Gas Operational Forum – January 2018 Log on wifi Open Network:

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Please ensure you register at the table at the back of the room

#gasjan

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Gas Operational Forum



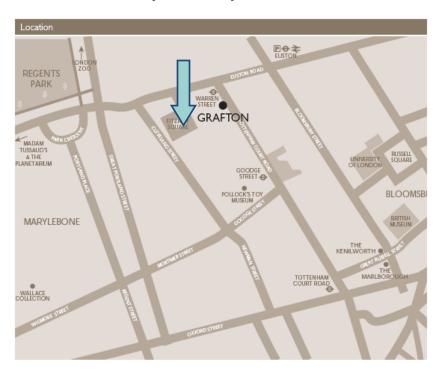
25 January 2018 09:30AM Radisson Blu Hotel, 130 Tottenham Court Road, London

Health & Safety Brief

No fire alarm testing is planned for today.

In the case of an alarm, please follow the fire escape signs to the evacuation point.

At the rear of the hotel by Fitzroy Court



Agenda

- > 09:30 Previous Ops Forum actions
- > 09:35 Operational overview with interesting days and capacity interruptions
 - Supply Breakdown
 - Demand Breakdown
- ➤ 10:20 Rough storage
- ➤ 10:35 **UIG**
- > 10:55 Break
- 11:10 Nominations overview
- > 11:30 Xoserve / Gemini service desk update (nominations & renominations)
- **▶** 11:40 Change programme
- > 11:50 General UNC update
- > 12:00 **AOB/close**

Actions From November 2017 Forum

Action Ref	Discussion Item	Action	Who is Responsible	Due Date	Open/Closed
1	Operational Overview	Supply & Demand slides are good indications but can NG introduce some indication on actual volumes in the slides for Demand	NG	Jan Forum	Ongoing
2	Winter Webinars	NG to re-record the some of winter webinars that failed the quality check.	NG	Jan Forum	Closed
3	Calculated Linepack Data	Week commencing Monday 4th December – Where applicable, NG will provide historic data since October 2nd 2017.	NG	9th December	Closed
4	TSO > TSO Nominations Matching Contingency Process	Following the live Webex, NG to record a webinar in which will be uploaded onto NG.com	NG	Jan Forum	Open
5	Interactive slides	Where possible to provide an interesting day in an interactive format.	NG	Ongoing	Ongoing
6	Constraint Management Scenario	It was agreed that to revisit the Constraint Management and energy balancing game in future forums	NG	Q2 2018	Open
7	Balancing Regime & System Operator Role	Energy Balancing Team to review comments/questions following the voice of customer session and provide feedback at future forum	NG	Q1 2018	Open
8	Future of Gemini	National Grid to review comments/questions following the voice of customer session and provide feedback at future forum	NG	Q1 2018	Open
9	Contact points for query resolution	Improve contact points for query management	NG	Q1 2018	Closed

Operational Overview – Interesting Day Bacton ASEP Restrictions







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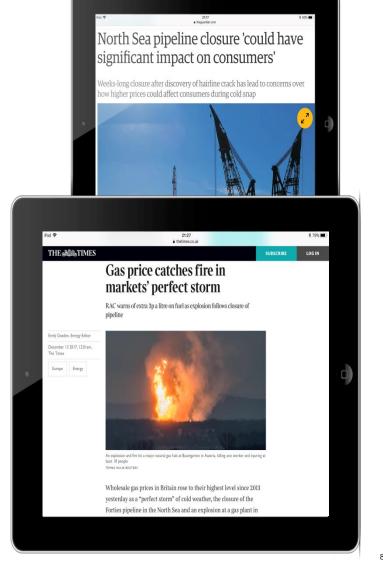
Bacton ASEP Restriction

Date	Scale Back Effective Time	Restoration Effective Time	EOD
03 December 2017	09:00	16:00	78
12 December 2017	09:00	01:00	115.89
29 December 2017	19:00	-	105.83
30 December 2017	05:00	09:00 (25%) 13:00 (50%) 16:00 (100%)	87.19
02 January 2018	05:00	09:00	110.15
08 January 2018	05:00	11:00	125.49
09 January 2018	05:00	-	137.1
10 January 2018	05:00	18:00	126.92
11 January 2018	05:00	16:00	118.5

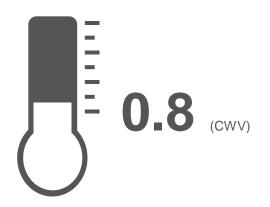
Interesting Day – 12 December 2017

A number of factors contributed to the operational challenges we faced on the 12th December:

- Falling temperatures
- The highest levels of NTS Demand for 4 years
- High levels of Bacton Interconnector supply
- Reduced flows through St Fergus
- High levels of storage withdrawal

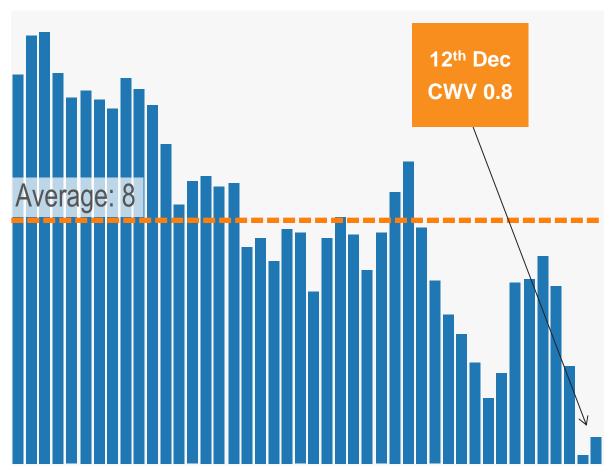


Falling Temperatures



It got significantly colder in the days leading up to the 12th.

CWV - Winter 2017 Weekdays



The highest demand days since 2013

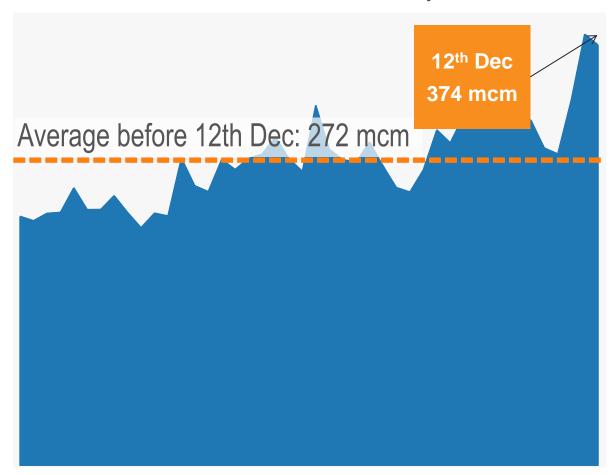
NTS Demand - Winter 2017 Weekdays

On the 11th and 12th of December, NTS Demand reached over

374 mcm

The highest levels for

4 years



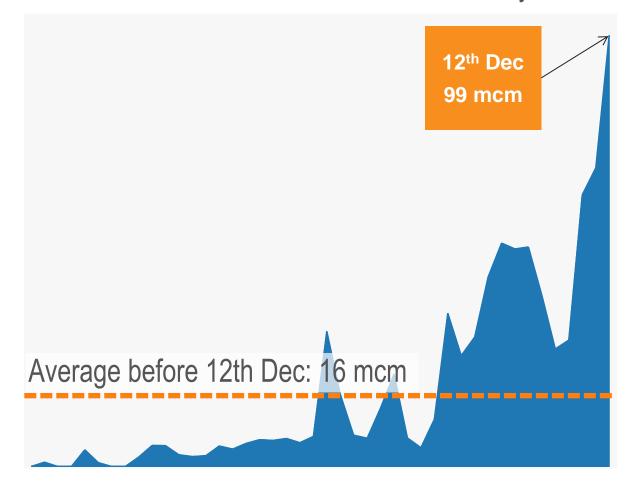
Dramatic increase in Bacton interconnector flows

