

# Gas Operational Forum

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23<sup>rd</sup> February 2017 10:30AM

Radisson Blu Hotel, 130 Tottenham Court Road, London

# Agenda

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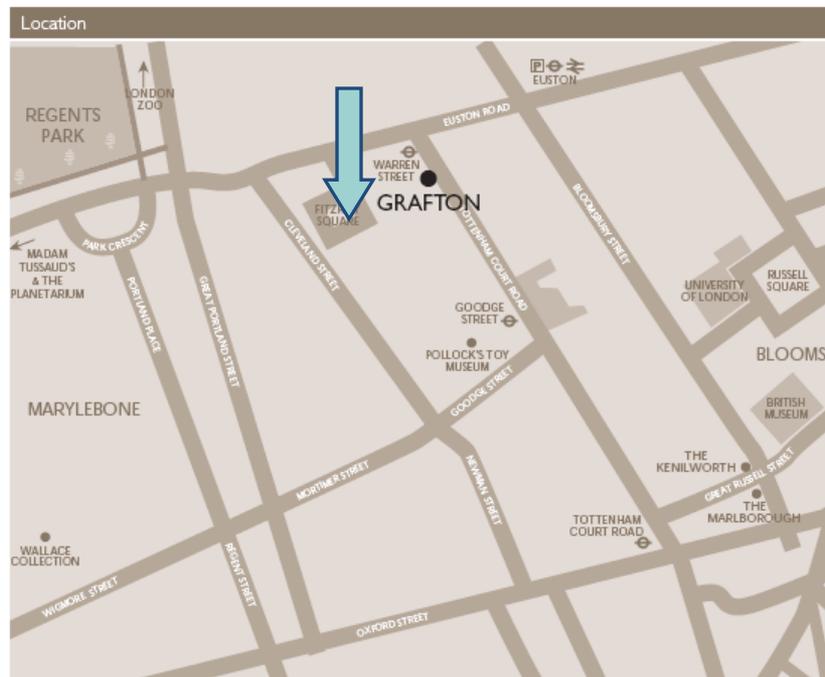
- 10:30 - Previous Ops Forum Actions
- 10:35 - Operational Overview
  - Supply & Demand
- 10:45 - UNC Modifications
- 10:50 - Maintenance
- 11:00 - Xoserve Funding Governance & Ownership
- 11:10 - Gemini Consequential Change
- 11:25 – Gas Planning Operating Standards
- 11:40 - Electronic Notifications , GB REMIT, MIPI
- 11:50 – Break
- 12:00 – Constraint Management Overview
  - Scenario work through
- 12:45 - AOB
  - Emergency Planning

# 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 – February 2017**

**Join at  
Slido.com**

**#6482**

**slido**

# Actions From Previous Forums

Discussion Topic	Action
<b>Capacity Release</b>	It was agreed that National Grid would bring back some examples of timings and the factors that are taken into consideration around the release of within day capacity.
<b>Unplanned Outages</b>	NG to share how the price of the capacity product does / or doesn't feed into our REMIT unplanned outage process.
<b>Maintenance Update</b>	Requested to provide an overview of the 2017 Maintenance plans.

