

# SLIDO – Interaction Tool

**Gas Operational Forum – Nov 2017**

**Log on wifi Open Network:**

**RadissonBlu**

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Slido.com**

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**#gasopsnov**

**slido**

# Gas Operational Forum



23rd November 2017 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

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- 09:30 - **Previous Ops Forum Actions**
- 09:35 - **Operational Overview**
- 09:45 - **Linepack Swing Data**
- 9:55 - **Xoserve Service Desk**
- 10:05 - **UIG Update**
- 10:25 - **EU regulation 2017/ UNC Mod 0616 Capacity Conversion Mechanism**
- 10:40 - **Constraint Management Tool Overview**
- 10:50 - **Break**
- 11:10 - **Balancing Regime & System Operator Role**
- 11:50 - **Future of Gemini**
- 12:30 - **AOB**
- 12:45 - **Close**

# Actions From Previous Forums

Action Ref	Discussion Item	Action	Due Date
1	Operational Overview	Can NG introduce some indication on actual volumes with the Supply & Demand slides. <b>NG have now incorporated volumes for Supply and will look to include Demand data at future forums.</b>	Nov/Jan Forum
2	Operational Overview	NG to include an 'Interesting Day' request reminder in future communications. <b>NG requested 'Interesting Day' reminder and have received some requests that will be shared today during the Balancing Regime agenda.</b>	Nov Forum
3	Shaping the Future of the Gas Transmission	NG to distribute invitations for all 2017 RIIO T2 events to all Ops forum attendees <b>Tuesday 24<sup>th</sup> October, NG communicated to all Ops Forum attendees of the upcoming RIIO T2 events.</b>	ASAP
4	Winter Webinars	NG to check all Winter Webinars to ensure all sound quality is satisfactory. <b>NG have performed quality checks on all webinars – from which some will be re-recorded.</b>	Nov Forum
5	Calculated Linepack Utilisation	Can NG facilitate to keep historic collation of linepack data on the website? <b>- Week commencing Monday 27<sup>th</sup> November – NG will begin to log/publish historic linepack data.</b> <b>- Week commencing Monday 4<sup>th</sup> December – Where applicable, NG will provide historic data since October 2<sup>nd</sup> 2017.</b>	Nov Forum
6	Xoserve Service Desk	NG to collate all feedback provided during previous forum and update industry at future Operational Forum. <b>NG to provide quarterly updates on Xoserve service desk .</b>	Nov 2017 /Jan 2018



We are listening to you...



xserve

**UIG**  
Unidentified Gas



## TSO > TSO Nomination Matching Contingency Process

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### High Level Walkthrough of the TSO to TSO Nomination Matching process in the event of:

- ❖ Gemini Unavailable
- ❖ Business to Business (B2B) or Communications are unavailable
- ❖ Adjacent TSO system is unavailable

If you are interested with any of the points above please register to an open Webex session hosted by John McNamara on the following dates:

- ❖ Tuesday 28<sup>th</sup> November 2017 – 9.30am till 10.30am
- ❖ Wednesday 29<sup>th</sup> November 2017 – 9.30am till 10.30am
- ❖ To register email [Box.operationalliaison@nationalgrid.com](mailto:Box.operationalliaison@nationalgrid.com)



# Operational Overview

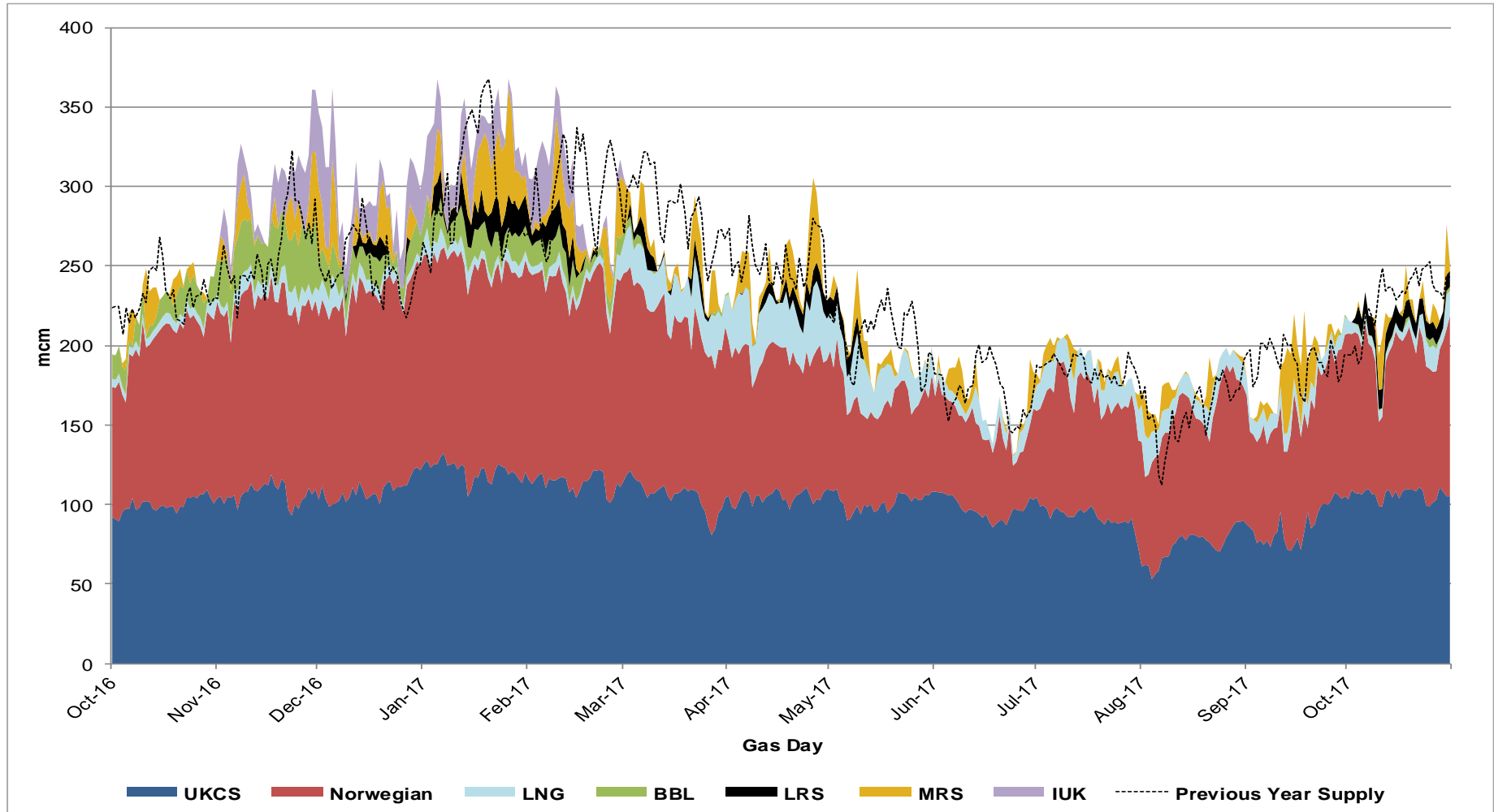


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Karen Thompson



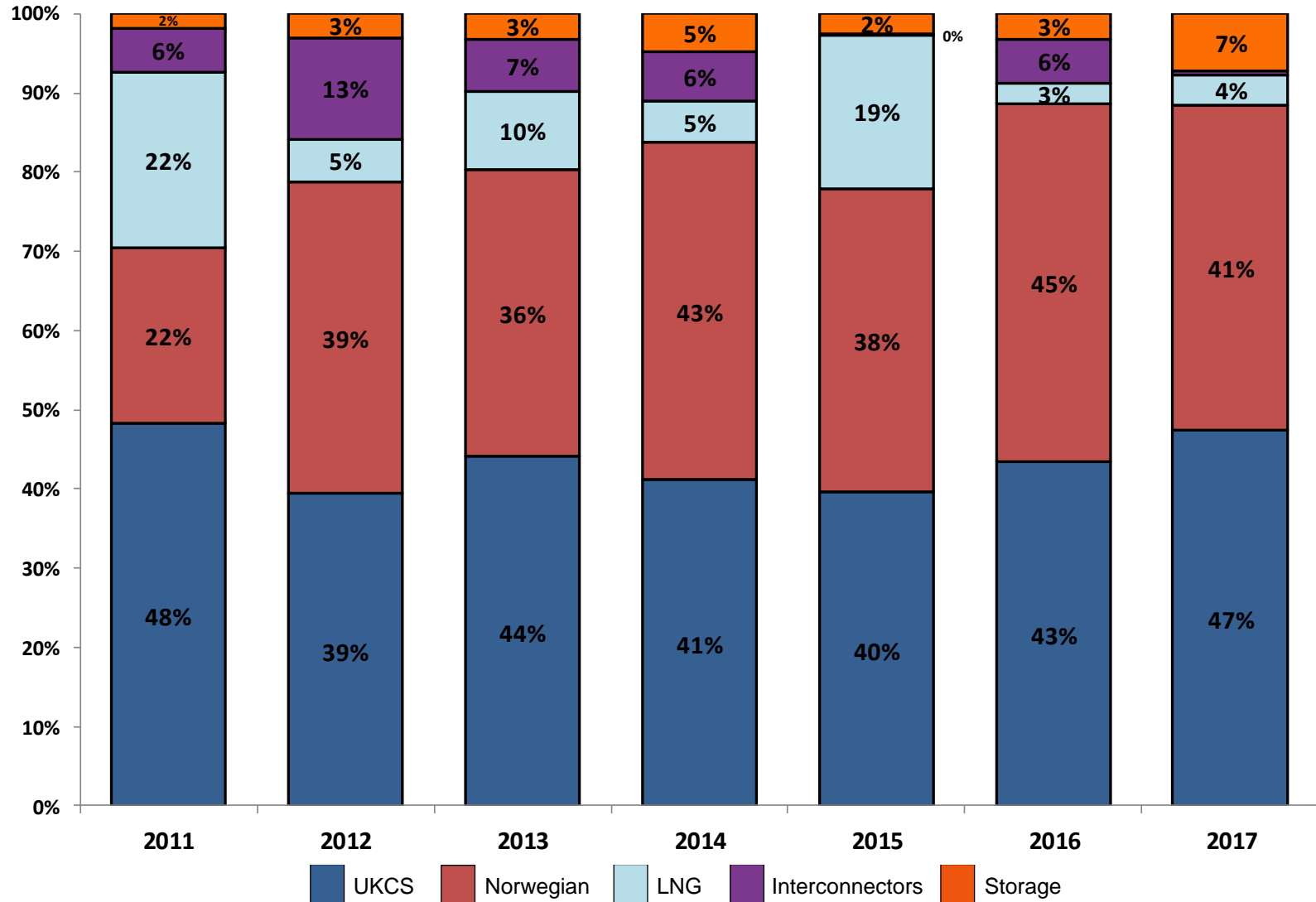
# Gas Supply Breakdown

1<sup>st</sup> October 2016 to 31<sup>st</sup> October 2017 vs Previous Year



# Gas Supply Breakdown

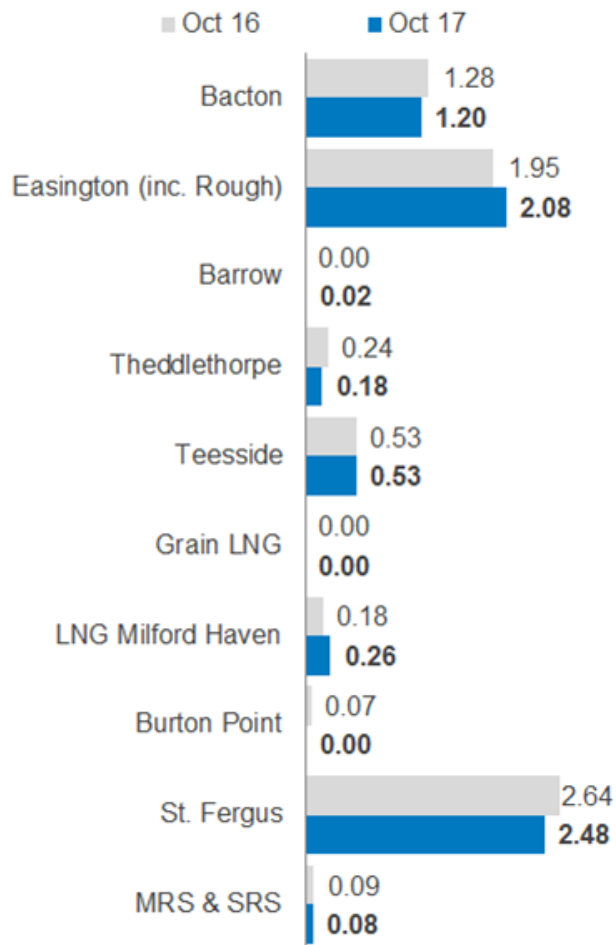
1<sup>st</sup> April 2017 to 31<sup>st</sup> October 2017 vs same period over the previous 6 years



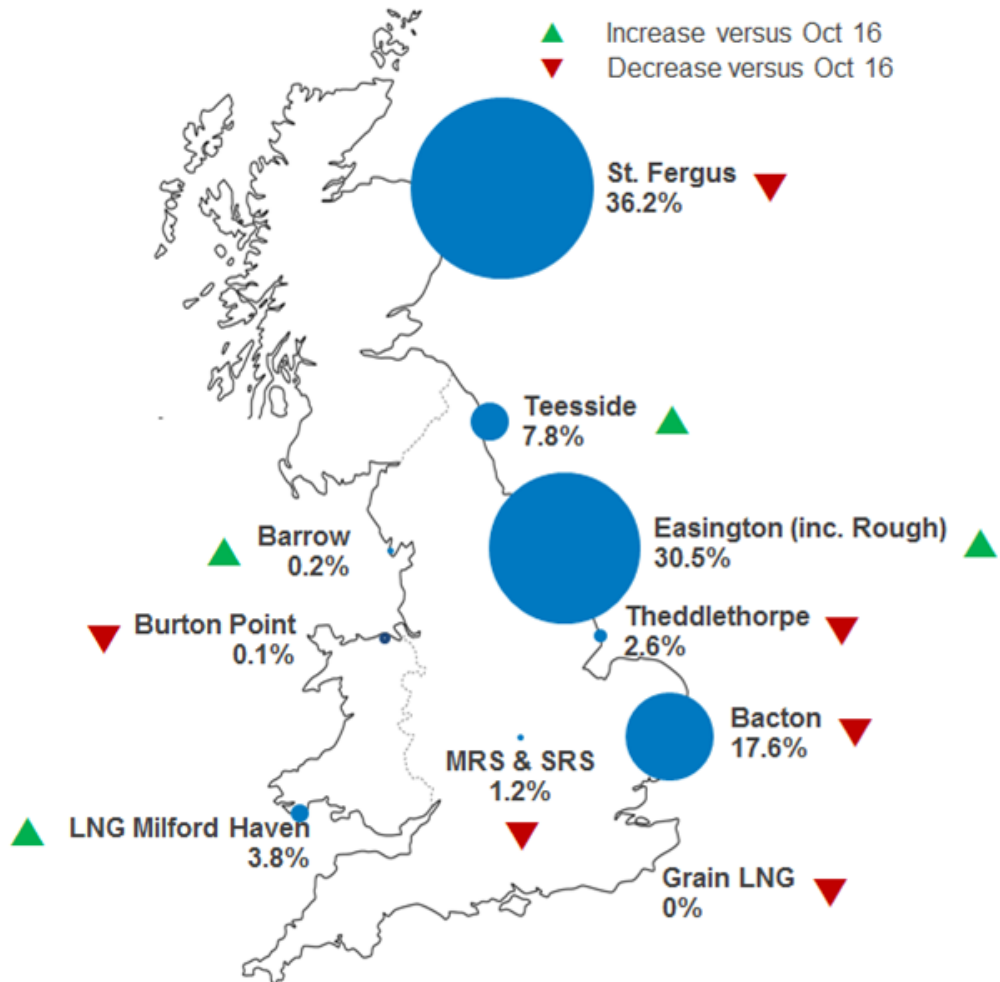
# Gas Supply Map

1st October 2017 to 31<sup>st</sup> October 2017 vs Same Period Last Year

Supply volumes (BCM)