Interconnector Flows - Winter 2017 Weekdays

Highest

EOD for Bacton interconnectors since

2013

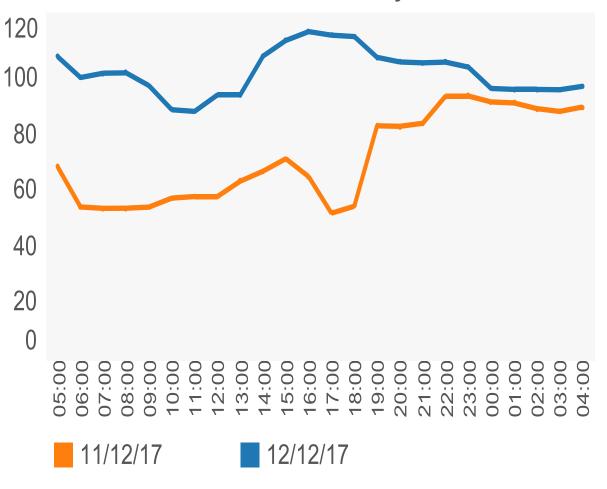


Dramatic increase in Bacton interconnector flows

23 mcm Increase

in maximum hourly flow rate versus the previous day

Bacton interconnector maximum hourly flow rates



Reduced flows at St.Fergus

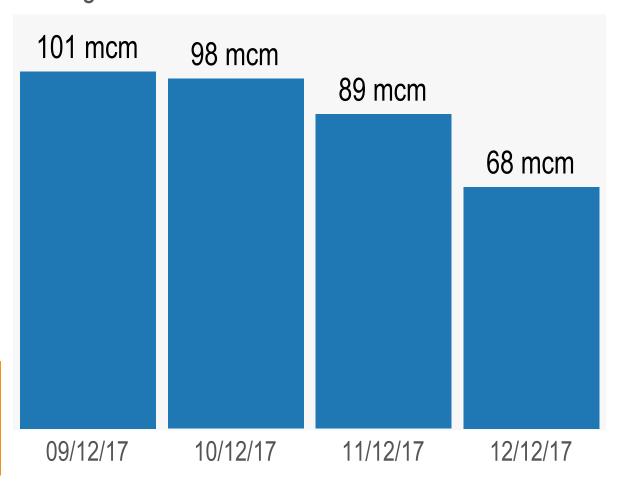
Flows from St Fergus fell significantly to just

68 mcm

The lowest flows from St Fergus since October

The Forties pipeline issue and Norwegian supply losses contributed to this

St Fergus Flows



High levels of storage withdrawal

Storage Withdrawal - Winter 2017 Weekdays

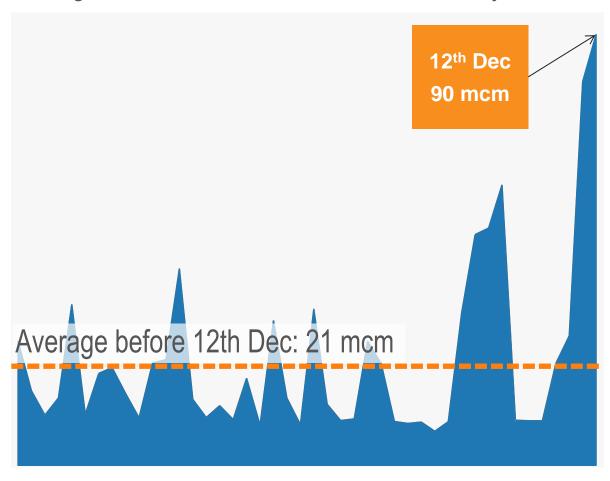
Trading prices peaked at

94p/th

and storage withdrawal jumped

69 mcm Higher

than the average this Winter



A changing supply pattern

Supply patterns looked very different to the typical profile.

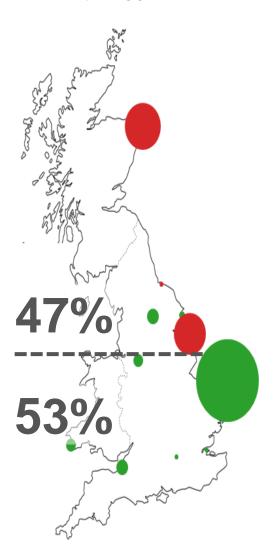
This presented us with

Different

operational challenges in moving supplies
South to North and away from Bacton.



12th Dec



12 December 2017

As the day started we were already attempting to optimise our compression strategy based on the supply pattern that we were anticipating.

Adapting and optimising our strategy continued throughout the day.

Rising pressure at Bacton

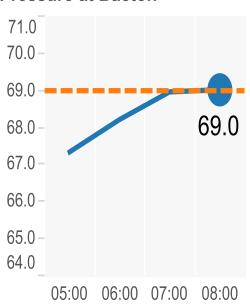


With high flows from Bacton, local pressures were rising and nearing the TFA threshold of 69 bar.

An entry constraint was forecast

Despite efforts to optimise our compression strategy, we were unable to move gas away from the Bacton area quickly enough and the TFA threshold of 69 bar was reached.

Pressure at Bacton



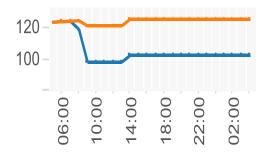
TFA Issued
Effective: 09:00
Rate: 100 mcm

Pressure reducing at Bacton after TFA



Flow rates at Bacton were reduced in accordance with the TFA.

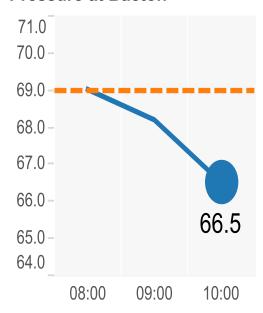






A combination of continuing optimisation of the compression strategy, the increases in demand (in line with the usual diurnal profile) and the reduced flows from Bacton meant that pressure decreased.

Pressure at Bacton



Pressure concerns easing



With pressure at Bacton continuing to fall, concerns eased and the TFA was adjusted to increase the max flow rate.

TFA Adjusted
Effective: 11:00
Rate: 110 mcm



As we continued to monitor the situation, pressure was still reducing and we were now able to further increase the max flow.

TFA Adjusted
Effective: 11:50
Rate: 120 mcm

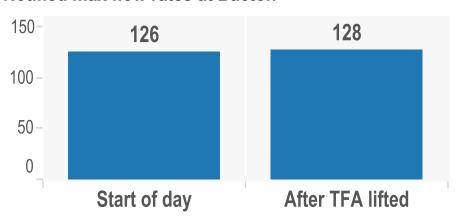
TFA lifted



Following a period of close monitoring, we were now confident that pressure at Bacton was sufficiently below the TFA trigger and that we had the right operational strategy in place to allow us to manage higher flows.

TFA Lifted
Effective: 14:00
Rate: Unrestricted

Notified max flow rates at Bacton



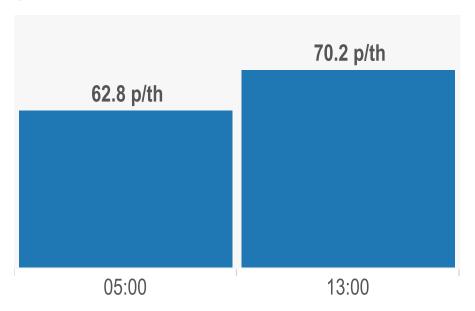
We were now allowing Bacton to flow at a higher rate than the start of day notification

Market prices



Pressure at Bacton was now within operational limits, however during the morning prices had been rising significantly





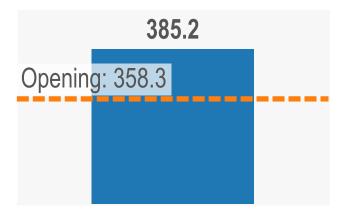
Trading prices had reached as much as

94p/th

Changes in supply elsewhere

In addition to the returning flows at Bacton, there were significant increases in supply across the NTS.

PCLP at 14:00



Nationally PCLP was now very heavy driving the operational decision to trade

20 mcm Increase

in EOD supply elsewhere on the NTS in

1 hour

between 13:00 and 14:00



Reaction to trading

We traded between 14:12 and 17:20 during which time we saw a decrease in notified supply.

