels



Fuel switching as coal use declines



Gas prices fall through fuel-switching support



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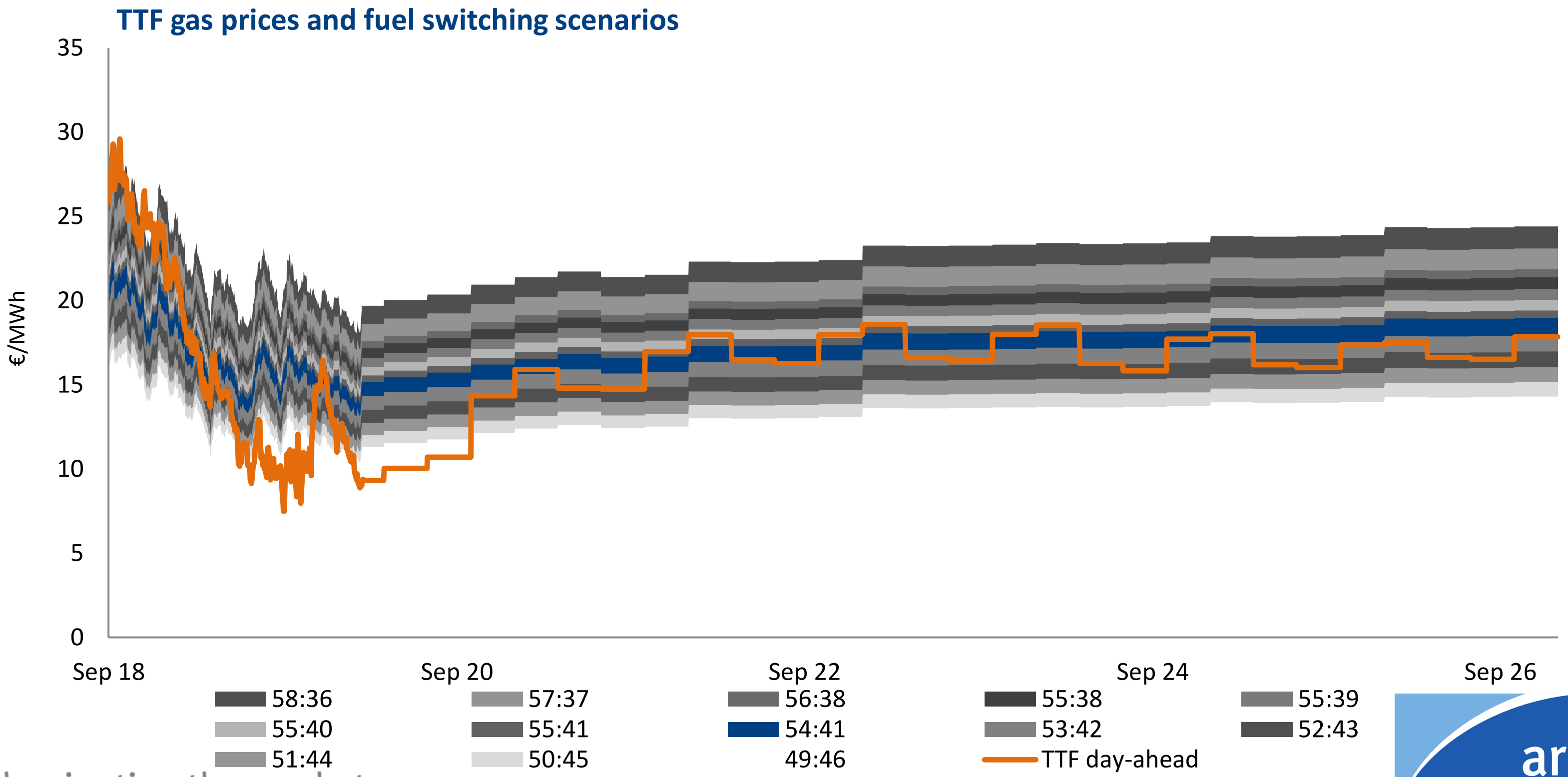
Forward prices imply above average CCGT use



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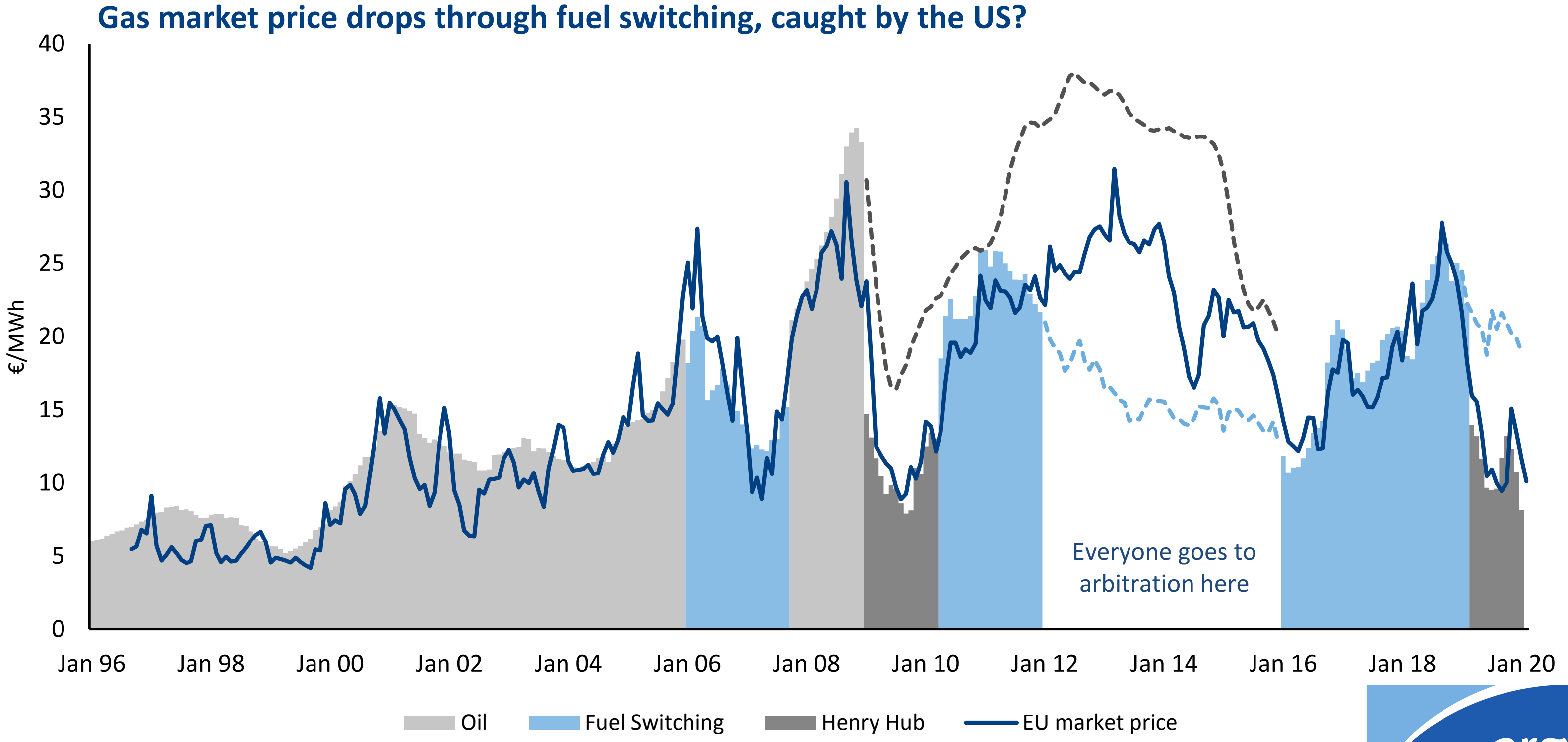
US LNG prices and local producer restraint?



