

# Gas Operational Forum

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19th January 2017 10:30AM

Radisson Blu Hotel, 130 Tottenham Court Road, London

# Agenda

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- 10:30 - Operational Forum Feedback/Slido
- 10:35 - Operational Overview
  - Supply & Demand
  - Interesting Days
- 11:00 - Remit Unplanned Outages
- 11:20 - Capacity Auctions
- 11:30 - GSMR
- 11:45 - Break
- 12:00 - Incentives
- 12:15 - Change Programme
  - MIPI Web Tier Replacement
  - GB REMIT,
  - EU Changes Phase 4a
- 12:30 - ICE Endex
- 12:45 – AOB
  - Customer Satisfaction Survey
  - Xoserve Funding Governance Ownership
  - Post Nexus Transitional Invoicing
  - Gas Future Operability Planning & Gas Ten Year Statement
  - Maintenance 2017 Plans

# 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



## SLIDO – Interaction Tool

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Gas Operational Forum - January 2017



Join at

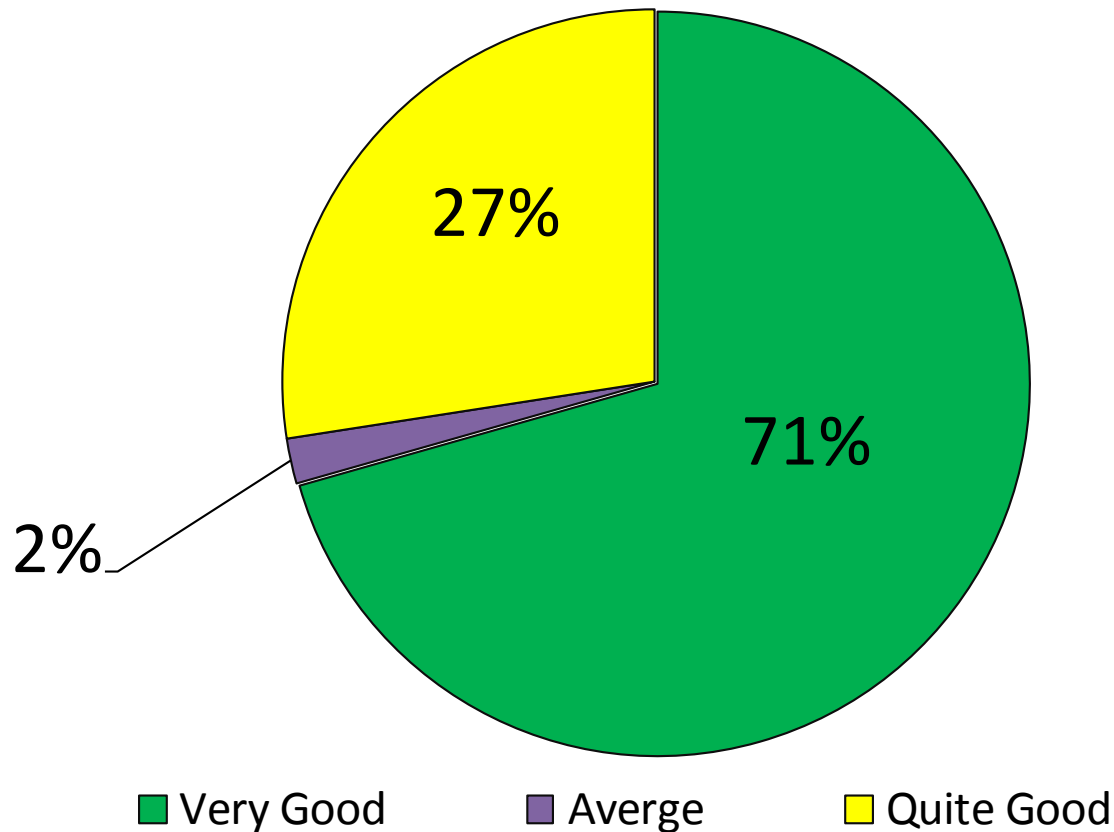
**slido.com**

**#3404**

**slido**

# Operational Forum Feedback

## Operational Forum - Was this Session Useful? (results collated from last 3 forums)



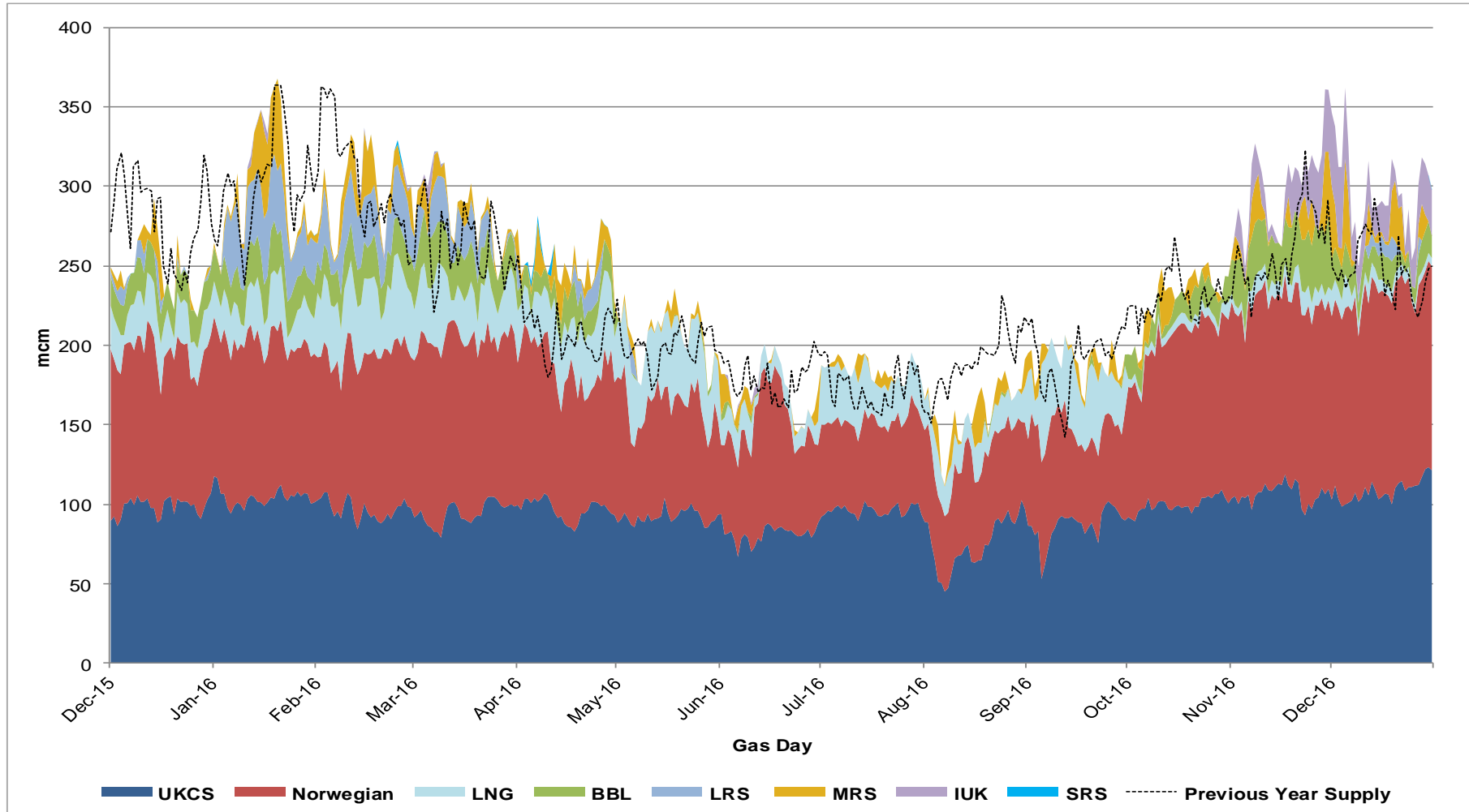
# Operational Overview



Operational Forum – January 2017  
John Perkins

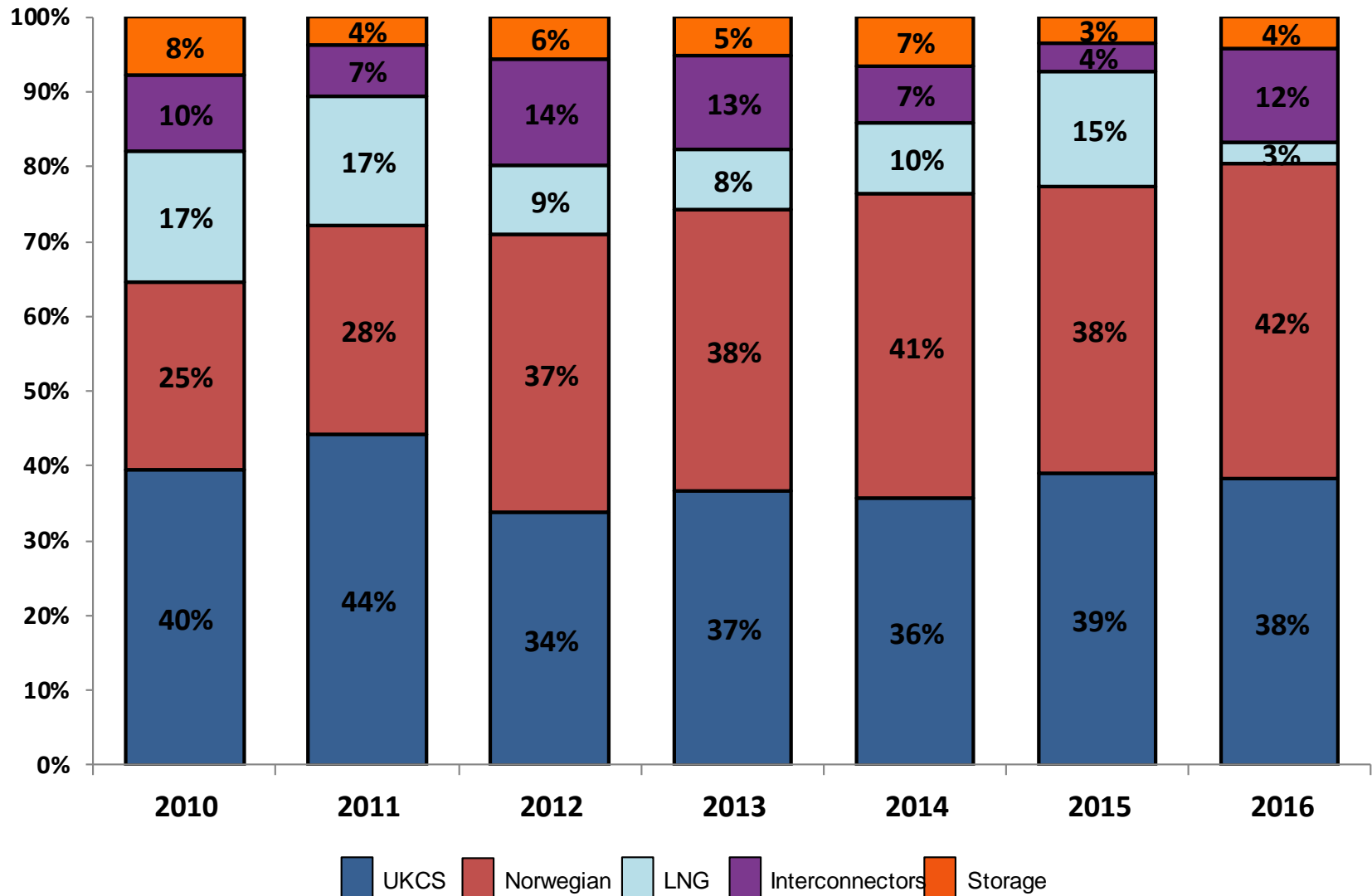
# Gas Supply Breakdown

1<sup>st</sup> December 2015 to 31<sup>st</sup> December 2016 vs Previous Year



# Gas Supply Breakdown

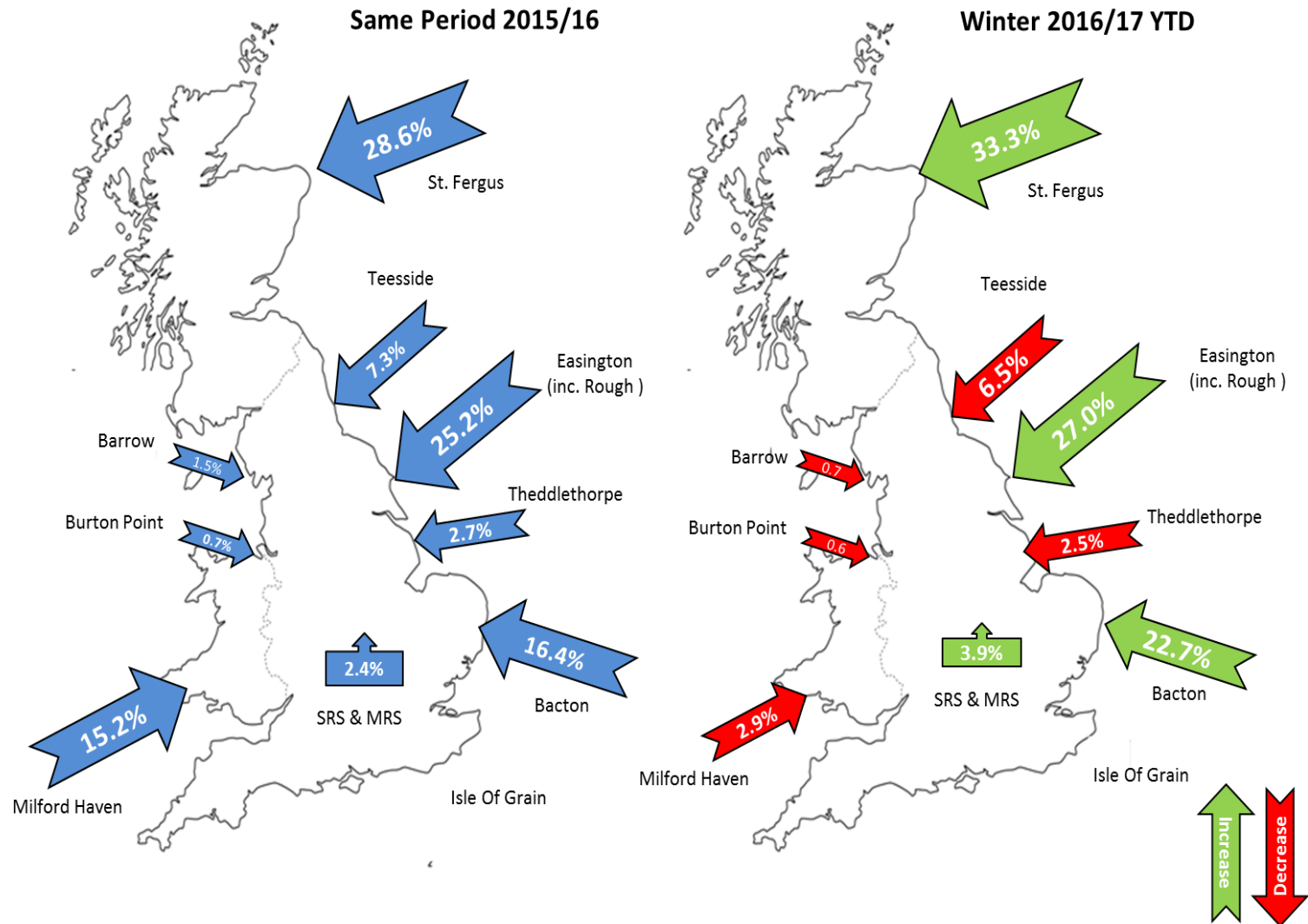
1<sup>st</sup> October 2016 to 31<sup>st</sup> December 2016 vs Same Period in Previous Years