By 18:00 PCLP had returned close to opening

PCLP at 18:00

Opening: 358.3

36 mcm Decrease

in EOD supply by 18:00



Bacton ASEP Restriction

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09 January 2018	05:00	14:00	137.1
10 January 2018	05:00	18:00	126.92
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Operational Overview - Supply and Demand





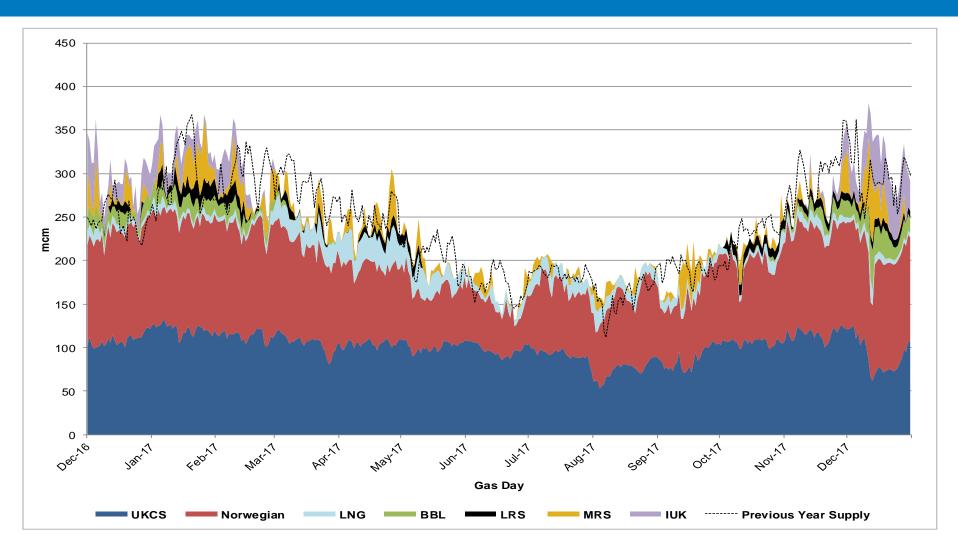


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Gas Supply Breakdown

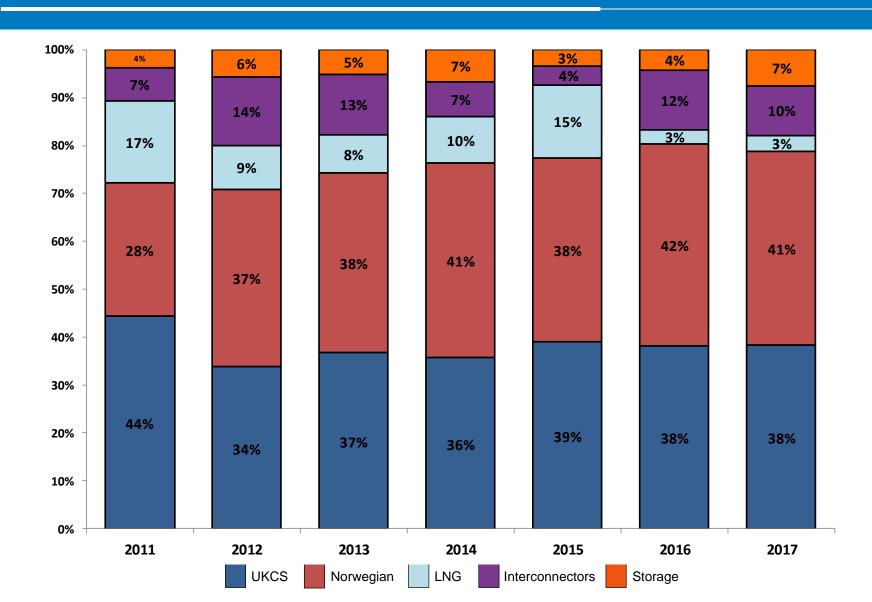
1st October 2016 to 31st December 2017 vs Previous Year



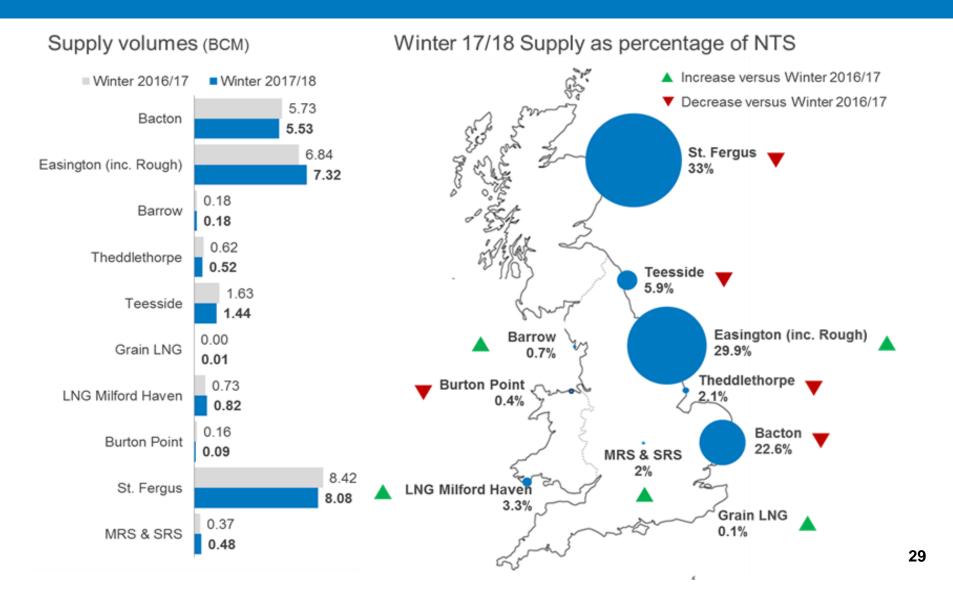
Gas Supply Breakdown

nationalgrid

1st April 2017 to 31st December 2017 vs same period over the previous 6 years



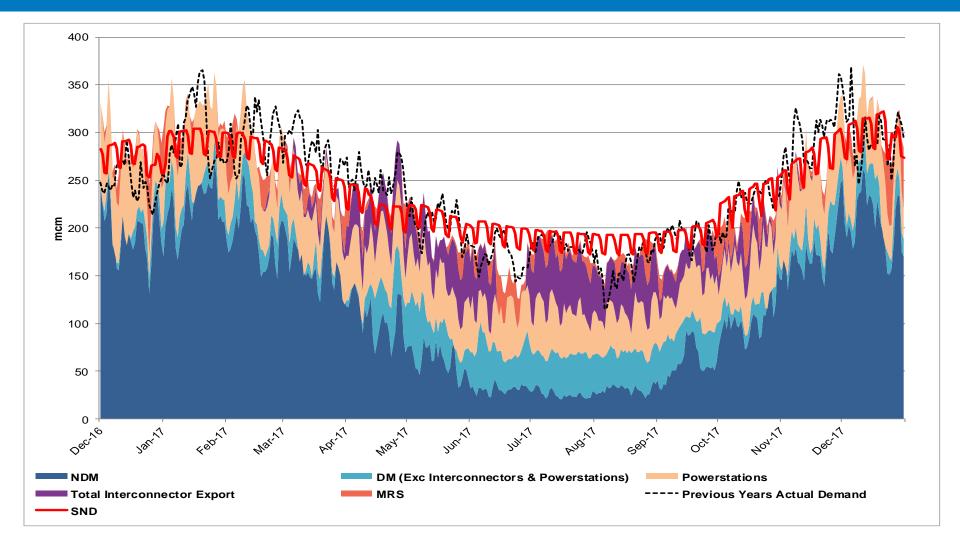
Gas Supply Map 1st October 2017 to 31st December 2017 vs Same Period Last Year