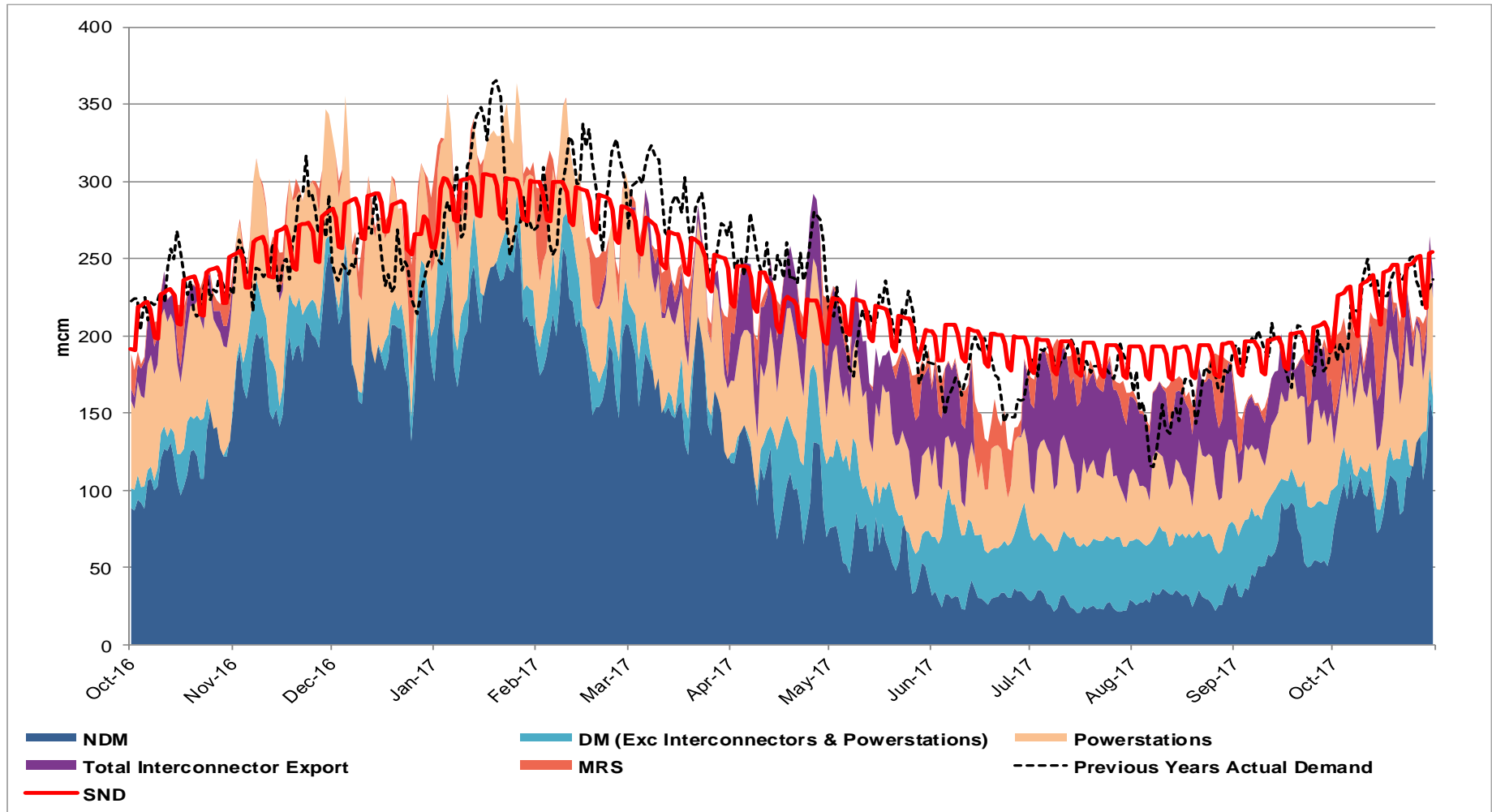


Winter 17/18 Supply as percentage of NTS



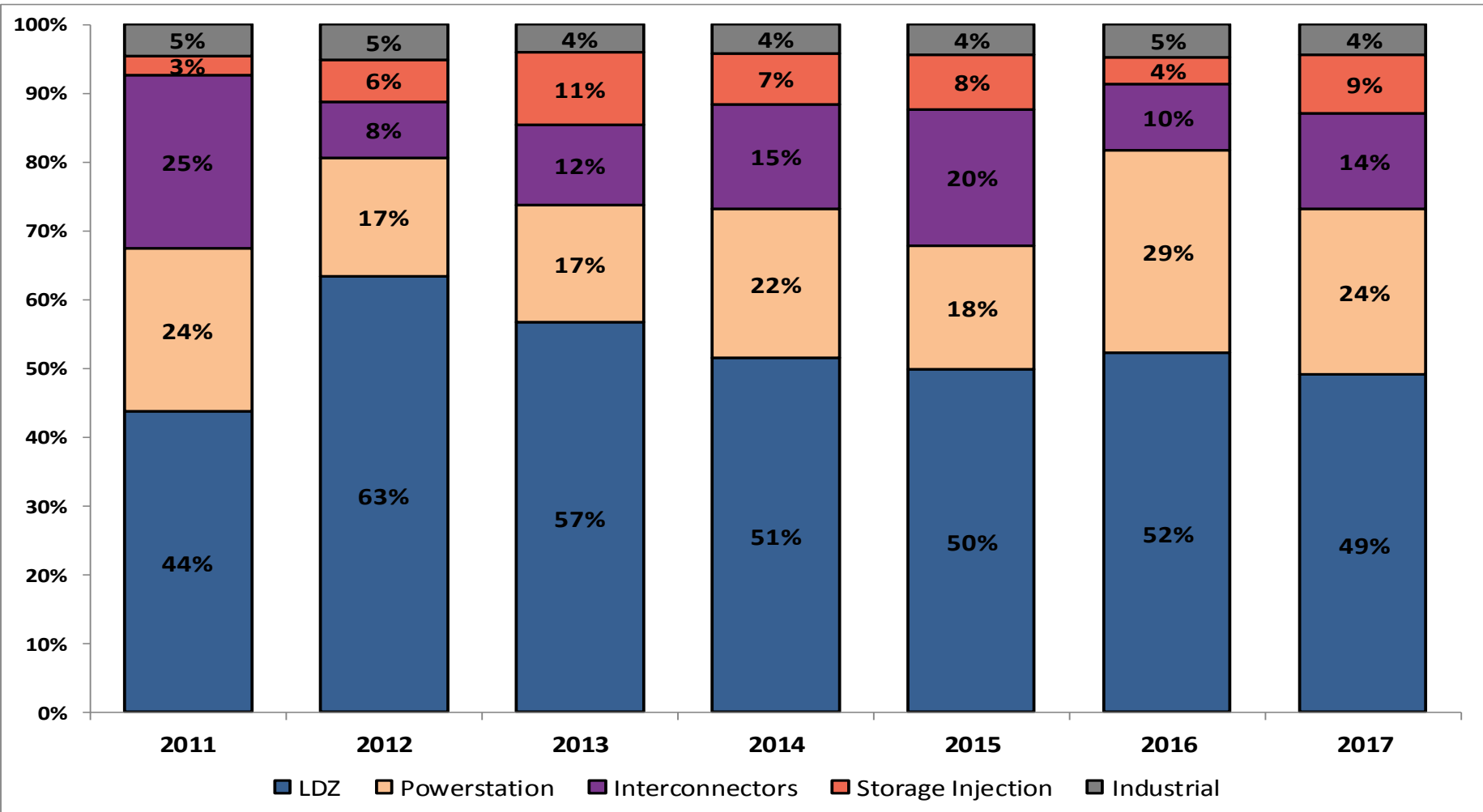
# Gas Demand Breakdown

1<sup>st</sup> October 2016 to 31<sup>st</sup> October 2017 vs Previous Year



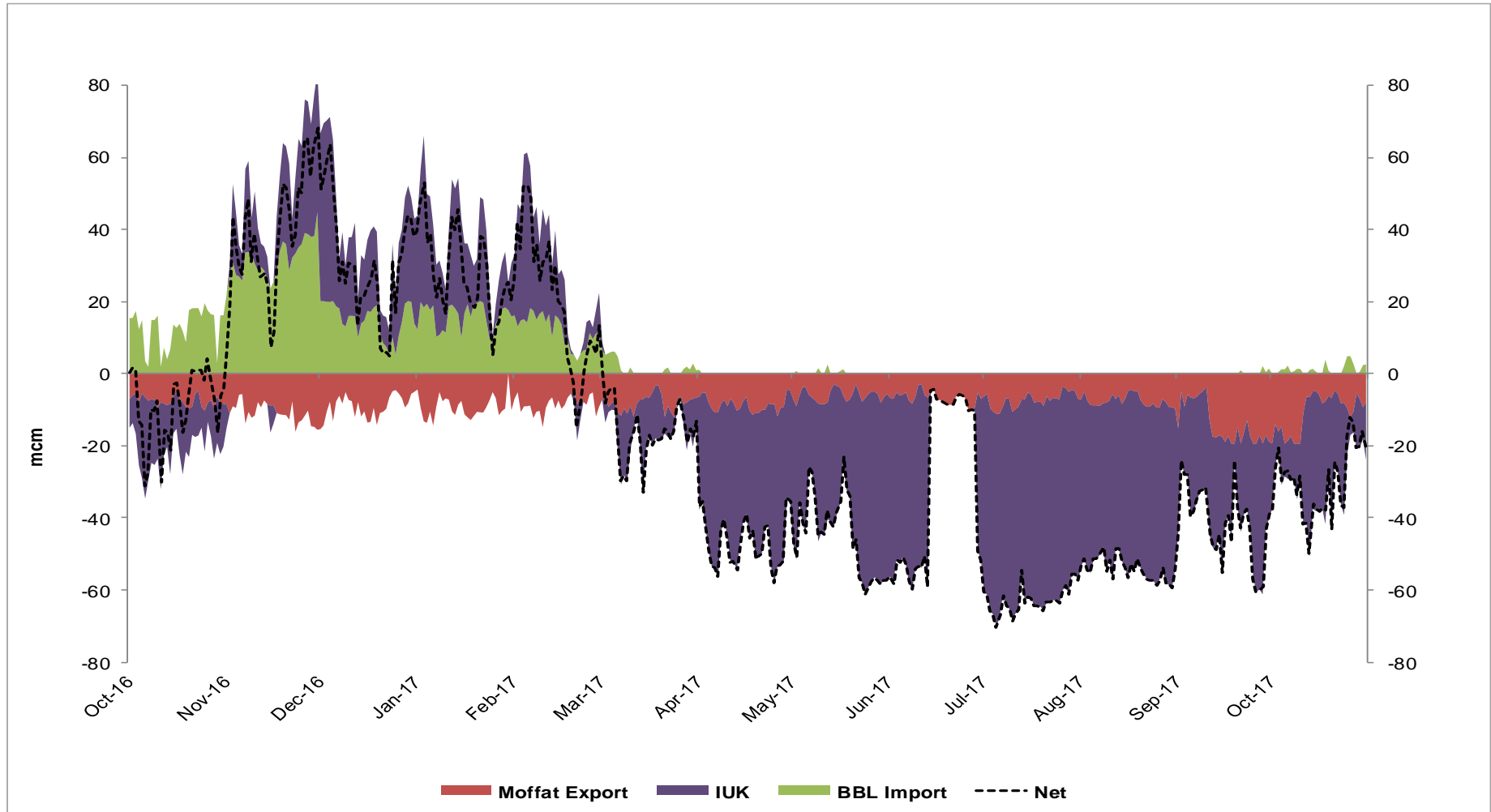
# Gas Demand Breakdown

1<sup>st</sup> April 2017 to 31<sup>st</sup> October 2017 vs same period over the previous 6 years



# Gas Supply / Demand Interconnectors

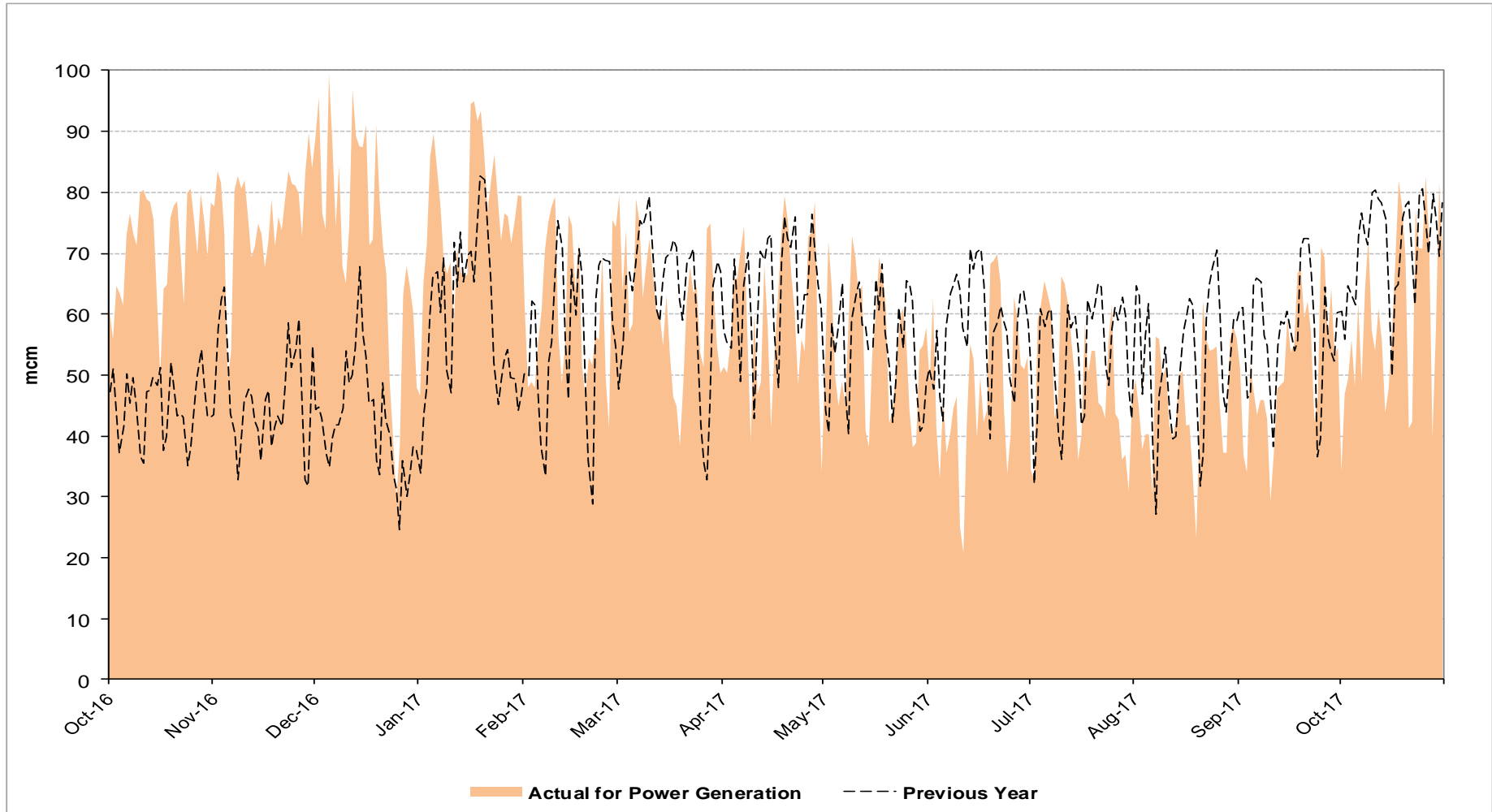
1<sup>st</sup> October 2016 to 31<sup>st</sup> October 2017