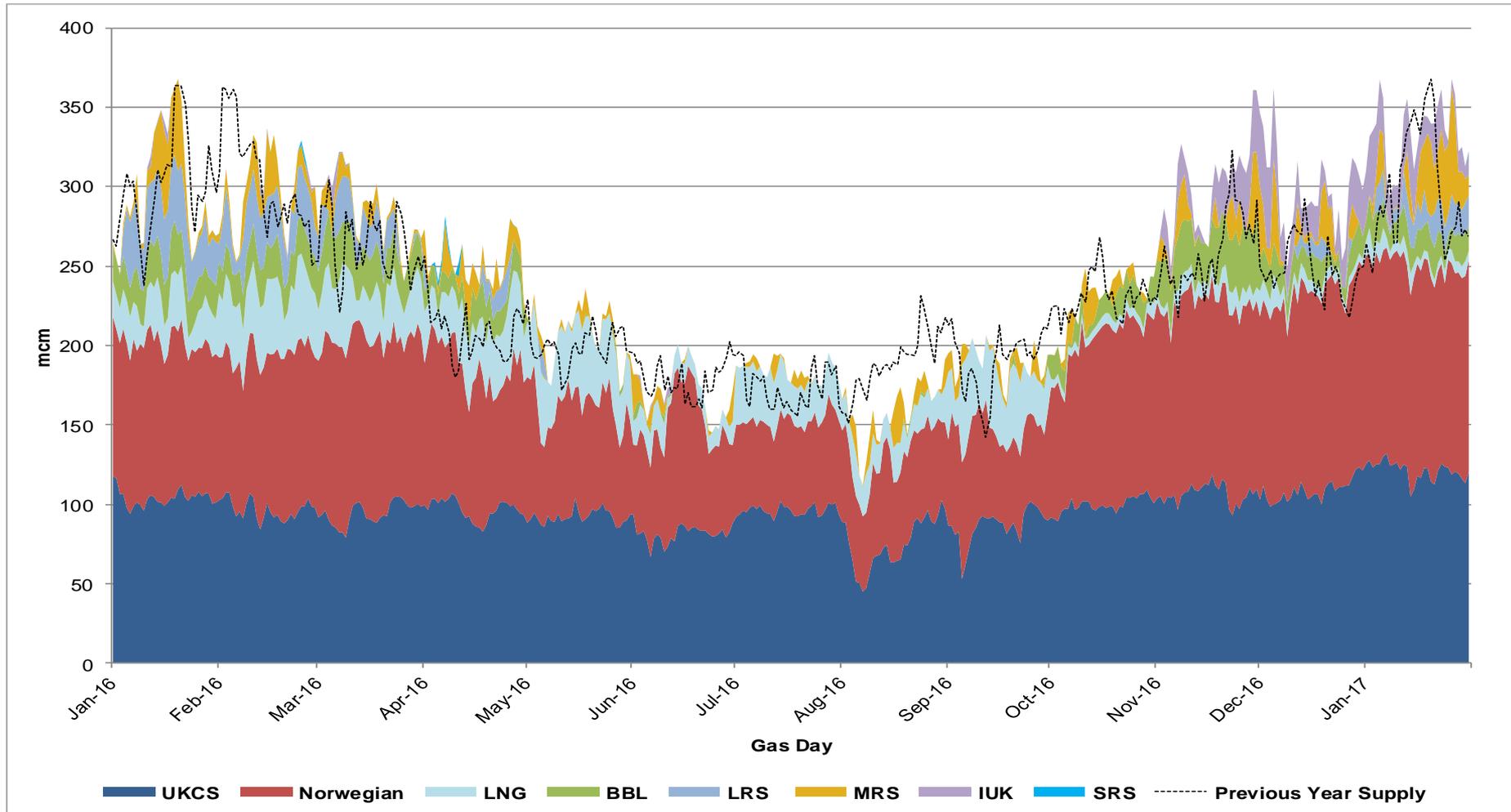
# Operational Overview



Operational Forum – February 2017  
Karen Thompson

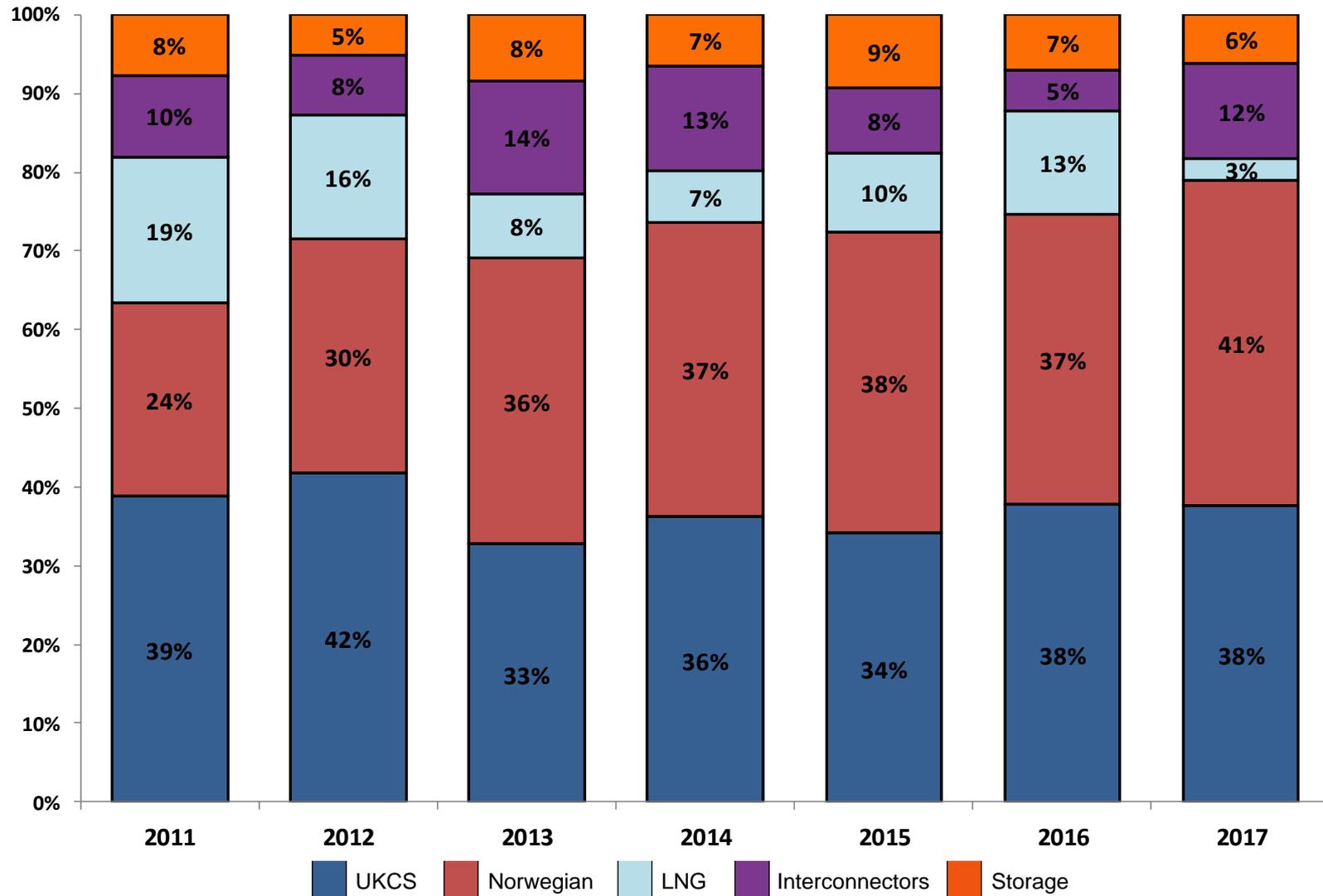
# Gas Supply Breakdown

1st January 2016 to 31st January 2017 vs Same Period in Previous Years



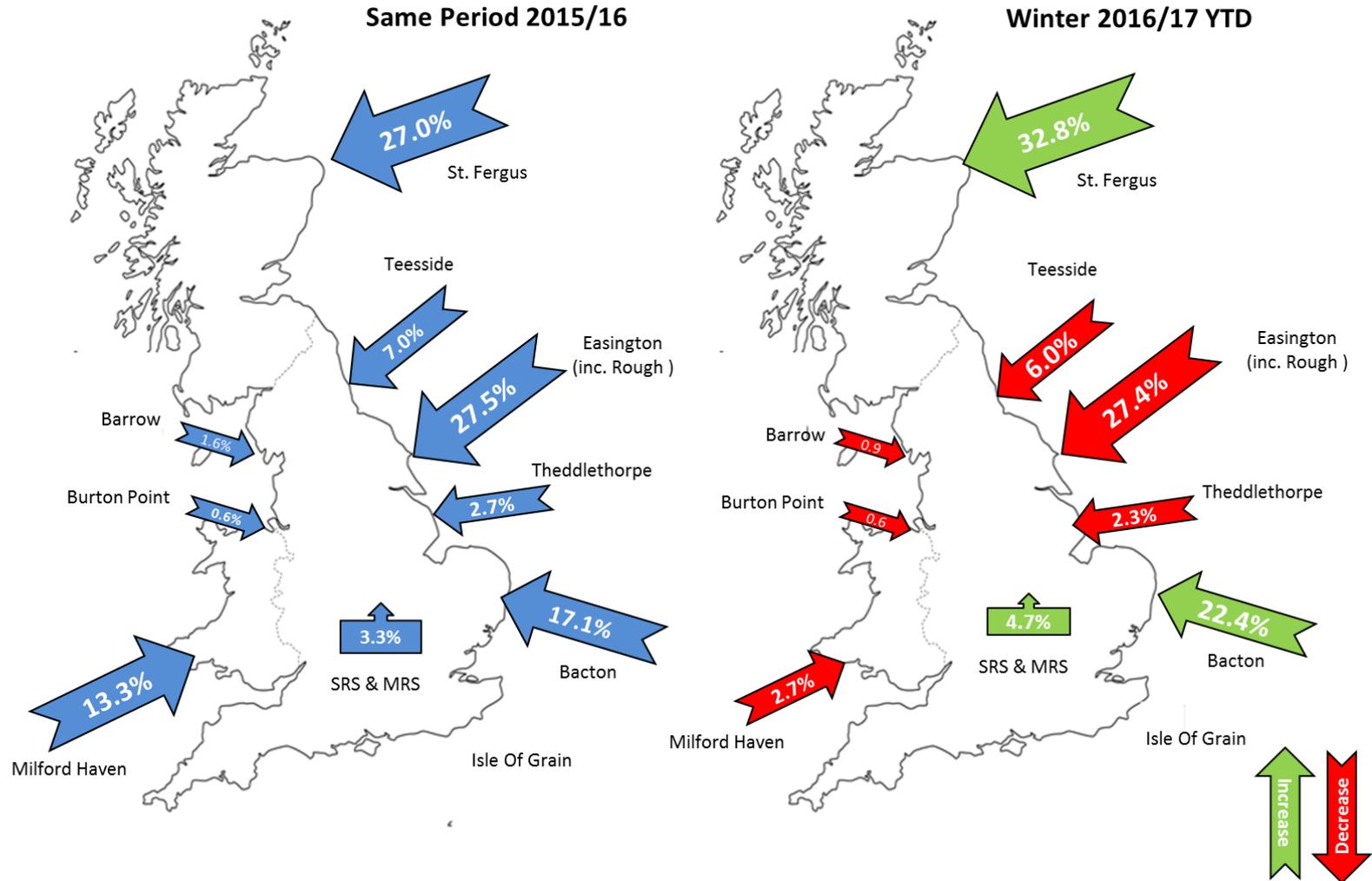
# Gas Supply Breakdown

1st January 2016 to 31st January 2017 vs Previous Year



# Gas Supply Map

1st October 2016 to 31st January 2017 vs Same Period Last Year

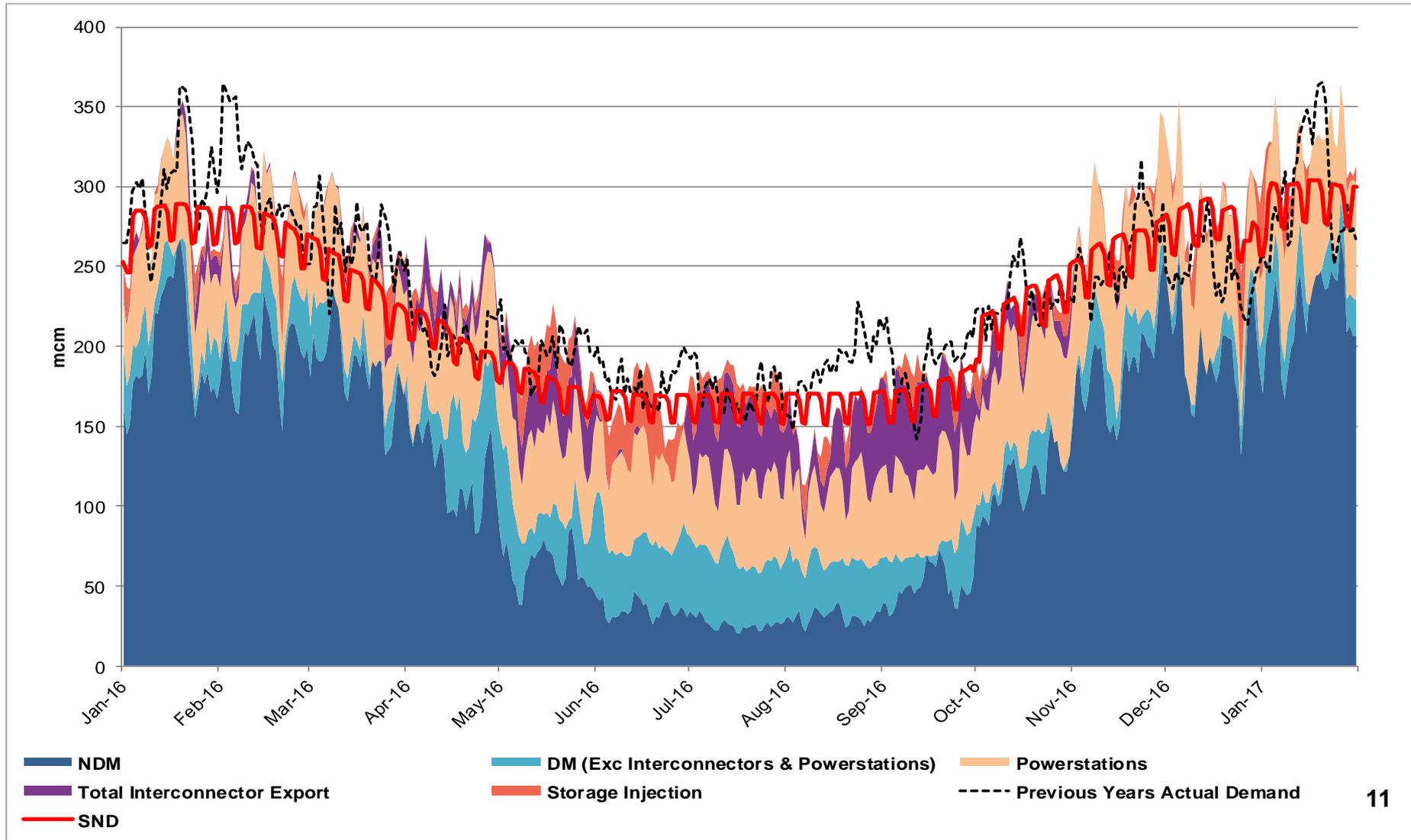


# NTS Supply Winter (mcm): 1st October 2016 to 31st January 2017

Entry	Min	Max	Avg	Winter Actual Range Oct 2015 - Mar 2016	Comments												
 UKCS	89.4	132.1	109.1	45- 118	<ul style="list-style-type: none"> <li>St Fergus flows have continued to remain high in Jan 2017 [flows averaged 105.6mcm/d - Jan 16 flows averaged 69.3mcm/d]; this is believed to relate to the UKCS field at Rhum.