NTS Supply Winter (mcm): 1st October 2017 to 31st December 2017

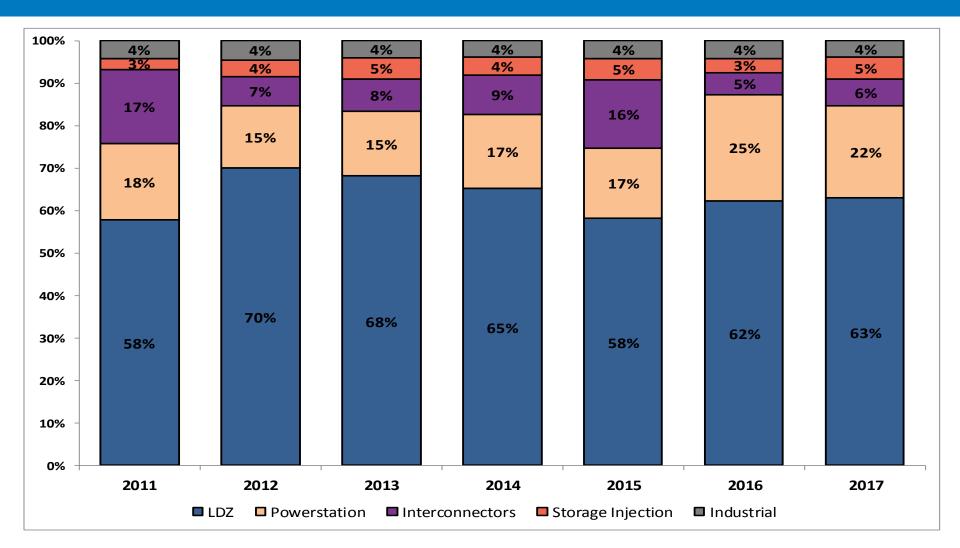
Entry	Min	Max	Avg	Winter Outlook Range Oct2017 - Mar 2018	Winter Actual Range Oct 2016 - Mar 2017	Comments				
UKCS	62.0	126.4	104.3	70 - 121	81- 132	 There is a slight increase in Storage as a percentage of total supply so far this winter (7%) compared to last (4%) with the differences made up of Interconnector supply (2016/17 12%, 2017/18 10%) during the and Norwegian 				
NORWAY est*	52.9	126.6	110.6	60 - 136	67 - 134	 supply (2016/17 42%, 2017/18 10%) during the and Norwegian supply (2016/17 42%, 2017/18 41%). IUK turned around to import on 23 November 2017 and we have seen an average of 39 mcm/d of imports and maximum of 67 mcm/d since the turn around. This is compared to an average of 26 mcm/d and maximum of 51 mcm/d for the same period last year. During the same period BBL has averaged 21 mcm/d with a maximum of 46 mcm/d, similar to the flows seen 				
INTERCONNEC TORS	0.0	46.4	11.3	0 - 45	0 - 44					
INTERCONNEC TORS	0.0	67.1	17.0	0 - 74	0 - 51	for the same period last year.				
WHE LEE SE	5.0	26.6	9.0	5 - 100	5 - 33	Entry	Min	Max	Avg	
LNG						Actual Supply	194.2	381.4	272.6	
STORAGE WITHDRAWAL	0.0	90.2	20.3	0 - 92	0 - 88	Actual Supply Exc. Storage	159.9	308.9	252.3	

Gas Demand Breakdown 1st October 2016 to 31st December 2017 vs Previous Year



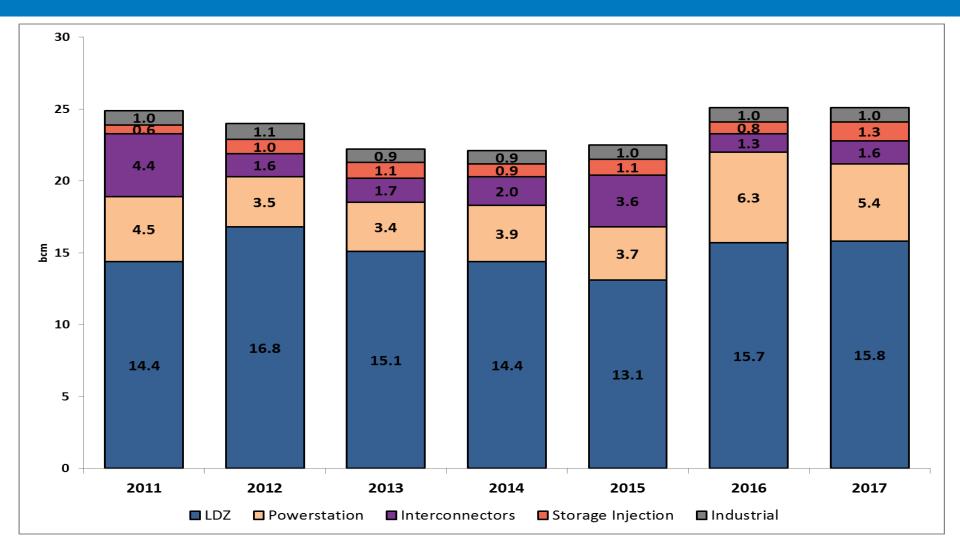


Gas Demand Breakdown 1st April 2017 to 31st December 2017 vs same period over the previous 6 years

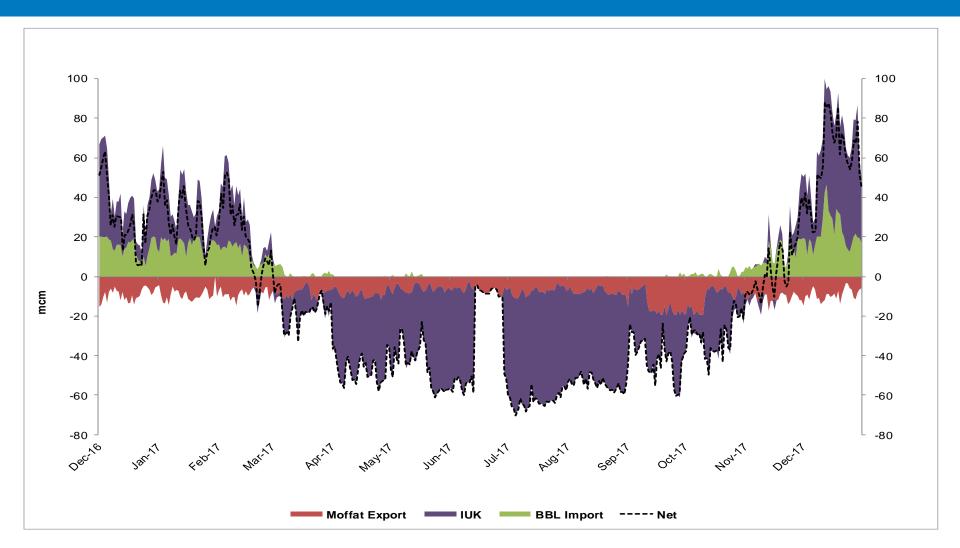




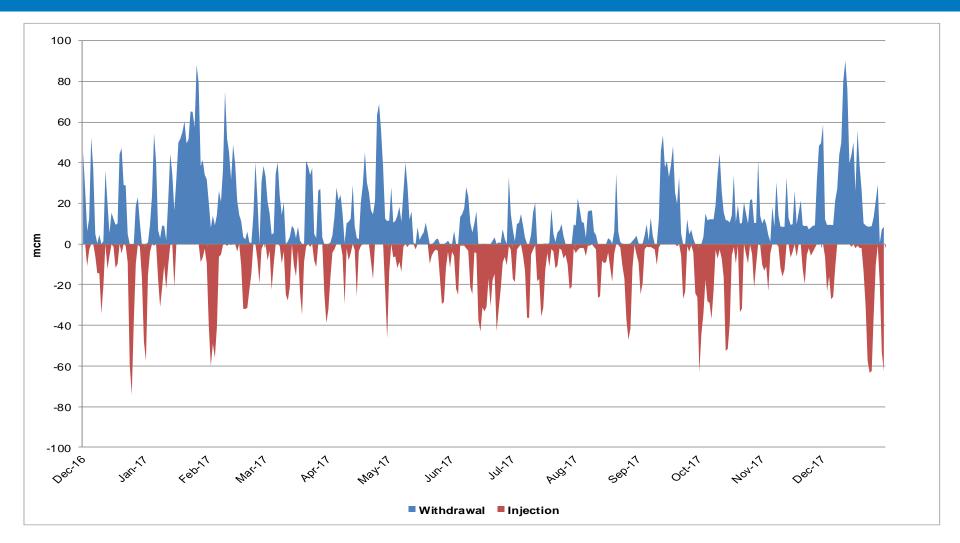
Gas Demand Breakdown (bcm) 1st April 2017 to 31st December 2017 vs same period over the previous 6 years