# Gas Supply Map

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



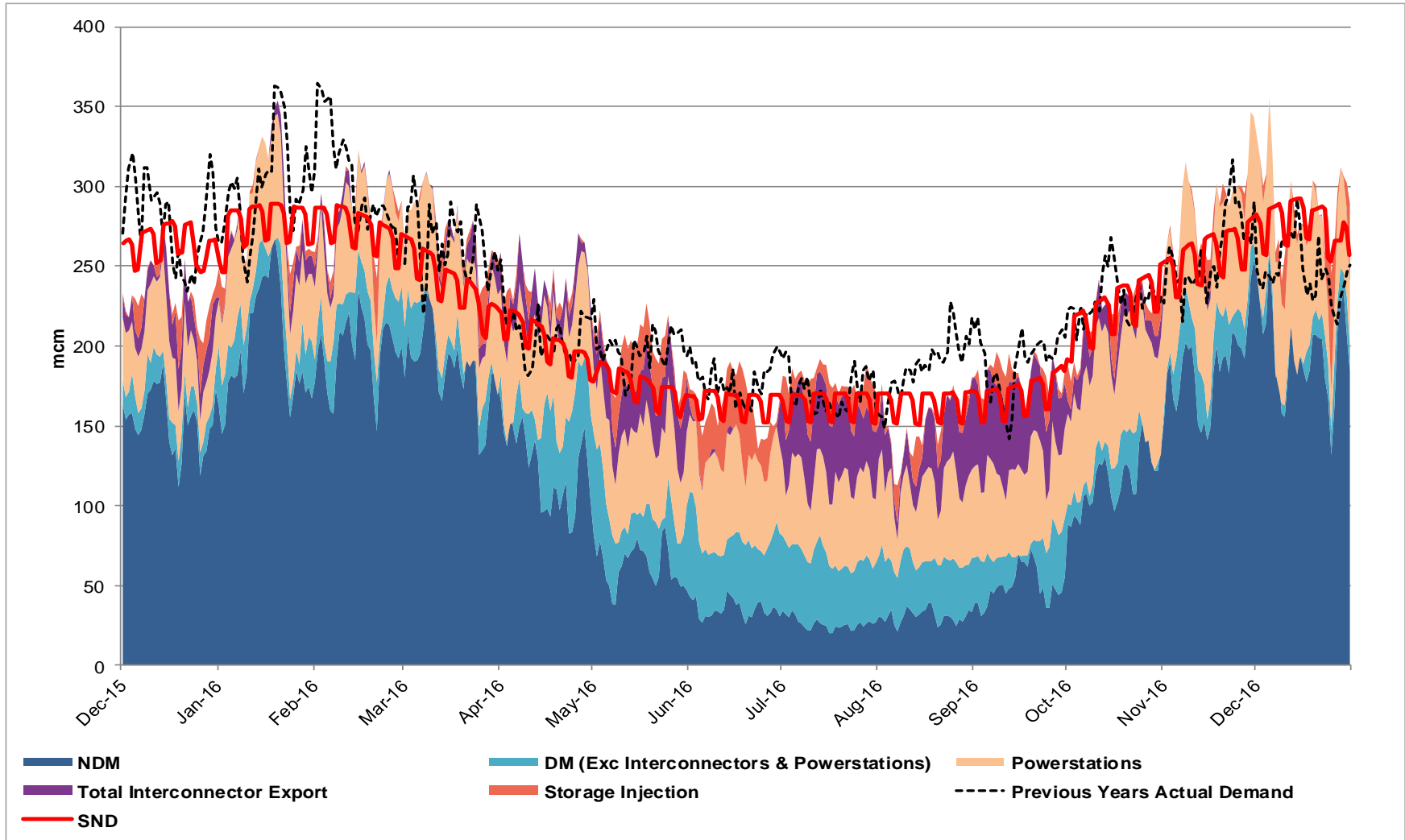
# NTS Supply Winter (mcm):

## 1<sup>st</sup> October 2016 to 31<sup>st</sup> December 2016

Entry	Min	Max	Avg	Winter Actual Range Oct 2015 - Mar 2016	Comments												
 UKCS	89.4	123.5	105.0	79 - 118	<ul style="list-style-type: none"> <li>BBL imports increased significantly in Nov before returning to previous levels in Dec; this could be associated with the BBL Long Term Capacity Contracts having ended at the end of Nov 2016.</li> <li>St Fergus flows have continued to remain high in Dec 2016 [flows averaged 95.7mcm/d - Dec 15 flows averaged 70.6mcm/d]; this is believed to relate to the new UKCS field at Rhum.</li> <li>Easington Rough on outage at the start and end of December with Withdrawal taking place on the majority of days from the 9th to 27th Dec.</li> <li>LNG average flow are significantly reduced from last year with Global LNG Demand from Asia being much higher than anticipated.</li> </ul>												
 NORWAY est*	66.8	132.0	115.9	55 - 118													
 INTERCONNECTORS BBL	1.9	44.8	19.8	0 - 33													
 INTERCONNECTORS IUK	0.0	51.3	14.5	0 - 14													
 LNG	5.0	21.3	7.9	6 - 59													
 STORAGE WITHDRAWAL	0.0	52.4	11.6	0 - 98													
					<table border="1"> <thead> <tr> <th>Entry</th> <th>Min</th> <th>Max</th> <th>Avg</th> </tr> </thead> <tbody> <tr> <td>Actual Supply</td> <td>189</td> <td>362</td> <td>275</td> </tr> <tr> <td>Actual Supply Exc. Storage</td> <td>184</td> <td>321</td> <td>263</td> </tr> </tbody> </table>	Entry	Min	Max	Avg	Actual Supply	189	362	275	Actual Supply Exc. Storage	184	321	263
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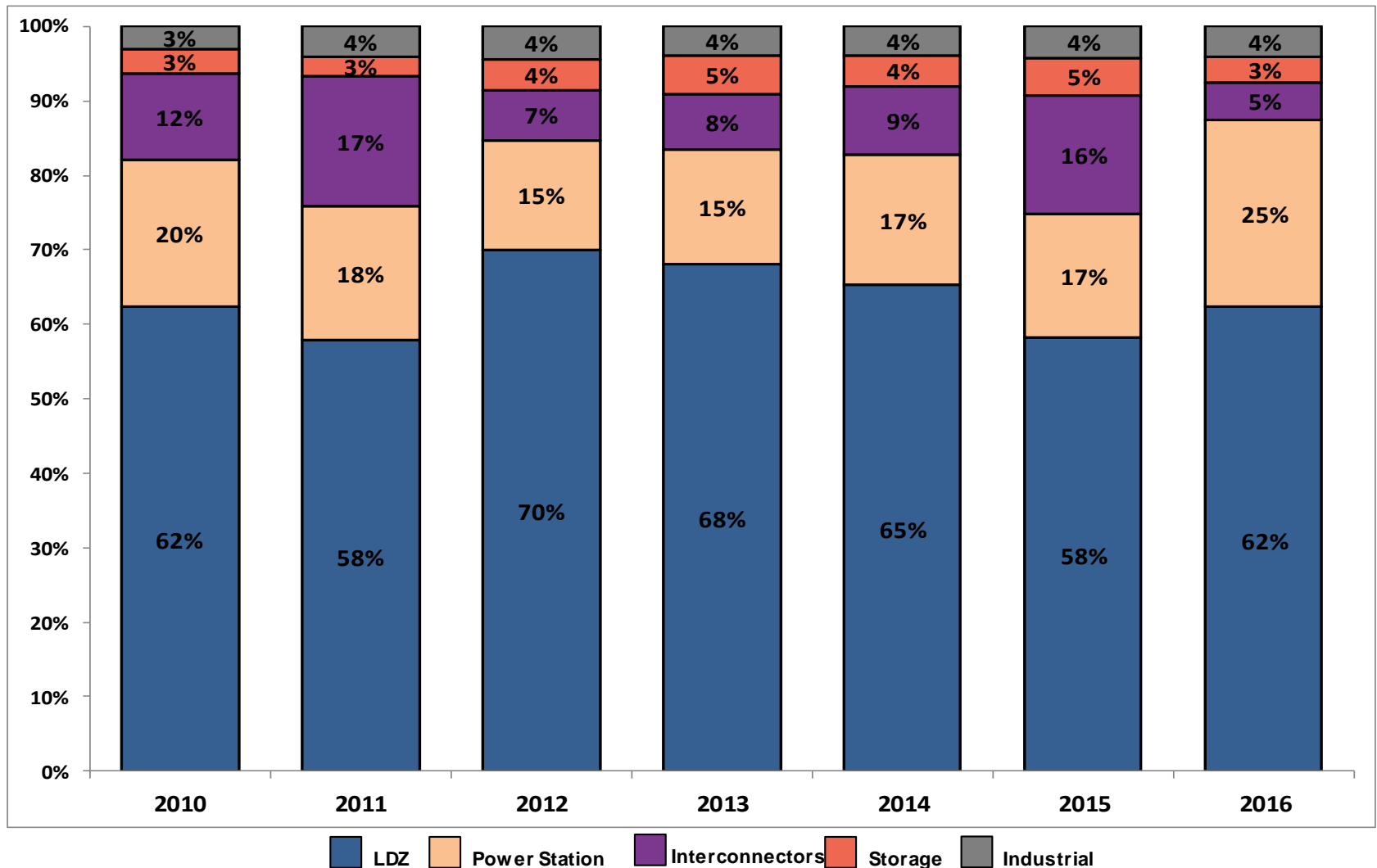
# Gas Demand Breakdown

1<sup>st</sup> December 2015 to 31<sup>st</sup> December 2016 vs Previous Years



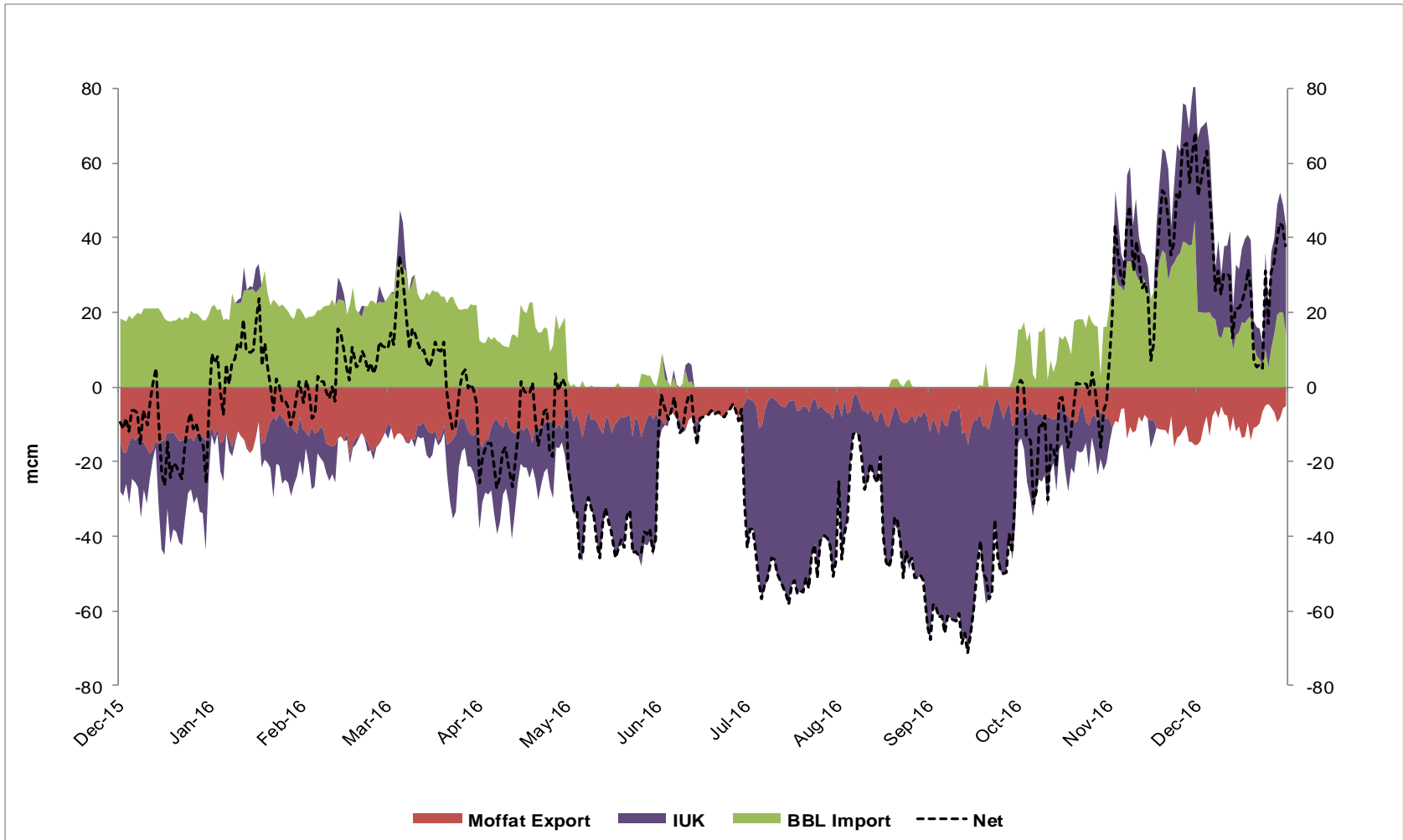
# Gas Demand Breakdown

1<sup>st</sup> October 2016 to 31<sup>st</sup> December 2016 vs Same Period in Previous Years