</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	134.3	119.3	44 - 118													
 INTERCONNECTORS	1.9	44.8	18.8	0 - 33													
BBL  INTERCONNECTORS	0.0	51.3	16.3	0 - 14													
IUK  LNG	5.0	21.3	7.9	6 - 59													
 STORAGE WITHDRAWAL	0.0	88.2	17.8	0 - 98													
						<table border="1"> <thead> <tr> <th>Entry</th> <th>Min</th> <th>Max</th> <th>Avg</th> </tr> </thead> <tbody> <tr> <td><b>Actual Supply</b></td> <td>189</td> <td>362</td> <td>275</td> </tr> <tr> <td><b>Actual Supply Exc. Storage</b></td> <td>184</td> <td>321</td> <td>263</td> </tr> </tbody> </table>	Entry	Min	Max	Avg	<b>Actual Supply</b>	189	362	275	<b>Actual Supply Exc. Storage</b>	184	321
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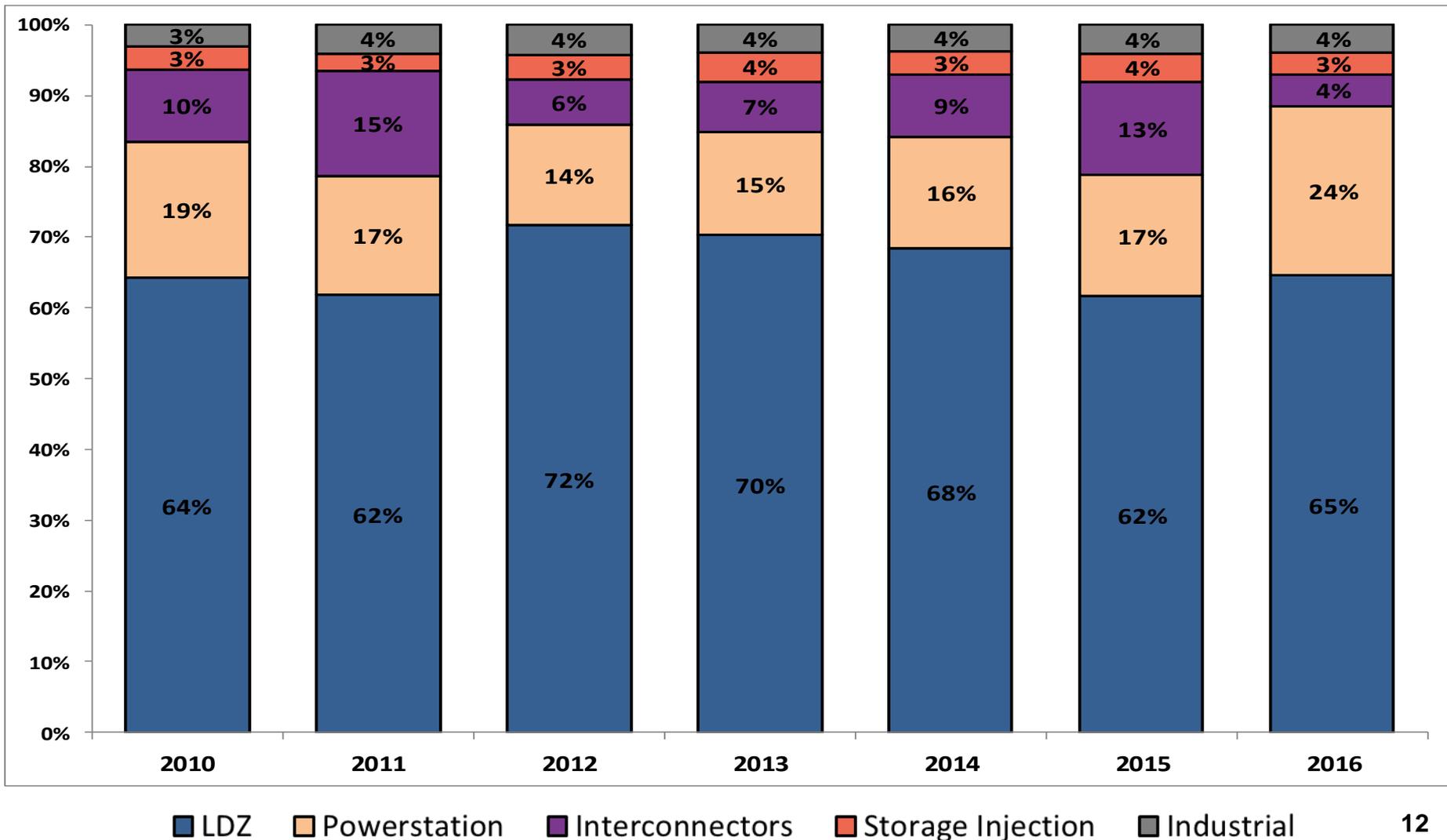
# Gas Demand Breakdown