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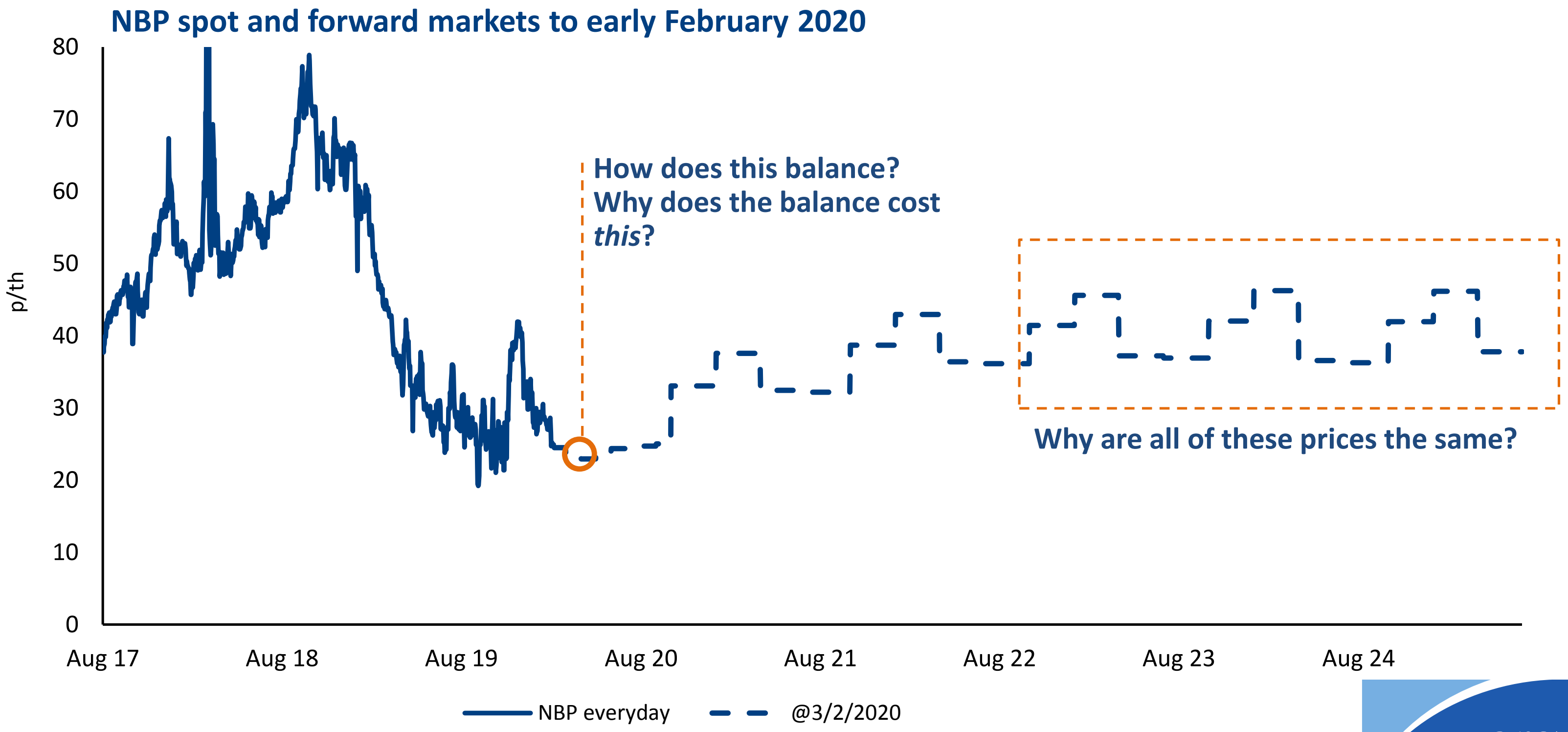
Prices are low and oddly shaped



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Gas Transmission

Morning Break

nationalgrid

Gas
Transmission

Operational Data Enhancements

Harj Kandola
Data Integrity Manager

nationalgrid

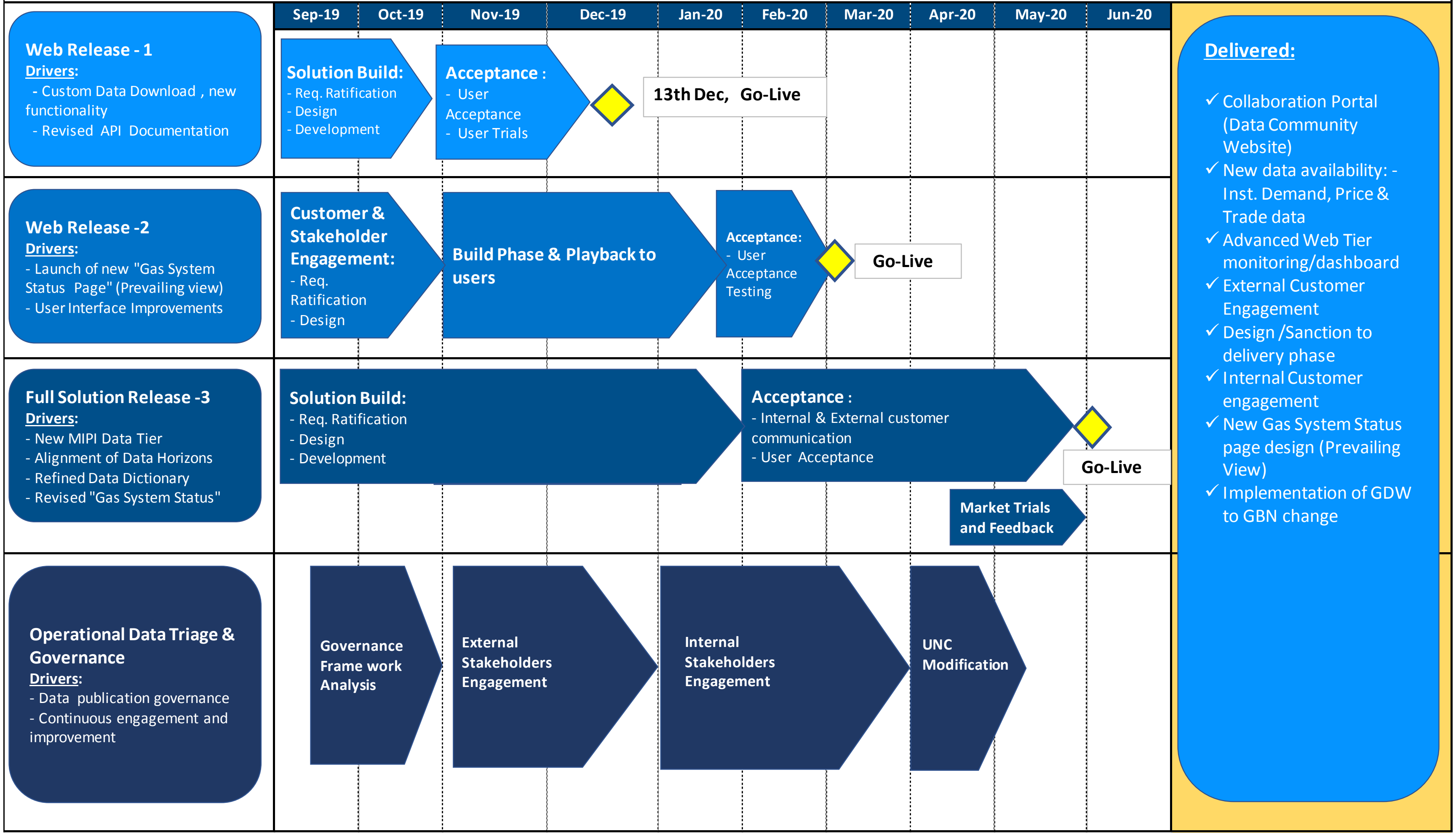
Operational Data Programme

The Operational Data Project was implemented to better meet changing market requirements

- **What Data can we provide?**
- **How is the data accessed**
- **Improving Quality, Timeliness and efficiency**
- **Measuring Performance**

Project Is due to complete in June this year

Operational Information Provision - Business Delivery Plan



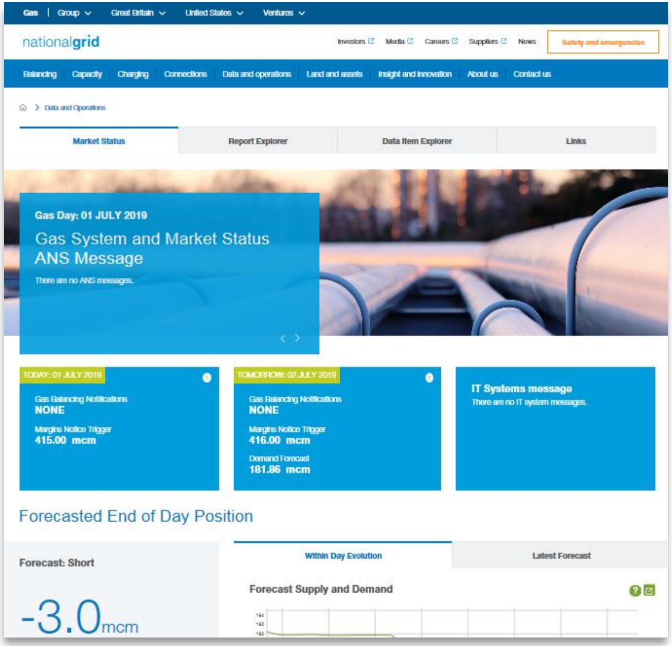
Prevailing View Release

The Replacement for Prevailing view is scheduled to be launched shortly

Existing screen to be available alongside new screen for 3 months for a period of familiarisation