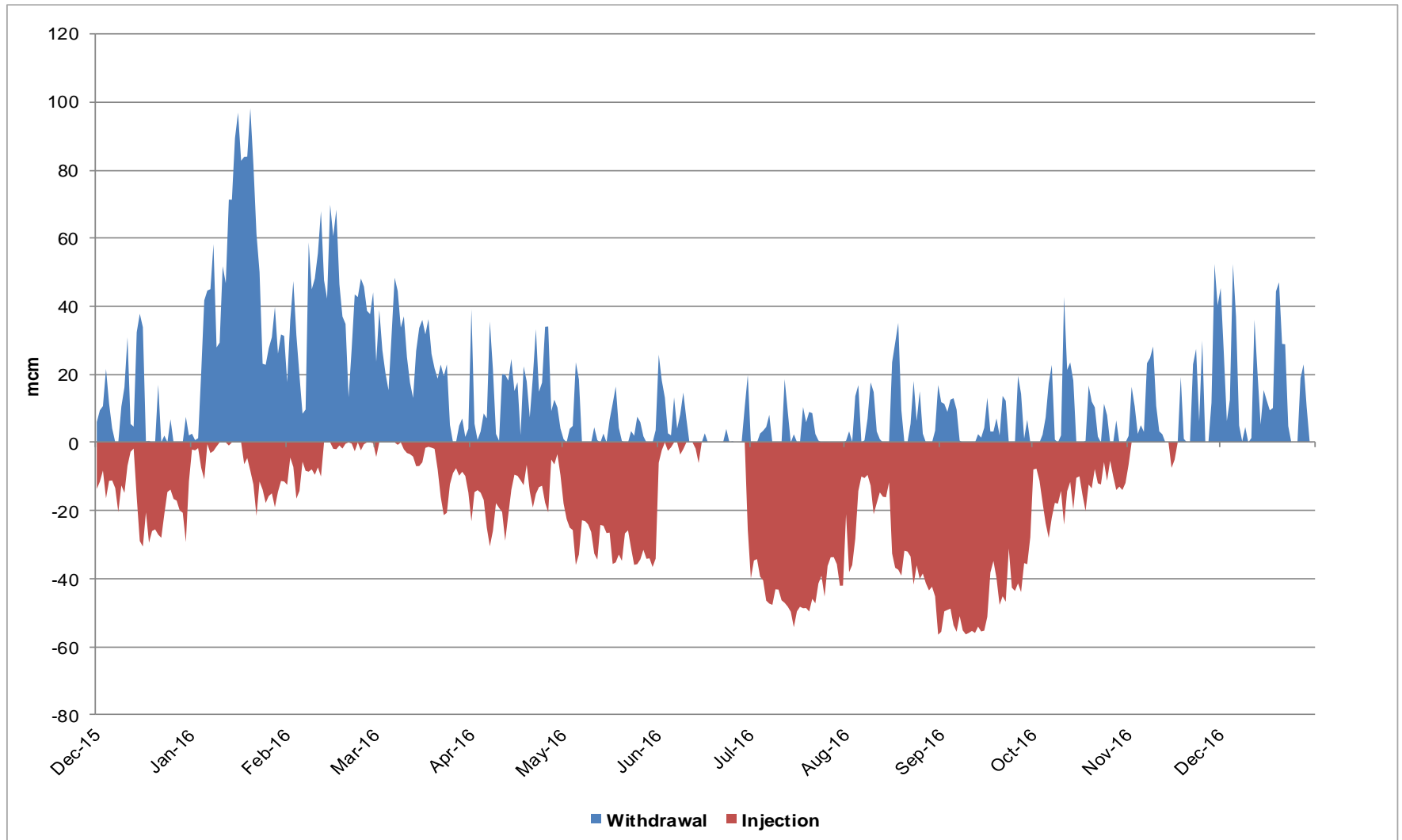
# Gas Supply/Demand Interconnectors

1<sup>st</sup> December 2015 to 31<sup>st</sup> December 2016



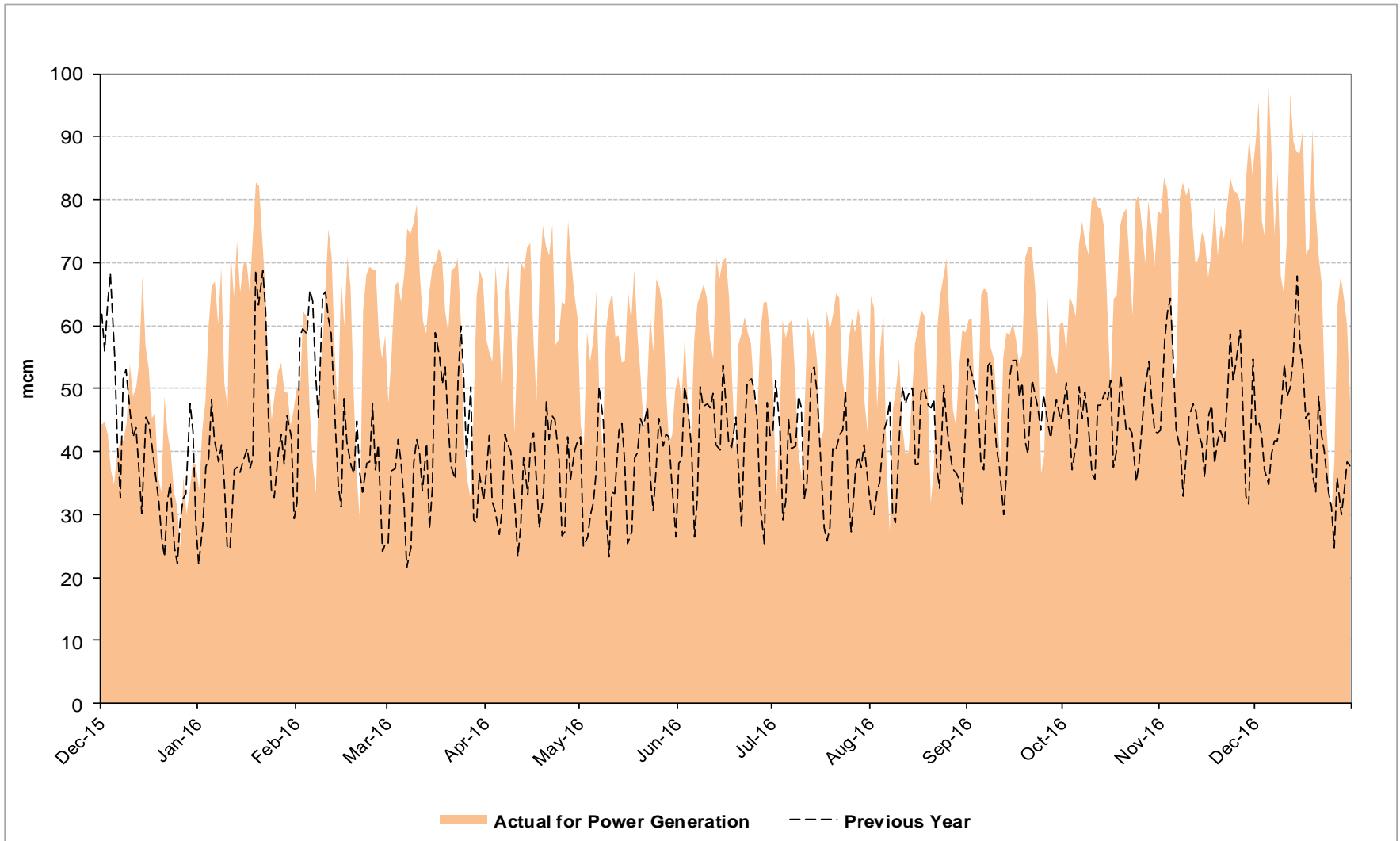
# Gas Supply/Demand Storage

1<sup>st</sup> December 2015 to 31<sup>st</sup> December 2016



# Gas Consumption for Power Generation

1<sup>st</sup> December 2015 to 31<sup>st</sup> December 2016 vs Previous Year



# NTS Demand Winter (mcm):

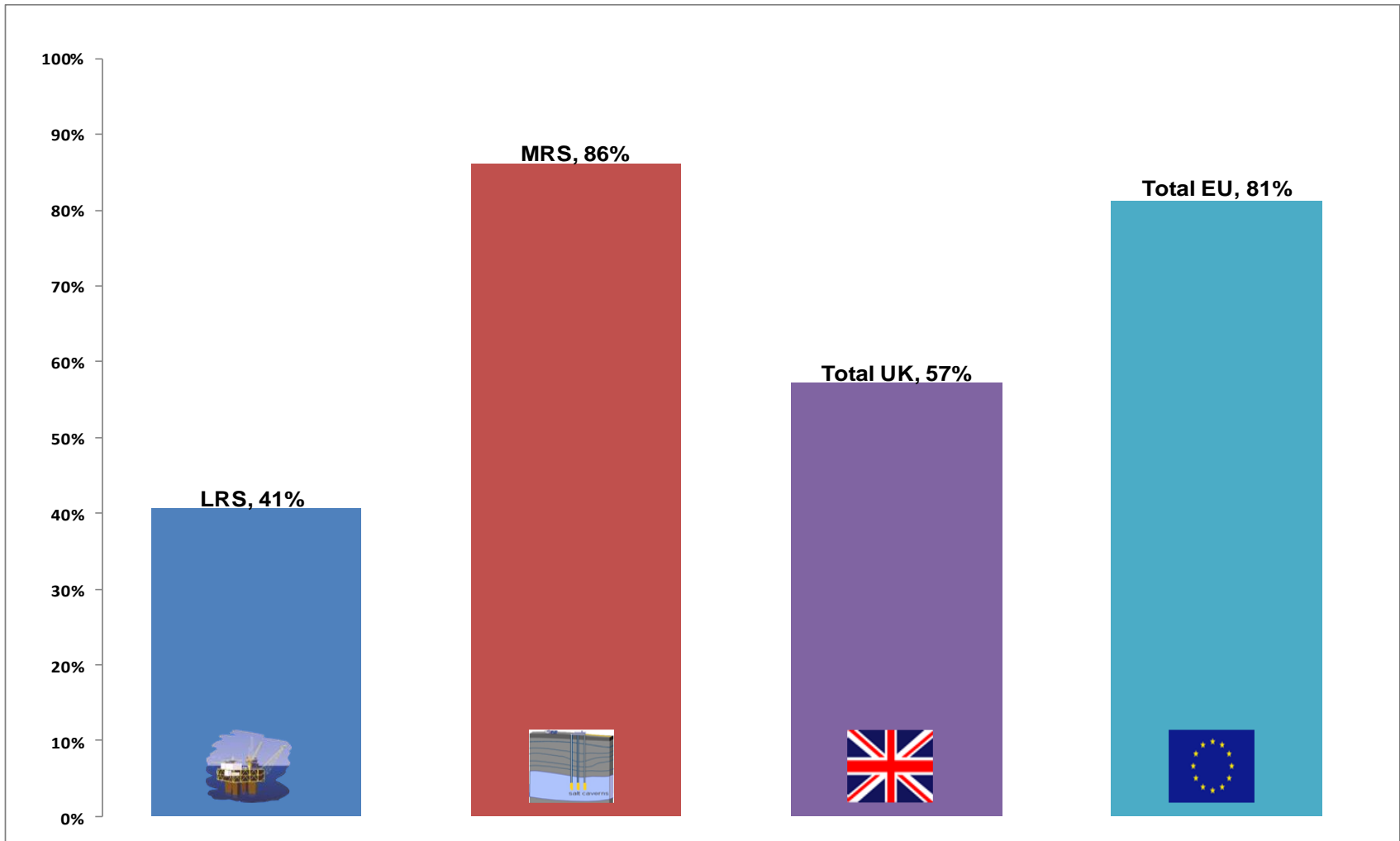
## NTS Demand Winter (mcm): 1<sup>st</sup> October 2016 to 31<sup>st</sup> December 2016

Exit	Min	Max	Avg	Winter Outlook Range Oct 2016 - Mar2017	Winter Actual Range Oct 2015 - Mar2016	Comments															
LDZ	90.3	252.7	170.4	107 - 336	82 - 256	<ul style="list-style-type: none"> <li>Power station demand still remains high.</li> <li>Rough storage last injected on 29<sup>th</sup> June and is not anticipated to inject at all throughout the coming winter.</li> <li>IUK demand remains low with IUK continuing to import. (Average this winter 5 mcm/d vs 24mcm/d for same period last year.)</li> </ul>															
Ireland INTERCONNECTORS	4.5	16.1	9.2	6 - 10	7 - 21																
INDUSTRIAL	8.1	12.9	11.2	19 - 36 (DM + Ind)	8 - 12 (DM + Ind)																
POWERSTATION	24.1	94.0	68.4	19 - 90	20 - 78																
STORAGE INJECTION	0.0	74.2	9.2	0 - 45	0 - 47																
IUK INTERCONNECTORS	0.0	28.1	5.0	0 - 30	0 - 42																
						<table border="1"> <thead> <tr> <th>Exit</th> <th>Min</th> <th>Max</th> <th>Avg</th> <th>Winter Outlook Range 2016-17</th> </tr> </thead> <tbody> <tr> <td><b>Demand exc. IUK &amp; SI</b></td> <td>158.6</td> <td>368.6</td> <td>259.0</td> <td>189 - 452</td> </tr> <tr> <td><b>SND exc. IUK &amp; SI</b></td> <td>144.0</td> <td>289.0</td> <td>236.2</td> <td></td> </tr> </tbody> </table>	Exit	Min	Max	Avg	Winter Outlook Range 2016-17	<b>Demand exc. IUK &amp; SI</b>	158.6	368.6	259.0	189 - 452	<b>SND exc. IUK &amp; SI</b>	144.0	289.0	236.2	
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# UK and EU Storage Stock

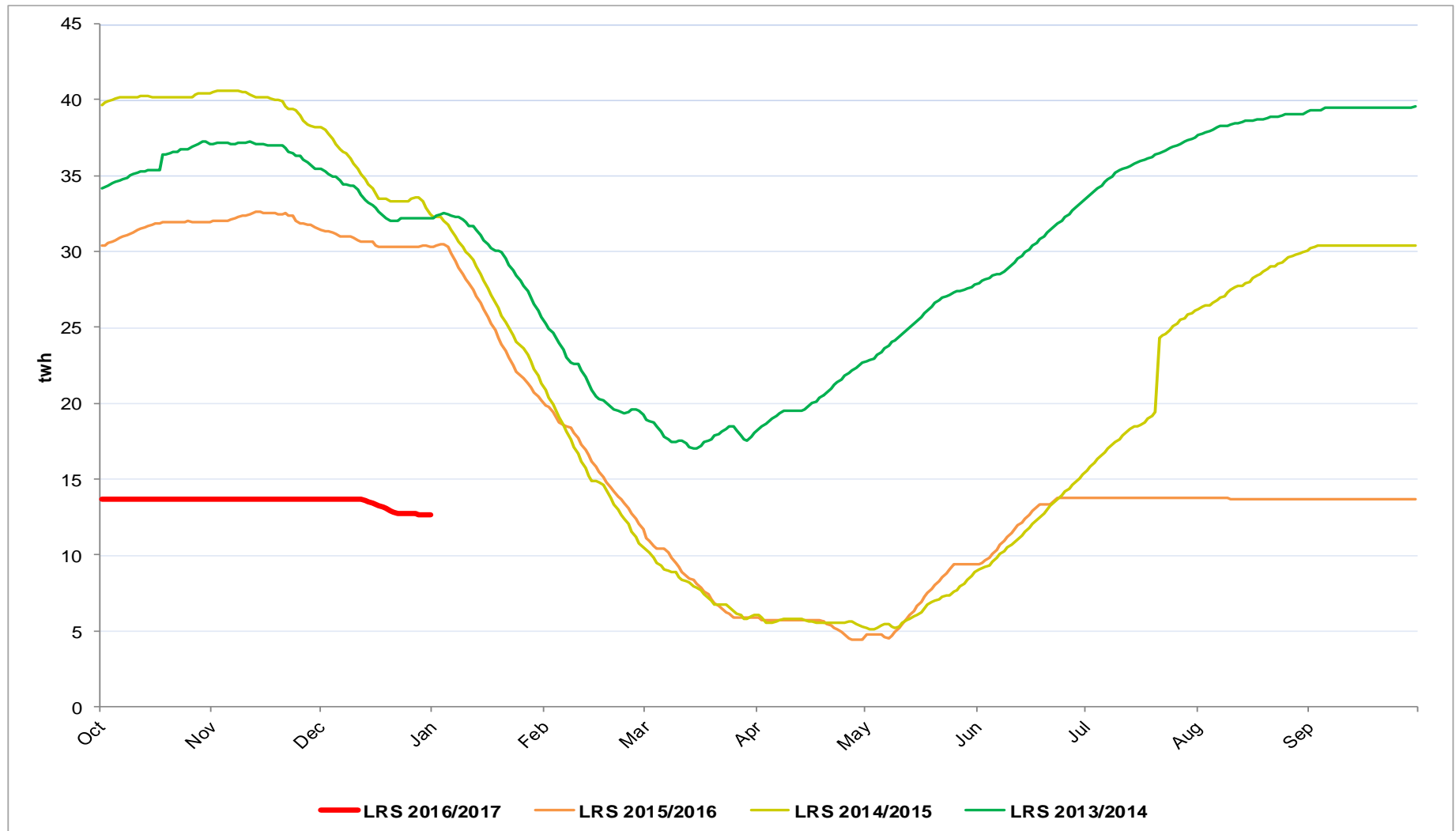
## Position as at 31<sup>st</sup> December 2016



\* Note: Total UK includes LNG storage stock

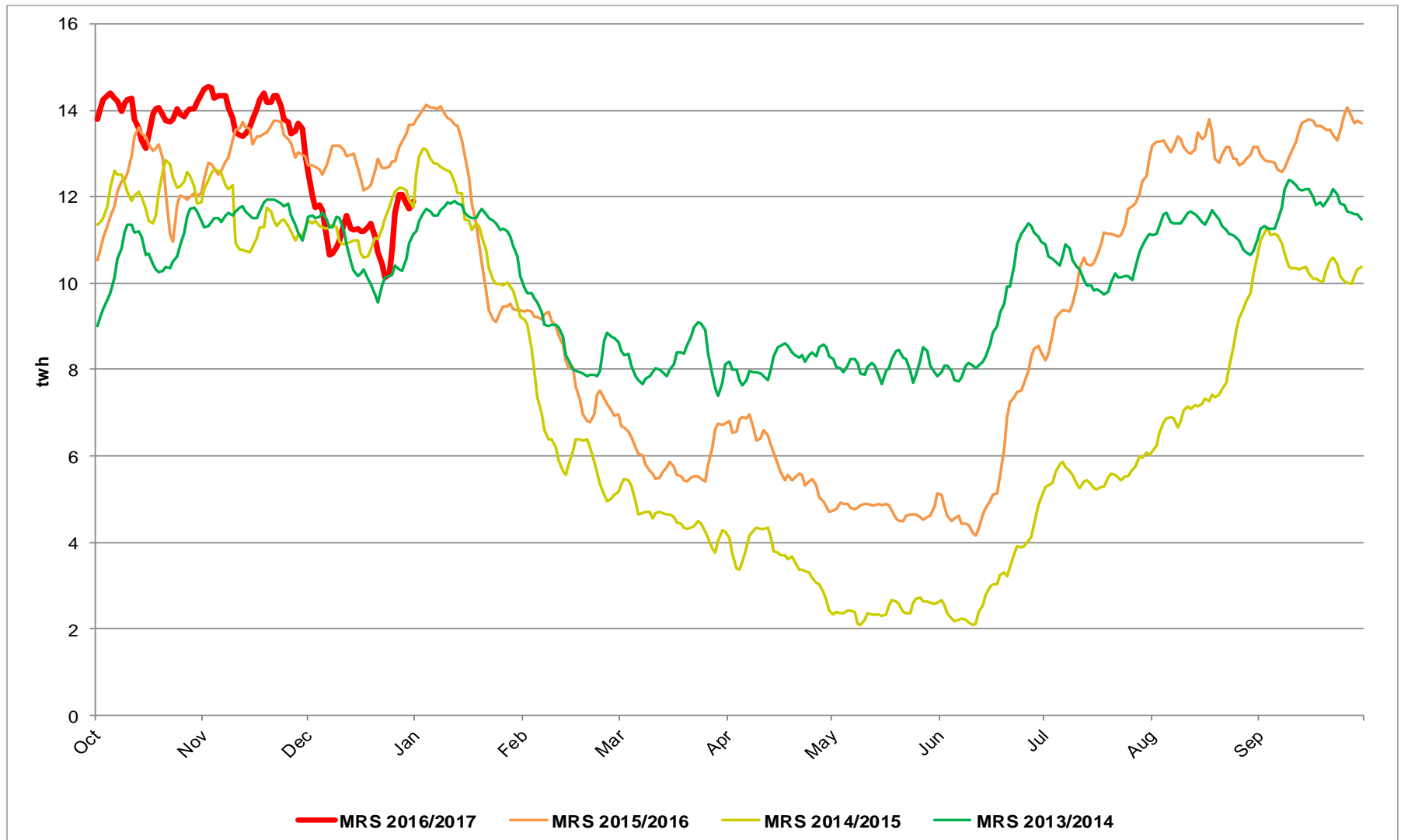
# Storage Stock: LRS

## Position as at 31<sup>st</sup> December 2016



# Storage Stock: MRS

## Position as at 31<sup>st</sup> December 2016



# Energy Balancing:

1<sup>st</sup> April 2016 to 31<sup>st</sup> December 2016

NGG Balancing Actions	Apr 16 to Dec 16	Apr 15 to Dec 15	Comments
Buy Actions	30 (30%)	87 (64%)	<ul style="list-style-type: none"> <li>Sell actions have significantly increased / Buy actions reduced for the period compared to same period last year.</li> <li>There have been 22 Sell actions in Winter 2016 [Oct: 3, Nov: 9, Dec: 10].</li> <li>There have been 7 Buy Actions in Winter 2016 [Oct: 2, Nov: 1, Dec: 4].</li> </ul>
Sell Actions	69 (70%)	49 (36%)	
Buy Actions [Volume: Gwh]	551	1275	
Sell Actions [Volume: Gwh]	-1343	-830	
Number of Balancing Actions	99	136	
NGG set Default Marginal Prices [SMPB: Average %]	5%	8%	
NGG set Default Marginal Prices [SMPS: Average %]	5%	3%	