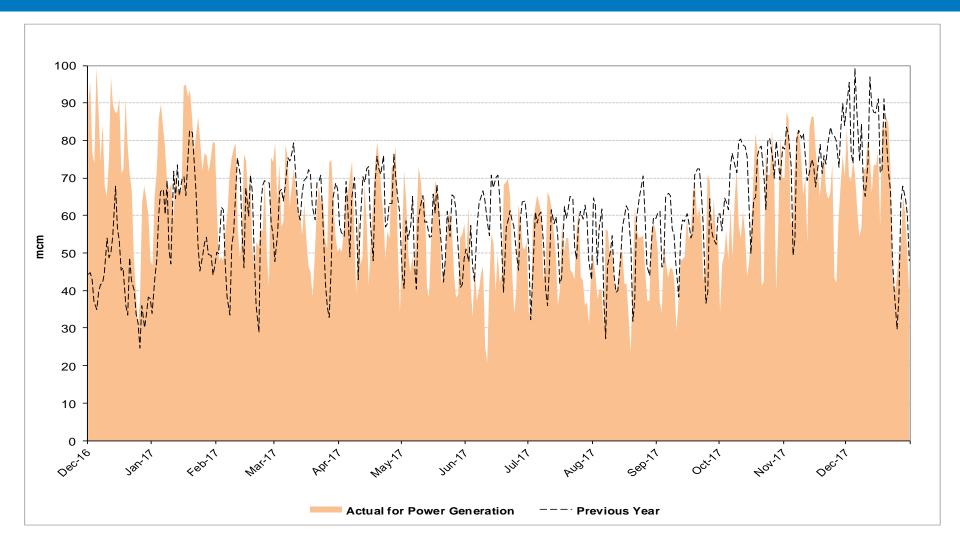
Gas Supply / Demand Interconnectors 1st October 2016 to 31st December 2017



Gas Supply / Demand Storage 1st October 2016 to 31st December 2017



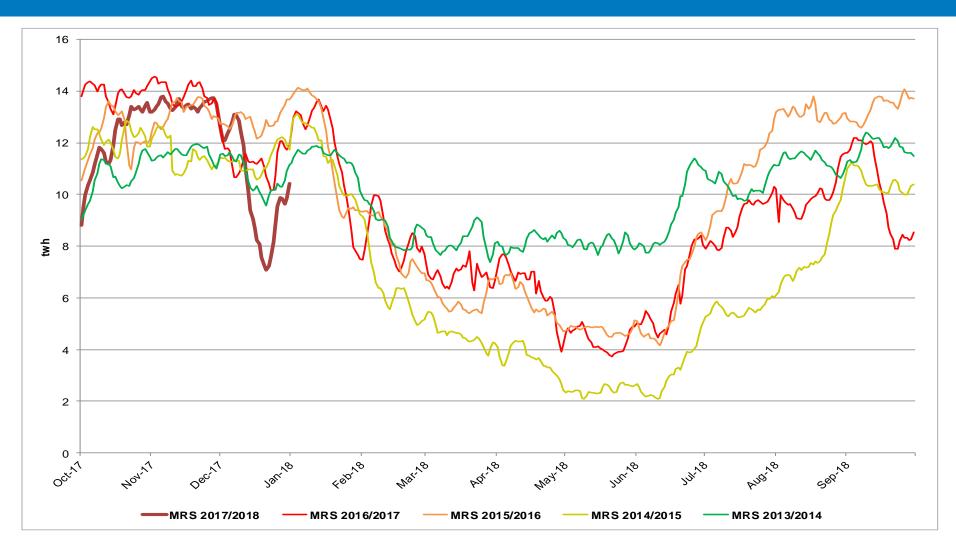
Gas Consumption for Power Generation 1st October 2016 to 31st December 2017 vs Same Period Last Year



NTS Demand Winter (mcm): 1st October 2017 to 31st December 2017

Exit	Min	Max	Avg	Winter Outlook Range Oct2017 - Mar2018	Winter Actual Range Oct2016 - Mar2017			Comme	ents	
LDZ	78.0	286.8	171.5	31 - 352 (NDM)	90- 280	period last y is likely due	rear (avo to Rouo	j. 17.4 m jh storag	ncm/d vs ge facility	till up on the same 14.1 mcm/d). This v being unavailable e been diverted to
INTERCONNECTORS Ireland	3.3	19.4	10.2	6 - 11	0 - 16	IUK exports.Supply total during the s	s this w ame per	inter so iod last	far are year (av	similar those seen g. 272.6 mcm/d vs
INDUSTRIAL	8.2	14.0	10.5	19 - 31 (DM + Ind)	8- 16 (DM + Ind)	273.3 mcm/d). The demand breakdown only varies slightly year on year: there is little difference in LDZ demand year on year for the same period but we are still seeing higher Storage Injection this year that has been offset by lower Power Station Demand believed to be driven by an increase in renewable generation.				difference in LDZ eriod but we are still vear that has been
POWERSTATION	28.3	81.4	59.1	17 - 116	24 - 94					
STORAGE	0.0	63.4	14.0	0 - 75	0 - 74	Exit	Min	Max	Avg	2017 /18 Winter Outlook Range
INJECTION						Demand exc. IUK & SI	130.2	384.0	251.4	199 - 474
INTERCONNECTORS IUK	4.9	44.3	7.2	0 - 40	0 - 28	SND exc. IUK & SI	148.0	312.0	250.6	27

Storage Stocks: MRS Position as at 31st December 2017



Capacity Neutrality: 1st April 2017 to 31st December 2017

Revenue / Costs	Apr 17 to Dec 17	Apr 16 Dec 16	Comments
WDDSEC/DAI Entry Capacity Revenue	-£633,555	-£652,178	
Total Entry Constraint Management Operational Costs	£433,495	£0	* Entry Capacity Overrun Revenue data not yet available
Entry Capacity Overrun Revenue	-£1,594,213*	-£953,737	for December 2017
Non-Obligated Sales Revenue (Entry only)	-£34,914	-£22,690	
Revenue from Locational Sells and PRI Charges	£0	£14,249	
Net Revenue	-£1,829,187	-£1,614,356	

APX Market Prices (p/th) Min / Max

	SAP	SMPB	SMPS
Apr 17 to Dec 17	26.1 - 69.8	27.3 - 79.0	24.9 - 66.1
Apr16 to Dec 16	21.0 - 53.7	22.2 - 55.0	19.9 - 52.5

Net Balancing Costs

	Imbalance	Scheduling	OCM	Net
April 2017	£32,473,867	£2,778,029	£29,527,856	£5,724,041
to Nov 2017	(CR)	(CR)	(DB)	(CR)

Energy Balancing: 1st April 2017 to 31st December 2017

NGG Balancing Actions	Apr 17 to Dec 17	Apr 16 to Dec 16	Comments
Buy Actions	139 (81%)	30 (30%)	Buy actions were significantly higher than Sell actions in EV 2017/18 [Iven to Nevel but December serve learners] Output December 1997 [1997] The serve learners are the serve learners and the serve learners are the serve learners and the serve learners are the serve
Sell Actions	33 (19%)	69 (70%)	FY 2017/18 [Jun to Nov] but December saw large increase in Sell actions and slight reduction in Buy
Buy Actions [Volume: Gwh]	2549	551	actions.There have been 32 Sell actions so far in FY 2017/18
Sell Actions [Volume: Gwh]	-678	-1342	[Apr: 14, May: 2, Dec: 16]. • There have been 139 Buy actions so far in FY 2017/18
Number of Balancing Actions	172	99	[Apr: 2, May: 2, June: 17, July: 16, Aug: 23, Sept: 23,
NGG set Default Marginal Prices [SMPB: Average %]	13%	5%	Oct: 24, Nov: 18, Dec: 14].
NGG set Default Marginal Prices [SMPS: Average %]	3%	5%	

Rough Storage Presentation







Operational Forum – January 2018 Centrica

Unidentified Gas



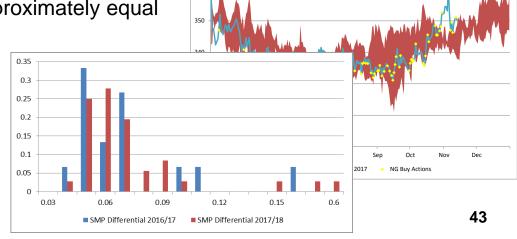




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UIG – National Grid Balancing Actions

- National Grid NTS are responding to the same system conditions as before
 - No internal processes or procedures have changed following Nexus implementation
 - The approaches taken and the considerations made have not changed.
- Investigations so far show our actions have not shifted the system
 - Period of high buy actions was still within historic range
 - Where SMP was set, differential in line with 2016/17
 - As of Dec 17 Sell & Buy actions approximately equal
- National Grid will continue to monitor trends in SMP differentials and trade frequency and report any anomalies