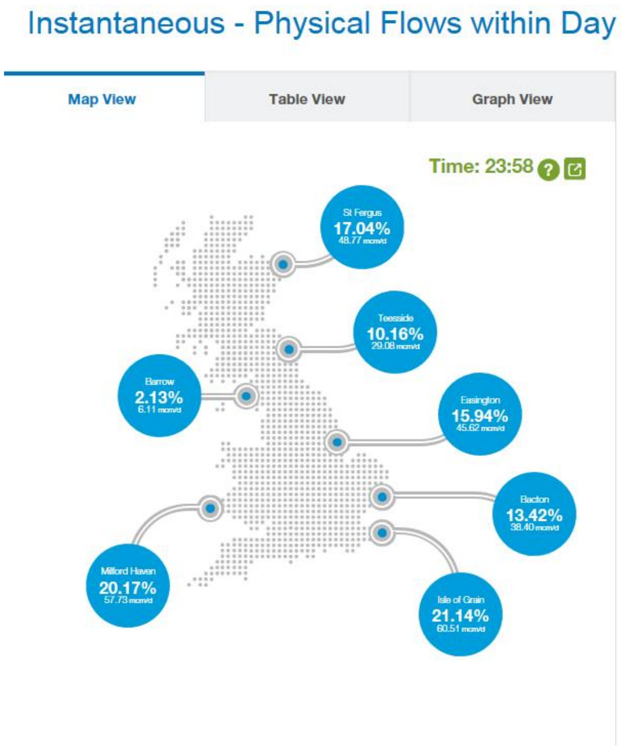
Further enhancements to the page will be included in future releases –e.g. data ranges on charts, IT system messages

More standardised design tools used means that future changes can be made more efficiently



Benefits

- New visualisations including supply map, within day PCLP, NG Balancing trades, instantaneous flows
- Simplified layout of key data
- Links to all Operational Data pages in one place – Data Item Explorer, Report Explorer, Instantaneous Flows
- Future changes can be made quicker



We have a working site which will be demonstrated today ahead of release

nationalgrid
partners

GSO Ops Forum

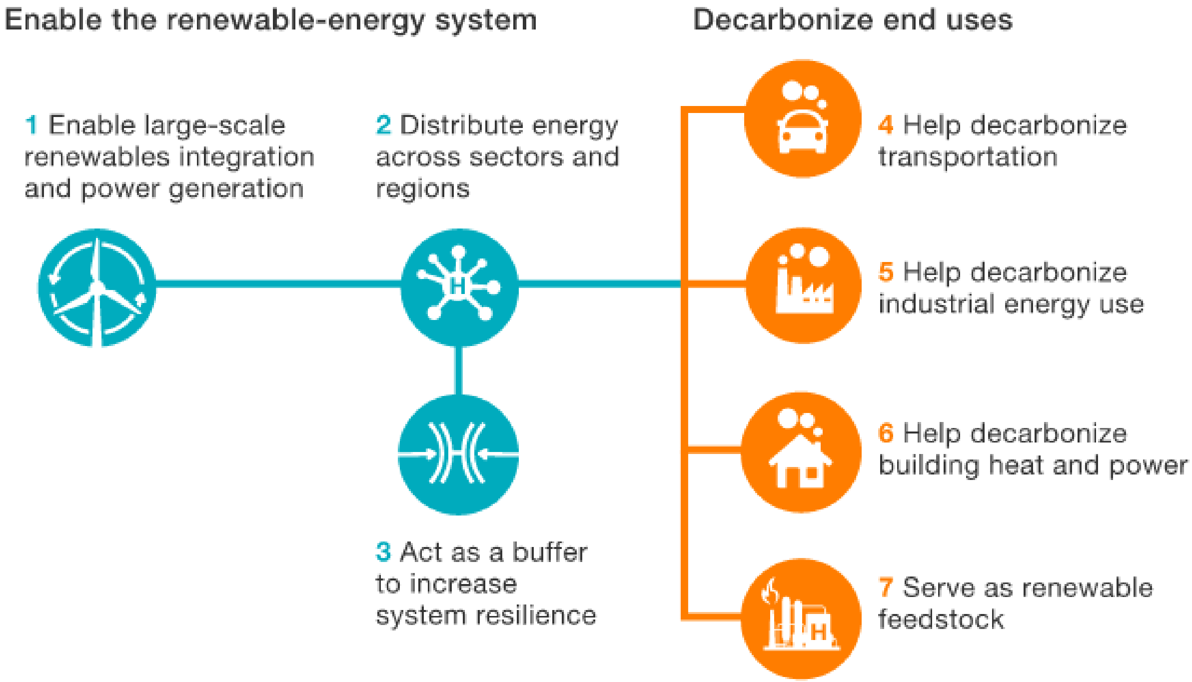
20 February 2020

National Grid Partners is a Corporate Function

UK	US	Ventures
nationalgrid - UK core regulated business - Electric system operator - Electric and gas transmission network owner	nationalgrid - US core regulated business - Electric distribution (3.5M cust) - Gas distribution (3.7M cust) - 22k employees: MA, NY, RI	nationalgrid ventures BritNed VikingLink sunrun ENERGY IMPACT PARTNERS NorthSeaLink GRANITE STATE POWER LINK enbala