## APX Market Prices (p/th)

Min / Max

	SAP	SMPB	SMPS
Apr 16 to Dec 16	21 - 53.7	22.2 - 55	19.9 - 52.6
Apr 15 to Dec 15	32.2 - 52.4	33.3 - 55	31.1 - 51.1

## Net Balancing Costs

	Imbalance	Scheduling	OCM	Net
Apr 16 to Oct 16	£1,941,550 (CR)	£2,160,798 (CR)	£5,347,412 (CR)	£9,449,760 (CR)

# Capacity Neutrality:

1<sup>st</sup> April 2016 to 31<sup>st</sup> December 2016

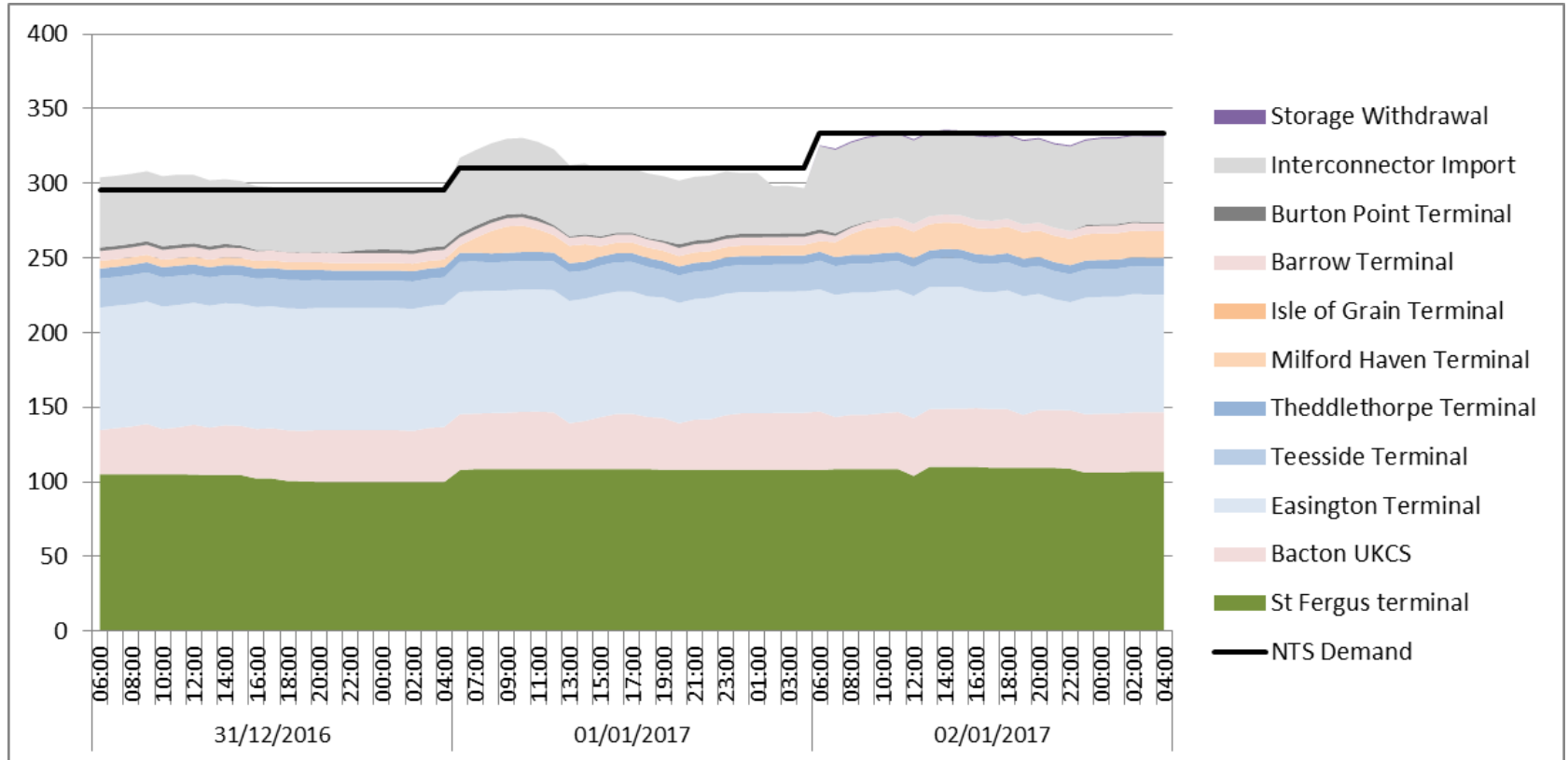
Revenue / Costs	Apr 16 to Dec 16	Apr 15 Dec 15	Comments
WDDSEC/DAI Entry Capacity Revenue	-£652,178	-£255,727	* Entry Capacity Overrun Revenue data not yet available for December 2016
Total Entry Constraint Management Operational Costs	£0	£0	
Entry Capacity Overrun Revenue	-£988,686 *	-£537,806	
Non-Obligated Sales Revenue (Entry only)	-£22,690	-£62,753	
Revenue from Locational Sells and PRI Charges	£-14,249	£0	
Net Revenue	-£1,677,803	-£856,287	

# Gas Day 2<sup>nd</sup> January 2017

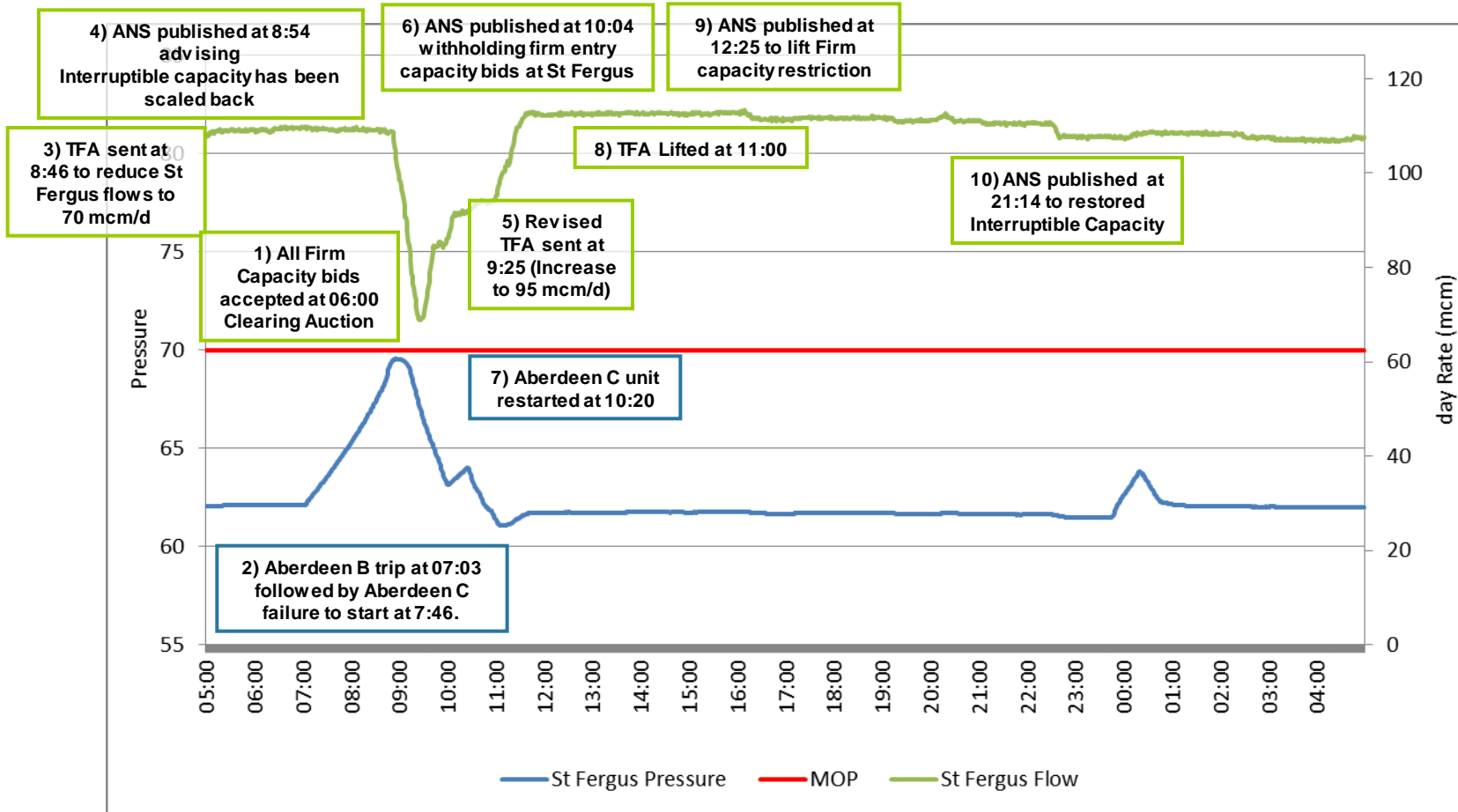


**Operational Performance**  
**Deliver Energy & Network Capability**

# 31<sup>st</sup> Dec to 2<sup>nd</sup> Jan – Supply Profile



# 1<sup>st</sup> Jan to 2<sup>nd</sup> Jan – St Fergus Pressure





# Unplanned Outages - REMIT



Operational Forum – January 2017  
Mike Wassell

# Introduction

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- At the December Ops forum, a number of attendees asked for clarity on when GNCC would publish under REMIT for unplanned outages (e.g. compressor trip)
- The following slides detail the rationale we currently operate to for REMIT purposes and the high level guidelines underpinned by that rationale.

## Current Rationale

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- It is not possible to accept flows up to the obligated capacity levels at all points at all times (constrained network principle).
- We deal with unplanned network outages regularly as a business as normal activity.
  - Integrated network
- We would publish a REMIT notice where an unplanned NTS outage is likely to have a significant impact on market prices.

# REMIT

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- REMIT defines “inside information” as information having the following four elements:
  - It is of a precise nature.
  - It has not been made public.
  - It relates, directly or indirectly, to one or more wholesale energy products.
  - If it were made public, it would be likely to significantly affect the prices of those wholesale energy products

# Current GNCC Guidelines for REMIT

Scenario	Publish under REMIT?
<p>An unplanned outage has a significant impact on the notified end of day flow (~20 MCM) and requires NG to take market actions (e.g. firm capacity buy backs or locational energy actions).</p> <p>Note: Consideration would also be given to the prevailing system conditions (e.g. is a Gas Deficit Warning in place) as this could mean a relatively small impact on end of day flows could have a significant impact on market prices.</p>	Yes
An unplanned outage does not impact End of Day flows	No

# Short Term Capacity Release at Bacton UKCS



Operational Forum – January 2017  
Mike Wassell

# Introduction

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- We have had some shipper queries regarding the release of discretionary (a.k.a non-obligated) short term firm capacity at Bacton UKCS.

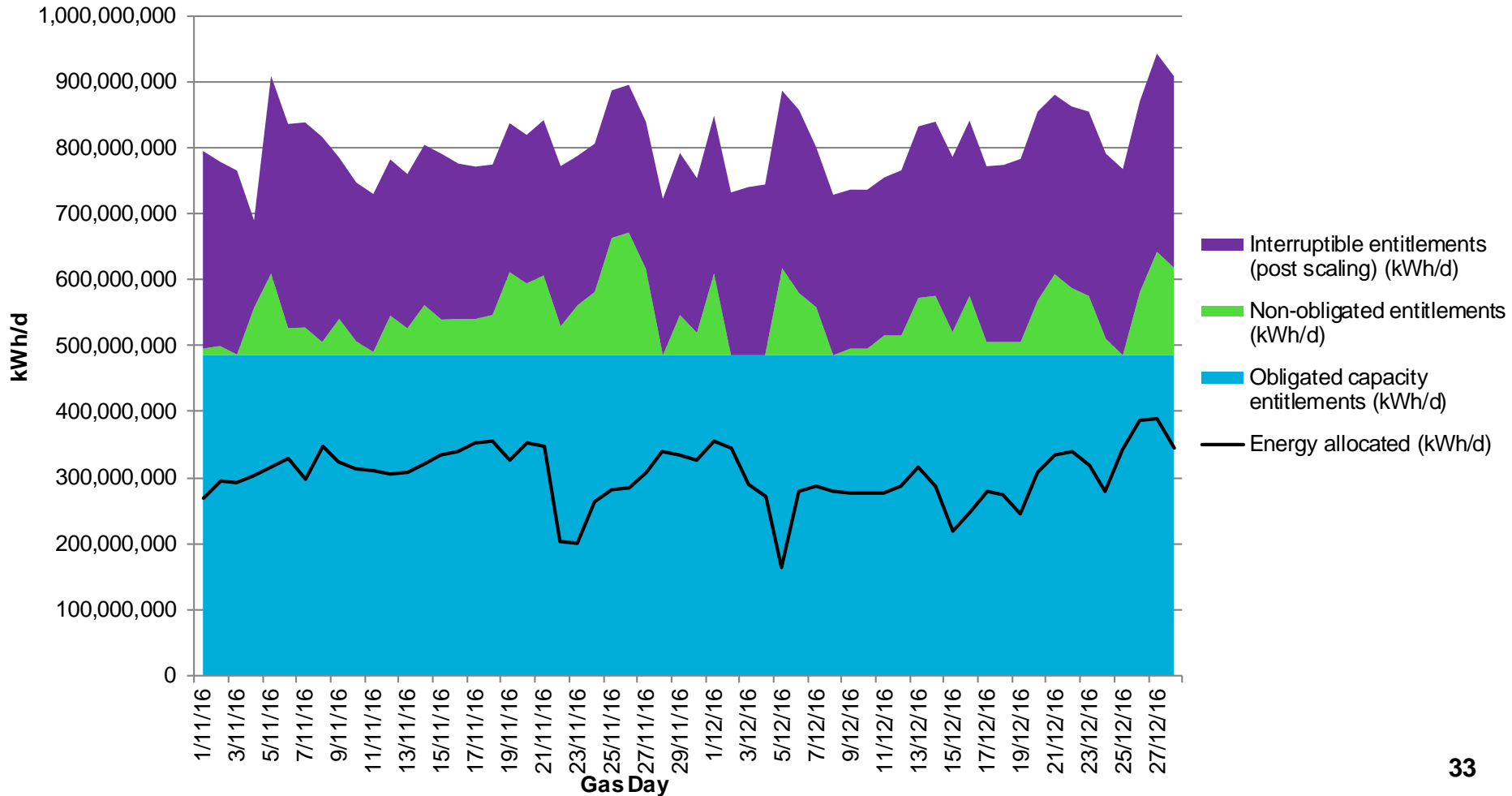
# Factors Considered

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- Risk vs reward (i.e. value to the end consumer).
  - System conditions change every day
  - Supply / demand patterns change
  - Line pack distribution differs
- Network availability (e.g. planned outages on the network or unplanned issues).
- How much capacity has already been released to the market in the area.