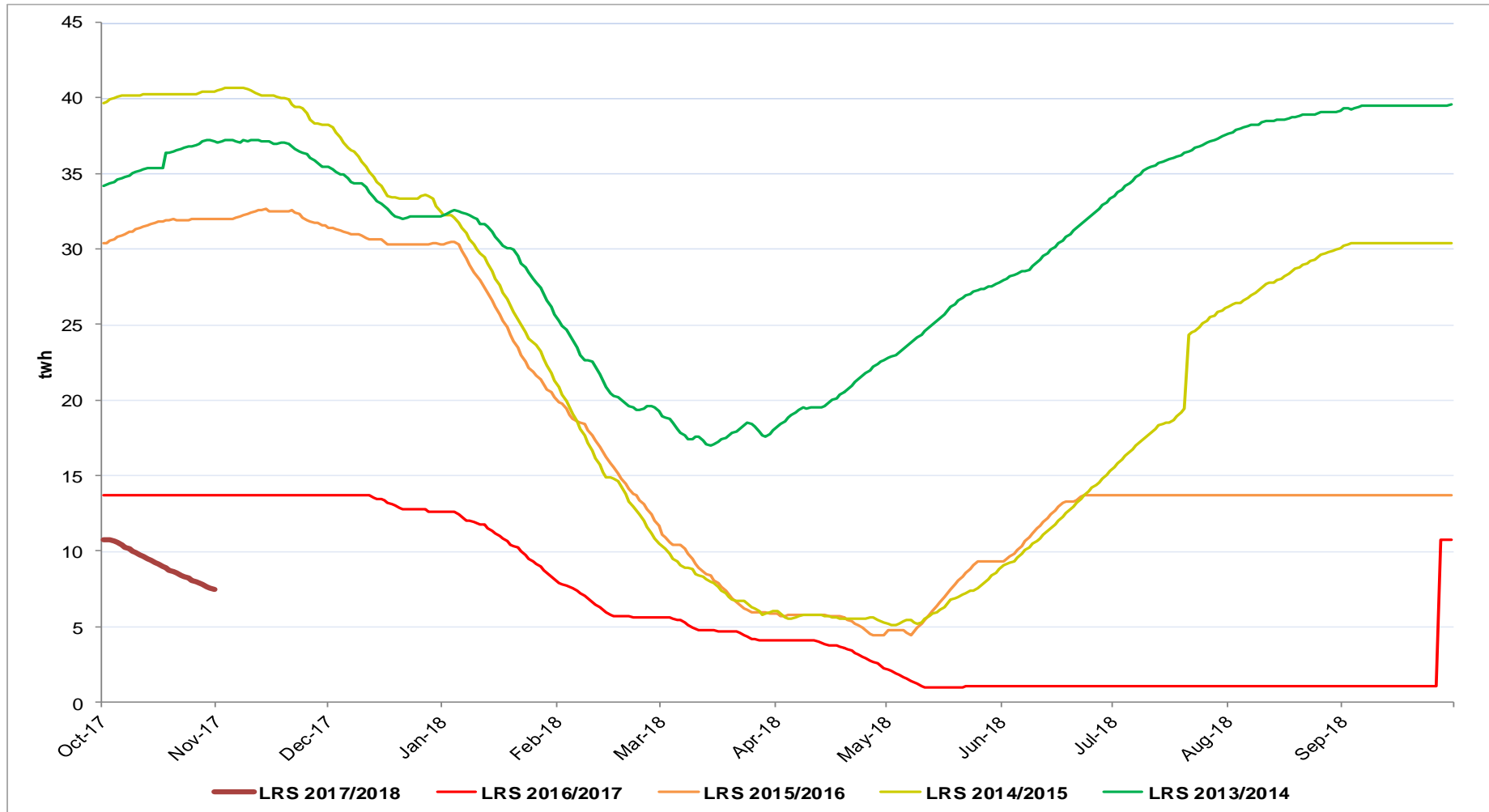
# Gas Consumption for Power Generation

1<sup>st</sup> October 2016 to 31<sup>st</sup> October 2017 vs Same Period Last Year



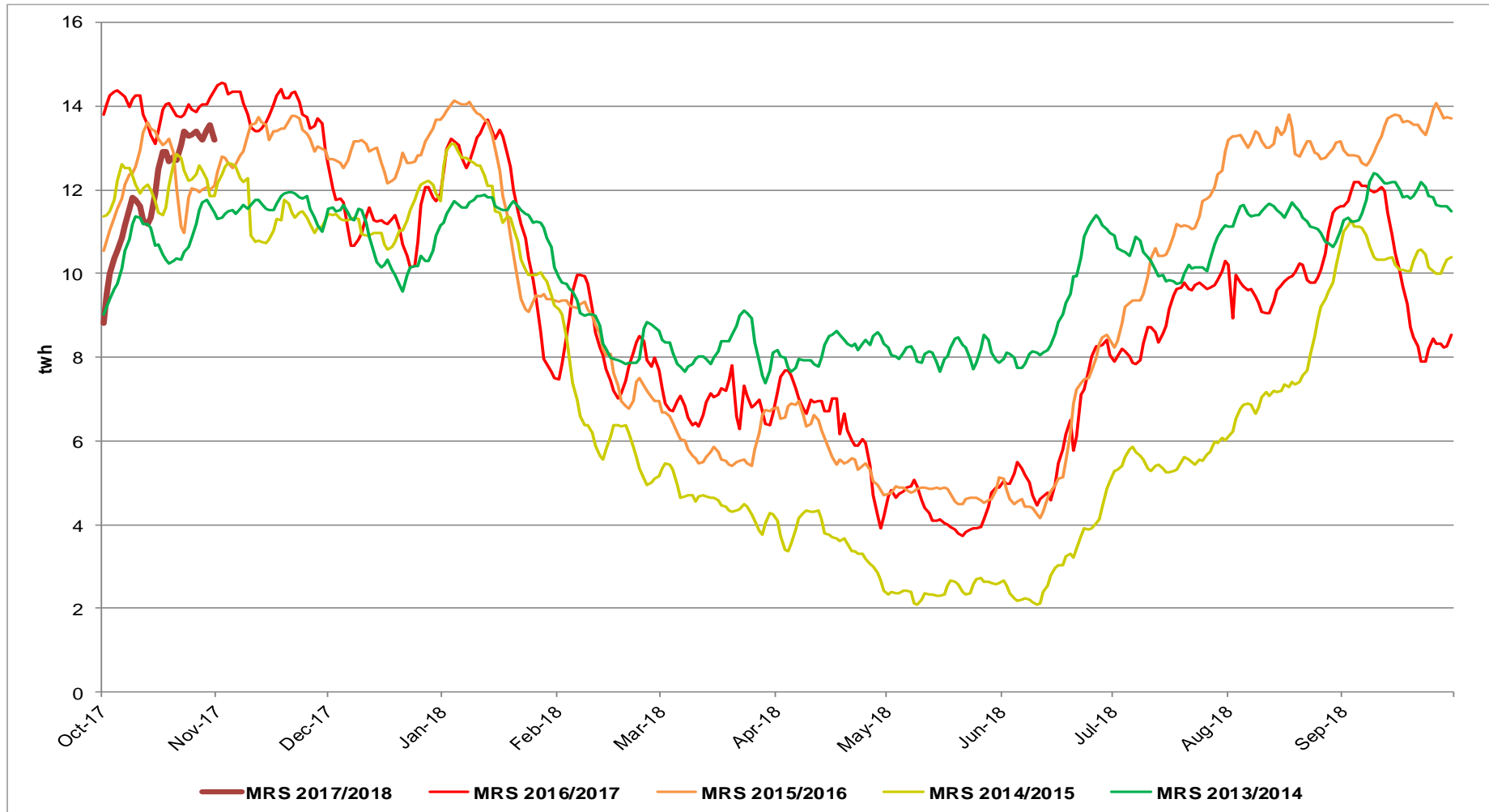
# Storage Stocks: LRS

## Position as at 31<sup>st</sup> October 2017



# Storage Stocks: MRS

## Position as at 31<sup>st</sup> October 2017



# Capacity Neutrality: 1st April 2017 to 31st October 2017

Revenue / Costs	Apr 17 to Oct 17	Apr 16 to Oct 16	Comments
WDDSEC/DAI Entry Capacity Revenue	-£478,293	-£417,925	* Entry Capacity Overrun Revenue data not yet available for October 2017
Total Entry Constraint Management Operational Costs	£343,495	£0	
Entry Capacity Overrun Revenue	-£1,535,264*	-£559,975	
Non-Obligated Sales Revenue (Entry only)	-£10,541	-£10,050	
Revenue from Locational Sells and PRI Charges	£0	£14,249	
Net Revenue	-£1,680,603	-£973,701	

## APX Market Prices (p/th)

Min / Max

	SAP	SMPB	SMPS
Apr 17 to Oct 17	26.1 - 49.3	27.3 - 50.4	24.9 - 48.1
Apr 16 to Oct 16	21.0 - 47.7	22.2 - 48.9	19.9 - 46.5

## Net Balancing Costs

	Imbalance	Scheduling	OCM	Net
April 2017 to Sep 2017	£22,145,880 (CR)	£2,050,959 (CR)	£16,403,628 (DB)	£7,793,211 (CR)

# Energy Balancing: 1st April 2017 to 31st October 2017

NGG Balancing Actions	Apr 17 to Oct 17	Apr 16 to Oct 16	Comments
Buy Actions	107 (87%)	25 (33%)	<ul style="list-style-type: none"> <li>Buy actions are significantly higher than Sell actions in FY 2017/18 [Jun to Oct mainly]; this being at disparity to FY 2016/17 where Sell Actions exceeded Buy Actions [with the exception of Sept 16 &amp; July 16].</li> <li>There have been 16 Sell actions so far in FY 2017/18 [Apr: 14, May: 2].</li> <li>There have been 107 Buy actions so far in FY 2017/18 [Apr: 2, May: 2, June: 17, July: 16, Aug: 23, Sept: 23, Oct: 24].</li> </ul>
Sell Actions	16 (13%)	50 (67%)	
Buy Actions [Volume: Gwh]	1934	465	
Sell Actions [Volume: Gwh]	-377	-999	
Number of Balancing Actions	123	75	
NGG set Default Marginal Prices [SMPB: Average %]	11%	4%	
NGG set Default Marginal Prices [SMPS: Average %]	1%	6%	

# Calculated Linepack Data



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Karen Thompson



# Calculated Linepack Utilisation

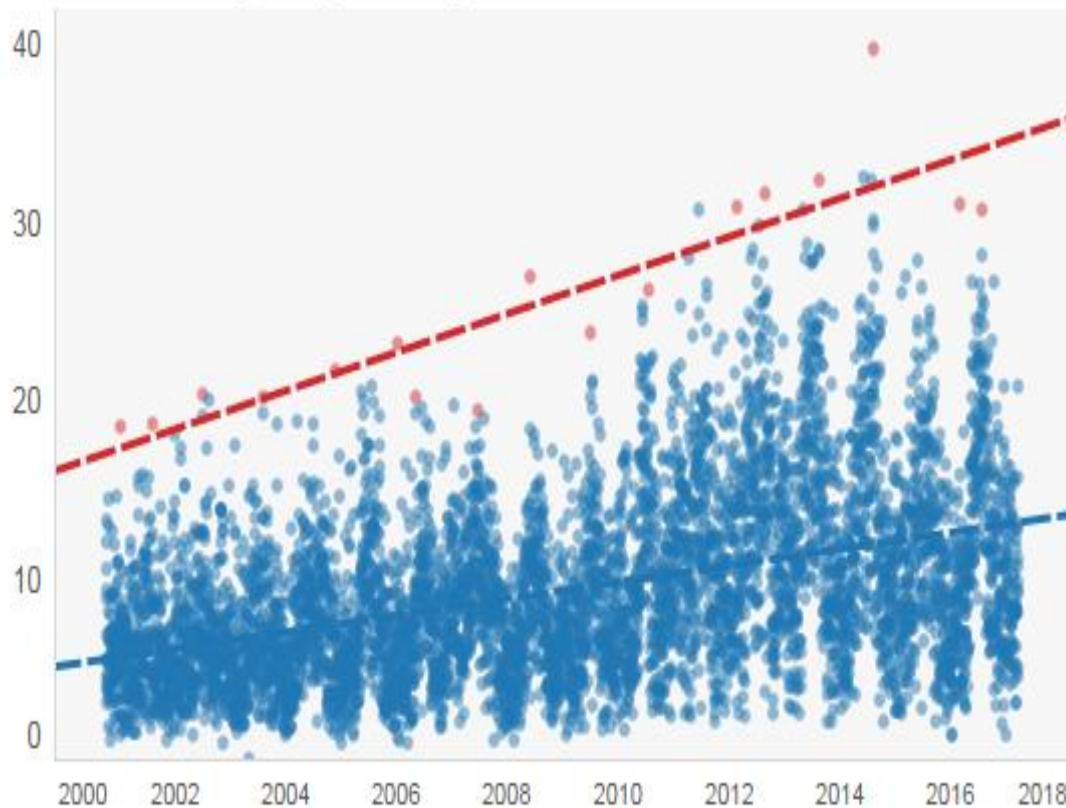
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- What further information/indication can National Grid provide to assist customers in managing operational requirements?
  - NG now produce a daily linepack difference between NTS supply and demand notification.
  - This report is intended to help give an indication of what the linepack may be at the lowest point in the day. Where there is a large reduction in linepack, customers may experience reduced pressures around that point in time.
  - This report is based on hourly physical supply and demand flow notifications received from NTS connected sites and latest linepack of the Gas Day.
  - The report will be published at three key points within the gas day (06:00, 12:30 and 18:30) based on the latest information.