XOSETVE

UIG Modifications Update

Gas Ops forum

UIG Modifications

0642 (Urgent) - Changes to settlement regime to address Unidentified Gas issues

0642A (Urgent) - Changes to settlement regime to address Unidentified Gas issues

Key points:

- Utilises pre-Nexus nomination and allocation process for NDM meters
- Introduces a fixed UIG cost currently set at 1.1%, to which the weighting factors will be applied for 2017/18, to be set by the AUGE in subsequent years
- Introduces a concept of 'settlement error' whereby the remaining UIG costs are smeared across NDM meters which are unreconciled

Implications:

- · System impacts to Gemini and UK Link
- Changes to reconciliation and file formats

Implementation:

- The proposer has specified an implementation date of 1st April 2018 within the modification
- Minimum lead time of 6 months for a system solution (excluding market trials)

Key dates:

- UIG workgroup 30th January
- Consultation 1st February 8th February
- Panel decision 15th February
- · Ofgem decision late February

Key points:

- Introduces a fixed UIG element currently set at 2.5%
- A Balancing Factor which acts as a leveller to any additional volume which the fixed % does not sweep up or, if the Fixed UIG is too large, it balances things out
- Removes the AUGE process, the fixed UIG percentage will be determined by DESC

Implications:

System impacts to Gemini and UK Link

Implementation:

- No implementation date specified however 30th
 September in line with the new Gas Year is ideal
- Minimum lead time of 6 months for a system solution (excluding market trials)

Key dates:

- UIG workgroup 30th January
- Consultation 1st February 8th February
- Panel decision 15th February
- Ofgem decision late February

UIG Modifications

0643 (Urgent) - Changes to settlement regime to address Unidentified Gas issues including retrospective correction

0644 - Improvements to nomination and reconciliation through the introduction of new EUC bands and improvements in the CWV

Key points:

- Utilises pre-Nexus nomination and allocation process for NDM meters.
- Introduces a fixed UIG cost currently set at 1.1%, to which the weighting factors will be applied for 2017/18, to be set by the AUGE in subsequent years.
- Introduces a concept of 'settlement error' whereby the remaining UIG costs are smeared across NDM and DM meters which are unreconciled
- Includes retrospective charging back to 1st June 2017

Implications:

- System impacts to Gemini and UK Link
- Changes to reconciliation and file formats

Implementation:

 Minimum lead time of 6 months for a system solution (excluding market trials)

Key dates:

- UIG workgroup 30th January
- Consultation 1st February 8th February
- Panel decision 15th February
- Ofgem decision late February

Key points:

- Seeks to split the End User Categories (EUC)
 EUC01B and EUC02B into three and grouping by
 prepayment, market sector code of industrial and
 commercial and finally all remaining meter point
 reference numbers.
- Seeks to amend the Composite Weather Variable (CWV) to include more than just wind speeds and temperature plus the creation of parameters to flex the Weather Correction Factor (WCF) and/or Daily Adjustment Factors (DAF) where they reach defined tolerances.

Implications:

System impacts to UK Link, substantial impacts to reporting

Implementation:

Ideally in line with a Gas Year

Key dates:

- UIG workgroup 30th January
- Consultation 19th April 2018
- Panel decision 17th May 2018

Key Points

- There is a UIG dedicated UNC workgroup which is considering all the UIG modifications
- 0642 and 0643 are granted urgent status by Ofgem— 0642A is following an urgent timeline despite not having urgent status, 0644 is not urgent
- The changes are not being considered for release until approved, the industry will approve a release date through the Change Management Committee. The aspirations are for an implementation before the next gas year however due to the scale of impact to systems and processes this may not be feasible.



Break







Operational Forum – January 2018

Nominations/Re-nominations Overview







Operational Forum – January 2018 Cara Finn

Introducing the Energy Balancing Team

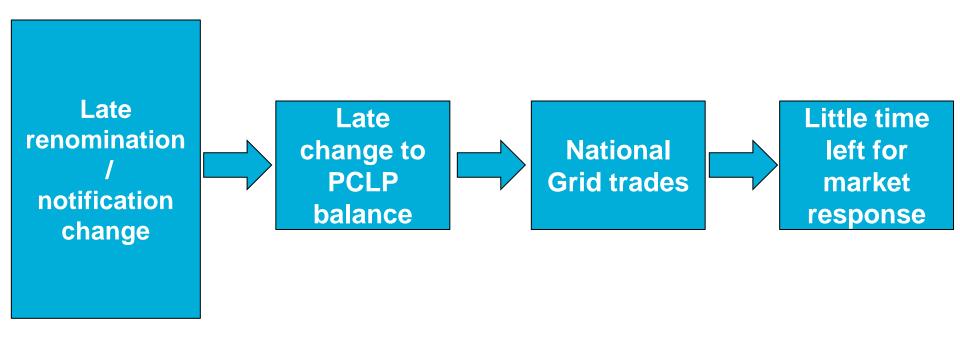
- New team established in April 2016
 - Balancing strategy incentive management
 - Meter assurance metering validations and Unaccounted for Gas
 - Gas energy management After day energy tracking and allocations
- On a journey to review and optimise our processes
- We are listening and acting on your feedback
 - Understanding the role of National Grid in balancing the system
 - Predictability of National Grid balancing actions
 - Increased industry interaction inc Ops Forum representation



Balancing Strategy Team

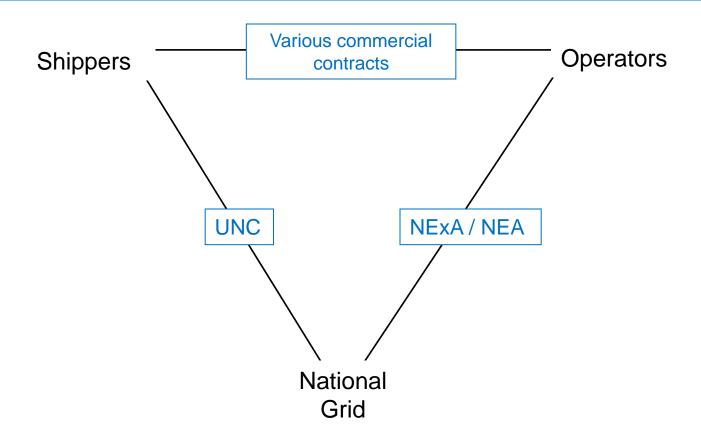


Feedback- late renominations



Out of balance shippers exposed to the risk of penal cash out prices

Flow of Nomination/Notification info



Multiple contracts / regimes - Are timings in sync?

Renominations

- As per UNC Section C renominations are accepted as long as they meet the following criteria
 - Received before 03:00 on the gas day,
 - In line with the Negative Implied Flow Rate rules,
 - National Grid are to escalate where Shipper are not routinely complying with the above.
- National Grid need to have the most accurate information to hand when acting as residual balancer to minimise cost to industry.
 - Encourage and facilitate prompt and timely nominations
 - Tension between flexibility to give accurate Vs proactive nomination management

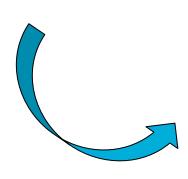
Established agreement

Deemed to flow process to override 1/24th rule

Monitoring Compliance of Nominations and Notifications

What we Monitor

- Nomination timings
- NIFR controls
- Accuracy of Nominations
- Flow rate Vs Notifications



How we monitor

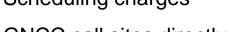
- System automation
- Strict criteria for acceptance
- System automation
- Real time SCADA review

Actions taken

- Gemini rejects post 3am
- Request denied/approved
- Scheduling charges
- GNCC call sites directly

NOTE:

Shipper / Sites contacted formally where systematic noncompliance observed.



Summary

- National Grid primary concerns are:
 - Safety/Security of the physical system
 - Acting as the System Residual Balancer
 - Reliant on accurate/timely information to minimise cost to industry
- UNC permits renominations up to 3am
- Controls in place to ensure system is not misused

Contact us via

NTS.EnergyBalance@nationalgrid.com

Xoserve/Gemini







Operational Forum – January 2018 Dave Turpin

XOserve

Gemini Service Improvement – High Priority P3 Process

High Priority P3

Following feedback from the last Gas Operations Forum, Xoserve have looked to see what can be done to provide confidence that Nomination and Re-nomination issues are dealt with in a timely manner – knowing how time critical these business processes can be to users of the system.