# Capacity Entitlements vs Energy Allocated at Bacton UKCS



# Long Term Capacity Auctions



Operational Forum – January 2017  
Bradley Charles

# Quarterly System Entry Capacity (QSEC)

- The invitation letter will be sent out on or before the 20th February 2017 and will be published on the [National Grid Website](#) and the [Joint Office website](#)
- Capacity offered between October 2018 (Y+2) until September 2033 (Y+16)
- Capacity is offered in quarterly periods (Jan – Mar, Apr – Jun etc)
- An incremental capacity signal can be indicated but can only be met via Substitution
- First bid window will be open from 8am on the 20th March 2017
- If the stability measure is met then the auction can close after 2 rounds; Tuesday 21st March this year
- Pricing step details will be published on the 20th January 2017
- An updated QSEC user guide will be available on the [National Grid Website](#) before the auction starts

# Annual Monthly System Entry Capacity (AMSEC)

- The invitation letter was sent out on Monday January 16th and is published
- On the [Joint Office website](#) and the on the [National Grid website](#)
- Capacity offered between April 2017 until September 2018 in monthly periods
- The bid windows will be open on the 13th, 16th, 21st and 24th of February 2017
- Allocation is completed on the same day and reports are published the following working day
- The first 3 windows offer 25% of the amount of total capacity available.
- The final window offers all the remaining unsold capacity

# Interconnector Point (IP) Auctions

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- Annual Yearly IP auction will open on the 6<sup>th</sup> March 2017
- Capacity offered in yearly periods between 1<sup>st</sup> October 2017 and 30<sup>th</sup> September 2032
- Auctions will open for both Entry (IPAYSEC) and Exit (IPAYNEX) capacity at the same time
- All bids are placed via the PRISMA platform

# Potential Process Improvements

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- Reviewing content of the long term auction/application letters
- Adding a 'FAQ' document onto the capacity team website page
  
- I would welcome any input or thoughts on the points above
- [Bradley.charles@nationalgrid.com](mailto:Bradley.charles@nationalgrid.com)
- 01926 655342

# Capacity Auctions Team

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- Mike Wassell – NTS Capacity Manager
- Bradley Charles – Senior Capacity Auction Analyst
- Sarah Wheeler – Auction Analyst
- Capacity team website - <http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/capacity/>
- Team Box account – [capacityauctions@nationalgrid.com](mailto:capacityauctions@nationalgrid.com)
- Team phone – 01926 654057

# Gas Safety (Management) Regulations

## Initial Call for Evidence



Operational Forum – January 2016  
Robyn Jenkins



## GS(M)R Background

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- The Gas Safety (Management) Regulations came into force in 1996.
- Their purpose is to ensure the safe use and management of gas through the gas network in Great Britain
- They set out the content and characteristics of the gas, the requirement for a manned telephone line for reporting gas escapes and places an obligation on those transporting gas to make safe a gas escape.
- Since 1996 the GB gas landscape has undergone many changes, to the extent that the existing regulations are no longer reflective.
- The gas networks believe it is appropriate for these regulations to be re-examined.

## GS(M)R Review Call for Evidence

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- ENA have published a [Call for Evidence](#) requesting proposals for changes to the regulations.
- The objective is to identify those sections that need updating to reflect the changes to the GB gas landscape and to make the case for a formal review of the regulation.
- Establishing a Steering Group, Legislative Workgroup and Technical Workgroup to develop the proposals into recommendations. These groups will work alongside the IGEM Gas Quality Standards Group.
- Consultation closes on Friday 27 January
- Any proposals should be supported by firm evidence and a cost benefit analysis.

## Contact Details

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- The call for evidence is on the ENA website
- For questions regarding the call for evidence/general review queries please contact the ENA
  - [GSMRreview@energynetworks.org](mailto:GSMRreview@energynetworks.org)
  - [adrian.mcconnell@energynetworks.org](mailto:adrian.mcconnell@energynetworks.org)
- For queries relating to the IGEM workgroup or the Gas Quality review please contact Ian McCluskey
  - [ian.mccluskey@igem.org.uk](mailto:ian.mccluskey@igem.org.uk)
- My contact details
  - [Robyn.jenkins@nationalgrid.com](mailto:Robyn.jenkins@nationalgrid.com)
  - 07500031235

## Modification 0607S Update



**Amendments to Gas Quality NTS spec at the St Fergus NSMP System Entry Point**

**January Ops Forum 2017**

## Modification 0607S

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- The Modification proposes to allow an increase in the carbon dioxide limit at the NSMP system entry point at St Fergus from 4% to 5.5%
- The first Workgroup meeting was held on 5<sup>th</sup> January 2017
  - BP explained the offshore arrangements, rationale for the Modification and the circumstances under which a CO<sub>2</sub> limit greater than 4% may be required
  - BP presented analysis of the potential commingling effects with other supplies at St Fergus
- National Grid NTS is to provide historical flow and CO<sub>2</sub> data at St Fergus for the Workgroup
- BP's presentation and minutes of the meeting can be found at <http://www.gasgovernance.co.uk/0607/050117>

# Break



Remember to use  
SLIDO - Your feedback  
is really important to  
us!

slido

# Gas SO Incentive Scheme Overview



## Agenda:

- Summary of all of the gas SO incentives
- Questions
- Any specific areas of interest for focus in future Ops Forums?

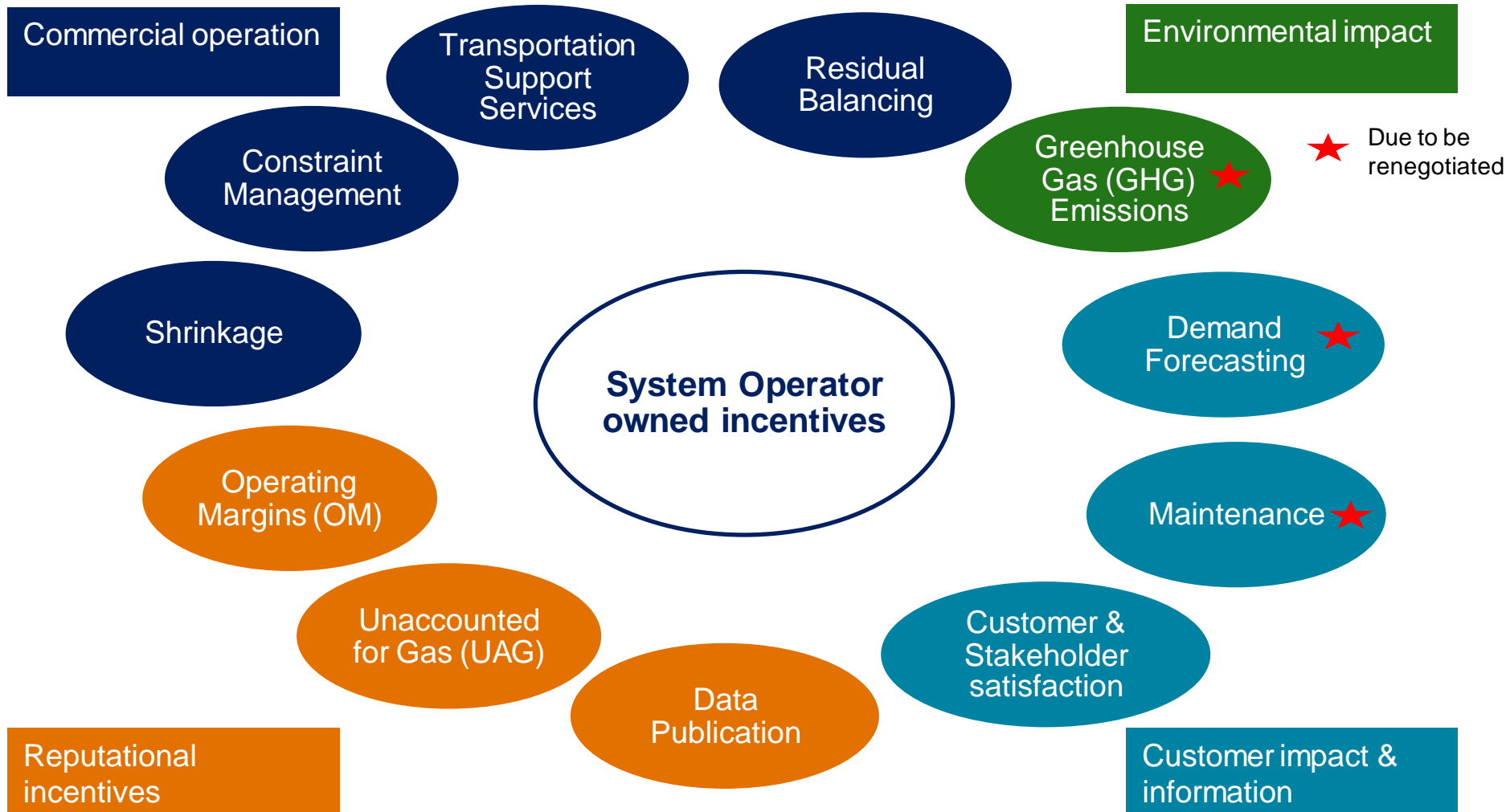
**Operational Forum – January 2017**  
**Sally Thatcher**

# Why do we have Incentives?

- The incentive arrangements are part of the RIIO-T1 framework, introduced in 2013, which sets out National Grid's funding arrangements.
  - RIIO stands for *Revenue = Incentives + Innovation + Outputs*
- The RIIO framework is designed to address National Grid's monopoly position by driving behaviour that is in the consumers best interests.
- To mimic a commercial environment, we're incentivised to minimise overall cost of system operation, consider environmental impacts and support the efficient operation of the wholesale gas market.
- The incentive targets get more challenging each year, to drive year on year improvements.
- More information on our incentives is available [here](http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=42442)  
(<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=42442>)



# Gas SO Owned Incentives



# Shrinkage

## Incentivises minimising the cost of gas and electricity used to operate the system or lost during transportation

- Shrinkage is made up of 3 factors:

**Compressor fuel usage** – energy used to run the gas or electricity compressors.

**Calorific value shrinkage** – energy that cannot be billed due to provisions of the Gas Regulations.

**Unaccounted for gas** – quantity of gas that remains after all inputs and outputs have been measured.

- Ofgem set an 'Energy Procurement Target'. National Grid receives payment equivalent to +/- 45% of under/over spend against the target, up to a cap/collar of £7m.
- National Grid can impact the costs through its trading strategy, and other activity such as not using electrical compressors during TRIAD periods.

### Energy Procurement Target

This is derived from a volume forecast and variance (difference between forecast and actual volume outturn). This is multiplied by gas and electricity reference prices for forwards procurement (of the forecast volume) and prompt procurement (of the variance volume) to derive a cost target.

# Residual Balancing

Incentivises the daily balancing of supply and demand whilst minimising the impact of any action on market prices

- Two elements:
  - **Line pack measure:** incentivises National Grid to ensure minimal change to line pack so that system imbalances are resolved on the correct day.
  - **Price Performance measure:** incentivises National Grid to balance the NTS with minimal impact on the market prices.
- National Grid is rewarded/ penalised based on its performance against these measures. We can make up to £2m annually; or lose up to £3.5m.

#### Line Pack Measure:

Target of less than 2.8mcm change in line pack between the start and end of the gas day.

#### Price Performance Measure:

The difference between the highest/ lowest National grid trades, divided by SAP.

The PPM target price is a spread of +/-1.5% of the System Average Price (SAP).

# Entry and Exit Constraint Management

## Incentivises minimising overall cost of constraint management actions through efficient system operation and optimisation strategies

- Current regulatory framework obliges National Grid to release obligated capacity levels in excess of peak demand at entry/exit points using supply demand patterns to make an assessment.
- If shipper flow requirements cannot be accommodated within booked capacity National Grid undertakes constraint management actions.
- Incentive performance is the difference between the net constraint management costs over a year and a target value for such costs.
- High risk v reward scheme – can earn up to £20m; but can also lose up to £60m.

Constraint management actions can include capacity buybacks, locational energy trades and turn up/down contracts.

The net constraint management cost is constraint management costs less revenue sales of certain capacity products.

# Transportation Support Services

## Incentivises the minimisation of the overall cost of additional 'Transportation Support Services' used by National Grid

- Transport support services are additional tools available to National Grid to support provision of a network to meet 1-in-20 peak day demand
- This is a cost minimization incentive driven by the difference between Transportation Support Service costs and the set target
- National Grid receives payment of 44.36% of the underspend against the target, or penalized 44.36% of the overspend against the target
- We can earn up to £3.9m; but we can also face unlimited costs.

Two tools that have been historically used by National Grid – long term contracts and constrained LNG

# Greenhouse Gas Emissions

## Ensure that environmental impacts are embedded within the operational decision making of Gas Compression

- In operating and maintaining the NTS, it is necessary for National Grid to release quantities of methane from compressors.
- Incentivises us to minimise the amount released, Ofgem set a maximum emissions target.
- Downside only incentive: we are penalised £1,417 for each additional tonne above the target.
- National Grid have to make a trade off between depressurising compressors units (which releases gas through venting) or keeping them on standby (which incurs costs and some emissions through leakage).

Our 2016/17 target is to emit less than 2,897 tonnes of methane.

# Maintenance

## Incentivises efficient planning and execution of network maintenance impacting customers at direct exit connections

- National Grid is required to periodically undertake maintenance of the pipeline system. If this work requires a reduction in flexibility at direct exit connections National Grid may call one or more maintenance days.
- Incentivises minimisation of impact of required maintenance for customers through two elements:
  - use of days scheme
  - change scheme
- To minimize the impact of maintenance work National Grid plans maintenance to align with periods which minimize disruption to customer operations.
- National Grid can make up to £715k; but we can lose up to £1m.

### **Use of days scheme:**

incentivises us to minimise the number of maintenance days it takes to undertake valve operations.

### **Changes scheme:**

incentivizes us to minimize our initiated changes to the published April Maintenance plan (with customer initiated changes not being included in the incentive).

# Demand Forecasting: Day ahead and D-2 to D-5

## Incentivises improvements in the accuracy of National Grid's gas demand forecasts

- National Grid publish demand forecasts to help inform decision making in the industry. Ofgem set target errors to incentivise us to do this accurately.
- There are two separate incentives:
  - Day ahead forecasts: target error of 8.5mcm.
  - D-2 to D-5 forecasts: target error of 13.7mcm averaged across those days.
- Across the two incentives, National Grid can earn up to £20m; or lose £2.5m. This reflects the challenging nature of this incentive.

Daily forecast error is the difference (mcm) between day ahead forecast throughput value and the actual value on the day of the year.

The calculation is the annual weighted D2 D3 D4 D5 errors added together to give the final average error across all days.



# Reputational Incentives

National Grid has to report to Ofgem on particular aspects of its operations. However, there is no financial incentive linked to these. These are 'reputational incentives'.

- **Operating Margins:** National Grid has to buy 'operating margin' to ensure it can maintain system pressure at time of stress. We have to report to Ofgem to ensure we procure this in an economic and efficient manner.
- **Unaccounted for Gas:** National Grid is expected to undertake activity to help reduce sources of unaccounted for gas (e.g. metering accuracy).
- **Data provision:** National Grid has to report on the information it provides to help the industry.

Includes Winter Outlook and MIPI availability

# Change Programme



Operational Forum – January 2017  
Karen Thompson

# NG Gas Portfolio Plan

Project Status	Project Name	Contact	Change Driver	2017											
				Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
In Flight	GB Remit	John McNamara	Regulatory												
In Flight	MIPI Web Tier Replacement	John McNamara	Asset Health												
In Flight	EU Gas Programme - EU Ph4a	Chris Gumbley	Regulatory												

**Key**

- Planned system delivery timescales
- Estimated system delivery timescales
- Implementation Milestone

# GB Remit



Operational Forum – January 2017  
Karen Thompson

# GB Remit

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## Project Description:

- National Grid currently offers a non-obligated service to the industry via which they can choose to meet their obligations under REMIT to publish Urgent Market Messages (UMMs)
- New REMIT obligations requiring service providers to provide web feeds of the data to ACER. National Grid has taken the decision to continue this service to provide the industry a conduit to publish UMMs.