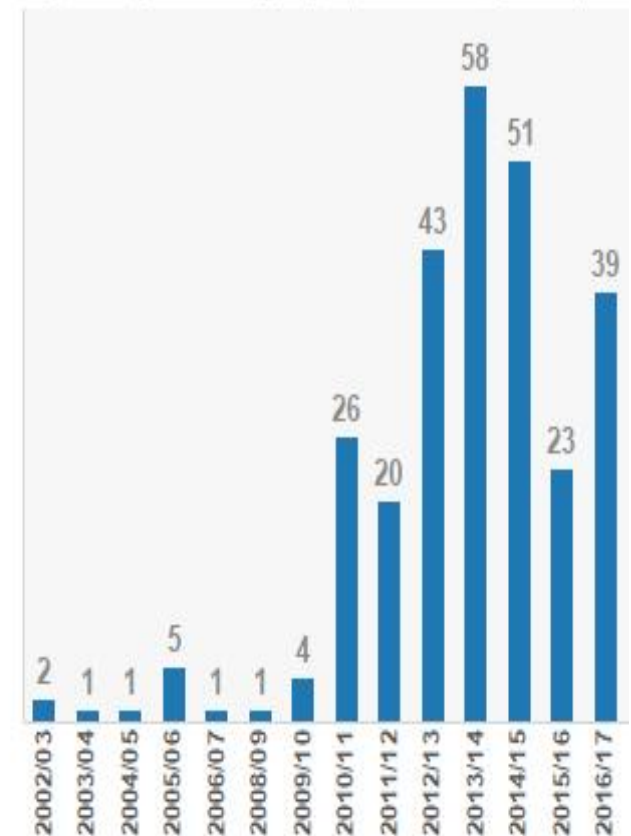
# Reliance on Linepack Flexibility has Increased

There are an increasing number of days where market operation is using up more of the available linepack flexibility, consequently the system is becoming less resilient to asset failures.

Maximum and Average Linepack Swings



High Linepack Swing Days (20 mcm or greater)



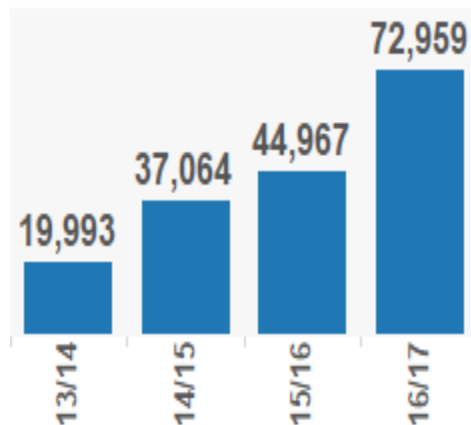
# Moving Gas Around the NTS

We are reliant on using compression to move gas from the entry points to where it's needed.

**62%** Increase in compressor running hours in the last gas year.

Balance  
Uncertainty  
Reliability

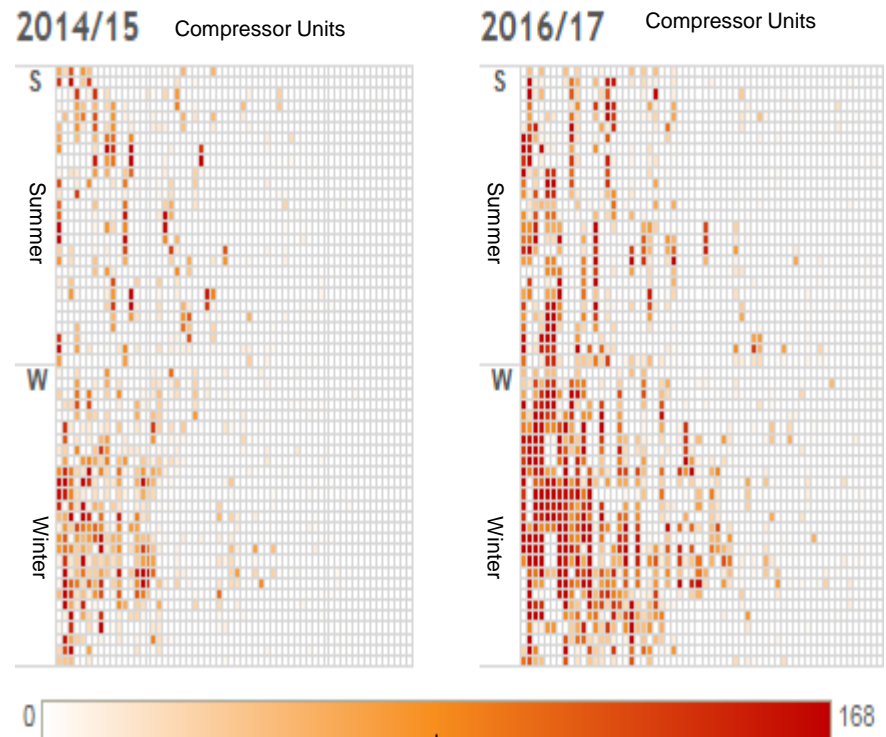
Compressor Running Hours



There is a negative environmental impact from running compressors

It is becoming increasingly challenging to plan and manage our outage requirements without causing customer disruption.

Compressor running hours by site and week



# Where can I find the Linepack data?

The screenshot shows the National Grid UK website interface. The top navigation bar includes links for Investors, Media, Careers, and Blog, along with a Safety and emergencies button. The main navigation bar features Electricity and Gas, with Gas highlighted by a red circle and the number 1. Below this, the Gas overview section is visible, with a red circle and the number 2 around the 'Market, operations, and data' link. The 'Market, operations, and data overview' section lists various topics, with 'Transmission operational data' highlighted by a red circle and the number 3. The 'Connections' link is also highlighted with a red circle and the number 2. The 'Pipelines Maintenance Centre (PMC)' is shown in a featured image on the right.

nationalgrid | UK Investors Media Careers Blog Safety and emergencies

Electricity **Gas** About the grid Investment and innovation Publications Contact us Search

**1**

Gas overview

- Balancing >
- Capacity >
- Charging and methodologies >
- 2** Connections >
- 2** Market, operations, and data >
- Network gas supply emergencies (NGSE)

**Market, operations, and data overview**

- Calorific value (CV)
- Constraint management
- Maintenance
- Operational news
- Quality
- 3** Transmission operational data
- Transmission operational forum

**Metering**

**Pipelines Maintenance Centre (PMC)**

# Where can I find the Linepack data?

nationalgrid | UK

Investors Media Careers Blog Safety and emergencies

Electricity Gas

Home > Gas > Market, operations, and data


## Transmission operational data

This page contains gas transmission data for industry analysts, including operational data for all industry stakeholders. We provide this information to reduce market uncertainty, provide access to information, and increase information transparency. Our goal is to increase efficiency in the capacity markets, while providing fair and timely access to operational and market data.

If you have an enquiry about this data, please contact the Gas Operational Liaison Team Monday - Friday, 09:00-16:30

01926 656 474  
operationaliaison@nationalgrid.com

**4. Scroll down to 'Supplementary Reports'**



**5** Supplementary reports

- Daily storage and LNG operator information (1)
- Calculated linepack utilisation (1)**
- Storage and LNG operator information (7)
- Other reports (4)

### Calculated linepack utilisation

The report below collates the hourly supply and demand flow notifications received from NTS connected sites to calculate the NTS linepack minimum value in MCM that would result from these flow profiles. Please note, connected parties update their notifications continually throughout the day; therefore, the report is accurate only at the point of publication. The report is published three times throughout the day (06:00, 12:30 and 18:30) and will reflect latest Linepack and revised supply and demand flow notifications received.

Name

CLP\_14\_11\_2017\_05

## Xoserve Service Desk



Operational Forum – November 2017  
Karen Thompson



## Your Feedback

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**Gas Operational  
Forum**

**Mystery Shopper**

**Xoserve 'Ticket  
Closure' Survey**

**National Grid  
Annual Satisfaction  
Survey**

## You said.....

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<p><b>“Stop using acronyms”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Completed session with Gemini &amp; Service Desk teams to remove reference to acronyms such as file names</li><li>• Started using business process names and supporting information for file names</li></ul>
<p><b>“Stop spending large amounts of time at start of the call getting my name right”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Removed phonetics use at the Service Desk</li><li>• Re-standardised Service Desk call captured templates</li><li>• Completed enhanced communications training for service desk analysts</li></ul>
<p><b>“Stop closing calls before every resolution”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Educated Gemini teams when / when not to close tickets</li><li>• Ensured formal user confirmation is received before resolution</li><li>• Educated teams to communicate on progress throughout incident</li></ul>
<p><b>“Clearly specify what I should contact the desk about”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Are publishing on xoserve.com, but will revise to ensure information is fit for purpose</li><li>• Articulated at the Gas Operational Forum</li></ul>

## You said.....

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<p><b>“Logging the query is not enough, can the operator have some knowledge”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Added a buddy system to the Gemini team, built scenarios packs and updated education for Gemini team</li><li>• We don't currently hold in depth knowledge about all applications within the service desk</li></ul>
<p><b>“Better updates during events”</b> <b>“What is the status?”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Adopted a more collaborative approach for during P2 major incidents</li><li>• Informed teams to communicate on progress throughout incident</li><li>• Adding priority guidelines to xoserve.com</li></ul>
<p><b>“Better Incident tracking”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Will revise and improve ticket template for quality and assurance purposes</li></ul>
<p><b>“Understanding some basic industry concepts and system names / interactions”</b></p>	<p><b>We...</b></p>	<ul style="list-style-type: none"><li>• Are building information flyers each month to be shared with the Service Desk and Gemini teams</li></ul>

## You said.....

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**“Share known problems (Automated Notification System / Emails)”**

**We...**

- Provided links to problems / route cause analysis and provide monthly

**“Speed up process to create new Gemini accounts for APIs etc.”**

**We...**

- Are creating requests with S4 priority and 5 working day service level agreement

## How can you help?

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**BA / Short Code**

**Mystery Shopper**

**Xoserve 'Ticket Closure' Survey**

**Gas Operational Forum – Xoserve Service Desk Survey**

## Next steps

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- Quarterly updates at Gas Operational Forum – next update Jan/Feb 2018
- Xoserve presence at Gas Operational Forum every month
- Work ongoing to look at alternative service desk offerings to better meet customer expectations. Ideas will be tested with industry before progressing with any change
- Wider RIIO T2 project to review service provided by Xoserve and National Grid

## Contact Details

If you or your colleagues have any further feedback regarding the Xoserve Service Desk, we have provided a link to a brief survey below:

<https://www.surveymonkey.co.uk/r/3QRJ57W>

If you would like to speak directly to an individual regarding feedback for the Xoserve Service Desk, please see the appropriate contacts below:

### ■ Xoserve:

<b>Dave Turpin</b>	Head of Stakeholder Engagement	<a href="mailto:dave.turpin@xoserve.com">dave.turpin@xoserve.com</a>
<b>Rob Smith</b>	IS Manager – Applications Support	<a href="mailto:Robert.c.smith@xoserve.com">Robert.c.smith@xoserve.com</a>
<b>Andy Wilkes</b>	IS Manager – Service Management	<a href="mailto:Andrew.wilkes@xoserve.com">Andrew.wilkes@xoserve.com</a>

### ■ National Grid:

<b>Angharad Williams</b>	Market Change Gas, Commercial Analyst	<a href="mailto:Angharad.williams@nationalgrid.com">Angharad.williams@nationalgrid.com</a>
<b>Karen Thompson</b>	Operational Liaison Manager	<a href="mailto:Karen.thompson@nationalgrid.com">Karen.thompson@nationalgrid.com</a>



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# **UIG Update**

## **November Gas Ops Forum**

**Dave Turpin**



## **UIG Resolution**

Weekly Progress – Update 17 Nov 2017

# Executive Summary

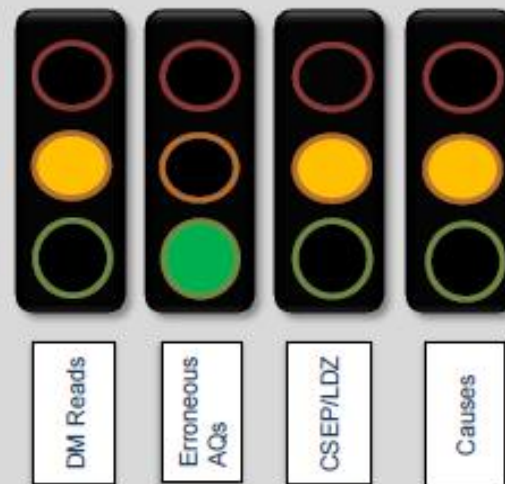
## UIG Resolution



### Key Messages

- Industry UIG event held on Monday 13<sup>th</sup> November
- Impact Assessment on the three defined options has commenced with Suppliers
- Analysis and impact to UIG of DM read rejections has been undertaken to provide focus on sites which we believe are contributing to UIG calculations.
- Xoserve continue to help the industry with RGMA flows.
- Any feedback regarding the slide deck can be submitted to [xoserve.customeropscomms@xoserve.com](mailto:xoserve.customeropscomms@xoserve.com)

DM Read Rejections	A further 10 phase 1 DM read rejections have been closed this week. Out of the total 31 outstanding, only 21 are seen as directly impacting UIG as the other queries are either being monitored or are having consumption adjustments inserted to improve the estimation process. Working with Industry participants to ensure closure plans are maintained.
Erroneous AQs	Data fix work for the erroneous AQ's is on schedule and the work associated with the enduring code fix has been started. Plans of how to deal with any new occurrences that were generated in November following the rolling monthly AQ process are underway.
CSEP / LDZ Mapping	Xoserve will understand the potential volumes and impacts at the iGT/GT meeting to be held on Friday 17 <sup>th</sup> November, for CSEP/LDZ mapping issues.
Analyse cause of volatility	Industry meeting held on Monday 13 <sup>th</sup> November, where 3 options were agreed to move into Xoserve Impact Assessment to be reported by 22 <sup>nd</sup> November. The additional data received from Shippers is now being fed into the analysis of the algorithm



# DM read rejection update

## Phase 1 Key messages

Outstanding last week = 41  
Closed this week = 10

21 meter points still impacting  
UIG (estimated consumption  
not accurate)

Status	DMSP	N/A	SHIPPER	MAM	XOS	Grand Total
Assigned	1	0	0	0	0	1
Closed	0	142	0	0	0	142
Fix in Progress	5	0	15	6	2	28
Monitor	1	0	3	0	1	5
Failed	0	0	0	0	2	2
Grand Total	7	142	18	6	5	178
Total number of meter point queries open						31