nationalgrid partners

Gas plays seven roles in the transition to a clean future



McKinsey&Company

Decentralisation

- Heavy-duty transport
- Storage
- EV/Fuel Cell Charging
- Microgrids

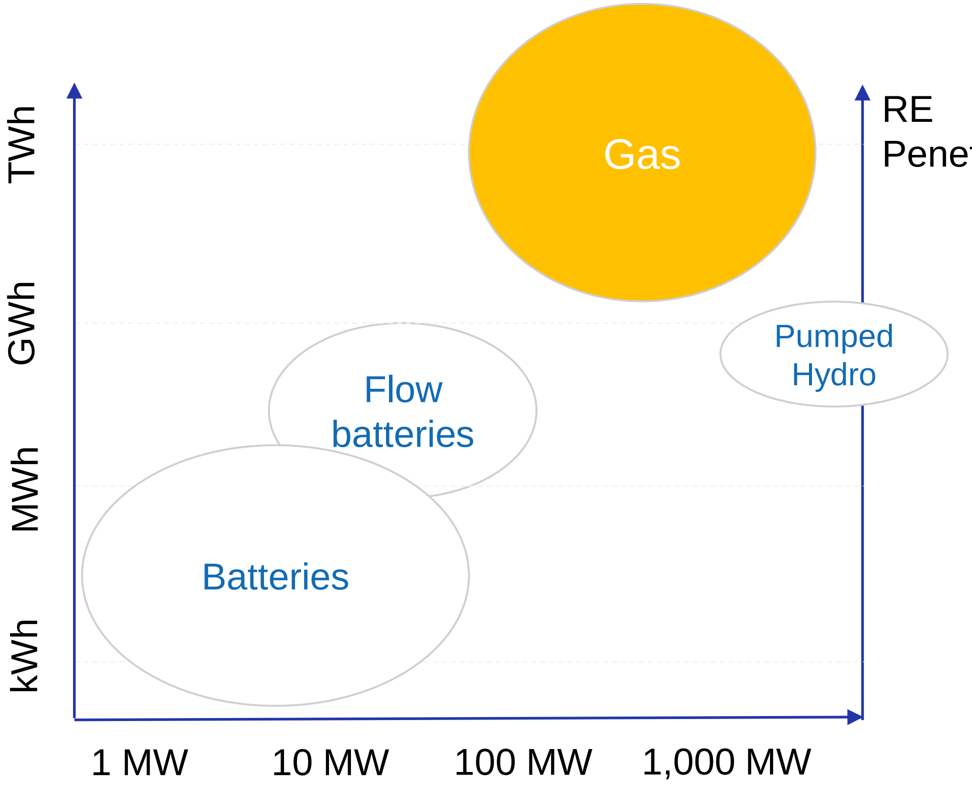
Decarbonisation

- Facilitate green gases
- Storage
- Carbon footprint reduction

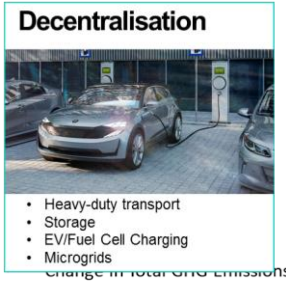
Digitisation

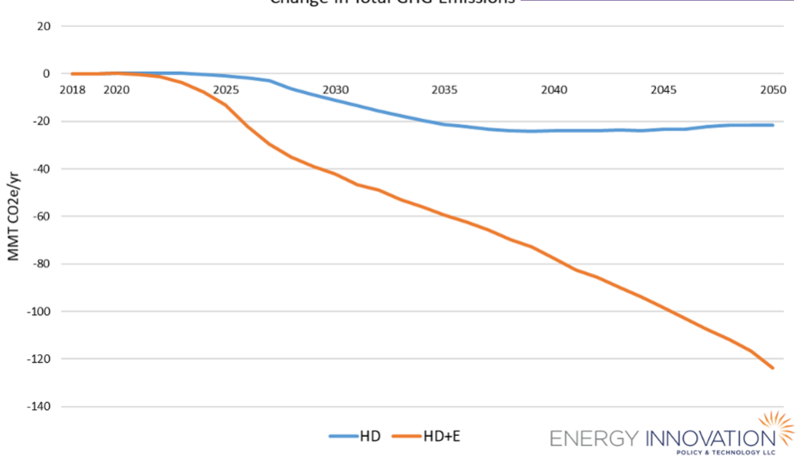
- P2P transactions
- Transport to grid
- Autonomous grid operations

Gas is key as a storage solution, but how and where?