Change Driver: Regulatory - REMIT

Implementation Date: 1<sup>st</sup> January 2017.

## Project Update:

- System is now live and has had around 25 UMM published to date
- User documentation is available from the contact details below
- Requests for user accounts and password resets can also be made from the contact details below

## Feedback:

- Currently there is a requirement to enter UMM Information directly into the GB REMIT site proforma
- There has been a request, one user only, to be able to load via XML format from company systems into GB REMIT. National Grid is looking for intelligence if this is an industry interest before deciding action

## Contact Details:

- [box.remit@nationalgrid.com](mailto:box.remit@nationalgrid.com) or 0192 6656 474

# MIPI Web Tier Replacement



Operational Forum – January 2017  
John McNamara

# MIPI Web Tier Replacement

## Project Description:

- The project has replaced the MIPI Web Tier with a flexible and scalable cloud-based service
- Primary goal was to deliver improved overall reliability of service with stable performance

## Change Driver: Asset Replacement

Implementation Date: New site went live on Saturday 25<sup>th</sup> November 2016

## Final update on project:

- Site has now been live 8 weeks and there have been no reported performance issues
- Site has been improved for performance and scalability, but we have put in measure to protect the system
  - 3,600 data items is maximum request per pull on the system ,
  - So if you asked for “one data item” you could request for 3,600 days or two data items for 1,800 days etc.

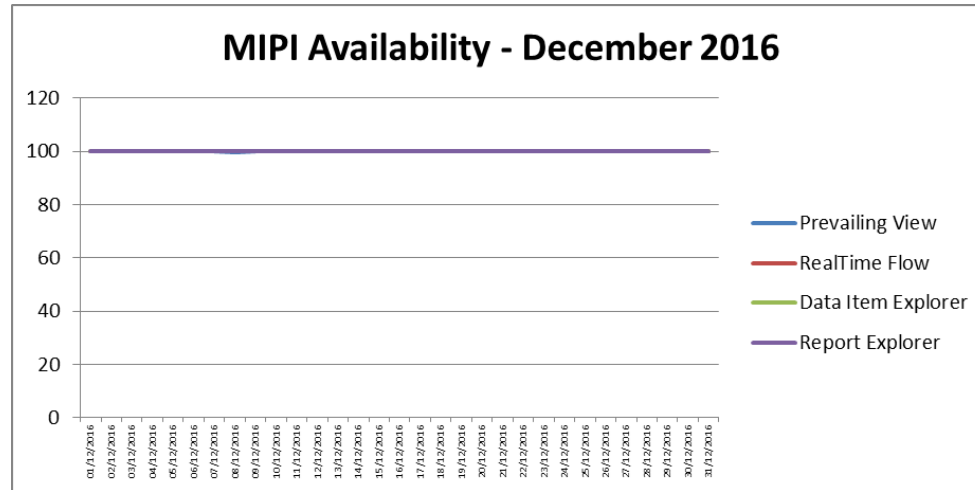
## Ongoing Issue

- There has been some “out of the ordinary” behaviours on the system by one user
  - This one user is around 75% of the hits on a daily average
  - National Grid is taking steps to contact and discuss with the user, to protect system for the use by others
  - Going forward we are keen to engage further with industry to understand how MIPI/GMRS is utilised, e.g. which report is of value/low value.

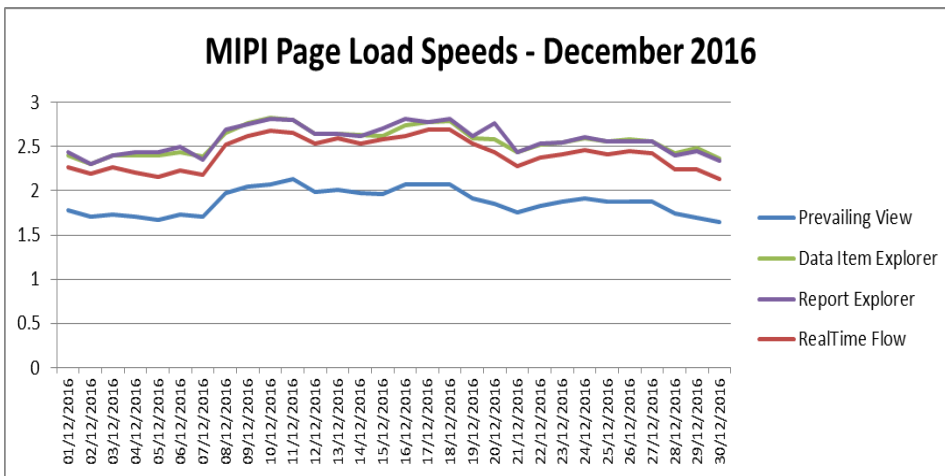
## Contact Details:

- Help Desk for Technical Issues 0800 9177 111
- Operational Liaison Team for data issues [box.operationalliason@nationalgrid.com](mailto:box.operationalliason@nationalgrid.com) or 0192 6656 474

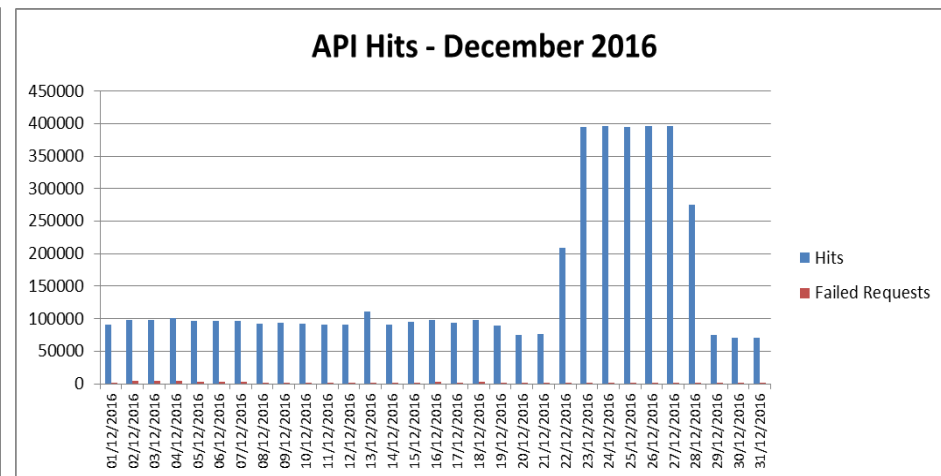
# MIPI Performance Statistics



100% availability across all pages in December.



Average page load speed across the 4 pages for December was **2.35 seconds**



Successful API hits increased over the Christmas period and MIPI experienced record hits to the site.



## EU Gas Programme – EU Phase 4a



Operational Forum – January 2017  
Mike Wassell

# EU Gas Programme – EU Phase 4a

## Project Description

- The programme is currently analysing the obligations and impacts introduced by:
  - The CAM (Capacity Allocation Mechanism) EU Network Code amendments
  - The TAR (Tariff) EU Network Code
  - The level of system change required to Gemini and Prisma is currently being analysed
  - Modifications under consultation: 597, 598 (available on Joint Office website)

Change Driver: EU legislation

Implementation Date: Q2/3 2017 plus further changes anticipated in 2018 and 2019

## Operational Impacts to Industry:

- The programme is currently analysing the impact of EU obligations on the industry
- Changes could include Capacity Auctions, Capacity Tariffs and Data Transparency provision

Industry Activities Envisaged: tbc

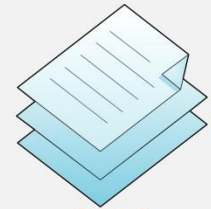
## Engagement Approach for Operational Elements:

- Gas Ops Forum (January 2017) and Transmission Workgroup
- Email communications and website updates

## Contact Details

- Please email: [Box.GasOps.BusinessC@nationalgrid.com](mailto:Box.GasOps.BusinessC@nationalgrid.com)
- NG EU Website: [www.nationalgrid.com/EUGasChange](http://www.nationalgrid.com/EUGasChange)
- Joint Office Website: [www.gasgovernance.co.uk](http://www.gasgovernance.co.uk)

## EU Regulations & Network Codes



## CAM, Incremental, TAR Codes



## UNC Modifications

**Modification 0597:**  
Rules for the release of incremental capacity at Interconnection Points

**Purpose of Modification:**  
To provide a process for acquiring incremental capacity at Interconnection Points that is compliant with the amended EU CAM Code.

The Proposer recommends that this modification should be assessed by a Workgroup.  
This modification will be presented by the Proposer to the Panel on 20 October 2016. The Panel will consider the Proposer's recommendation and determine the appropriate route.

**High Impact:**  
National Grid Gas Transmission; Users.

**Medium Impact:**

**Low Impact:**

**Modification 0598:**  
Amendments to Capacity Allocations Mechanisms to comply with EU Capacity Regulations

**Purpose of Modification:**  
This modification seeks to facilitate compliance with the amended CAM Code at Interconnection Points (IPs) by introducing an amended auction calendar and changes to the treatment of capacity at Storage End points.

The Proposer recommends that this modification should be assessed by a Workgroup.  
This modification will be presented by the Proposer to the Panel on 20 October 2016. The Panel will consider the Proposer's recommendation and determine the appropriate route.

**High Impact:**  
Shippers and National Grid NTS

**Medium Impact:**  
N/A

**Low Impact:**  
N/A

## NG Business Rules

NG Business Rules  
CAM Incremental

NG Business Rules  
CAM Non Incremental

NG Business Rules  
Transparency

## Project Scope

### CAM & Transparency Changes:

- **CAM Incremental (PARCA):**
  - Process change
- **CAM Amendments Non-Incremental:**
  - Annual Yearly Capacity Auctions
  - Annual Quarterly Capacity Auctions
  - Ensuring quality of MIPI Reports
- **Operational Improvements:**
  - Trading at Bacton
    - legacy Bacton code inactive
  - New Utilisation Monitoring Report
  - New Capacity versus Energy Allocation Reports
  - Improved Quantity Holder Report
  - Improved Reserve versus Clearing Price Report
- **TAR Transparency**
  - Publication of reserve prices on ENTSOG TP for kWh/day for each location
  - Publication of charge on ENTSOG TP for what it costs to flow 1 GWh/day/year for each IP

## Implementation

April 2017

Aug 2017

Aug 2017

Aug 2017



# ICE ENDEX OCM UPDATE

NOVEMBER 2016



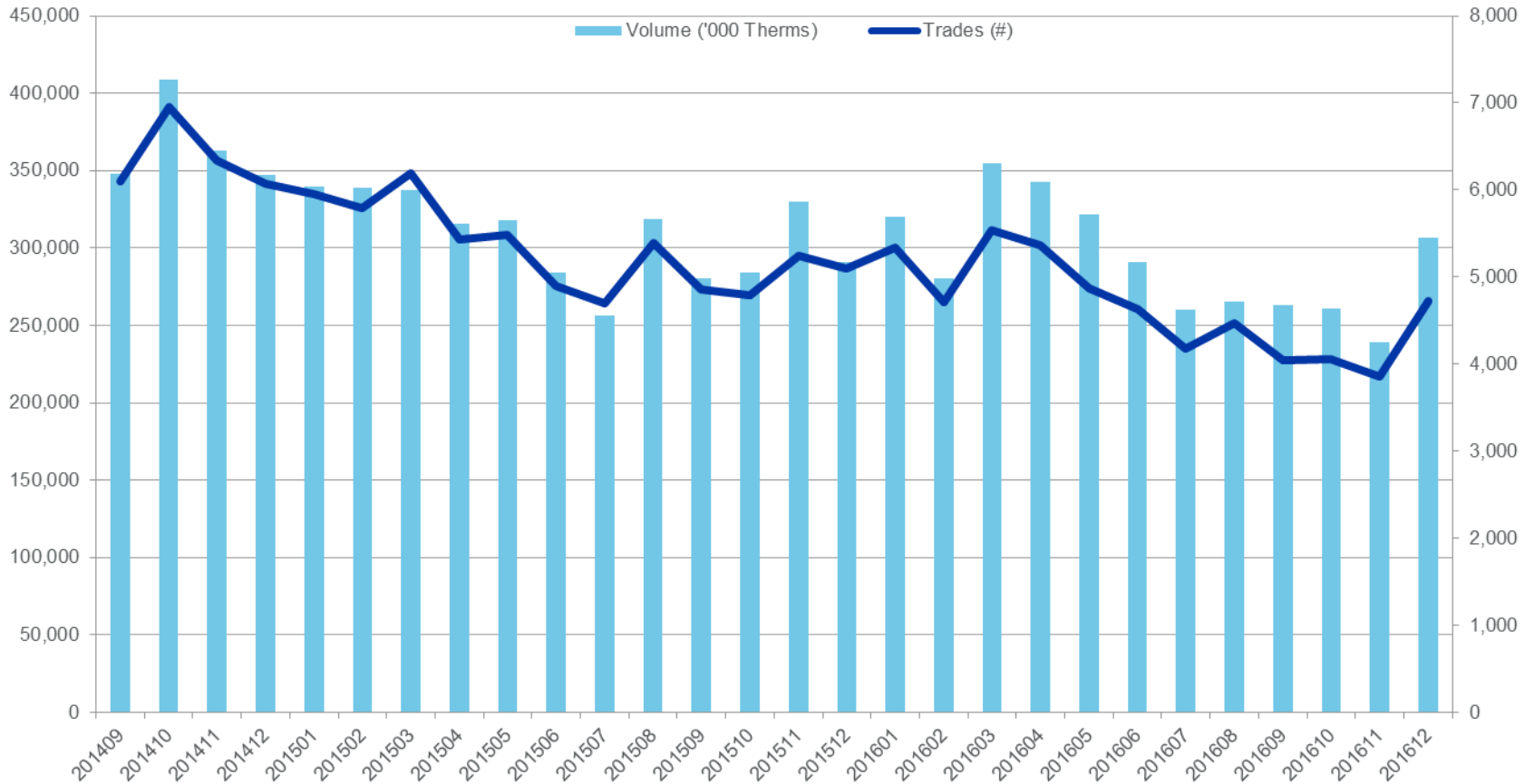
# CONTENT

- OCM Market Update
- AOB

# VOLUME AND TRADES PER MONTH

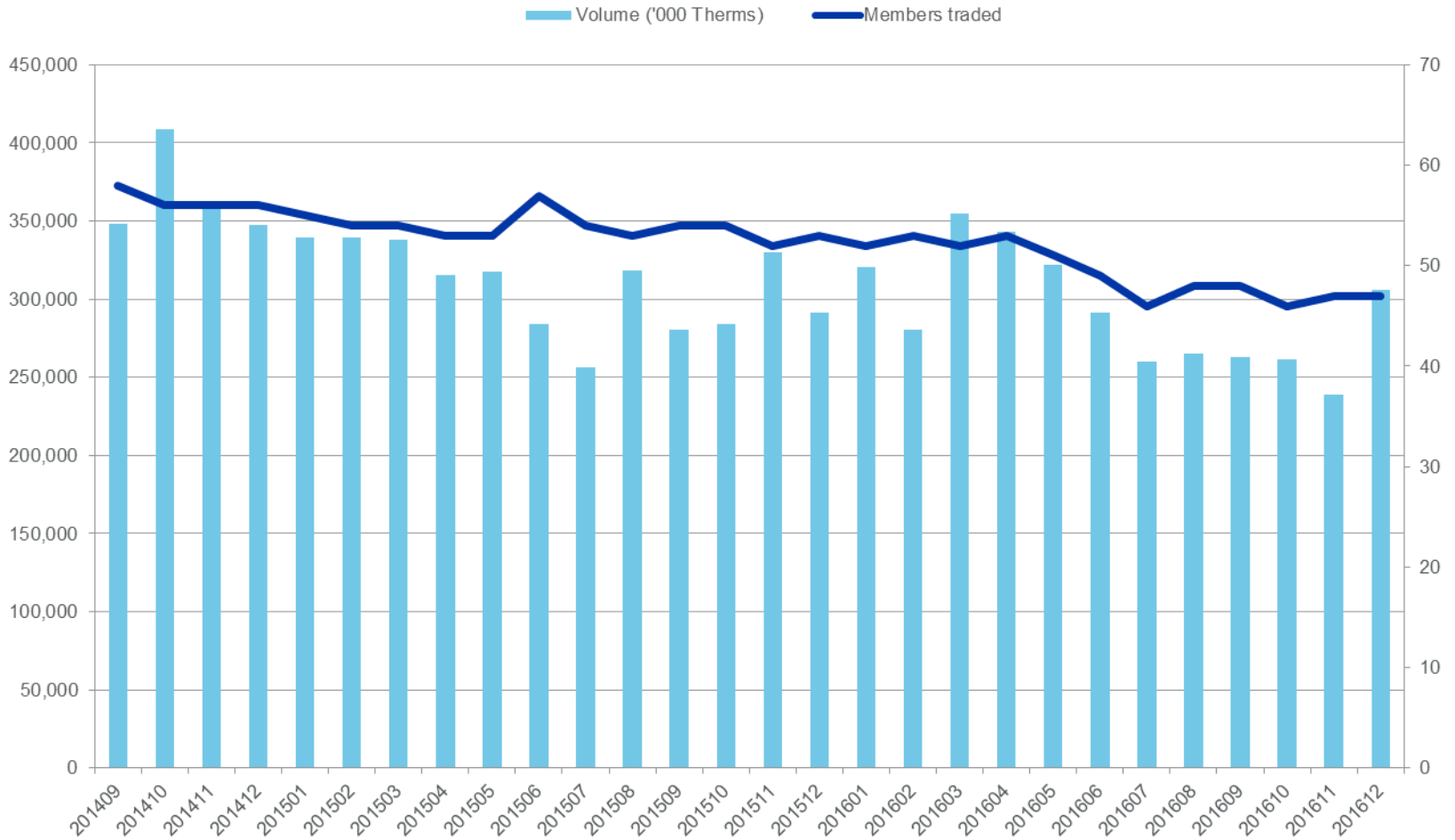
## LAST 24 MONTHS

- +28% Dec'16 Volume increase V Nov'16
- Dec'16 +5% Volume V Dec'15 = +15,092,000 Therms
- Dec'16 +862 Deals V Nov'16