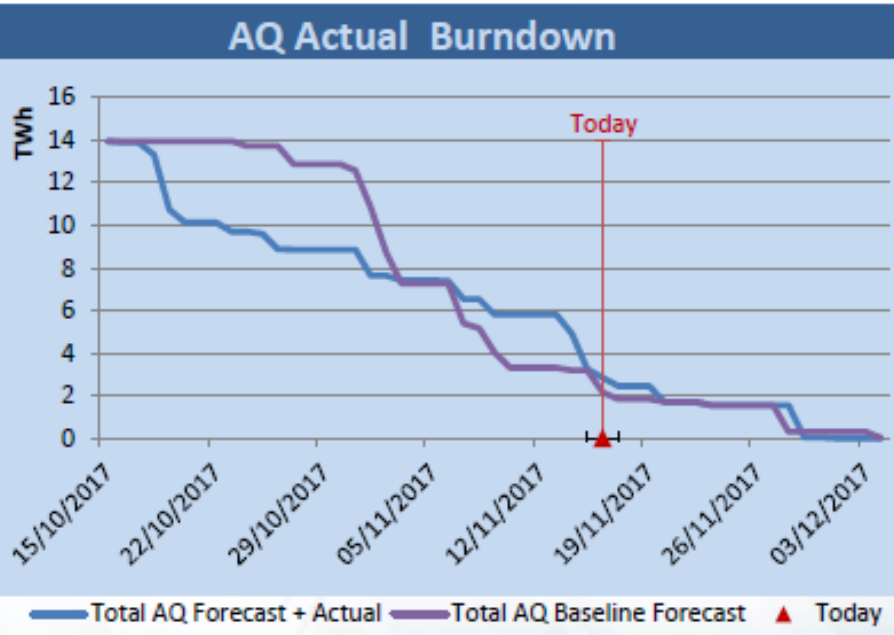
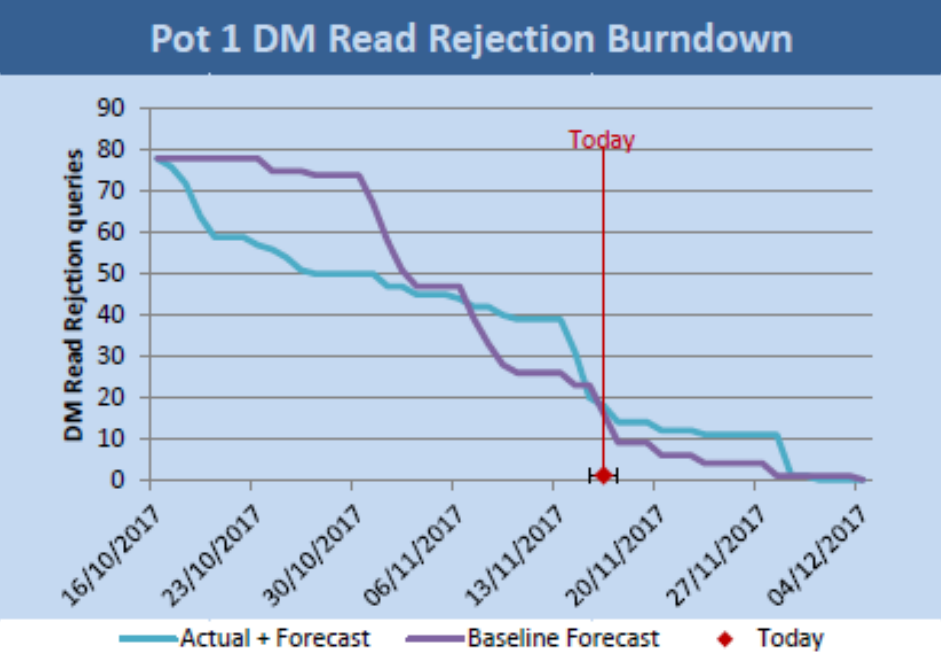
## Phase 2 Key messages

Outstanding last week = 32  
New Rejections identified = 11  
Closed this week = 11

Row Labels	DMSP	N/A	SHIPPER	MAM	XOS	Grand Total
Assigned	3	0	4	5	1	13
Closed	0	58	0	0	0	58
Fix in Progress	7	0	2	1	1	11
New	0	0	0	0	8	8
Monitor	2	0	0	0	0	2
Total	14	49	9	6	3	92
Total number of meter point queries open						32

# DM read rejection burndown graphs

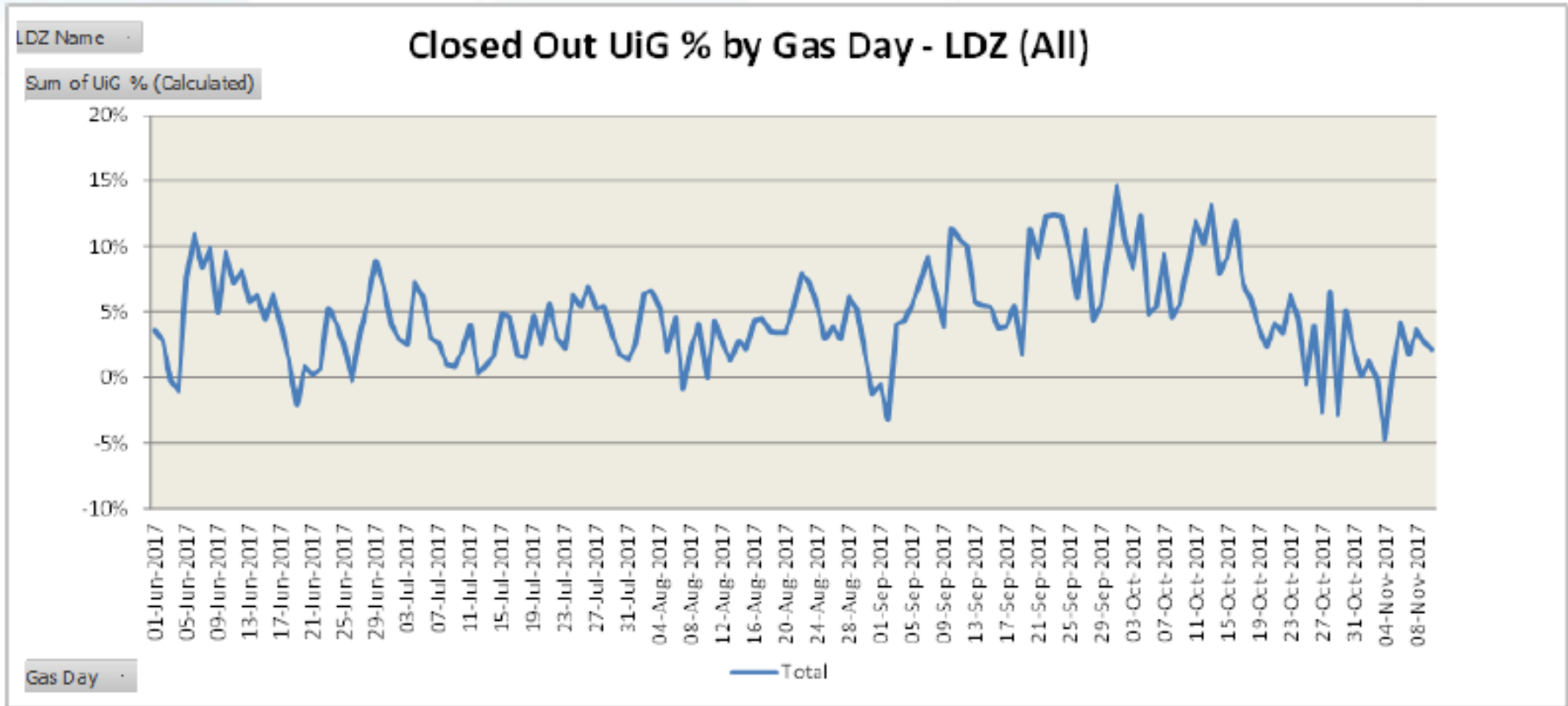
21 Phase 1 queries that contribute to UIG are outstanding compared to the forecast 23. We are now separately reporting on those meter points which are rejecting and not producing accurate estimations, i.e. contributing to the UIG position. Other queries are having consumption adjustments made or are being monitored.



Total AQ of those meter points with rejections being received from phase 1 and 2 equates to 36tWh. To date, we have closed queries amounting to 33 tWh. Closure of 92% of the aggregated AQ.



# Latest UIG volatility



# Meetings and information sources

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- Weekly update provided every Friday afternoon
- Daily teleconferences at 10am (details on JO website)
- 631R review group (details on JO website)
- Performance Assurance Committee UIG (29<sup>th</sup> November)
- UIG Solutions Workshop (22<sup>nd</sup> November)
  
- Further details can be found at
  - <http://www.xoserve.com/index.php/unidentified-gas-uig/>



# EU regulation 2017/459 and UNC Mod 0616

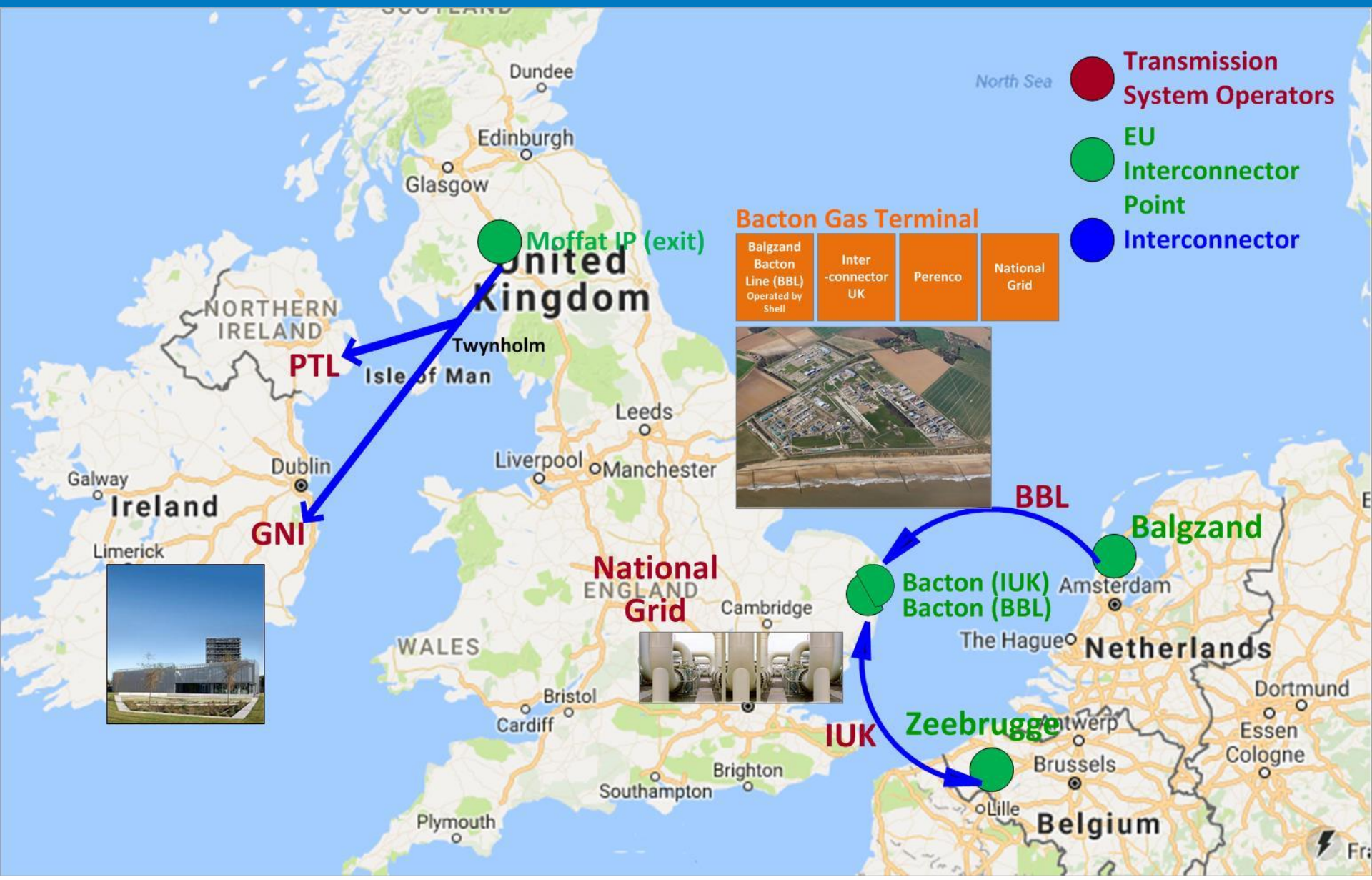
nationalgrid

## Capacity Conversion Mechanism for Interconnection Points



# EU Change 2017 – CAM, Incremental & Transparency

# Interconnection Points (IPs)



# Capacity Conversion Mechanism for Interconnection Points

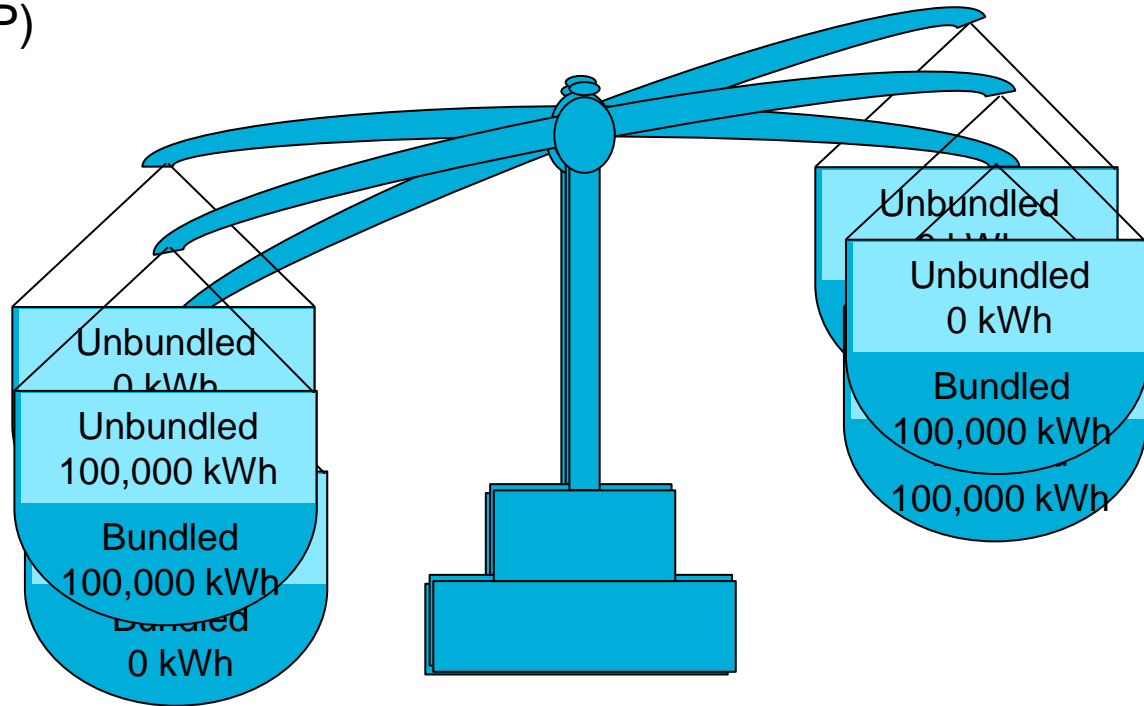
- Shipper does not offer bundled capacity. Capacity Allocation Mechanism (CAM) requires a capacity demand on the other side of the IP in order to buy capacity.