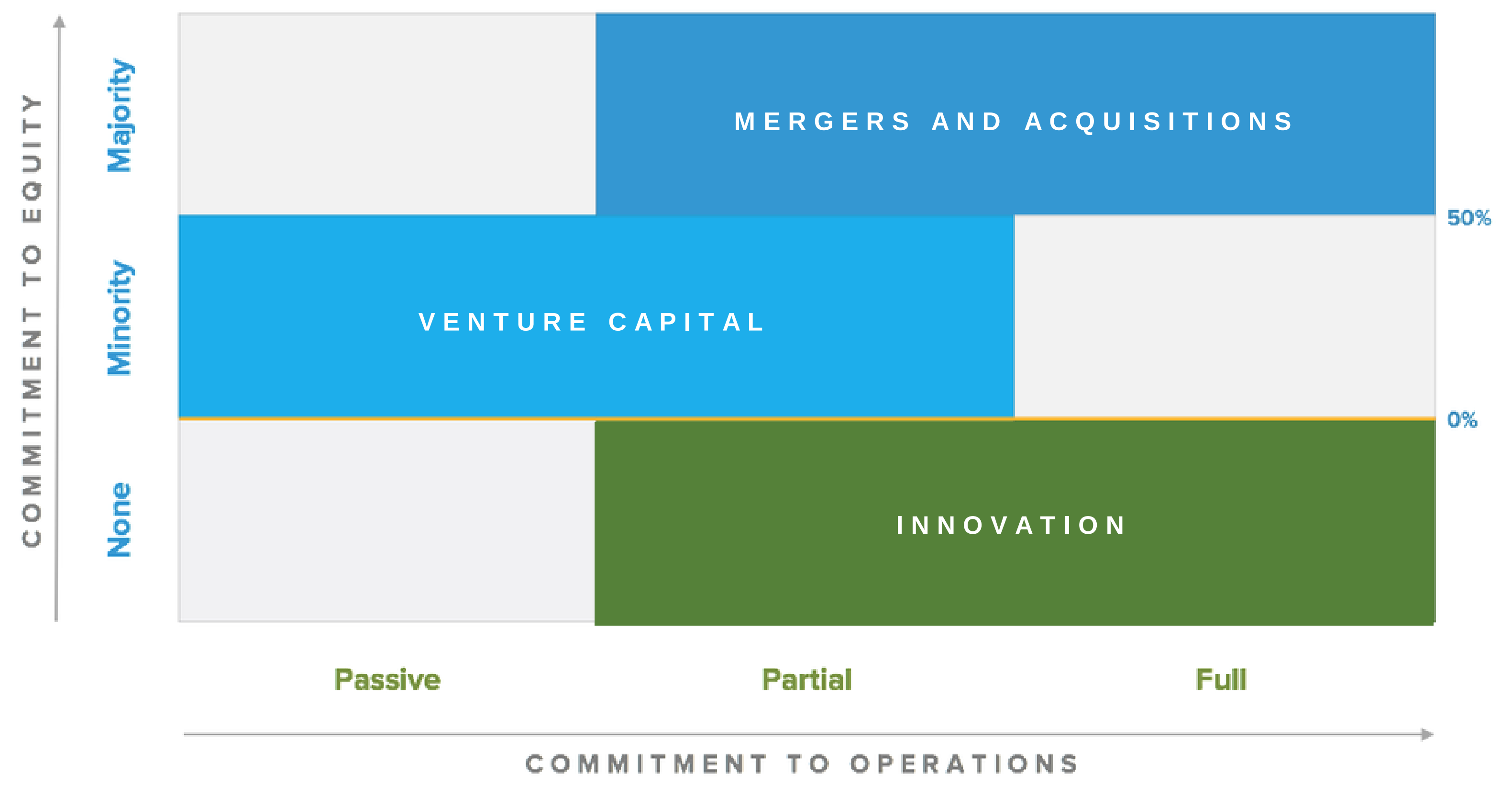


RE Penetration



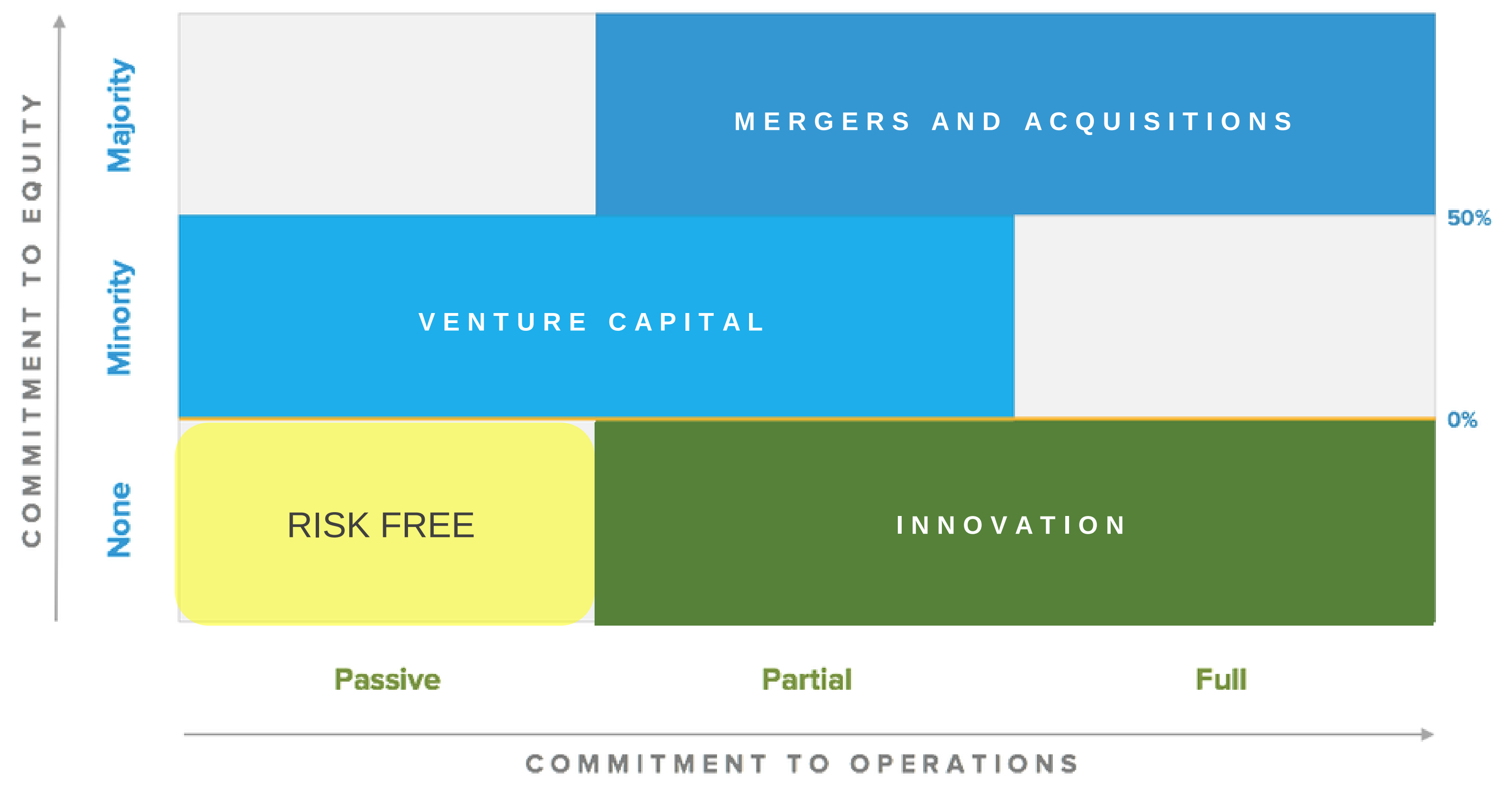


Innovation

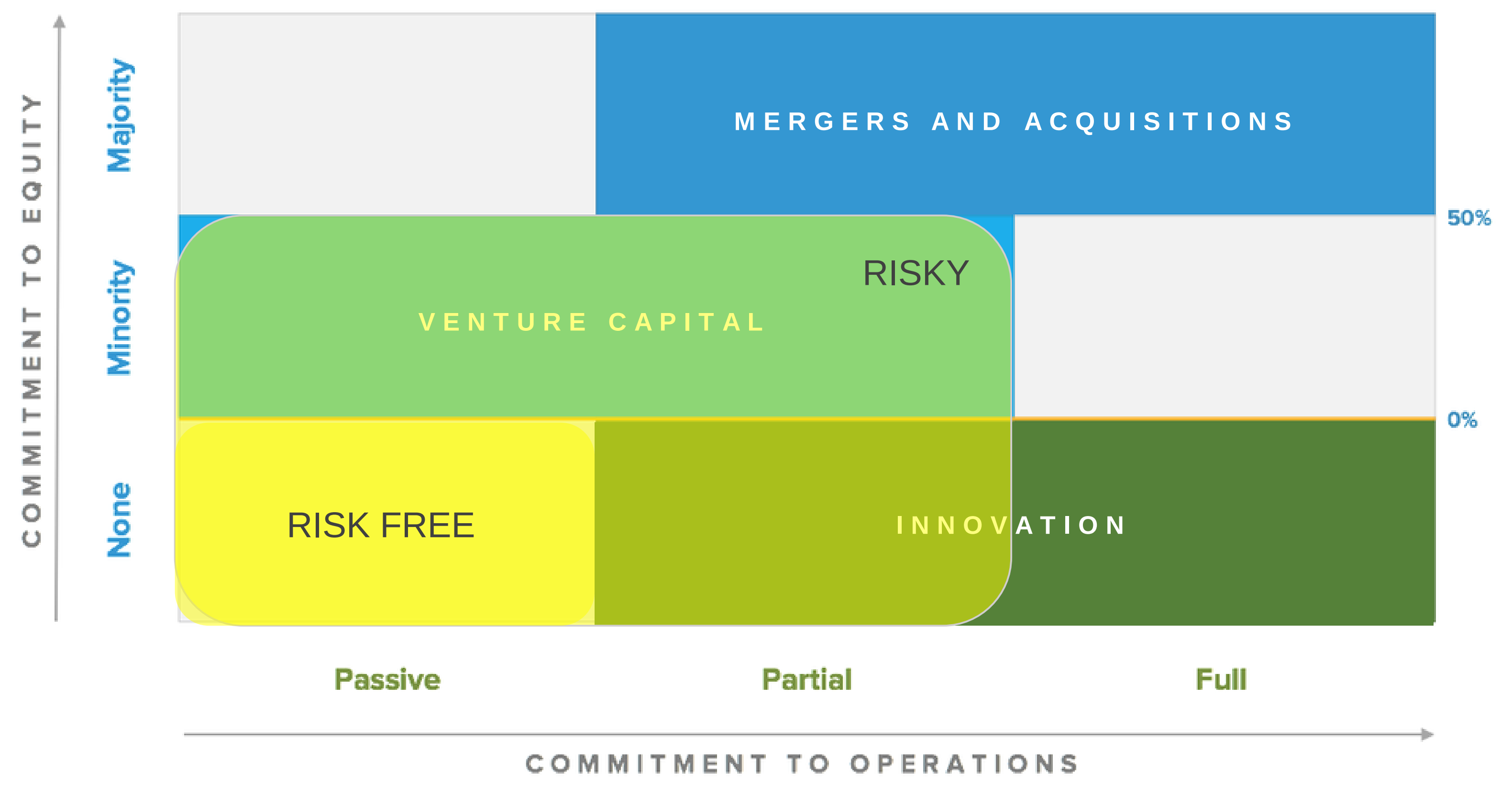


COMMITMENT TO EQUITY
Majority
Minority
None
MERGERS AND ACQUISITIONS
VENTURE CAPITAL
INNOVATION
50%
0%
Passive
Partial
Full
COMMITMENT TO OPERATIONS

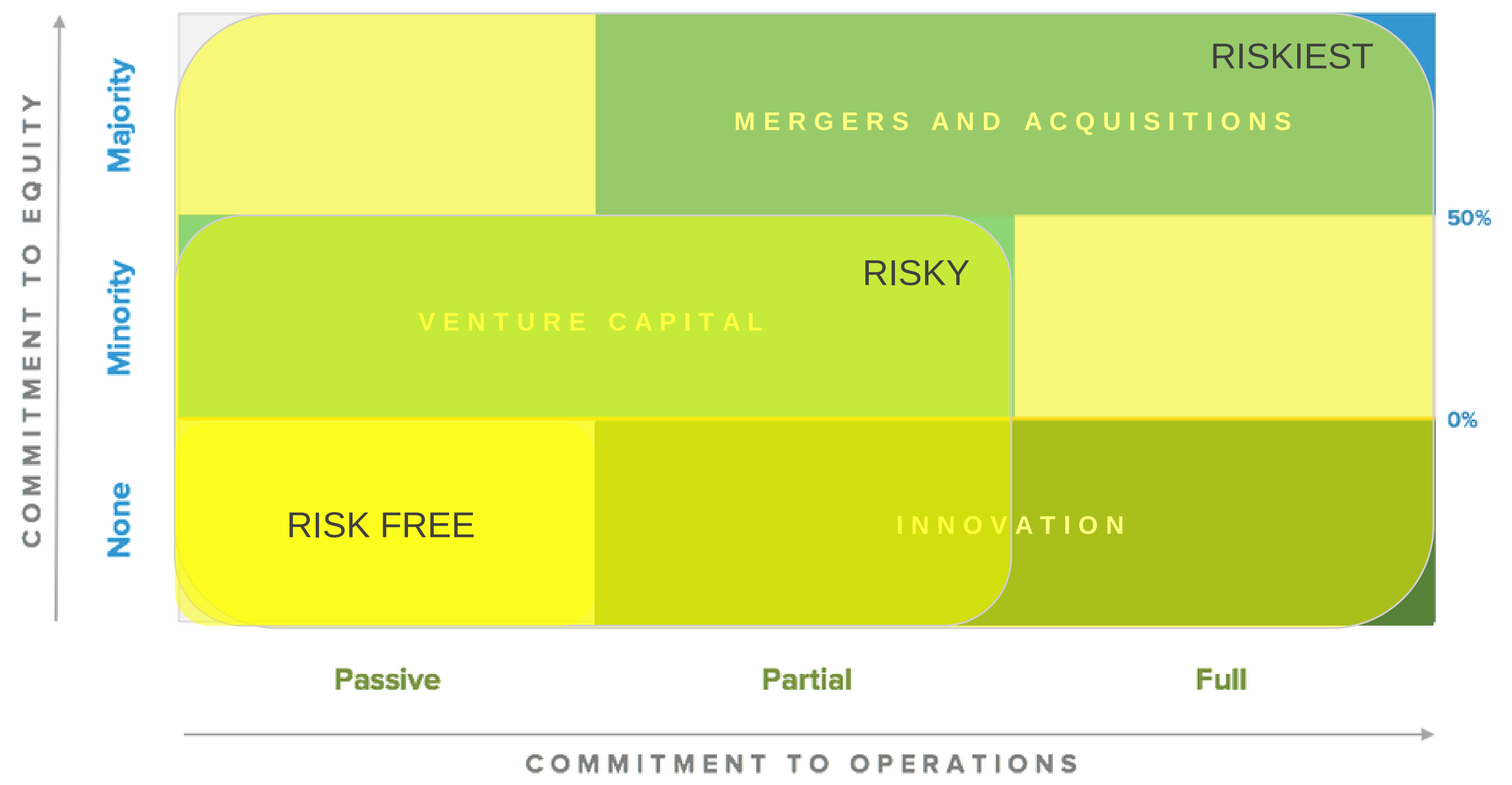
Innovation


COMMITMENT TO EQUITY
Majority
Minority
None
MERGERS AND ACQUISITIONS
VENTURE CAPITAL
RISK FREE
INNOVATION
50%
0%
Passive
Partial
Full
COMMITMENT TO OPERATIONS