We have introduced a High Priority P3 (HPP3) for on the day nominations / re-nominations which will provide an enhanced service response time when calls are raised with the Xoserve Service Desk (0845 6000 506).

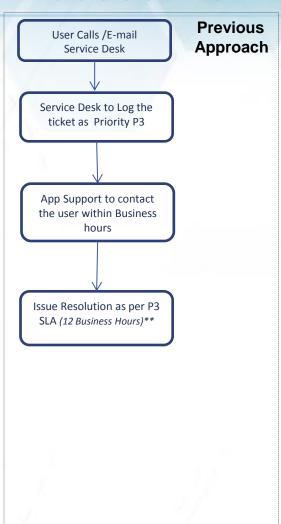
The key information when raising a call for nominations / re-nominations to provide to the Service Desk is –

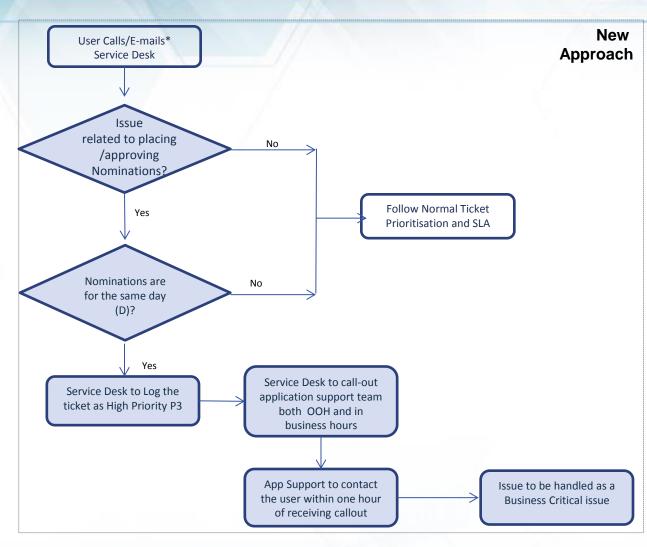
- 1. Please explicitly state your call is for nominations / re-nominations.
- 2. For which Gas day is the nomination / re-nomination related to?

The following slide shows the HPP3 process.



Process Flow





- * Calls logged via e-mail will potentially have a delay Recommendation for D Nominations/Renominations should be via Phone call
- ** Previous call-back was between 1 and 2 Hours, only during business hours



High Priority Noms & Re-Noms call out

We introduced the High Priority P3 service on the 18th December

- we are monitoring its success
- we will be looking to gain feedback from users on their experience.

A summary of the call which have fallen into this service since 18th December 2017 (go-live);

- Total calls to 1st January 2018 = <u>8</u>
- *Call back within 1 hour* = <u>100%</u>
- Type of calls received = <u>4 queries</u>, <u>3 external system faults</u>, <u>1 user error</u>



Gemini Service Feedback

We need your help

- Vital in ensuring delivery of a fit for purpose service to all users
- Feedback responses still very low (1%) of all user calls / emails
- Feedback helps drive our Continual Service Improvement programme
- If its not right Tell us!

How can I help..? - Multiple ways of providing feedback:

- Through the link at the bottom of ticket confirmation emails
- Selecting the feedback option from the link in the automated closure email
- Responding to our direct 'reach-out' calls from Xoserve Service Staff
- Leave feedback at anytime through the below URL https://www.surveymonkey.co.uk/r/YSQHGTZ
- Through your Xoserve Customer Account Manager*

*If you would prefer, please contact your Xoserve Customer Account Manager via the number shown on the next slide who will be happy to discuss any topics around the Gemini service.

Gemini – Don't Forget

All calls should initially be raised at the Xoserve Service Desk

Xoserve Service Desk: 0845 6000 506

Feedback URL -

https://www.surveymonkey.co.uk/r/YSQHGTZ



Change Programme







Operational Forum – January 2018 John McNamara

MIPI Rough ST Change

Background of Issue

Rough Facility has changed from a Storage Site to a Sub Terminal Site @ 00:01 on 16/01/2018

Areas effected due to the Rough Facility Change of Status

- Reports
- Data Item Explorer
- GSMR
- Prevailing View

Impacts to Industry:

- Until MIPI has had all changes completed there will be some data issues across MIPI
- Later slides will detail the issues so that for the short time you can manage the use of the data.

Communication Approach:

- Gas Ops Forum and SO Forum
- Key communications via MIPI website

Contact Details:

Via the Operational Liaison Team on Box.OperationalLiaison@nationalgrid.com

MIPI Rough ST Change (IMPACTS)

Data Fixes / Issues (REPORTS)

- Rough System Entry Fields will be used for entering Rough Sub Terminal data until change is completed. There will be some reports where this will not happen due to the complexity.
- The reports that can be Data Fixed on a daily basis are:
 - Nominations Report (In day)
 - NTS Commercial Entry End of Days ** (After the Day)
 - NTS Physical Entry End of Days ** (After the Day)
 - Daily Summary Report (Supply Summary) ** (In Day)
- Also with the reports marked ** the totals at site type level will also be effected
 - The Terminal Entry will not include ROUGH ST
 - The Storage Entry Total will include ROUGH ST

Storage Stock Level Information

All reports that relate to Storage Stock Levels & Graphs across they MIPI System have all been corrected

Data Fixes / Issues (REPORTS)

- The reports that cannot be Data Fixed on a daily basis are:
 - Aggregate Allocation Report (After the Day)
 - Storage withdrawals and Injection Allocations (Monthly)

MIPI Rough ST Change

Data Fixes / Issues (Data Item Explorer)

- Again Rough System Entry Fields being used for entering Rough Sub Terminal data until change is completed.
- Any Data Item queries related to ROUGH ST will be found in the ROUGH STORAGE SYSTEM ENTRY area of MIPI until the fix is in place.
 - The Terminal Entry Total will not include ROUGH ST
 - The Storage Entry Total will include ROUGH ST

GSMR

For this section as previous message data and totals for the new ROUGH ST will still be shown in the Storage area of all the tables and charts associated with GSMR

Prevailing View

- On the map section:
 - "Actual Supply" section Rough ST will be shown against Rough
 - "Forecast Supply" it will be included in the total
 - In the Supply Table ROUGH ST will be included in the Storage Line
 - All Storage Stock Level information will be correct

MIPI Rough ST Change

IN DAY NOMINATION REPORT (populated at 17:00 D-1, 05:00, 11:00, 17:00, 23:00 & 04:00 in day)

Glenmavis LNG	Storage Entry						
Hatfield Moor Stor	Storage Entry	0	0	0	0	0	0
Hilltop Farm Stor	Storage Entry	1,465,355	1,465,355	1,465,355	1,465,355	1,465,355	1,465,355
Hole House Farm Stor	Storage Entry	0	0	0	0	0	0
Holford Stor	Storage Entry	0	24,178,357	24,178,357	24,178,357	0	0
Hornsea Stor	Storage Entry	0	0	13,403,263	0	6,695,138	5,905,513
Humbly Grove Stor	Storage Entry						
Isle Of Grain Stor	Storage Entry						
Partington LNG	Storage Entry						
Rough Stor	Storage Entry	87,446,667	90,377,778	90,377,778	90,377,778	89,094,722	89,190,278
Stublach Stor	Storage Entry	66,117	66,117	66,117	0	0	1,000,000
Bacton - Perenco	Subterminal Entry	46,214,229	19,240,843	30,020,889	28,546,031	28,737,086	35,256,095
Bacton - Seal	Subterminal Entry	132,091,995	125,491,163	115,683,096	118,030,245	118,964,374	118,651,830
Bacton - Shell	Subterminal Entry	115,089,628	118,470,845	84,216,756	87,087,234	85,941,778	91,147,831
Bacton - Tullow	Subterminal Entry	0	0	0	0	0	0
Barrow	Subterminal Entry	29,000,000	7,000,000	7,000,000	7,000,000	7,000,000	9,000,000
Burton Point	Subterminal Entry	19,878,859	19,878,859	16,396,795	17,985,943	18,651,918	18,651,918
Easington - Amethyst	Subterminal Entry						
Easington - Dimlington	Subterminal Entry	31,982,458	72,971,100	73,514,156	74,567,602	74,391,527	73,997,082
Easington - Langeled	Subterminal Entry	784,714,617	814,531,454	814,531,454	814,675,151	829,448,547	804,175,151
Easington - West Sole	Subterminal Entry						