500,000 kWh available bundled capacity

Post IP auction

Shipper User  
Purchased 100,000 kWh bundled capacity

Capacity Conversion  
Request to convert 100,000 kWh capacity



- Effective from 01 January 2018

# Capacity Conversion Mechanism for Interconnection Points

- Following a Long Term bundled IP auction of yearly, quarterly or monthly capacity then Shipper Users may request to convert unbundled capacity.
- The request must be received by National Grid NTS no later than 17:00 3 business days after the close of an auction.
- The request must contain at least the following information;
  - a) PRISMA reference number(s) for the bundled auction(s)
  - b) The Interconnection Point
  - c) The direction of flow
  - d) The unbundled capacity amount to be converted
  - e) The capacity duration, and period, for the conversion
  - f) Shipper ID (Gemini BA code)
  - g) Contact details for the shipper
- Please send requests to [capacityauctions@nationalgrid.com](mailto:capacityauctions@nationalgrid.com) entitled 'CAPCON Request'
- A request can be withdrawn at any time up to the conversion deadline.
- NG NTS will respond to a request within 2 business days

# Capacity Conversion Mechanism for Interconnection Points

- National Grid will utilise existing functionality (Buyback) in UK Link Gemini to process conversion requests.
- To avoid impacting neutrality a new Entry Method of Sale and Charge Type will be used. These changes will not impact Shipper User interfaces

Method of Sale	CCBB	
Charge Type Code	Description	Invoice type
CEC	Capacity Conversion Entry Charge	NTS Entry Capacity .NTE
CEA	Capacity Conversion Entry Adjustment	

- No change to existing Exit MOS or Charge types

Method of Sale	EXBB	
Charge Type Code	Description	Invoice type
XBF	Capacity Conversion Exit Charge	NTS Exit Capacity .NTX
ABF	Capacity Conversion Exit Adjustment	

# Capacity Conversion Mechanism for Interconnection Points

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- Effective from 1<sup>st</sup> January 2018
- First relevant auction will be the Monthly IP auction on 15<sup>th</sup> January
- Reflected in the February Capacity invoice sent on 6<sup>th</sup> March
- First Quarterly auctions that this applies to will run on 5<sup>th</sup> February
- Reflected in invoices April to September
- Annual Yearly auction will run on 2<sup>nd</sup> July
- Reflected in invoices October onwards

**Questions or feedback please contact:**



**01926 654057**



**[capacityauctions@nationalgrid.com](mailto:capacityauctions@nationalgrid.com)**



# Transparency

Go Live 2<sup>nd</sup> December 2017

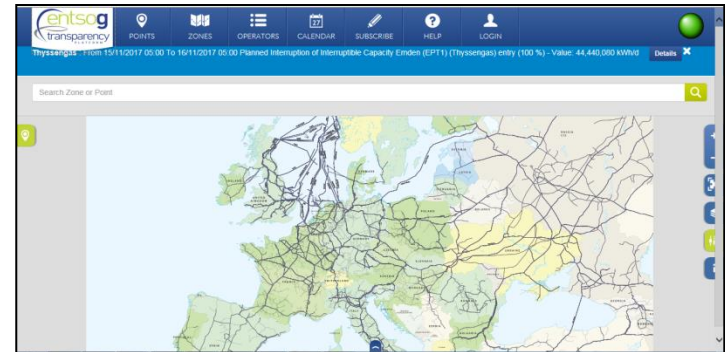


**EU Change 2017 –  
CAM, Incremental  
& Transparency**



# Transparency - Introduction

- Additional data to be published on **ENTSOG Transparency Platform**
  - Publication of Reserve Prices for KWh/day for each location
  - Publication of charge for what it costs to flow 1 GWh/day/year for each Interconnector Point
- Information to be published before the tariff period on the **NG Webpage**



# Publication of Reserve Prices for KWh/day for each location

- Data published for Bacton and Moffat on the **Tariffs** tab

Tariff Period	Point Name	Direction	Operator	Capacity type	Product type	Applicable tariff in common unit (value)	Applicable tariff in common unit (unit)	Start time of validity	End time of validity	Multiplier	Discount for interruptible capacity	Seasonal factor	Applicable tariff per kWh/d [value]	Applicable tariff per kWh/d [unit]	Applicable tariff per kWh/d [value]	Applicable tariff per kWh/d [unit]
01/10/2017 06:00 01/10/2018 06:00	Bacton (BBL)	exit	National Grid Gas	Firm	Yearly	N/A	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00	N/A		N/A	N/A	GBP/(kWh/d)/y	N/A	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Bacton IPs	entry	National Grid Gas	Firm	Yearly	.03019562	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00		1.00000000		0.41001000	GBP/(kWh/d)/y	0.01708375	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Moffat	exit	National Grid Gas	Firm	Yearly	.01841218	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00		1.00000000		0.25000900	GBP/(kWh/d)/y	0.01041704	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Bacton (IUK)	exit	National Grid Gas	Firm	Yearly	.01914849	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00		1.00000000		0.26000700	GBP/(kWh/d)/y	0.01083362	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Moffat	entry	National Grid Gas	Firm	Yearly	N/A	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00	N/A		N/A	N/A	GBP/(kWh/d)/y	N/A	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Bacton (IUK)	exit	National Grid Gas	Interruptible	Yearly	N/A	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00	N/A	N/A	N/A	N/A	GBP/(kWh/d)/y	N/A	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Bacton (BBL)	exit	National Grid Gas	Interruptible	Yearly	N/A	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00	N/A	N/A	N/A	N/A	GBP/(kWh/d)/y	N/A	GBP/(kWh/h)
01/10/2017 06:00 01/10/2018 06:00	Bacton IPs	entry	National Grid Gas	Interruptible	Yearly	N/A	Euro/(kWh/h)/d	01/10/2017 06:00	01/10/2018 06:00	N/A	N/A	N/A	N/A	GBP/(kWh/d)/y	N/A	GBP/(kWh/h)

# Publication of Simulation Cost 1 Gwh/day/year

- Simulation cost published for **Firm Capacity**

Tariff Period ▲	Point Name ▼▲	Direction ▼▲	Operator ▼▲	+	Capacity type ▼▲	Product type ▼▲	Simulation of all the costs for flowing 1 GWh/day/year in Local currency ▼▲	Simulation of all the costs for flowing 1 GWh/day/year in EUR ▼▲
Tariff Period	Point Name	Direction	Operator		Firm	Yearly	Simulation of all the costs for flowing 1 GWh/day/year	Simulation of all the costs for flowing 1 GWh/day/year
01/10/2017 06:00 01/10/2018 06:00	Bacton (BBL)	exit	National Grid Gas		Firm	Yearly	N/A ⓘ	N/A ⓘ
01/10/2017 06:00 01/10/2018 06:00	Bacton IPs	entry	National Grid Gas		Firm	Yearly	1,765,476,329,876.98000000	1,977,393,602,227.72532285
01/10/2017 06:00 01/10/2018 06:00	Moffat	exit	National Grid Gas		Firm	Yearly	11.08000000	12.40997727
01/10/2017 06:00 01/10/2018 06:00	Bacton (IUK)	exit	National Grid Gas		Firm	Yearly	67,099.50000000	75,153.72467323
01/10/2017 06:00 01/10/2018 06:00	Moffat	entry	National Grid Gas		Firm	Yearly	N/A ⓘ	N/A ⓘ

# Publication of information on NG.COM

## EU TAR NC Publication Requirements

TAR NC	Description	Link	Further information
<b>Information to be published before the annual yearly capacity auction</b>			
Art. 29 (a)	Information for standard capacity products for firm capacity (reserve prices, multipliers, seasonal factors, etc.)	<a href="#">Gas transmission system charges   National Grid UK</a>	The indicative notices under the attached link contain relevant information for Capacity products.
Art. 29 (b)	Information for standard capacity products for interruptible capacity (reserve prices and an assessment of the probability of interruption)	<a href="#">Gas capacity   National Grid UK</a>	
<b>Information to be published before the tariff period</b>			
Art. 30 (1)(a)	Information on parameters used in the applied reference price methodology related to the technical characteristics of the transmission system.	<a href="#">0621 - Amendments to Gas Transmission Charging Regime   Joint Office of Gas Transporters</a>	Being developed under UNC Modification 0621.

# Constraint Management Tool Overview



Richard Jones

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity
<p>Reconfigure Network</p> <p>Optimise Compressor Fleet</p> <p>Manage Outages</p>	<p>Agree Pressures <i>(Distribution Network Operator (DNO) Only)</i></p> <p>Flow Swaps <i>(Distribution Network Operator (DNO) Only)</i></p> <p>Enforce Contractual Offtake Rules</p>	<p>Scaleback Capacity <i>(Entry Interruptible &amp; Exit Off peak)</i></p> <p>Restrict Daily Capacity</p> <p>Locational Energy Actions</p> <p>Capacity Buybacks</p> <p>Offtake Flow Reductions</p> <p>Initiate Constraint Management Agreements</p>	<p>Operating Margins</p> <p>Terminal Flow Advice (TFA) (Entry)</p> <p>Critical Transportation Constraint</p> <p>Gas Deficit Emergency</p>
<p><b>Information Provision (MIPI</b> <i>(Market Information Provision Initiative)</i> / Website / Gemini / ANS <i>(Active Notification System)</i>)</p>			

# Break



Remember to complete the Winter Outlook Questionnaire with a chance to.....

**WIN**

**£50**

Amazon Vouchers





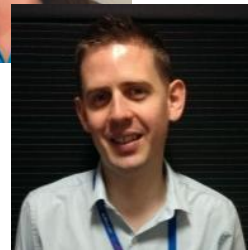
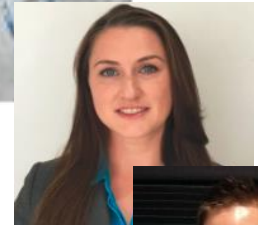
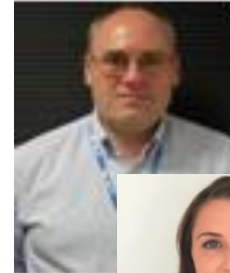
# Balancing Regime & System Operator Role



Operational Forum – November 2017  
John Cummins

# 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

# National Grid's role in balancing the system

- Operate under the agreed regime as per System Management Principle Statement.

## Operate efficiently

- Minimise costs to our customers
- Incentivised to minimise our impact in the market each day
- Proactively managing efficiency over the year as a whole



## Operate effectively

- Linepack levels and seasonal variations
  - Meeting contractual pressure obligations
  - Meeting customer requirements
- 
- Consider in day conditions, recent trends, current uncertainties and forward projections when taking action

# Balancing Responsibilities

Less system  
uncertainty



More predictable  
balancing

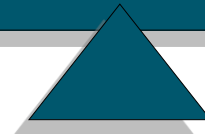
Shippers can help minimise uncertainty by:

NTS Connected Entry Sites

NTS Connected Exit Sites

Gas Supply

Gas Demand



## Available Tools

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity
<p>Reconfigure Network.</p> <p>Optimise Compressor fleet.</p> <p>Manage outages</p>		<p>National Energy Actions (Volume or Price)</p> <p>Physical / Locational Energy Actions</p> <p>Margins Notice</p>	<p>Gas Deficit Warning</p> <p>Operating Margins</p> <p>Gas Deficit Emergency</p>
<p>Information Provision (MIPI / Website / Gemini)</p>			

# Balancing Responsibilities

Less system  
uncertainty



More predictable  
balancing

## Shippers can help minimise uncertainty by:

Providing timely and accurate nominations

Having the ability to resolve any risk they carry in terms of exposure to late changes / re-nominations

Acting on available information and our signals (e.g. demand forecasts and our attempts to gain stock)

Facilitating a liquid OCM 24/7

## NTS Connected Entry Sites

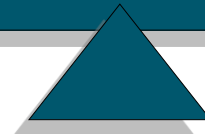
Obligated to provide timely notifications (DFNs)

## NTS Connected Exit Sites

Obligated to provide timely notifications (OPNs)

Gas Supply

Gas Demand

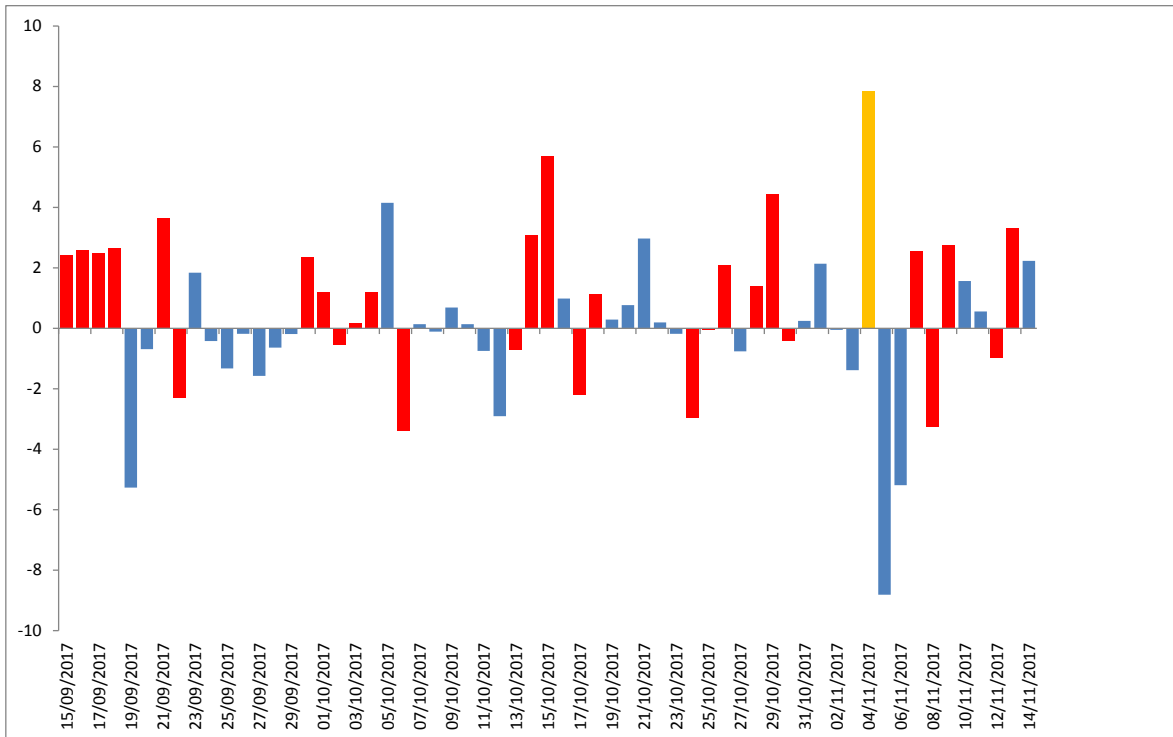


# Factors Considered in Balancing Decisions

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- Physical and Commercial Balance / Time of Day
- Recent balancing trends
- Opening Linepack & Target Closing Linepack
- Market Opportunities
- Operational Risk / uncertainties