Corporate Innovation



Corporate Innovation



National Strategic Mandate

Partnerships

Leverage the energy ecosystem to drive growth

Business Development:
Unlock strategic value to benefit National Grid business units and drive growth for startup portfolio

Next Grid Alliance:
Strengthen innovation collaboration within the energy sector and to benefit the startups who service it

Innovation

Innovate in adjacencies to our core businesses

Innovation:
Drive disruptive innovation projects through the Centre of Excellence

Measure innovation efforts and outcomes across the Group

Culture

Build an entrepreneurial mindset in our businesses

Culture and Capability:
Expose employees across National Grid to innovation and entrepreneurship through involvement with NGP, its portfolio companies and other leading startups

Gas
Transmission

Margins Notice Mid-Winter Review

Phil Hobbins
Commercial Codes Change Manager

nationalgrid

Margins Notices: Recap

National Grid will issue a Margins Notice via ANS when the D-1 forecast demand exceeds expected available supply

From October 2019, UNC Mod 0698 (resulting from Mod 0669R) introduced a number of changes in relation to Margins Notices:

- National Grid to issue an ANS when D-1 forecast demand exceeds 95% of expected available supply
- A new methodology to determine the contribution of LNG to ‘expected available supply’
- Margins Notice process to apply over the winter period only (1st October to 31st March, with an ability to reinstate in April by exception)
- National Grid to monitor the level of non-storage supply during winter

LNG Methodology introduced by Mod 0698

$$LNG_d = Min\left[ECWC_{d,} \frac{US_d}{2}\right]$$

$ECWC_d$	the expected cold weather capability for all LNG Importation Facilities for the Gas Flow Day	US_d	the aggregate usable stock at all LNG Importation Facilities for the Gas Flow Day

- When LNG stocks are high, this methodology ensures that a higher LNG figure contributes to the overall Non-Storage Supply (NSS) number and vice-versa
- Pre-mod 0698, the LNG number was a best view from National Grid and tended to remain constant during winter unless supply patterns materially changed

Interconnector Methodology

- The UNC 0669R workgroup also considered changing the contribution of interconnectors to the daily 'non-storage supply' figure using a correlation between interconnector flow and hub price differentials

$$BBL\ Interconnector = Min\left(Max\ BBL\ Technical\ Capability, Average\ Flow\ from\ last\ 2\ Days * \frac{D-1\ NBP{:}\ TTF\ Differential}{NBP{:}\ TTF\ Average\ Differential\ from\ last\ 2\ Days}\right)$$

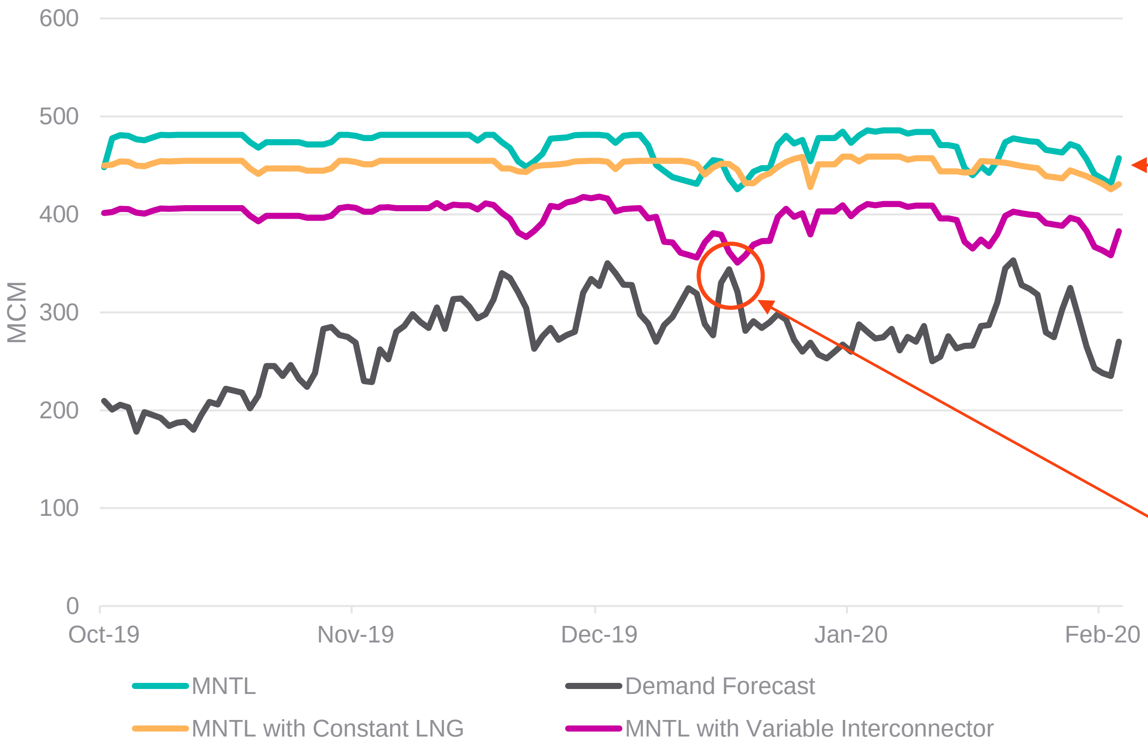
$$IUK\ Interconnector = Min\left(Max\ IUK\ Technical\ Capability, Average\ Flow\ from\ last\ 2\ Days * \frac{D-1\ NBP{:}\ ZEE\ Differential}{NBP{:}\ ZEE\ Average\ Differential\ from\ last\ 2\ Days}\right)$$

- However, when this methodology was applied to previous winters, it would have triggered Margins Notices at demand levels below 300mcmd and therefore was not adopted into Mod 0698

Monitoring During Winter 2019/20

- We committed to report back to the industry during and post winter 2019/20, to
  - Share how the new Margins Notice methodology is functioning
  - Review what effect the Interconnector methodology would have had
- The following graph shows for Oct 19 – Jan 20:
  - The D-1 demand forecast
  - The actual margins notice trigger level (MNTL) (including the LNG methodology change)
  - What MNTL would have been <u>without</u> the LNG methodology change
  - What MNTL would have been <u>with</u> the LNG methodology change <u>and</u> the revised IC methodology

Margins Notice Mid-Winter Review



MNTL has usually been above what it would have been, had the new LNG methodology not been introduced

A notice that forecast demand had breached 95% of the MNTL would have triggered on 17/12/19 if the interconnector methodology had been introduced as well as the new LNG methodology

Observations & Next Steps

- A mild winter to date; no Margins Notices have been issued
- High LNG entry flows have resulted in a higher MNTL than would have been the case without Mod 0698 for the majority of the period
- Interconnectors have exported as well as imported over the period and flows have been low (typically <10 mcmd). Therefore, had the interconnector methodology been in force, the MNTL would have been materially lower
- A notification that D-1 demand had exceeded 95% of the MNTL would have been issued on 17/12/19. The system began 17/12/19 short but was balanced by midday, with interconnectors not flowing. No supply shortfall concerns were evident for 18/12/19.
- The Margins Notice process for this winter will cease on 31 March 2020, unless there is a need to reinstate it in April
- We propose to report back to the industry on the whole winter period in the Spring

Gas Transmission

Gas Charging Updates

Phil Hobbins
Commercial Codes Change Manager

nationalgrid

Status of Gas Charging UNC changes and developments

- Ofgem published minded to position on UNC0678 (and ten alternatives) in December 2019, expressing a preference for 0678A and for implementation on 1 October 2020
  - Ofgem Impact Assessment consultation - responses due by 24 February 2020
  - Includes CEPA economic assessment
  - https://www.ofgem.gov.uk/publications-and-updates/amendments-gas-transmission-charging-regime-minded-decision-and-draft-impact-assessment

- Next steps:
  - Following consultation, Ofgem to make decision, around May 2020.
  - Following a decision, assuming 0678A, new charges will be effective from October 2020.

UNC0678A: Key features

Transmission Services (broadly equivalent to TO)

- No changes to capacity processes (Auctions, allocations, etc)
- Postage Stamp Reference Price Methodology (i.e.. One Entry Reference price, One Exit Reference price per Gas Year irrespective of location).
  - Multipliers of 1 between annual reference price and auction specific products (i.e. reserve price equals the reference price. This updates annually so payable prices “float”, except Existing Contracts (long term entry bought before 6 April 2017).
- Revenue Recovery charges for Transmission based on capacity not commodity
- 50% Storage discount, 10% interruptible discount.
- No Shorthaul. New product being progressed separately via 0670R and a new modification by National Grid to be presented shortly.