# VOLUME AND ACTIVE MEMBERS

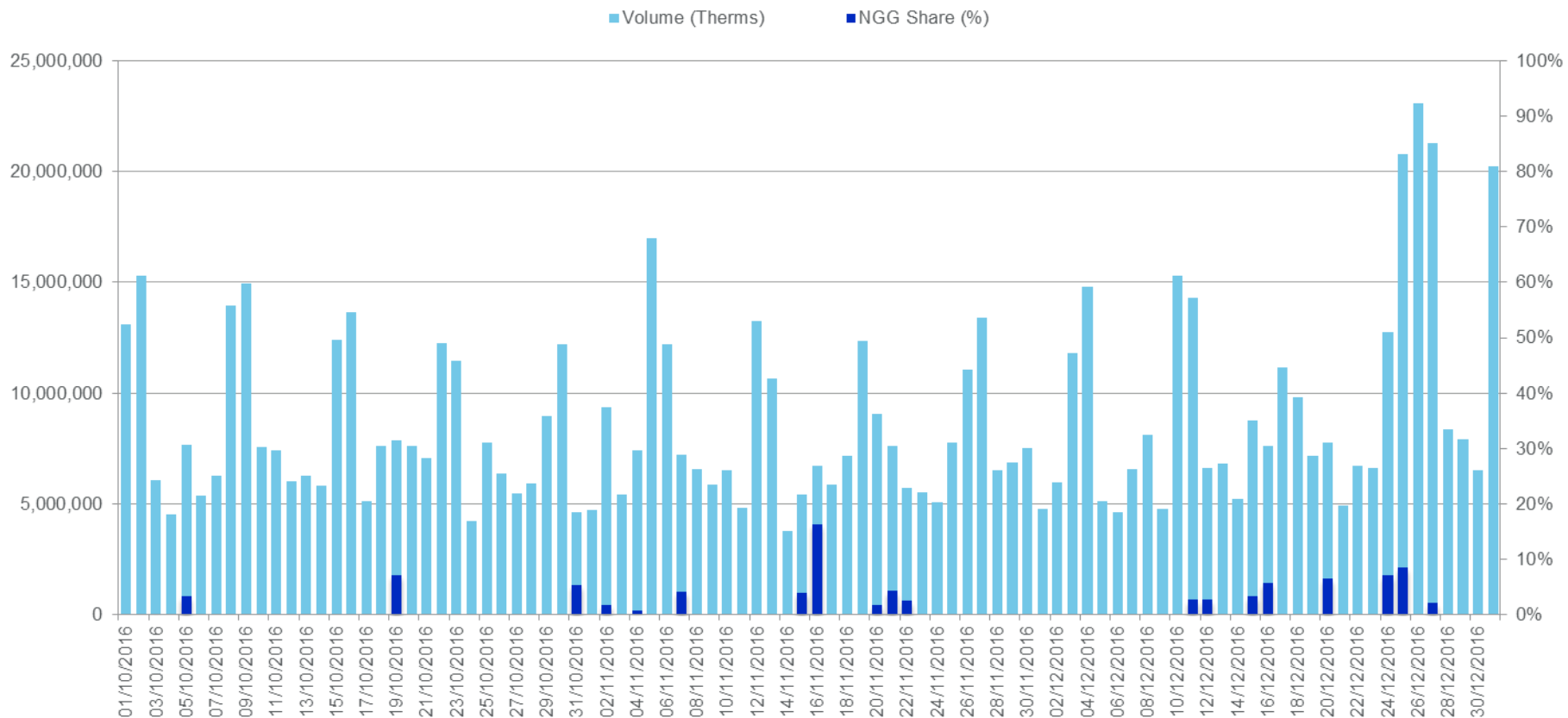
LAST 24 MONTHS



# VOLUME AND NGG SHARE PER DAY

LAST 3 MONTHS

	HIGHEST	LOWEST	AVERAGE
Volume	23,087,000 (26 Dec)	3,785,000 (14 Nov)	8,057,520
NGG Share	16.3% (16 Nov)		1%

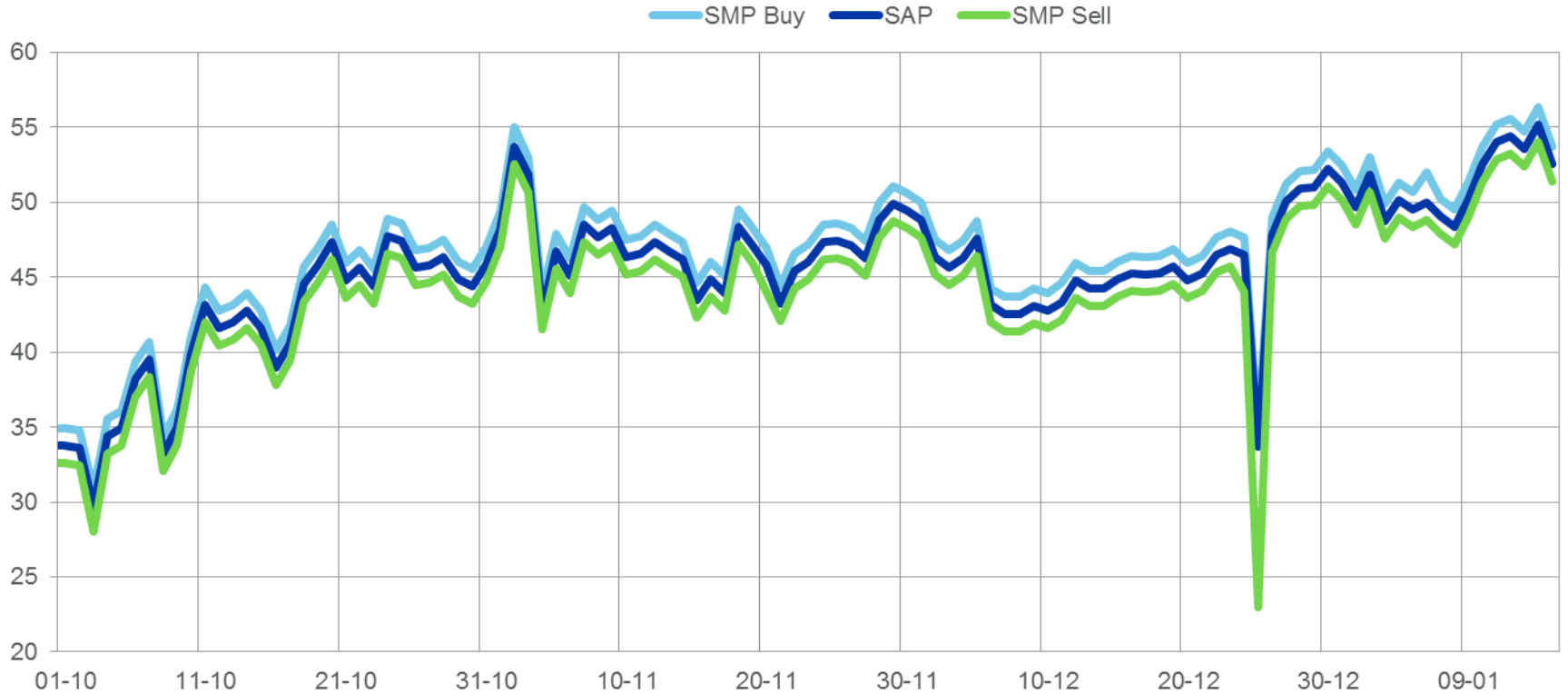




# SAP/SMP PRICES

LAST 3 MONTHS

	SMP BUY	SAP	SMP SELL
Highest	56.35 p/th (14 Jan)	55.18 p/th (14 Jan)	54.02 p/th (14 Jan)
Lowest	30.79 p/th (03 Oct)	29.63p/th (03 Oct)	23.00 p/th (25 Dec)



# AOB

- AON Order types now live
- Researching extending OCM product range to include further dated products e.g. WKND, BOW, WKDNW
- Free WebICE user sessions – Onsite trader screen review / hints & tips

# THANK YOU

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# AOB



Operational Forum – January 2017  
Karen Thompson

# Gas Transmission - Customer Satisfaction

## Survey coming soon....

Finding a better way

### WHEN?

**Monday  
13<sup>th</sup> February 2017**

- Interviews will start from Monday 13<sup>th</sup> February.
- You will receive an reminder email a week prior to the survey.

### WHO?

#### Explain

- On behalf of National Grid – Gas Transmission a company called 'Explain' will be in contact to receive your feedback on the Operational Forum.

**£10**  
donated to  
charity (for  
each completed  
survey)

**10 Mins**  
of your time for  
feedback



### What we need from you.....

Please provide your most up to date contact information (predominantly telephone numbers as well as email addresses).

### WHY?

#### Your Opinion Matters

- Your participation and comments are really valuable to us.
- We will use your feedback to put in place action plans across the business and improve the way we work.

### How?

#### Telephone Survey

- Surveys are predominantly carried out over the phone.
- Online surveys will also be available.
- It will take approximately 10 minutes to complete.

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**xserve**



respect > commitment > teamwork

# **Xoserve Funding, Governance and Ownership**

Overview for National Grid Gas Ops Forum January 2017

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# Context

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- Xoserve appointed as Transporter Agency since 2005
  - Provide common interface between Networks and Shippers
  - Operate central services and systems
- Ofgem review of Transporter Agency model completed 2013
  - ‘Central Data Services Provider’ (CDSP) is to be established
  - Scope of Agency Services kept whole – rebranded as ‘Central Data Services’
  - CDSP funding and governance to be not for profit ‘co-operative model’
- Industry FGO Programme established 2014
  - KPMG appointed by Transporters as FGO Programme Manager
  - Phased implementation approach agreed with Ofgem in mid 2015

# Xoserve Funding, Governance and Ownership Target Model

## REGULATORY MATTERS

GT Funding – Allowed Revenues

GT Licence - CDSP Establishment and Operation

### FUNDING – BUSINESS PLAN & BUDGET

Xoserve Exec

- Consults customers on Business Plan & Budget
- Submits proposal to Xoserve Board
- Sets Charging Methodology

### GOVERNANCE - SERVICES



Contract Management Group

- Review and feedback
  - Business Plan
  - Budget
  - Charging Methodology
- Manages Service Contract(s)
- Manages Service Performance

Change Management Group

- Manages Change Budget
- Manages Service Change

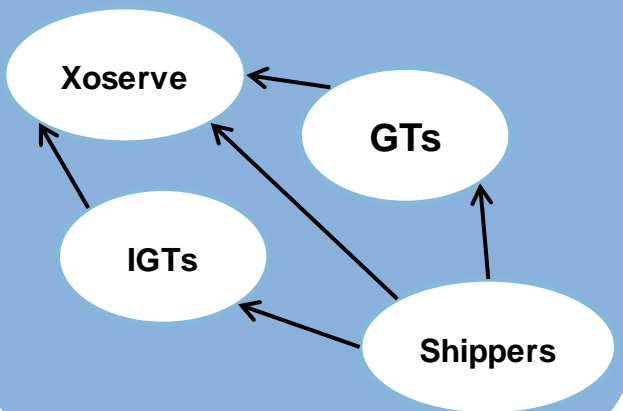
### GOVERNANCE - COMPANY

Xoserve Board

Directors nominated by GTs, iGTs, Shippers

- Approves Business Plan & Budget
- Usual fiduciary duties in 'co-operative' context

### FUNDING – CDS REVENUE



### OWNERSHIP

- Networks continue to hold shares in Xoserve
- No profit distributed

Industry governance arrangements do not change



# Phased Implementation

---

## April 2016

- Shippers and iGTs attend Xoserve / GT Contract and Change meetings
- Xoserve engages with Shipper, GT and iGT representatives on draft CDSP 2017 Business Plan
- 4 x Shipper nominated Directors join Xoserve Board

## April 2017

- New GT Licence obligations regarding CDSP establishment and operation
- Regulatory review of GT funding model
- UNC modified to introduce CDSP role and reposition some responsibilities
- New 'Data Services Contract' between Xoserve, Shippers, GTs and iGTs
- Amended Xoserve Board composition - Independent Chairman; 8 Directors nominated by Customers (4 x Shippers; 4 x Networks)

# Further information

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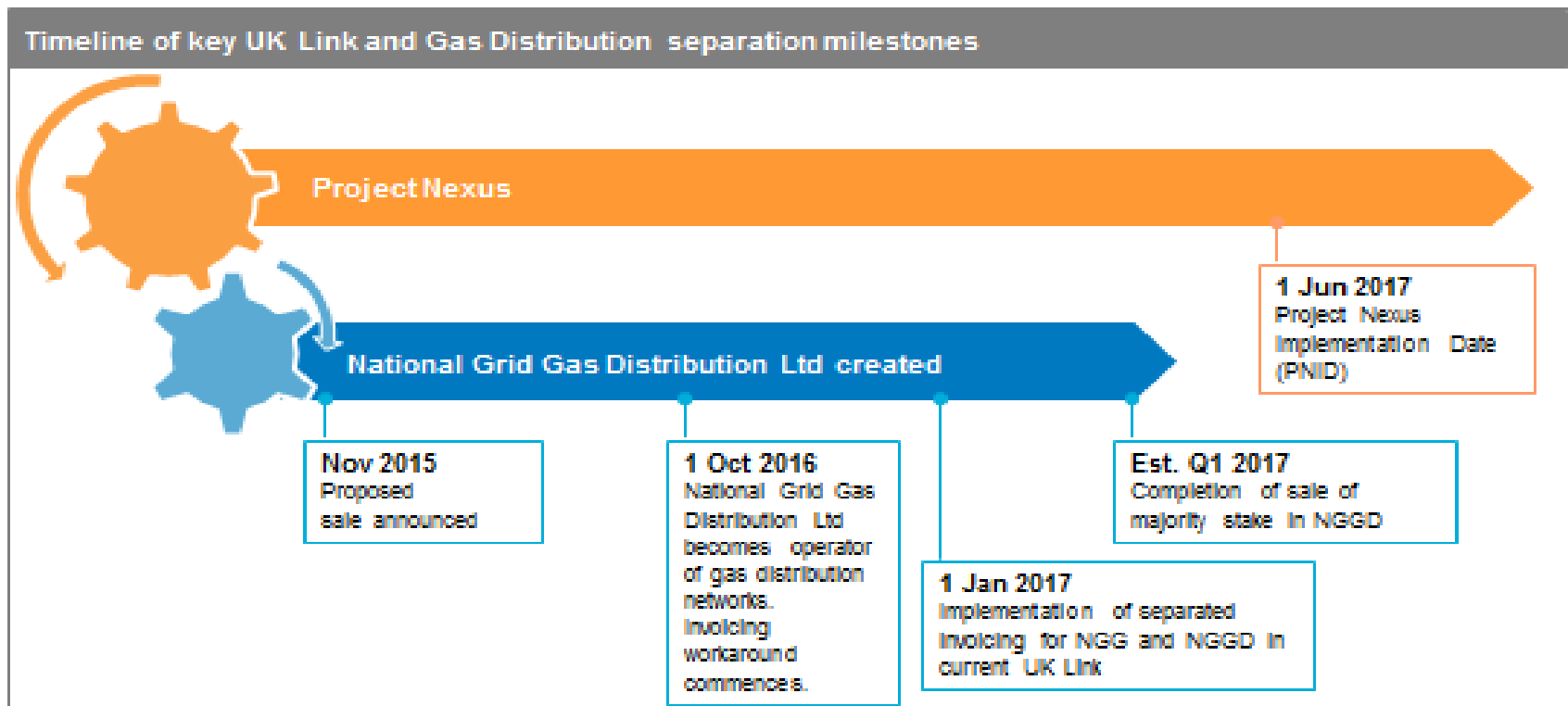
- Mod0565/A/B describes the UNC changes for the Central Service Provider: General framework and obligations
- Further details on this Mod and the associated DSC (Data Services Contract) schedules and framework can be found on the Joint Office website ([GasGovernance.co.uk/0565](http://GasGovernance.co.uk/0565))

# Post-Nexus transitional invoicing (Mod0606): Shipper briefing



## Background

- New UK Link was specified prior to the announcement of the National Grid Gas Distribution sale in November 2015.
- Since 1<sup>st</sup> October 2016, National Grid have implemented the currently-active invoicing workaround (under mod 0592s), which lapses on 1<sup>st</sup> January 2017, leading to fully UNC-compliant invoicing.