# Recent challenges – stock depletion



Stock losses since 1<sup>st</sup> July

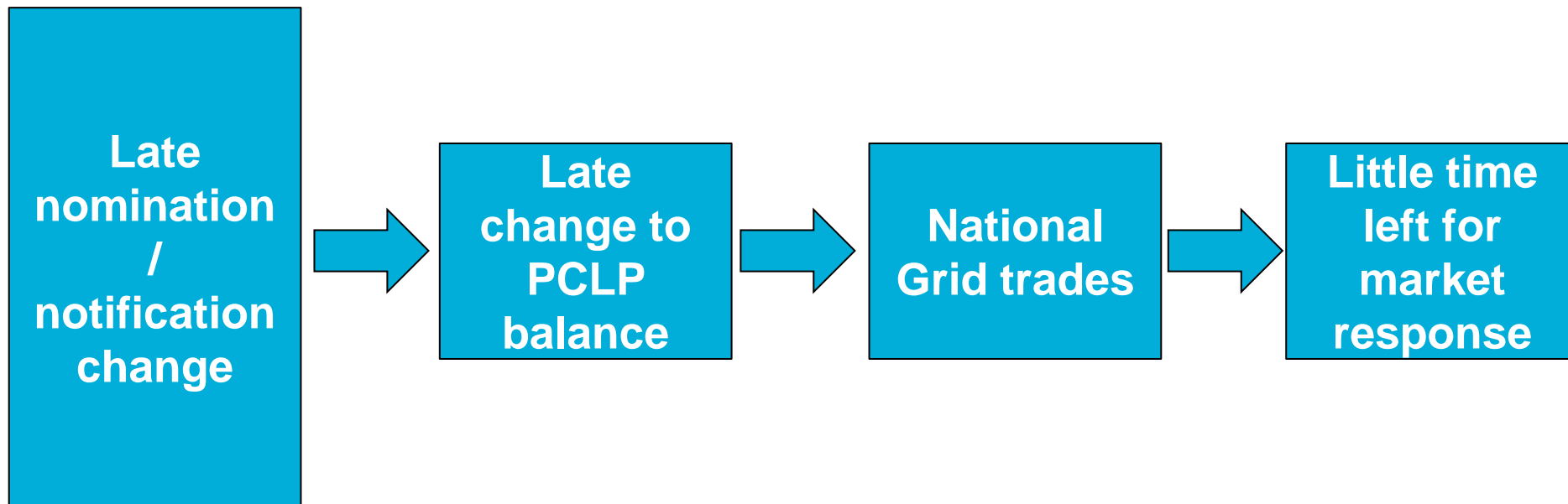
- Overall = 50%
- Trade days = 30%

Substantial trend of stock lost from linepack  
 Limited market response

Influences our decision to trade

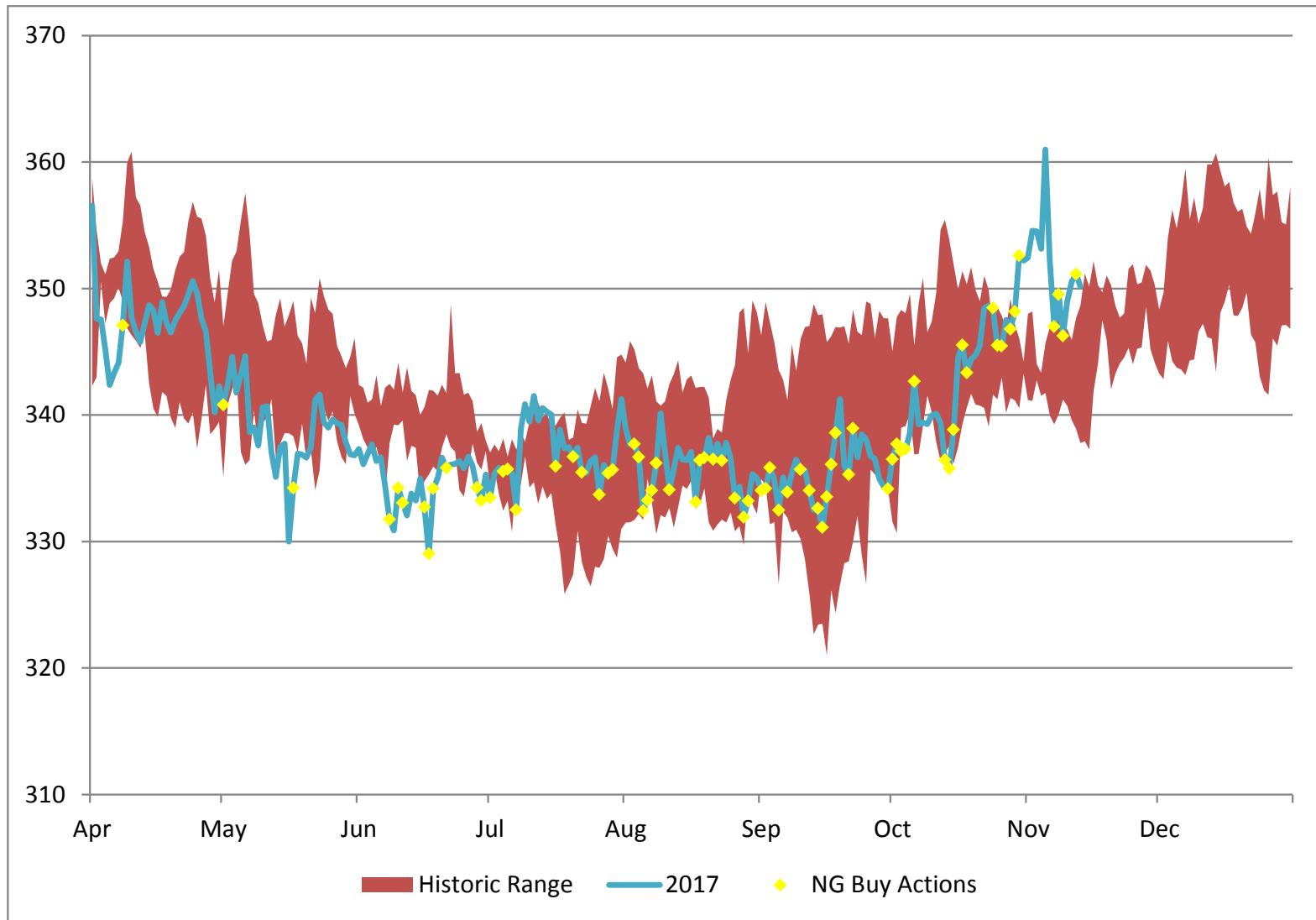


## Recent challenges - late nomination changes

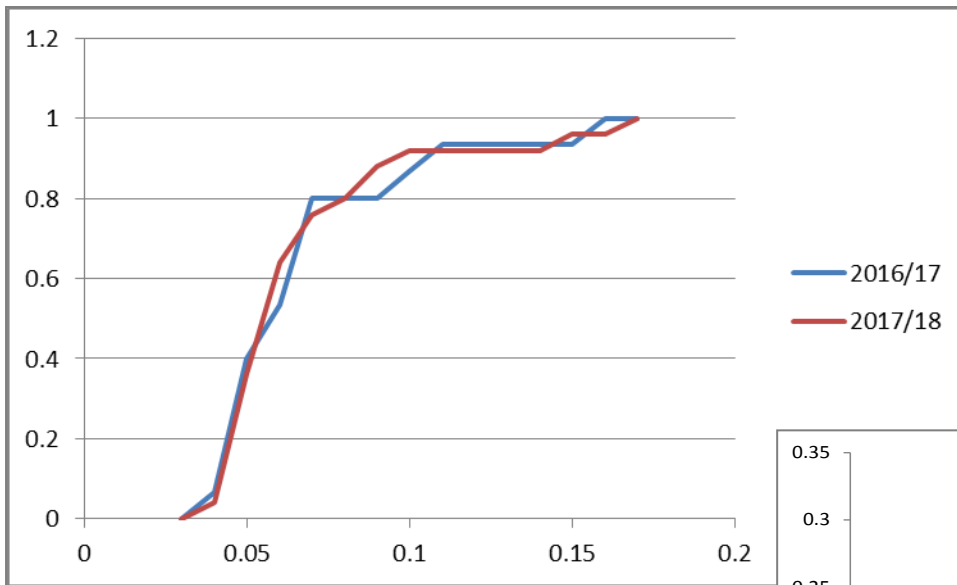


- Out of balance shippers exposed to the risk of penal cash out prices

# Seasonal Linepack



# Setting SMP Buy

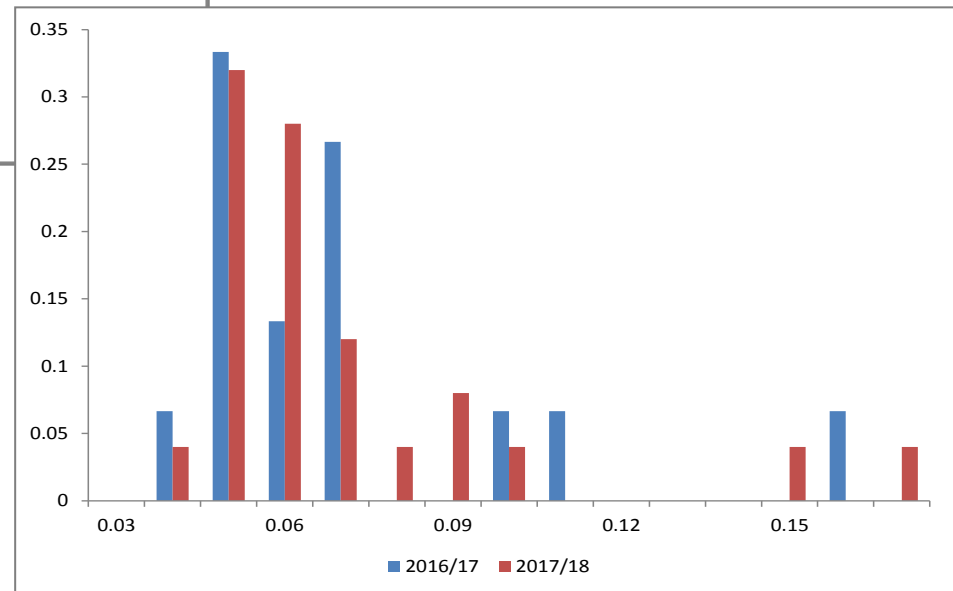


## Trades influencing cashout:

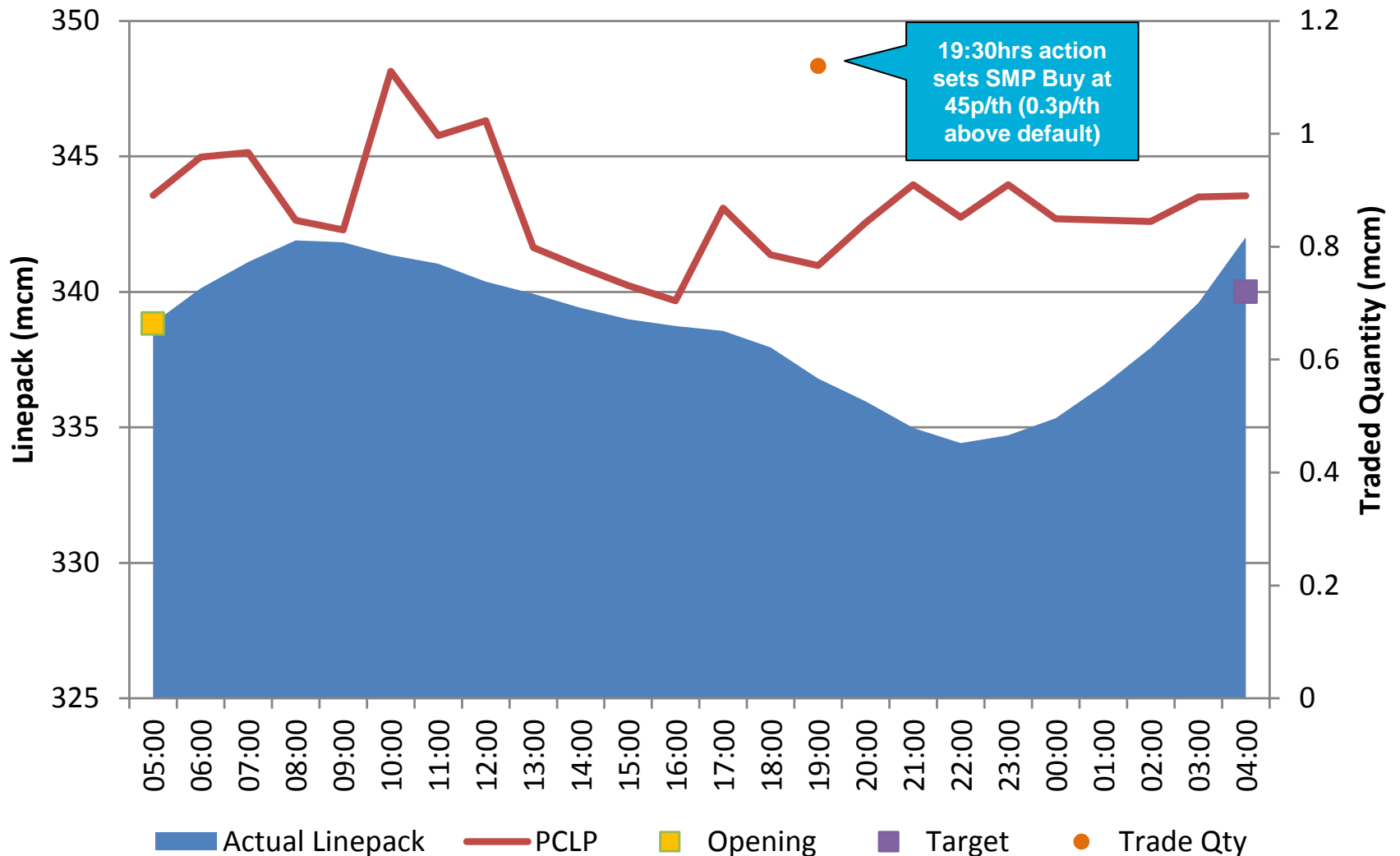
- Increased buy actions do not reflect increase to SMP Buy
- Cumulative position matches that of last year

## When we have set SMP Buy:

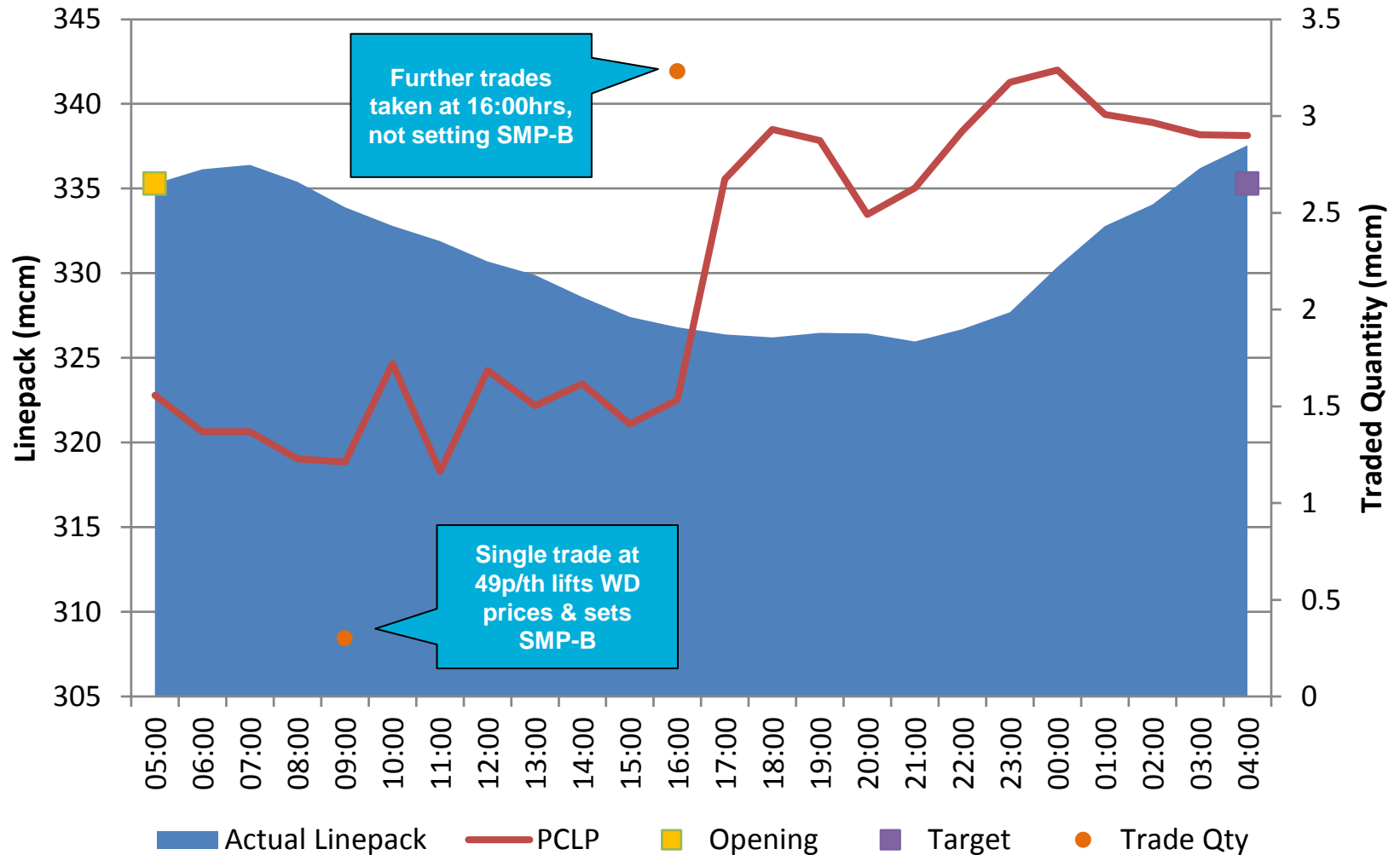
- Differential between SMP and Default is small
- Distribution of differentials similar to last year



# Interesting Day – trade when heavy *15/10/17*



# Interesting Day – trades early in day 21/09/17



# Summary

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- Operate under the agreed regime as per System Management Principle Statement.
  - Our goal is to maintain a balanced system;
  - Minimise our impact on the market each day; whilst
  - Acting efficiently over the year.
  