1st January 2016 to 31st January 2017 vs Previous Year



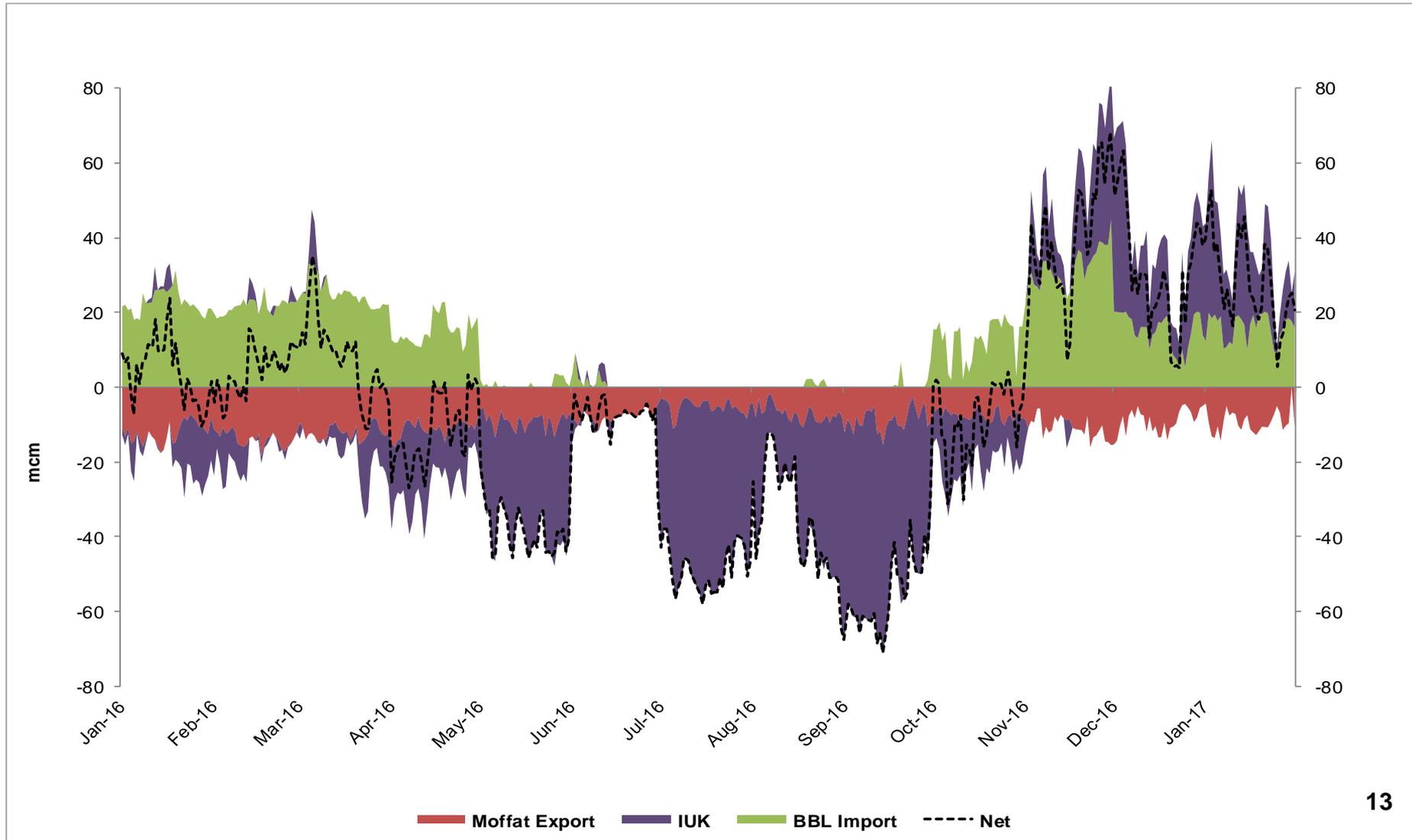
# Gas Demand Breakdown

1<sup>st</sup> January 2016 to 31<sup>st</sup> January 2017 vs Same Period in Previous Years