Non-Transmission (broadly equivalent to SO)

- Recovered like today, principally via Commodity Charges

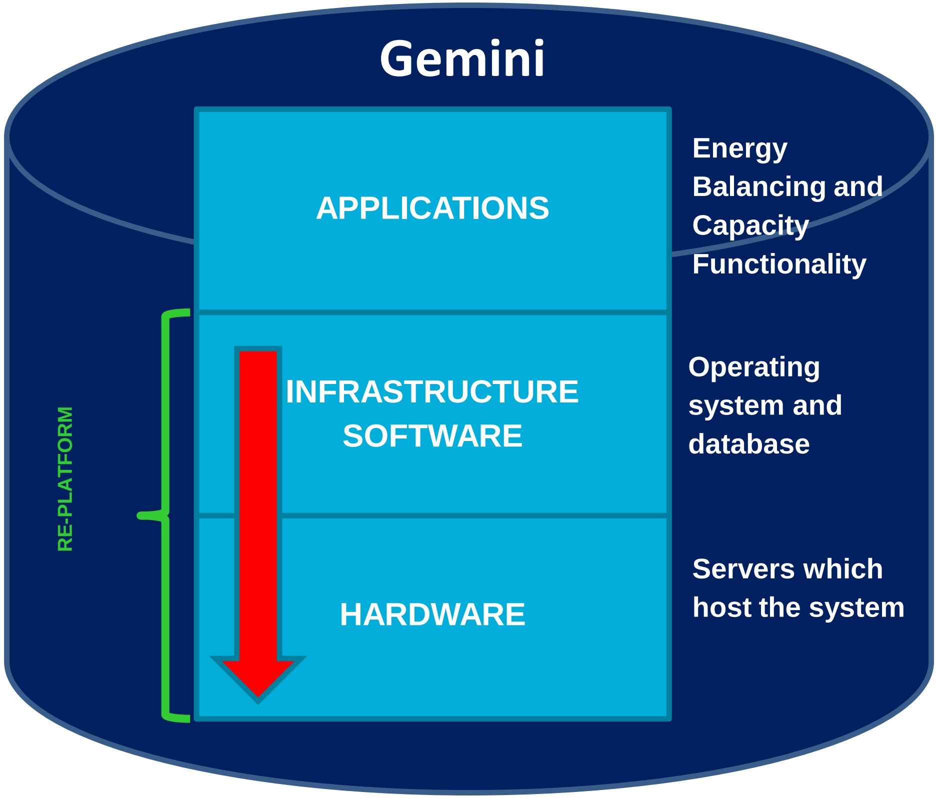
Gas Transmission

GEMINI Re-Platforming Project

Sarah Carrington
Comms & Engagement Lead (GEMINI Change Programme)

nationalgrid

Gemini Re-Platforming Scope



In Summary - Impacts to the Industry

Functionality

- The Gemini functionality will remain exactly the same as it is now

External Connectivity Testing

- All external Gemini users will have the opportunity to test connectivity to the new Xoserve data centre during the period 13th April to 8th May 2020.

Access to Gemini

- Extended option to access Citrix via your web browser and/or update of your current Citrix receiver client to 7.15, due to current version being out of support.

Extended Outage

- Extended system outage on Sunday 5th July 2020. More details on the next slide.

Gemini Re-Platforming Extended Outage

- Extended outage will be required on the Gemini system on 5th July 2020
- Estimated outage window is currently anticipated to be between 8 to 12 hours
- Provisional timescales for the Gemini Re-Platforming implementation are as follows:
  - Gemini Maintenance Window: 03:00 to 5:00
  - Extended outage: 05:00 to 13:00
  - In the event of a rollback an additional outage will be required from 13:00 to 17:00
- Details have already been circulated via the Xoserve Change Pack and Xoserve Change Managers meeting
- Details will continue to be circulated to the industry via the usual comms channels

External Connectivity Testing

- All external users are invited to test connectivity to the new Xoserve Data Centre during the period 13th April to 8th May 2020
- You are strongly encouraged to take up the opportunity of the External Connectivity Testing to provide assurance to your business and provide us a timely opportunity to resolve any issues that may occur
- Please contact box.xoserve.geminire-platform@xoserve.com if you wish to participate in the External Connectivity Testing
- Further reminders/invitations to take part will be issued over the next few weeks

Any queries please email: box.gasops.businessc@nationalgrid.com

Gas Transmission

Updates

Martin Cahill
Operational Liaison Lead

nationalgrid

Gas Transmission

Negative Implied Flow Rate Process

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New NIFR Process – April 2020

- **Summer 2018 Gemini Enhancements Workshop**
  - Your primary area for improvement was the NIFR re-nomination process.
  - Opportunity now available to implement a solution
- **A new Gemini process for managing NIFR re-nominations will be effective from April 2020.**
  - IP NIFR re-nomination requests are out of scope
  - Fax based process will cease
  - New Gemini Screen available for Shippers and GNCC
  - Compatible with Gemini Front end or API re-nominations
  - NIFR reschedule Process window extended from 02:00 to 04:00
  - Efficiency savings for GNCC and Shippers
  - Reporting on utilisation for NG

NIFR: Questions from last forum

Q: Why is the reschedule process window open until 4am when nominations on GEMINI have to be made by 3am?

A: Re-nominations are available up to Gemini housekeeping window

Q: Will nominations created using the renominations API automatically create a NIFR request if necessary, or will a manual process be required in the Gemini front end?

A: Yes the API will generate the NIFR request without any frontend activity required

Q: Are any changes to the API request needed to facilitate this?

A: Only the number of text characters in the message section of the API has been extended, However this has no impact to the structure of the API (within original specifications)

NIFR: Questions from last forum

Q: Can an API be setup to notify for approval of the request?

A: New API's are out of scope. However a new Gemini screen has been created which allows shippers to view the status of NIFR requests.

Please refer to the January slides for more information on the new process for NIFR

Gas Transmission

UAG Report

nationalgrid

What are we required to do?

Special Licence Condition 8E of National Grids Gas Transporter Licence states we are obligated to do the following:

- Publish a bi-annual UAG report on our website and provide OFGEM with a copy in **April** and **October.** These dates are determined by the wording within the Special Licence Condition 8E.3 “The Licensee shall publish the UAG Reports by 1 May 2013, 1 October 2013 and every subsequent six months thereafter or such other dates as agreed by the Authority” rather than **May** and **November** which is what we believe to be intended.
- Publish all relevant information associated to the report on the website
- Undertake UAG projects to improve our understanding of the causes of UAG

For additional information on Special Licence Condition 8E please click **here.**

National Grid's Licence Says…

8E.1 The purpose of this condition is to set out the obligations of the Licensee in respect of undertaking projects for the purposes of investigating the causes of Unaccounted for Gas (UAG) and the publication of the findings of these projects, including relevant data.

Part A: Licensee's obligations under this condition

8E.2 The Licensee shall use reasonable endeavours to undertake the UAG Projects as specified in this condition for the purposes of investigating the causes of Unaccounted for Gas in respect of Formula Year t commencing on 1 April 2013 and each subsequent Formula Year t until 31 March 2021. The UAG Projects shall include but need not be limited to those set out in paragraph 8E.5. Where the Licensee does not undertake certain UAG Projects it shall clearly set out its reasoning in the UAG Reports referred to in paragraph 8E.3.

8E.3 The Licensee shall publish UAG Reports of the findings of these UAG Projects on its website and provide a copy of the UAG Reports to the Authority. The Licensee shall publish the UAG Reports by 1 May 2013, 1 October 2013 and every subsequent six months thereafter or such other dates as agreed by the Authority.

8E.4 Within one month of publishing a UAG Report the Licensee shall publish on its website all the relevant data referred to in the UAG Report. Where there are legitimate reasons for not publishing certain data on the website the Authority may consent for the Licensee not to do so.

What are we proposing?

- Reports to be published in **May** and **November** with immediate effect
- Change the requirements of the November Report - only produce if there are significant updates on UAG Projects or changes in UAG behaviour

What are the benefits?

- The May Report will capture the whole of the previous financial year
- Improved efficiency across the team leading to greater focus on longer term UAG projects

If you have any questions or would like additional information please contact the team on meterassurance@nationalgrid.com or contact Matt Newman on 01926 654 206.