- Our actions have not shifted the system
  - The approaches taken and the considerations made have not changed.
  - Over recent months NG have had to take more action just to maintain the status quo
  - NG are investigating reasons behind recent system conditions
  
- Responsibility of all system users, including NG, to minimise uncertainty and increase predictability.

# Future Communications

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- Plan to deliver four further presentations throughout 2018
- Suggested topics
  - Nominations Overview – January 2018 (as requested)
  - ‘A day in our shoes’ – Spring 2018
  - TBC – Late Summer 2018
  - TBC – Winter 2018

Topic suggestions or feedback can be sent to  
[NTSEnergyBalance@nationalgrid.com](mailto:NTSEnergyBalance@nationalgrid.com)



## Future of Gemini



Operational Forum – November 2017  
Chris Logue

## Introduction

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- The Gemini IT system is owned by National Grid and operated and maintained by Xoserve
- It is the means by which National Grid transacts capacity with customers and underpins the nominations and energy balancing regime
- Xoserve have identified an investment requirement to sustain Gemini's infrastructure
- National Grid is minded to sustain Gemini via a re-platform activity rather than replace it at this stage
- The purpose of this session is to share our thinking and seek customer views on the way forward

## Why do we need to do anything?

- Xoserve have advised us that Gemini is operating on ageing hardware and infrastructure software, which brings increasing risks to its security, availability and resilience

- IT vendor support will start to reduce
- Extended support is possible but costs more and is not guaranteed
- Increasing risks of component failure and unavailability of replacement parts

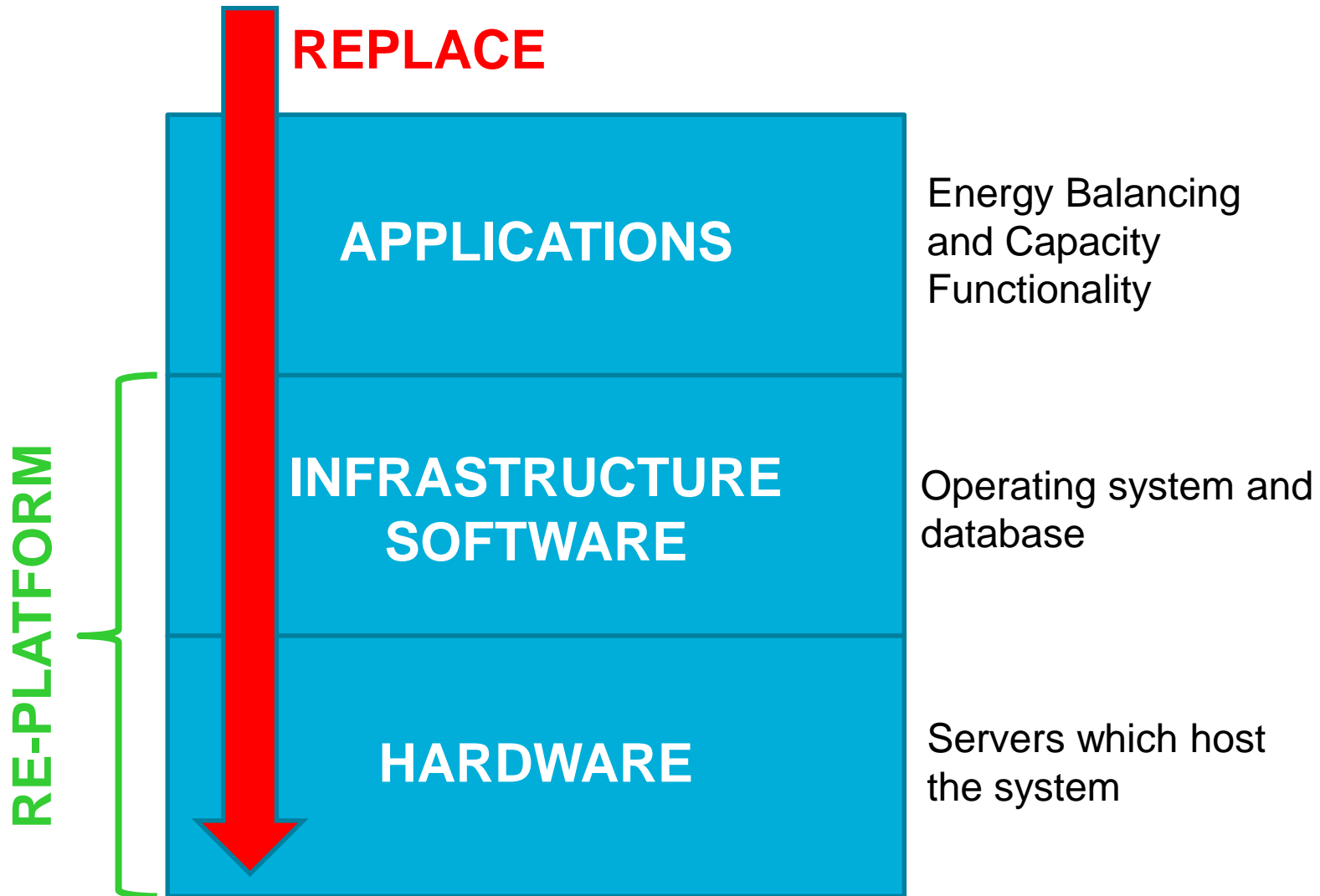


Investment  
requirement



Sustain or replace?

# The Buildings Blocks of Gemini

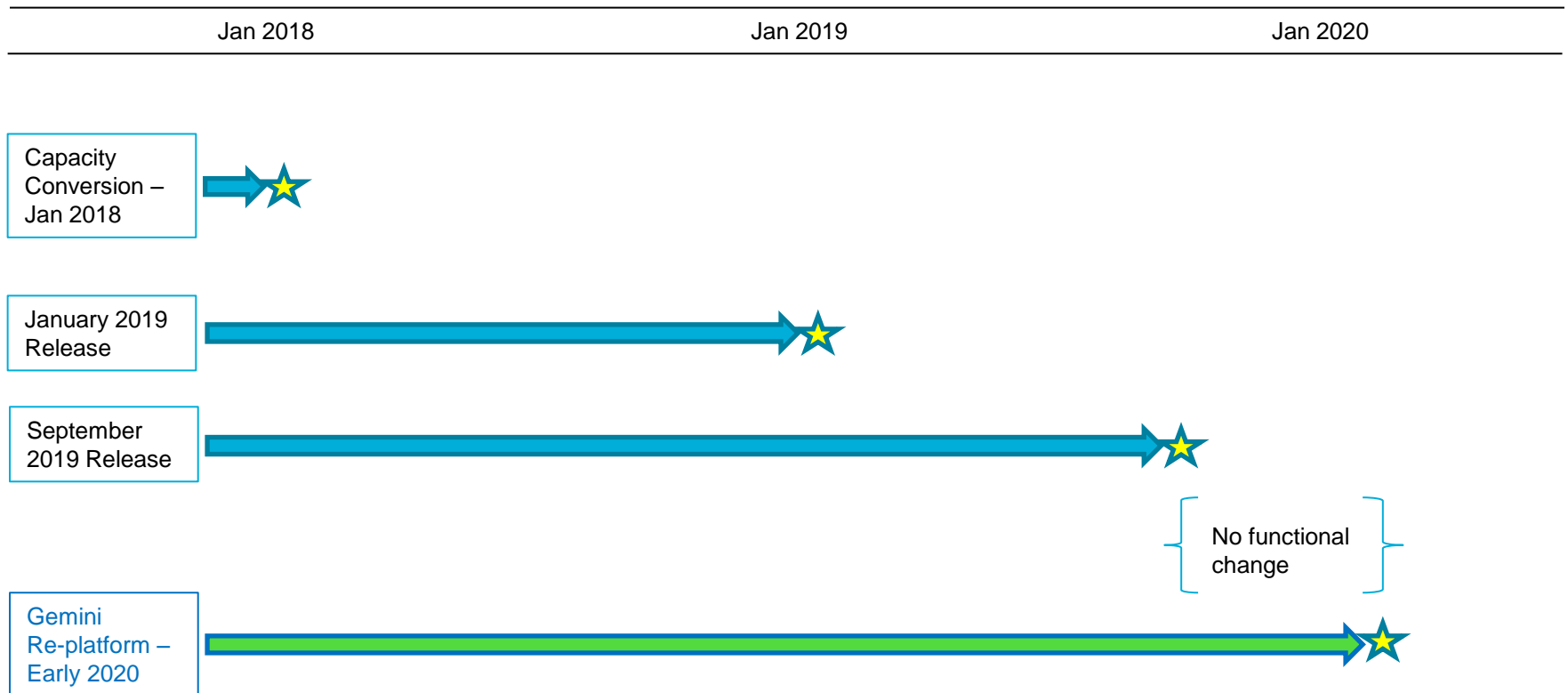


## Sustain or Replace Gemini

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- A re-platform would extend the life of the system by implementing new hardware and software upgrades
  - Represents an economic alternative to replacement, sustaining Gemini until mid 2020s
  - Could either be re-platformed 'on premises' (i.e. continue to be hosted in a Xoserve data centre); or hosted on a private cloud
- A 'replace' strategy now would put pressure on timescales to maintain infrastructure integrity
- Project Nexus has recently been completed
- A 'sustain' strategy would give National Grid and the industry time to consider replacing Gemini in the RIIO-T2 period
- We would not propose to include any functional change within a sustaining project but do want to capture customer pain points with Gemini and discuss with Xoserve how these can be addressed

# Indicative Timescales



## Voice of the Customer Feedback Session

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- Any comments or questions?

Q1) On a scale of 1-10, how supportive are you of our intention to re-platform Gemini rather than replace it at this stage?

- Please write your name and company on a post-it note and place it on the chart

Q2) What pain points do you currently experience with Gemini?

- Please write these onto post-it notes with your name and company and place on the feedback sheets



## Next Steps

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- Re-platforming
  - We plan to raise a change proposal in December to facilitate a comparison of the technical benefits, risks and costs of both re-platform options
- Pain points
  - Review your feedback from today
  - Discuss with Xoserve how to address them
- We would welcome any further feedback on these questions after the meeting; please contact [philip.hobbins@nationalgrid.com](mailto:philip.hobbins@nationalgrid.com) (01926 653432)

# AOB



Operational Forum – November 2017  
Karen Thompson

## Active Notification System (ANS)

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- Throughout the year it is important that all Shippers ensure that their ANS information up to date. This is even more important as we approach the winter period.
- We want to ensure that all Shippers are able to receive ANS messages so please could you check that the contact information registered against your Shipper entity is accurate by following the below link:

<https://www.s2.emergencycallsecure.com/newlogin/>

- In order to access the system, you will need your Company ID, User ID and Password.
- It is your responsibility to make sure that your contact details are correct so please make sure that you check everything is up to date.
- If you require further information then please contact:

[box.gncc.systemsupport@nationalgrid.com](mailto:box.gncc.systemsupport@nationalgrid.com),

# Gas Ten Year Statement & Gas Future Operability Planning publications



Operational Forum – November 2017

# Gas Ten Year Statement (GTYS)

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## Objective:

- Provide gas market participants with an update on current and future challenges which may impact the way we plan and operate the network over the next ten years.

## Document Content:

- Entry and exit capacity availability.
- Current projects in the pipeline.
- Network development decisions and capability requirements over the next ten years.

**30<sup>th</sup> Nov 2017**

GTYS 2017 Published

All material will be available at:

[nationalgrid.com/gtys](http://nationalgrid.com/gtys)

Contact us via email:

[Box.SystemOperator.GTYS@nationalgrid.com](mailto:Box.SystemOperator.GTYS@nationalgrid.com)

# Gas Future Operability Planning (GFOP)

## Objective:

- Provide gas market participants with a vehicle to discuss future operational challenges, uncertainties and quantify future network needs.

## GFOP November 2017 content:

- Highlights the potential implications to the future planning and operation of the network out to 2050 through the lens of the Future Energy Scenarios.

**30<sup>th</sup> Nov 2017**

GFOP Doc 1 published

**Dec 2017**

Start our feedback process

**Q1 2018**

GFOP Doc 2 published

All material will be available at:

[www.nationalgrid.com/GFOP](http://www.nationalgrid.com/GFOP)

Contact us via email:

[box.GFOP@nationalgrid.com](mailto:box.GFOP@nationalgrid.com)

# Future Operational Forum Dates 2018

Finding a better way

Month	Date
January – Radisson Blu (London)	Thursday 25 <sup>th</sup> January 2018
March – Radisson Blu (London)	Thursday 1 <sup>st</sup> March 2018
April – Radisson Blu (London)	Thursday 26 <sup>th</sup> April 2018
June – NG House (Warwick)	Thursday 28 <sup>th</sup> June 2018
September – Radisson Blu (London)	Thursday 27 <sup>th</sup> September 2018
October – Radisson Blu (London)	Thursday 25 <sup>th</sup> October 2018
November – Radisson Blu (London)	Thursday 29 <sup>th</sup> November 2018

## Future Agenda Items

Nominations	Gas Ten Year Statement	Gas Future Operability Planning
Exit Capacity Methodology	Future Energy Scenarios	Interesting Days

For any queries or proposed agenda items please contact the  
Operational Liaison Team:

[Box.operationalliaison@nationalgrid.com](mailto:Box.operationalliaison@nationalgrid.com)