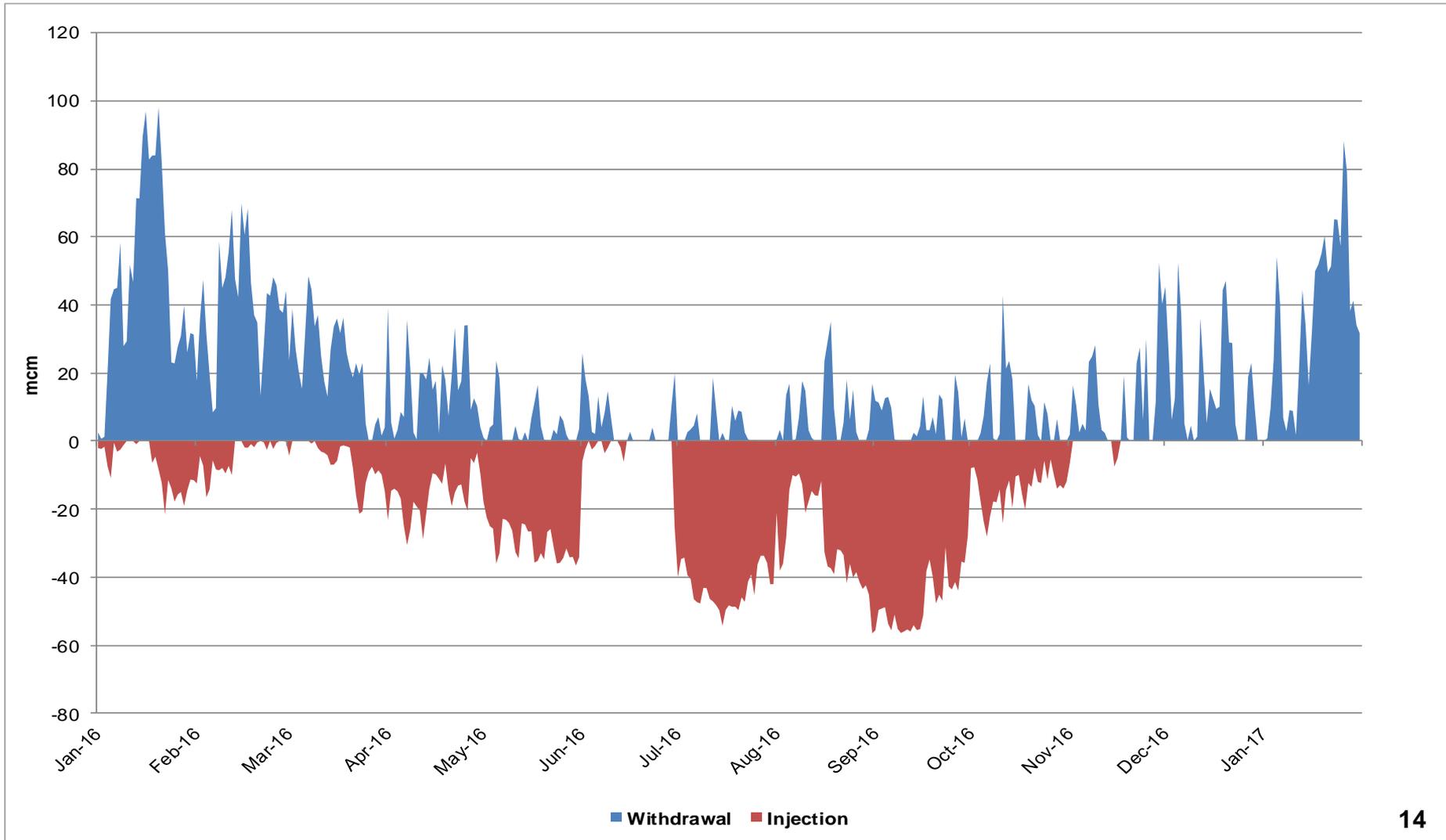
# Gas Supply / Demand Interconnectors

1st January 2016 to 31st January 2017



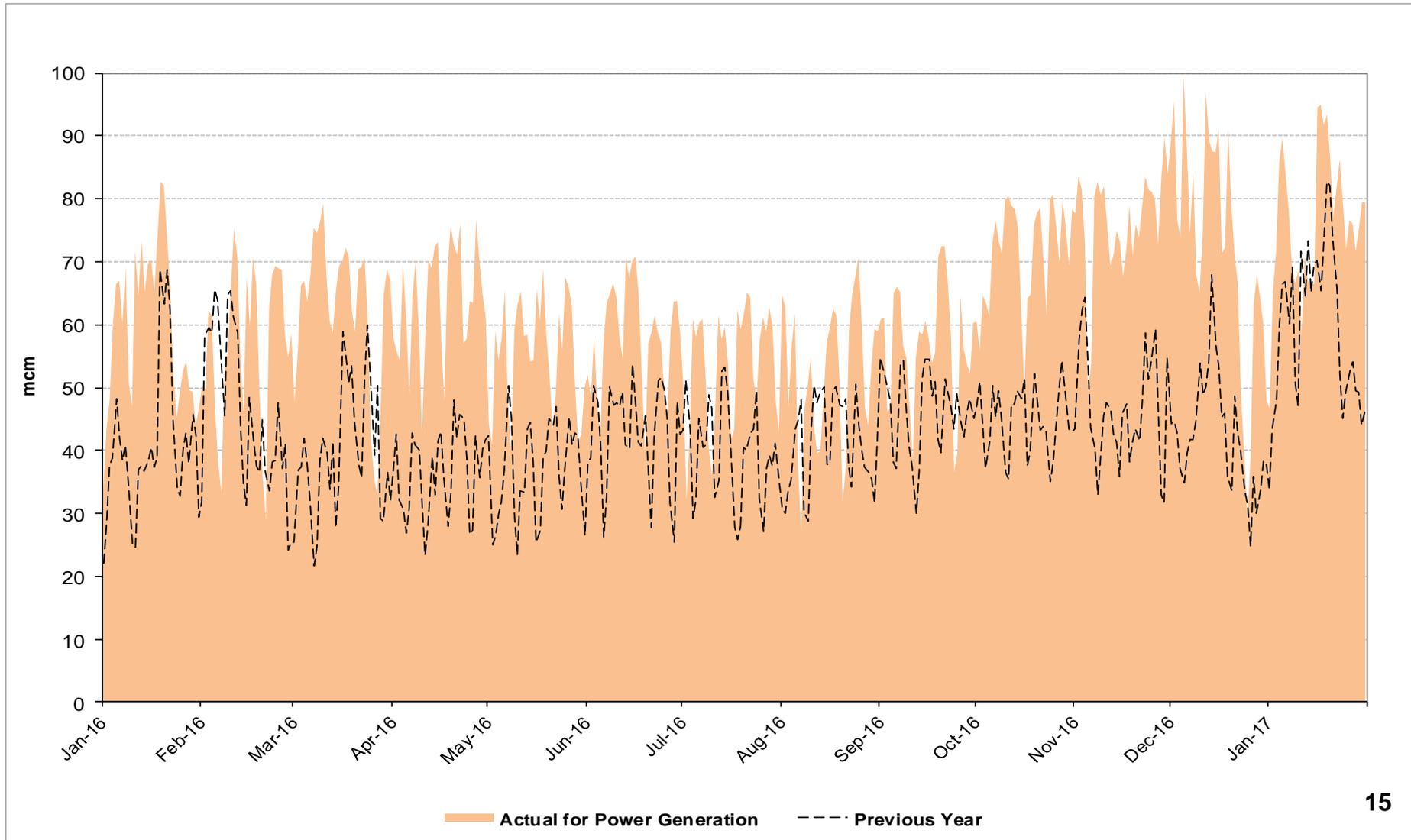
# Gas Supply / Demand Storage

1st January 2016 to 31st January 2017



# Gas Consumption for Power Generation

1st January 2016 to 31st January 2017 vs Same Period Last Year

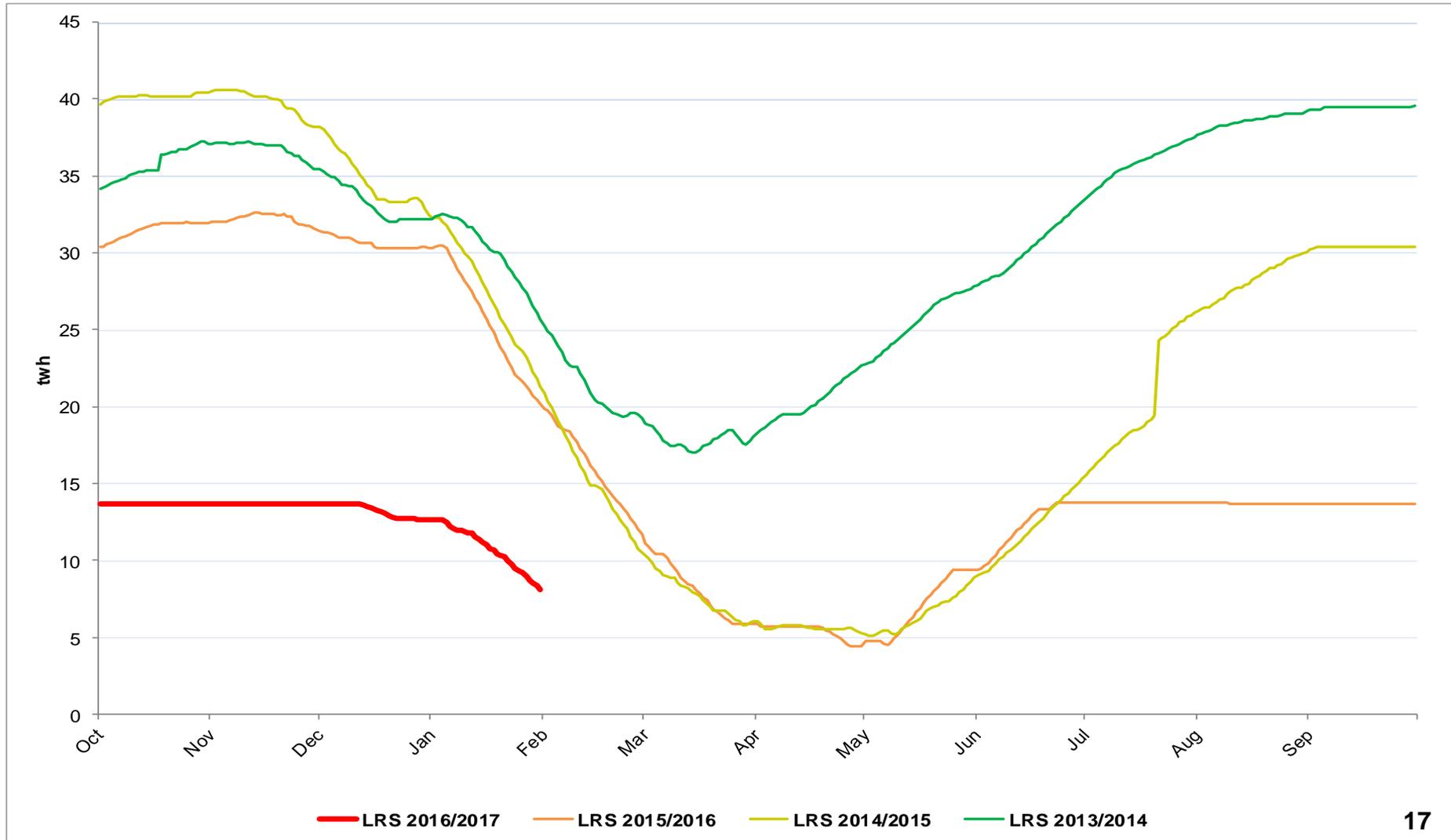


# NTS Demand Winter (mcm): 1st October 2016 to 31st January 2017

Exit	Min	Max	Avg	Winter Outlook Range Oct 2016 - Mar 2017	Winter Actual Range Oct 2015 - Mar 2016	Comments															
LDZ	90.3	280.1	185.9	107 - 336	82 - 256	<ul style="list-style-type: none"> <li>High Power station demands continue due to increased EU electricity exports.</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>															
INTERCONNECTORS Ireland	0.0	16.1	9.2	6 - 10	7 - 21																
INDUSTRIAL	8.1	12.9	11.3	19 - 36 (DM + Ind)	8 - 12 (DM + Ind)																
POWERSTATION	24.1	94.0	69.1	19 - 90	20 - 78																
STORAGE INJECTION	0.0	74.2	8.8	0 - 45	0 - 47																
INTERCONNECTORS IUK	0.0	28.1	3.7	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>Demand exc. IUK &amp; SI</td> <td>158.6</td> <td>368.6</td> <td>259.0</td> <td>189 - 452</td> </tr> <tr> <td>SND exc. IUK &amp; SI</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	Demand exc. IUK & SI	158.6	368.6	259.0	189 - 452	SND exc. IUK & SI	144.0	289.0	236.2	
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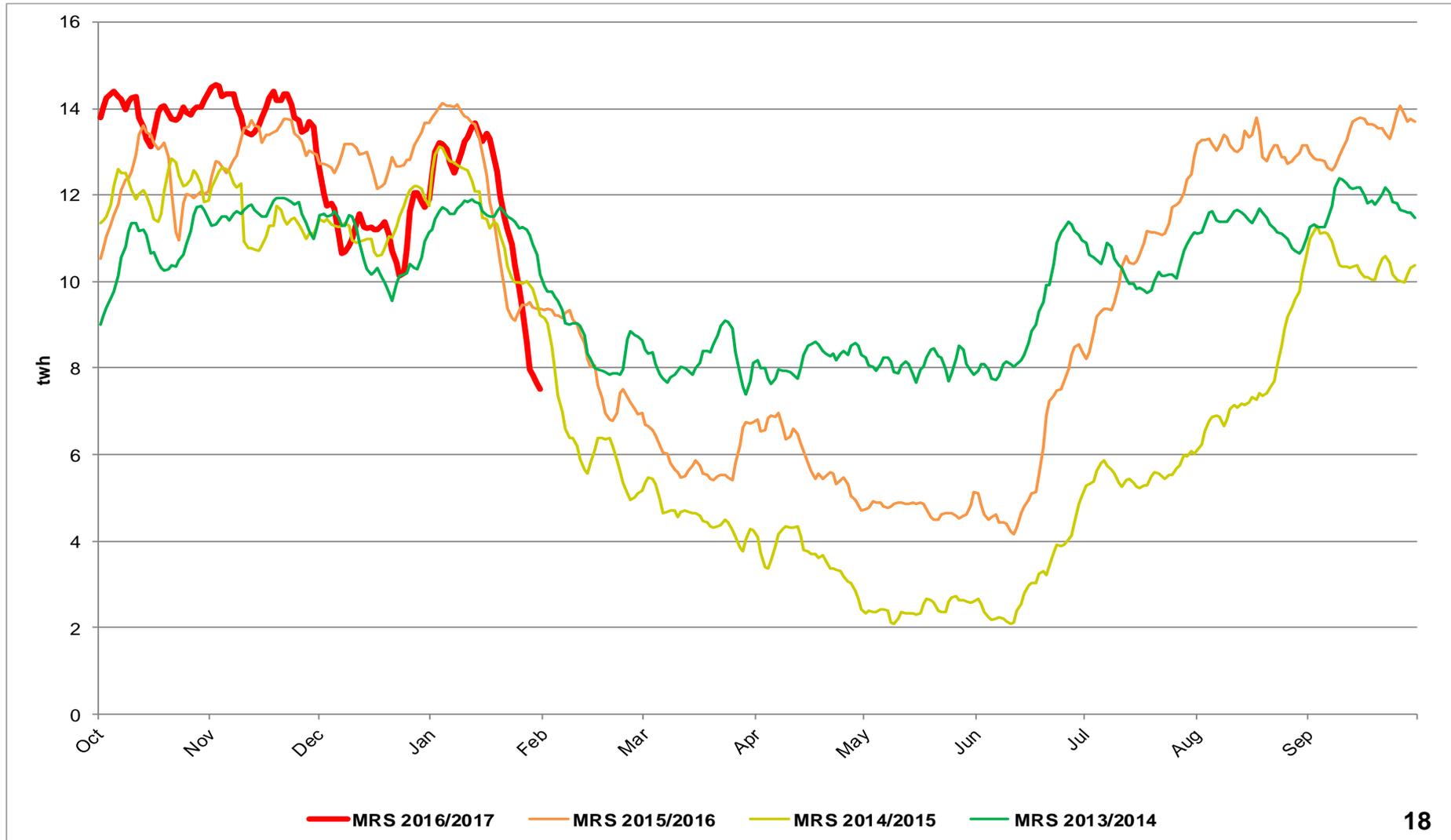
# Storage Stocks: LRS

## Position as at 31st January 2017



# Storage Stocks: MRS

## Position as at 31st January 2017



# Capacity Neutrality: 1<sup>st</sup> April 2016 to 31<sup>st</sup> January 2017

Revenue / Costs	Apr 16 to Jan 17	Apr 15 Jan 16	Comments
WDDSEC/DAI Entry Capacity Revenue	-£854,765	-£288,569	* Entry Capacity Overrun Revenue data not yet available for January 2017
Total Entry Constraint Management Operational Costs	£0	£0	
Entry Capacity Overrun Revenue	-£1,214,293 *	-£537,806	
Non-Obligated Sales Revenue (Entry only)	-£51,170	-£210,206	
Revenue from Locational Sells and PRI Charges	£-14,249	£0	
Net Revenue	-£2,134,477	-£1,036,574	

## 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 Jan 16	29 - 52.4	30.1 - 55	27.9 - 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)

# Energy Balancing: 1st April 2016 to 31st January 2017

NGG Balancing Actions	Apr 16 to Jan 17	Apr 15 to Jan 16	Comments
Buy Actions	45 (39%)	106 (67%)	<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 (61%)	52 (33%)	
Buy Actions [Volume: Gwh]	693	1556	
Sell Actions [Volume: Gwh]	-1631	-863	
Number of Balancing Actions	114	158	
NGG set Default Marginal Prices [SMPB: Average %]	5%	9%	
NGG set Default Marginal Prices [SMPS: Average %]	6%	4%	

## UNC Modifications/Topics from Transmission Work Group



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# UNC Modification 0600S

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- Available for public consultation 17<sup>th</sup> February – 9<sup>th</sup> March