## New UK Link: Invoicing limitations

<b>Context</b>	<ul style="list-style-type: none"><li>■ A consequence of being a separate commercial enterprise is that NGGD is required to invoice for its' own services.</li><li>■ New UK Link was configured prior to the announcement of the National Grid Gas Distribution sale in November 2015, and is now subject to a 'change freeze'.</li></ul>
<b>Conclusions from New UK Link analysis</b>	<ul style="list-style-type: none"><li>■ Following analysis of New UK Link, Xoserve have advised that they are unable to develop and implement UNC-compliant transportation invoicing arrangements at PNID, without presenting unacceptable risk to the Project Nexus programme.</li><li>■ We have been advised that the Xoserve Board recently agreed that the immediate priority for Xoserve is a successful go-live of Project Nexus on 1<sup>st</sup> June 2017.</li><li>■ Incorporating the separated invoicing changes into New UK Link by PNID is judged to increase risk to this objective.</li><li>■ National Grid respects this decision, and whilst being expectant that the requirements would be in place at PNID, accepts that this will be delivered in a subsequent release of the system.</li></ul>
<b>What next?</b>	<ul style="list-style-type: none"><li>■ Xoserve have identified a transitional invoicing arrangement for a subset of invoices, which will last from PNID until separate invoicing can be fully systemised.</li><li>■ The transitional arrangement is the subject of this briefing and National Grid wishes to engage with the industry to test its' viability.</li></ul>

# Post-Nexus invoicing approaches previously considered

1

## Fully systemised separated invoicing:

- Amend Nexus code to facilitate separated invoicing from PNID (1<sup>st</sup> June 2017) onwards, on an enduring basis.
- Provides continuity of fully separated invoicing via current UKL system which commences January 2017.

## Rationale for discounting this approach:

- Presents unacceptable risk of slippage to the Project Nexus programme.

2

## Revert to single-company invoicing:

- Issue all invoices from New UK Link under TGT code.
- Facilitated via a UNC modification similar to mod 0592s.

## Rationale for discounting this approach:

- Single-company invoicing under Mod 0592s was workable whilst NGGD is part of the National Grid Group. This will not be the case after completion of the sale of the majority stake.

3

## Transmission Re-billing:

- Impacts 6 invoices per month (per initial assessment).
- Shippers receive NGGD credit notes against NGGD invoices which contain a Transmission charge. Then receive a NGG re-bill Ancillary invoice for the Transmission charge, all on same day.
- Facilitated via a new UNC modification.

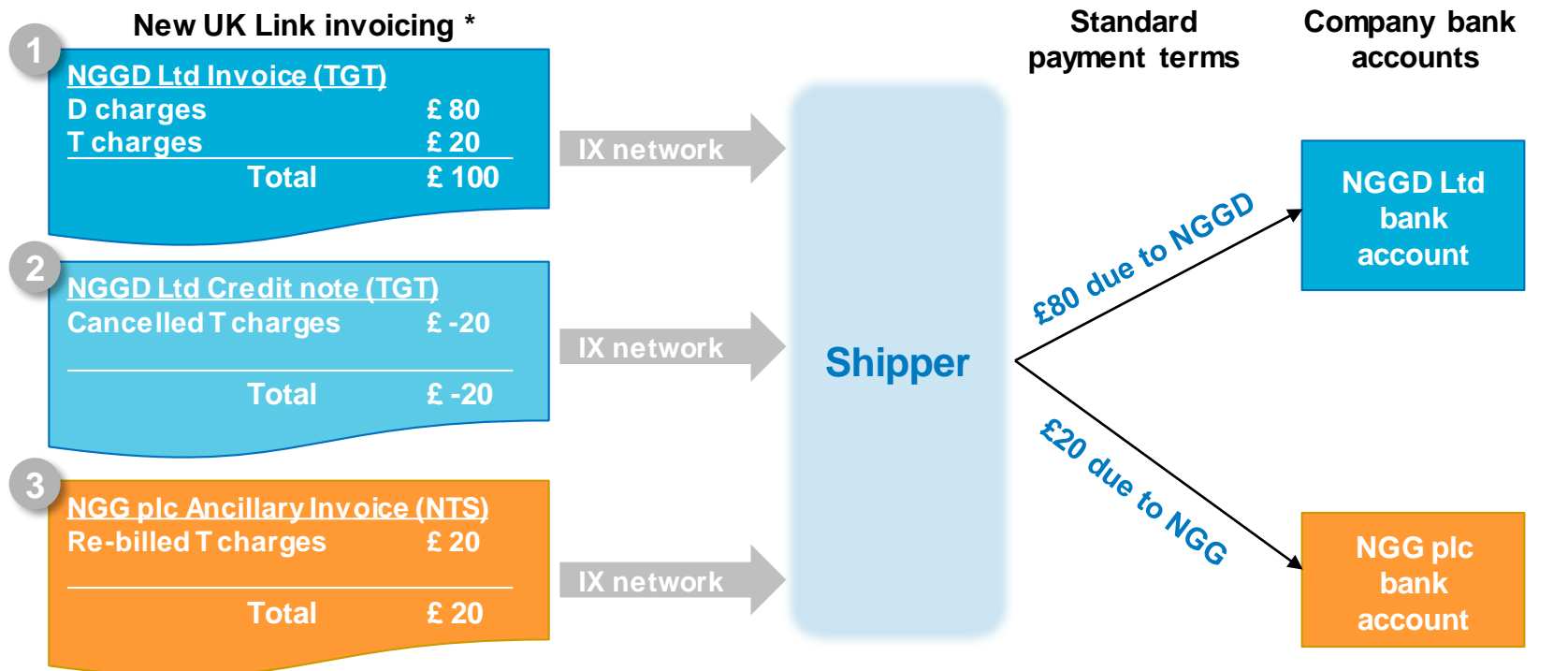
## For discussion: best available option:

- Avoids impacting Project Nexus and enables the industry to continue receiving charges after PNID.
- The principal invoices impacted are Commodity, Amendments and Ancillary (formerly 'Reconciliation' and 'Ad Hoc' respectively)

# What is the Transmission Re-building approach?

- 1 A proportion of Distribution and Transmission transportation charges are issued to Shippers on an NGGD invoice (against short code TGT)
- 2 The T charges are cancelled by an NGGD credit note. The Shipper nets off the credit note against the invoice and pays the net Distribution charge to NGGD when it falls due
- 3 An NGG invoice (against short code NTS) is issued which the Shipper pays to NGG when it falls due

## Illustrative example – Shipper perspective:



\* All three documents issued by Xoserve on same working day.

# What is impacted/ not impacted by Transmission Re-billing

## NGG/NGGD invoices NOT impacted by transitional invoicing arrangements

**NOT impacted if meet the following criteria:**

- ✓ All invoices generated from Gemini system (only NTS), OR
- ✓ Generated from New UK Link and DOES NOT contain a Transmission charge type

**List of invoice types<sup>1</sup>:**

1. Gemini invoices (NTS Entry Commodity, NTS Capacity, Optional Tariff, Energy Balancing)
2. LDZ Capacity (Exit/CSEPS/Unique Sites)<sup>2</sup>
3. DN Interrupt
4. Failure to supply gas
5. Incentive sharing
6. Interest
7. Liability
8. Primes & Subs
9. Transporter Site Visit
10. User Pays

## NGG/NGGD invoices impacted by transitional invoicing arrangements

**ARE impacted if meet the following criteria:**

- ✓ Generated from New UK Link,  
AND
- ✓ Invoice contains a Transmission charge type

**List of invoice types<sup>1</sup>:**

1. Commodity (LDZ/NTS Exit/CSEPS/Unique Sites)
2. Amendments (Transportation/Energy)
3. Ancillary
4. Metering
5. Compression
6. Own Use Gas

<sup>1</sup> Source: Xoserve. Invoice impacts based on initial assessment and subject to change following further analysis. Invoice types based on New UK Link draft comprehensive invoice and charge type master list

<sup>2</sup> A small number of Shippers have shared supply points and their LDZ Capacity invoice will be partially credited



# What does this mean for you?

- **Preserves the Project Nexus implementation plan:** Transmission Re-billing does not impact the delivery of Project Nexus and does not require further system testing with Shippers
- **Same-day processing:** Xoserve will issue the original combined TGT invoice, associated credit note and re-billed NTS invoice to Shippers on the same day
- **Credit notes and re-invoice:** approximately 12 additional documents per month will be sent to Shippers (depending on which invoices you receive)
- **Reconciliation of credit notes to invoices:** Each TGT credit note will reference the TGT invoice to which it relates.
- **Invoice validation:** expected to be able to be performed by Shippers exactly as is the case today.
- **Supporting information:** Xoserve will provide this to Shippers for all transportation charges which are invoiced, as is the case today. However with one difference under Transmission Re-billing:

## LDZ supporting information:

- **No change:** Shippers should refer to the TGT supporting information.

## NTS ancillary invoice supporting information:

- **Provided on the TGT supporting information file – this will be identifiable as NTS-type charges.**
- **New UK Link is unable to provide the NTS supporting information along with the NTS ancillary invoice.**

## Next Steps

---

- The modification was discussed in draft at the November Distribution Work Group on 24<sup>th</sup> November 2016
- We will propose a UNC modification at the December Mod Panel
- The modification proposal will be discussed at;  
Distribution Work Group – 22<sup>nd</sup> December 2016  
Transmission Work Group – 5<sup>th</sup> January 2017
- We are producing a FAQ document to sit alongside this modification proposal and will make this available via the Joint Office website
- We will listen to your feedback and respond to any clarifying questions
- Any comments or questions can be sent to:  
[box.GDXhaveyoursay@nationalgrid.com](mailto:box.GDXhaveyoursay@nationalgrid.com)

# Gas Future Operability Planning & Gas Ten Year Statement 2016

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# Gas Future Operability Planning



# Gas Future Operability Planning

- ◆ Key themes
  - ◆ Future energy landscape
  - ◆ Gas and electricity interactions



# Document download

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All material relating to GFOP 2016 is made available at:  
[www.nationalgrid.com/GFOP](http://www.nationalgrid.com/GFOP)

Contact us via email: [.box.GFOP@nationalgrid.com](mailto:.box.GFOP@nationalgrid.com)



# Gas Ten Year Statement

- ◆ Key themes
  - ◆ Customer requirements
  - ◆ Legislative changes
  - ◆ Asset health



# Document download

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All material relating to GTYS 2016 is made available at:  
[www.nationalgrid.com/GTYS](http://www.nationalgrid.com/GTYS)

Contact us via email:  
[.Box.SystemOperator.GTYS@nationalgrid.com](mailto:.Box.SystemOperator.GTYS@nationalgrid.com)





# Maintenance Plans 2017

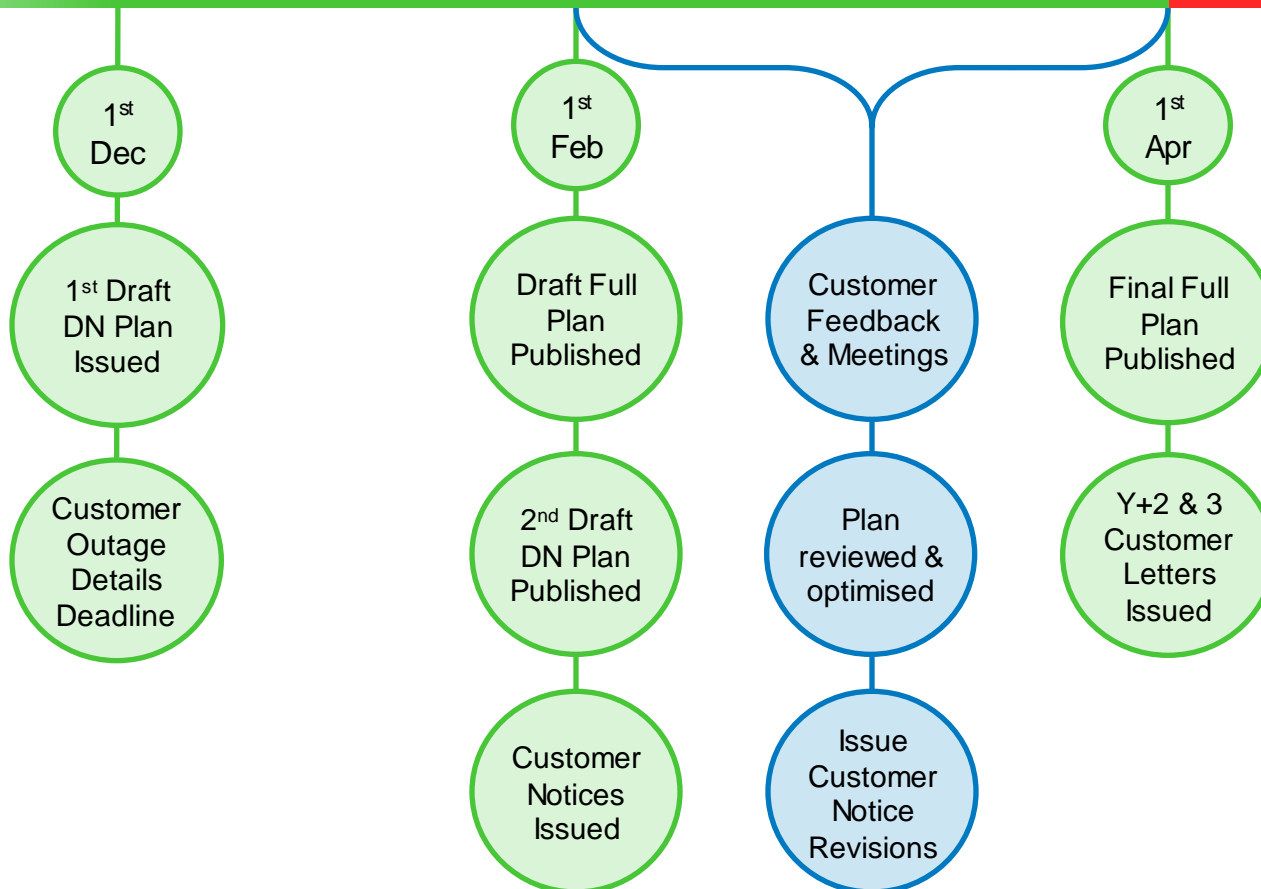


Operational Forum – January 2017  
Karen Thompson

# NTS Summer Maintenance Programme

System Access Plan Optimisation  
& Customer Liaison

Summer Maintenance  
Period  
(1<sup>st</sup> Apr – 30<sup>th</sup> Oct)



## Team Contact

---

- If there is ever any impact to your operations by planned maintenance we will contact you immediately
- The Draft plan will be published by 1<sup>st</sup> February 2017 on National Grid's website, at the following location:

<http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/maintenance/>

- Please use the contact details below to provide outage information or for anything else regarding our planning and notifications, additionally we will be present at the next shipper Ops forum:

Email: [ntsaccessplanning@nationalgrid.com](mailto:ntsaccessplanning@nationalgrid.com)

Telephone: 01926 655958

# Next Forum Agenda Items

Finding a better way

## Maintenance 2017



## Project Nexus



## Constraint Mgmt



## Incentives



## Next Operation Forum....

The next Operational Forum is on **Thursday 23<sup>rd</sup> February 2017**, please contact the Operational Liaison Team for any queries or further information:

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