If you would like to see historic UAG Reports please click **here.**

Gas Transmission

Signposting

Josh Bates
Operational Liaison &
Business Delivery Manager

nationalgrid

Industry Change

Title	Status	Governance	Proposer/ Sponsor	Impacted Party*	Name	Targeted Implementation Date
Mod 0667	Awaiting Ofgem decision	UNC - Transmission	South Hook Gas Company Ltd	High impact: Shippers. Medium Impact: National Grid NTS	Inclusion and Amendment of Entry Incremental Capacity Release NPV test in UNC	No implementation specified
Mod 0670R	With Workgroup	UNC - NTSCMF	National Grid	High impact: All parties that pay NTS Transportation Charges and / or have a connection to the NTS, and National Grid NTS	Review of the charging methodology to avoid the inefficient bypass of the NTS	TBC
Mod 0678 (A-J) Urgent	Awaiting Ofgem Decision	0678 WG	Various proposers	High impact: All parties that pay NTS Transportation Charges and / or have a connection to the NTS, and National Grid NTS	Amendments to Gas Transmission Charging Regime	October 2020
Mod 0683S	With Workgroup	UNC - Transmission	Cadent	High Impact: National Grid Transmission and all GDNs.	Updating the Offtake Arrangements Document (OAD) with recommendations resulting from UNC Request Workgroup 0646R – Review of the Offtake Arrangements Document – Phase 1	NA
Mod 0686	Awaiting Ofgem Decision	UNC - Transmission	Vermilion Energy Ireland Limited	High impact: All Users of the GB gas transmission and distribution system and their downstream customers. National Grid in its role as the Transmission Licensee. Users currently opting for the NTS Optional Commodity Rate could expect an increase in the tariff, whilst those not using the NTS Optional Commodity Rate could expect a decrease in tariff.	Removal of the NTS Optional Commodity Rate with adequate notice	TBC

Industry Change

Title	Status	Governance	Proposer/ Sponsor	Impacted Party*	Name	Targeted Implementation Date
Mod 0705R	With workgroup	Review group	National Grid	High Impact: GB gas market participants, National Grid NTS, Ofgem	NTS Capacity Access Review	TBC
Mod 0708	With Workgroup	UNC - Governance	Northern Gas Networks	Medium Impact: Shippers, DNOs Low Impact:NTS, consequential impact to IGTs and CDSP	Re-ordering of the UNC in advance of Faster Switching	TBC
Mod 0710	With Workgroup	UNC - Distribution	Wales and West Utilities	Medium Impact: Shippers, NTS, DNOs, IGTs, CDSP Low Impact: Suppliers, Consumers	CDSP provision of Class 1 read service	TBC
Mod 0712	With Workgroup	UNC - Transmission	OMV Gas Marketing and Trading GmbH	Low Impact: NTS, Transporters, Consumers	Amending the oxygen content limit in the Network Entry Agreement (NEA) at the St Fergus SAGE plant	Aug-20
Mod 0713	With Workgroup	UNC - Distribution (updates to Transmission)	Wales and West Utilities	Shippers, Transporters	Amendments to TPD V3.1.7 Independent Assessment table	Jun-20
Mod 0714	With Workgroup	UNC - Transmission	Centrica	Medium Impact: Shippers, Gas Transporters, Consumers	Amendment to Network Entry Provision at Perenco Bacton Terminal	Jun-20
Mod 0715	With Panel	New Modification	National Grid	Low impact: Transporter, Shipper Users, CDSP	Amendment of the Data Permission Matrix to add Electricity System Operator (ESO) as a new User type	Jun-20
Mod 0716	With Panel	New Modification	National Grid	All parties that pay NTS Transportation Charges and/or have a connection to the NTS, and National Grid NTS	Revision of Overrun Charge Multiplier	Oct-20

Capacity Access Review

- The Capacity Access Review (CAR) will review the principles of the capacity regime to ensure they are aligned to the future needs of our customers and will address issues being experienced in the short-term.
  - The current entry and exit capacity arrangement were built of the foundations of an expanding gas network where historically incremental capacity signals from long-term auctions would trigger investment on the NTS.
  - Today, the environment has changes and we are not experiencing the capacity signals requiring expansion we were 10 years ago.
- NG raised UNC Request 0705R in October. Transmission Workgroup have focused on defining the scope of the review, developing long-term strategy for the future Capacity Access Regime and developing a list of specific short term problems which will be looked at as a part of the review.
- Further, wider industry engagement will be carried out throughout 2020. Consultation is in progress and will close on Thursday, 20th February.
- For more information please contact Jennifer Randall on jennifer.randall@nationalgrid.com

XP1 Token renewal
29th February 2020

- XP1 tokens are provided to organisations that use Gemini as a backup connectivity option (contingency only). Tokens (maximum of 3 token per organisation) are provided by Xoserve on behalf of National Grid Transmission.

- The current set of tokens will expire on 29th February 2020 and will need to be replaced before that date to ensure you have continuous availability of this option.

- Xoserve have already contacted all associated individuals from each organisation and have been working with those that have responded to ensure we have the most up to date contact and address details.

- There are some organisations that are yet to respond and we encourage you to speak with your Gemini users or the Xoserve Customer Lifecycle team to progress further at the following: LSO@Xoserve.com

Future of Gas- 2020 Focus Areas

2020 Focus Areas

What we will be exploring for potential market change

Gas Quality

The Gas Quality focus area will consider how market rules may need to evolve to accommodate more diverse, low carbon gases into the GB gas system.

Hydrogen

The Hydrogen focus area will consider market change activities needed to integrate hydrogen into the energy mix with minimal impact on gas market participants.

Balancing

The Balancing focus area will explore how the rules that incentivise balancing supply and demand may need to evolve as the gas landscape continues to change.

Future of Gas Forum

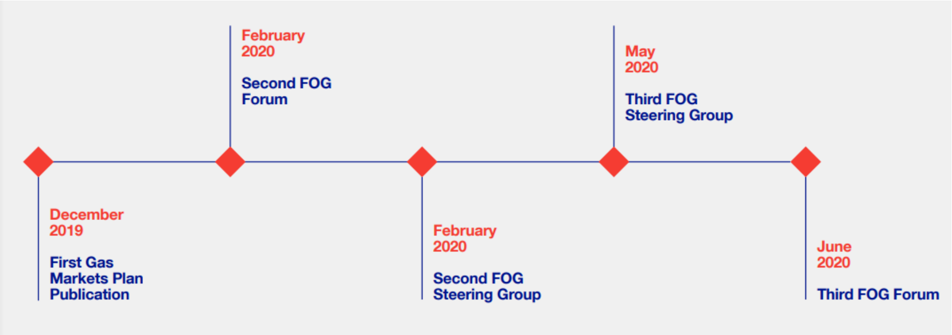
The 2nd Future of Gas Forum takes place on the 24th February in Birmingham

The theme for the day is “Innovation driving Market Change” and to that end we have some exciting speakers lined up to talk you through their own innovation projects and what this means for the Gas Markets of the future. These speakers are:

- **Energy Networks Association – Matthew Hindle (Head of Gas)**
- **Tyseley Energy Park – David Horsfall (Director)**
- **National Grid Ventures – Andrew Benjamin (Engineering Manager)**

Sign up at:

https://futureofgas.uk/homepage/



Query Surgery and Next Forum

The Next Operational Forum will take place on March 19th at the Amba Hotel

Please let us know any requested topics

Opportunity now for 121 discussion with NG and Xoserve attendees

Draft Agenda includes:

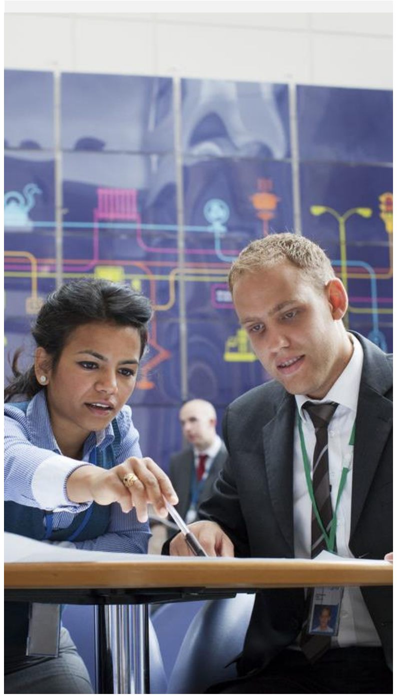
How National Grid Forecast Demand

UK/EU Future Trade Agreement (BEIS)

Reconciliations (Energy Balancing Team)

Maintenance Plan

Capacity Access Review



Registration is open for all 2020 events at:
https://www.nationalgridgas.com/data-and-operations/operational-forum

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