- For details on the Modification and an opportunity to respond to the proposed changes:

<http://www.gasgovernance.co.uk/0600>

- The following changes are proposed to UNC TPD Section E 1.4.2:
  - Retain the D+5 deadline for Entry Point Daily Quantity Delivered (EPDQD) amendments
  - Amendments after 10:00 on M+15 will no longer be permitted
  - Amendments submitted between D+5 and 10:00 on M+15 will be accepted at the discretion of National Grid, and will be exercised in a way which avoids any undue preference or discrimination.
  - National Grid may also enquire why any revision is submitted after D+5, and may use the results of this enquiry to propose improvements to the timely and accurate revision for EPDQD amendments in future

## UNC Modification 0606 & 0607S

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- **Mod 0606 – (NGG and NGGD transitional invoicing)**
- Final discussion will take place at Distribution working group towards the end of February
- **Mod 0607S (Amendments to GQ NTS Spec at St Fergus) - 2** Workgroup meetings have been held so far with the third scheduled for 28<sup>th</sup> February
- 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%
- 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>

## 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 closed on Friday 27 January
- Future event to be held in the summer (June/July) to further understand industry views.

# Negative Implied Flow Rates (NIFR)

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- Solution: to make system changes to enable the GNCC to process the faxes they receive at an IP from a shipper wishing to make a re-nomination which breached the NIFR rule
- NG have been working with Xoserve to agree a possible implementation date for these changes of August 2017
- However, currently NG is not in a position to be able to fund these changes unless shippers can demonstrate to us the detrimental impact to them of the GNCC not being able to process a fax which breaches the NIFR rule at an IP and why they can't continue with current practice
- Requested further information from industry on this point, the deadline for providing this information was Friday 17<sup>th</sup> February
- NG will make decision on funding by 3<sup>rd</sup> March 2017
- For more information please contact Jennifer Randall on:

[Jennifer.randall@nationalgrid.com](mailto:Jennifer.randall@nationalgrid.com)

## Contact Us

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- If you have any further questions, or would like to discuss this in more detail – please contact:
- Mod 0600S - Angharad Williams:  
[angharad.williams@nationalgrid.com](mailto:angharad.williams@nationalgrid.com)
- Negative Implied Flow Rates – Jennifer Randall:  
[Jennifer.randall@nationalgrid.com](mailto:Jennifer.randall@nationalgrid.com)
- GSMR – Robyn Jenkins  
[robyn.jenkins@nationalgrid.com](mailto:robyn.jenkins@nationalgrid.com)