MIPI Rough ST Change

After the Day NTS Physical and Commercial Reports

Milford Haven - South Hook LNG	LNG Importation	55,005,557 L	5.03650 L	39.32 L
Partington LNG	Storage Withdrawal			
Rough Stor	Storage Withdrawal	89,463,612 L	8.21120 L	39.16 L
ST Fergus - Mobil	Sub Terminal	190,511,936 L	16.59627 L	41.33 L
ST Fergus - NSMP	Sub Terminal	536,000,000 L	48.87100 L	39.48 L
ST Fergus - Shell	Sub Terminal	292,039,278 L	27.77250 L	37.86 L
Stublach Stor	Storage Withdrawal	67,488 L	0.00615 L	39.49 L
Teesside - BP	Sub Terminal	61,335,417 L	5.36560 L	41.15 L
Teesside - PX	Sub Terminal	125,548,889 L	11.24147 L	40.21 L
Theddlethorpe	Sub Terminal	51,766,667 L	4.86400 L	38.31 L

	Volume Totals(mscm)	Energy Totals(kWh)
Sub Terminal Total	222.65449 L	2,441,121,234 L
Interconnector Total	86.46771 L	902,736,181 L
LNG Importation Total	8.37550 L	91,111,117 L
Storage Withdrawal Total	18.65001 L	203,969,390 L
Actual NTS Physical Input	249.68000 L	2,736,201,741 L

MIPI Rough ST Change

GSMR

Entry Zone Graphs

User Defined Download

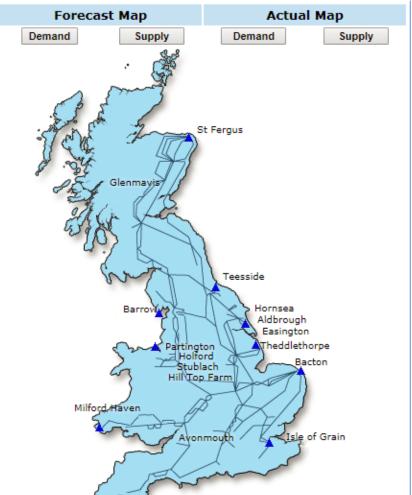
BACTON BBL	29.13	29.13	29.13	29.06	28.99	28.85
BACTON IC	21.71	21.58	21.58	21.58	21.58	21.56
BACTON PERENCO	i 6.09	i 6.18	i 6.18	i 6.18	i 6.18	i 6.14
BACTON SEAL	11.92	12.01	11.97	11.90	11.94	11.94
BACTON SHELL	8.82	8.82	8.82	8.82	8.82	8.82
BARROW SOUTH	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00
DYNEVOR ARMS	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00
EASINGTON DIMLINGTON	6.72	6.72	6.76	6.71	6.71	6.71
EASINGTON LANGELED	74.17	74.09	74.10	74.10	73.98	73.81
EASINGTON ROUGH	8.16	8.09	8.18	8.18	8.14	8.13
GLENMAVIS	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00	i 0.00
GRAIN NTS 1	0.00	0.00	0.00	0.00	0.00	0.00
GRAIN NTS 2	0.00	0.00	0.00	0.00	0.00	0.00
HILLTOP	0.00	0.00	0.00	0.00	0.00	0.00
HOLE HOUSE FARM	0.00	0.00	0.00	0.00	0.00	0.00

All the other table and charts below this level are all correct as they are at ASEP and Total Entry Level

MIPI Rough ST Change

Prevailing View

System Status		
	Today 24/01/2018	Tomorrow 25/01/2018
· GDW · MN Trigger	NONE 439.00	
Forecast	Graph	
Demand (mscm)		
Forecast Demand	272.0 (08:11)	
 Seasonal Normal Demand 	325.6	325.1
Supply (mscm)		
Forecast Flow Physical Flow	280.4 (08:00) 282.2 (08:00)	
Linepack (mscm)		
PCLP	351.3 (08:11)	
Long Term Demand System Entry Point		



Actual		
Demand (mscm)	Graph	22/01/2018
Actual Demand		308
Seasonal Normal I	Demand	317
Actual CWV		4
CWV Seasonal No	ormal	4
Supply (mscm)	Graph	21/01/2018
 Beach including N LNG Imports Interconnectors Storage 	orway	222 8 82 23
Linepack (mscm)	Graph	24/01/2018
Opening		344.1
EOD Export Physic	al Flows (msc	:m) 22/01/2018
Eacton Moffat	·	0
Storage Stock Leve	els (GWh)	Graph
	22/01/2018	23/01/2018
Short	0	0
Medium	10,939	11,226
Long	0	0
Actual Storage Sto	ck (GWh)	Graph
Aggregate LNG Imp	portation Stoc	k Graph
	22/01/2018	23/01/2018 71

MIPI DR Plan (Advanced Notice)

Planned Date:

- Currently planned to take place between at 08:00 hours on 22/02/2018 and end
 11:00 hours on 23/02/2018
 - This will only go ahead if grid conditions allow
- This will be defined as a Technical DR
 - Process is to move MIPI to the DR Location run for 30 minutes and roll straight back to the Main Location
 - No users will be required to test as the technical teams will carry out testing
- Primary goal is to prove the process for the DR, ensure links to system are maintained and with no adverse effects on the system

Operational Impacts to Industry:

- During the outage above there will no access to MIPI Directly or via APIs
- Once MIPI is back up all data going forward will be available

MIPI DR Plan

BCM:

GNCC will each hour send out an ANS message with their agreed BCM data

Data Catch:

When MIPI becomes available there will be a data gap from the outage period that will take some time to re populate

Communication Approach:

- National Grid will publish news items in the run up to keep people informed of the latest position on MIPI
- When the system has returned the GNCC will send out an ANS Message

Contact Details:

Any further questions / queries contact
 Box.OperationalLiaison@nationalgrid.com

UNC Modifications







Operational Forum – January 2018

UNC Modification Proposal 0621

- UNC 0621 seeks to implement a new NTS Charging Methodology for use of the NTS
 - Key change is replacing the Long Run Marginal Cost (LRMC) principal used for charge setting with a Capacity Weighted Distance (CWD) model
 - A number of the proposed changes are required to comply with EU Regulation ('EU Tariff Code')
- Mod Solution is currently being developed in an industry Workgroup
- Workgroup scheduled to conclude in March 2018 to be followed by a formal UNC consultation process
- Two alternate solutions to Mod 0621 have been raised to date (0621A and 0621B)

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UNC Modification 0645S & 0646

- Modification 0645S proposes to increase the oxygen content in the Network Entry Agreement at South Hook LNG from 10ppm to 200ppm
- Modification 0646R is proposing to review the following sections of the Offtake Arrangements Document (OAD)
 - Section A Scope and Classification;
 - Section B Connection Facilities;
 - Section C Safety and Emergency;
 - Section G Maintenance;
 - Section L Cost Recovery and Invoicing;
 - Section M Information Flows;
 - Section N General;
 - Appendices (Supplemental Agreements);

AOB







Operational Forum – January 2018

Future Market Services Project - February

- NG have initiated a project to look at the provision of Future Market Services across the next decade.
- This includes the services delivered directly by NG, those procured from Xoserve and those automated via Gemini.
- Given the future changes in the energy market and the use of the gas network the aim of this project is to have;
 - Future Market services which are in line with our customer's expectations, well defined, transparent, reliable and delivered at an efficient cost
 - A clear view on the future of the Gemini system and how this will continue to meet customers needs and expectations



- Session at the February's Gas Operational Forum
- If you'd like to discuss this project and be involved in the "Listen" stage please contact Jennifer.Randall@nationalgrid.com

Upcoming Agenda Items 2018

Q4 2017/18

- Future of gas
- Exit capacity methodology / auction letters
- Gas future operability planning (GFOP)

Q1 2018/19

- Constraint management and energy balancing game
- Future of Gemini
- CLoCC

Should you wish to raise a topic for discussion please email: Box.OperationalLiaison@nationalgrid.com