# System Access Planning

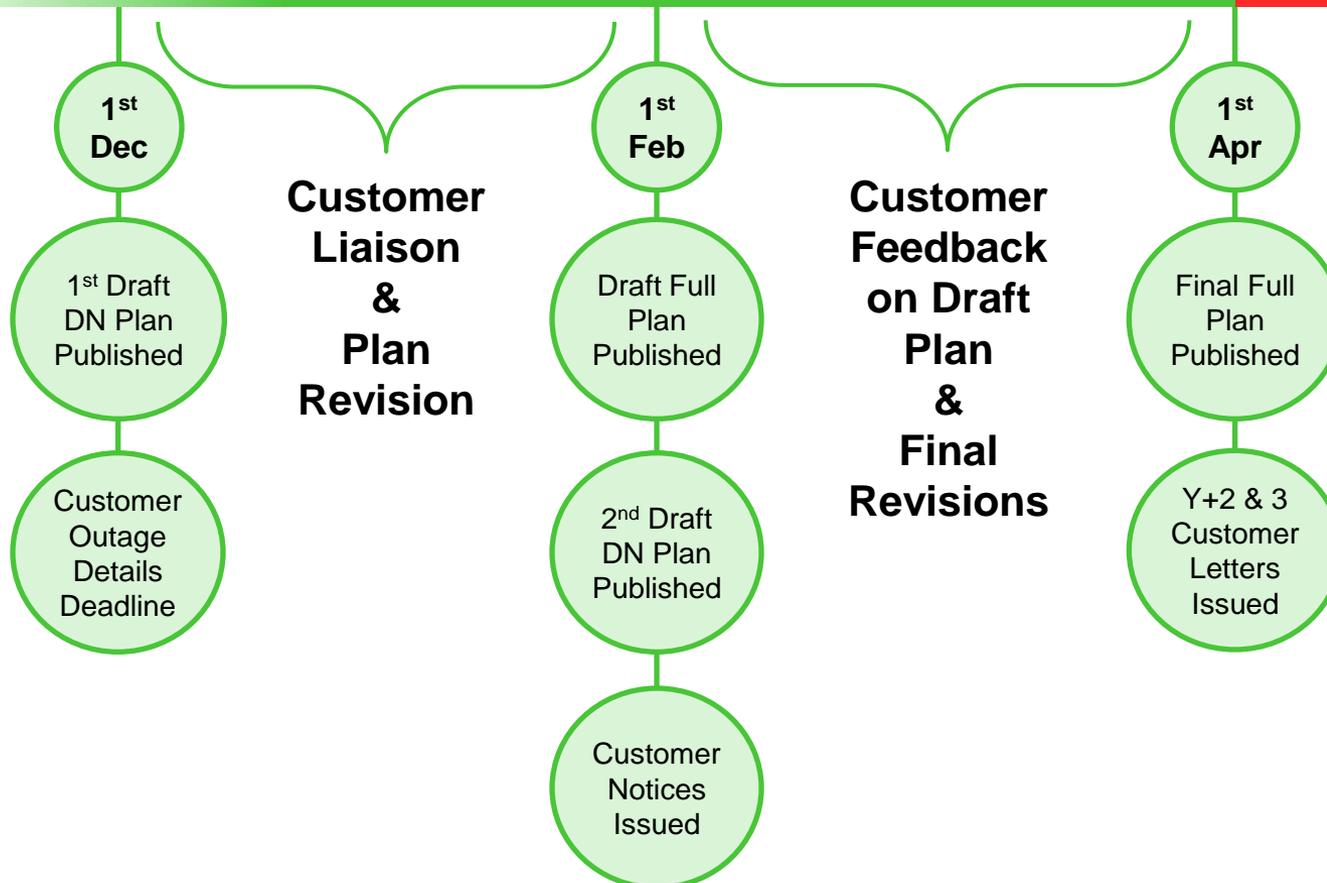


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Fahad Naeem

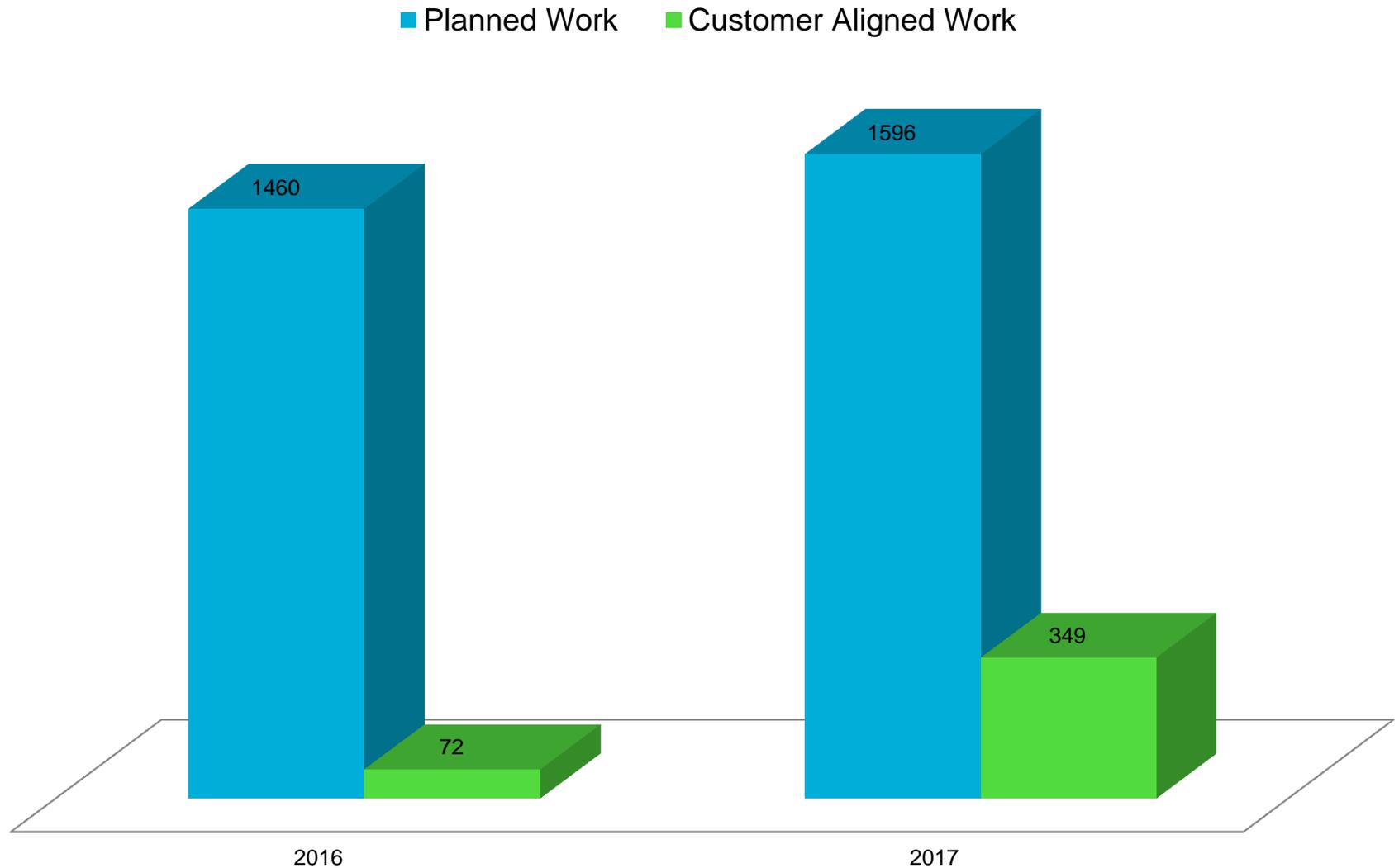
# NTS Summer Maintenance Programme

System Access Plan Optimisation  
& Customer Liaison

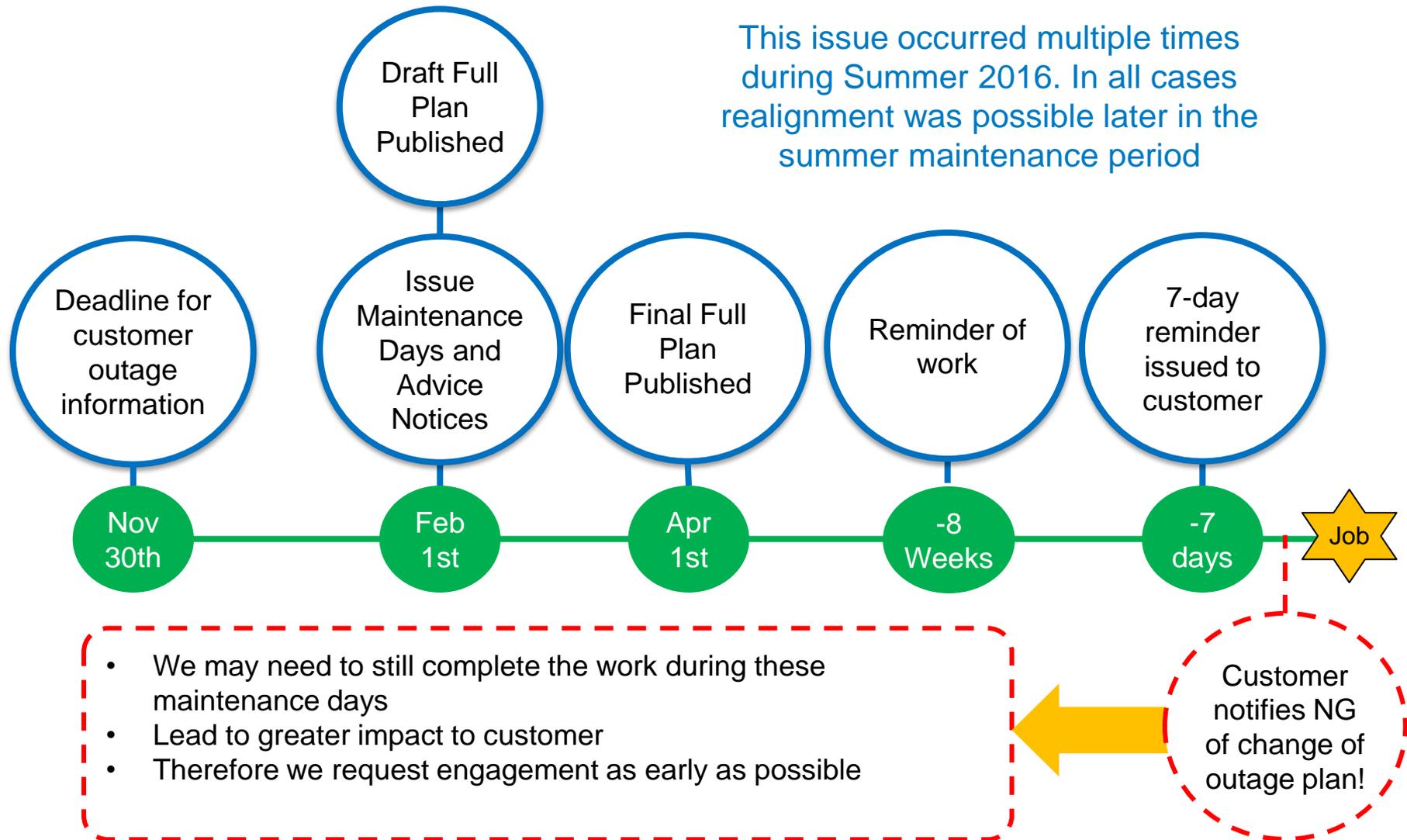
Summer  
Maintenance Period  
(1<sup>st</sup> Apr – 30<sup>th</sup> Sep)



# Isolation Workload



# Continued Communication



## National Grid Publication

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- Published maintenance plan can be found via:

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

- Please use the contact details below to provide outage information, updates to outage dates or for anything else regarding our maintenance planning and notifications:

- Team Email: [ntsaccessplanning@nationalgrid.com](mailto:ntsaccessplanning@nationalgrid.com)
- Team Telephone: 01926 655958

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# **Xoserve Funding, Governance and Ownership**

Overview for National Grid Gas Ops Forum February 2017

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# 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

GTs

iGTs

Shippers

Xoserve

**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

Xoserve

GTs

iGTs

Shippers

### OWNERSHIP

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

Industry governance arrangements do not change

# Phased Implementation

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## 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)

# What does this mean?

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- All UNC parties required to sign up to either the Data Services Contract (DSC) or the UK Link user Agreement (UUA). The deadline for this was 15<sup>th</sup> February ahead of the DSC arrangements coming into force on 1<sup>st</sup> April
- Users will receive invoices directly from Xoserve for CDSP services. These now include a direct cost for IX provision
  - First issue of invoices will take place in April/May dependant on the type of service to be invoiced
- Any DSC Parties that will be taking Specific Services have been directly contacted to agree scope of Services to be provided
- A draft UUA has been published and the relevant parties contacted in preparation for signature

# 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))

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# Gemini Consequential Change UK Link Programme

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# UK Link Programme: Business Process Changes

## Supply Point Admin

Record Supply  
Meter Point

Manage Supply Point  
Registrations

DN Interruptions  
& Withdrawal

Manage  
Asset Data

Manage Supply  
Register

Address  
Management

## Customer Lifecycle Mgmt

Manage  
Stakeholder  
Information

Terminations  
& Sanctions

Manage Legal Agreements

## Settle Meter Point Consumption

Validate read &  
Consumption

Calculate Meter  
Point Energy &  
Calculate AQ

Reconcile Meter  
Point Energy

## Billing & Invoicing

Validate Billing  
Source Data

Calculate Core  
Invoice Charges

## Predict, Allocate & Balance Daily Energy

Develop  
Consumption  
Profiles

Calculate Energy  
Predictions  
(Nominations)

Calculate Energy  
Allocations

Calculate  
Consumption  
Prediction

Calculate Energy  
Balancing Positions

Calculate Amendment  
Invoice Charges

Validate Charges & Produce Invoice

Issue Invoice & Generate MI

Data Enquiry & Information Provisioning

Manage Credit Risk & Neutrality



High Change



Medium  
Change



Low Change



No Change

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# New Approach to Unidentified Gas

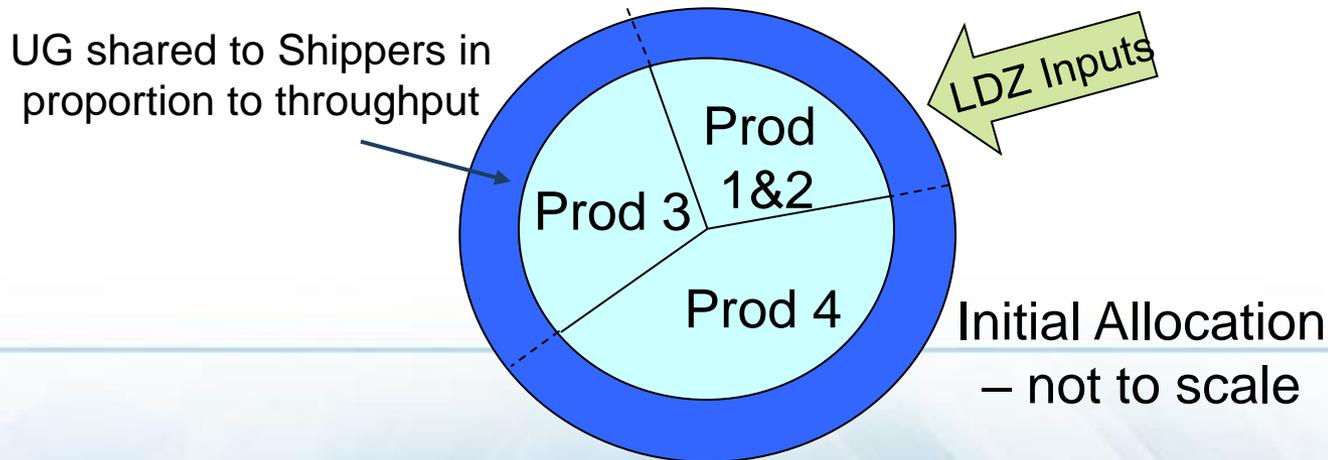
- Current NDM Nomination/Allocation algorithm is a top-down allocation process
  - designed to account for all NDM energy, where NDM energy is the balancing figure
  - does not support a universal sharing of UG; because
- NDM energy will no longer be the balancing figure; instead
- Industry chosen approach is a universal smear of UG to all Supply Points on the basis of their recorded consumption for the Gas Day
- UG will be determined by comparing total DM and NDM demand to LDZ consumption, net of Shrinkage
- Which means that a new NDM energy estimation process is required

# New Requirements for NDM Estimation

- New means of estimating NDM Demand without reference to total LDZ Consumption is required
- DESC identified a slight amendment to the current NDM Apportionment formula
  - amended to estimate NDM Demand “bottom-up”
  - new form of Weather Correction Factor, using actual weather data, no reference to any version of Seasonal Normal Demand
  - uses amended NDM parameters (ALPs and DAFs) but based on existing NDM Demand Models

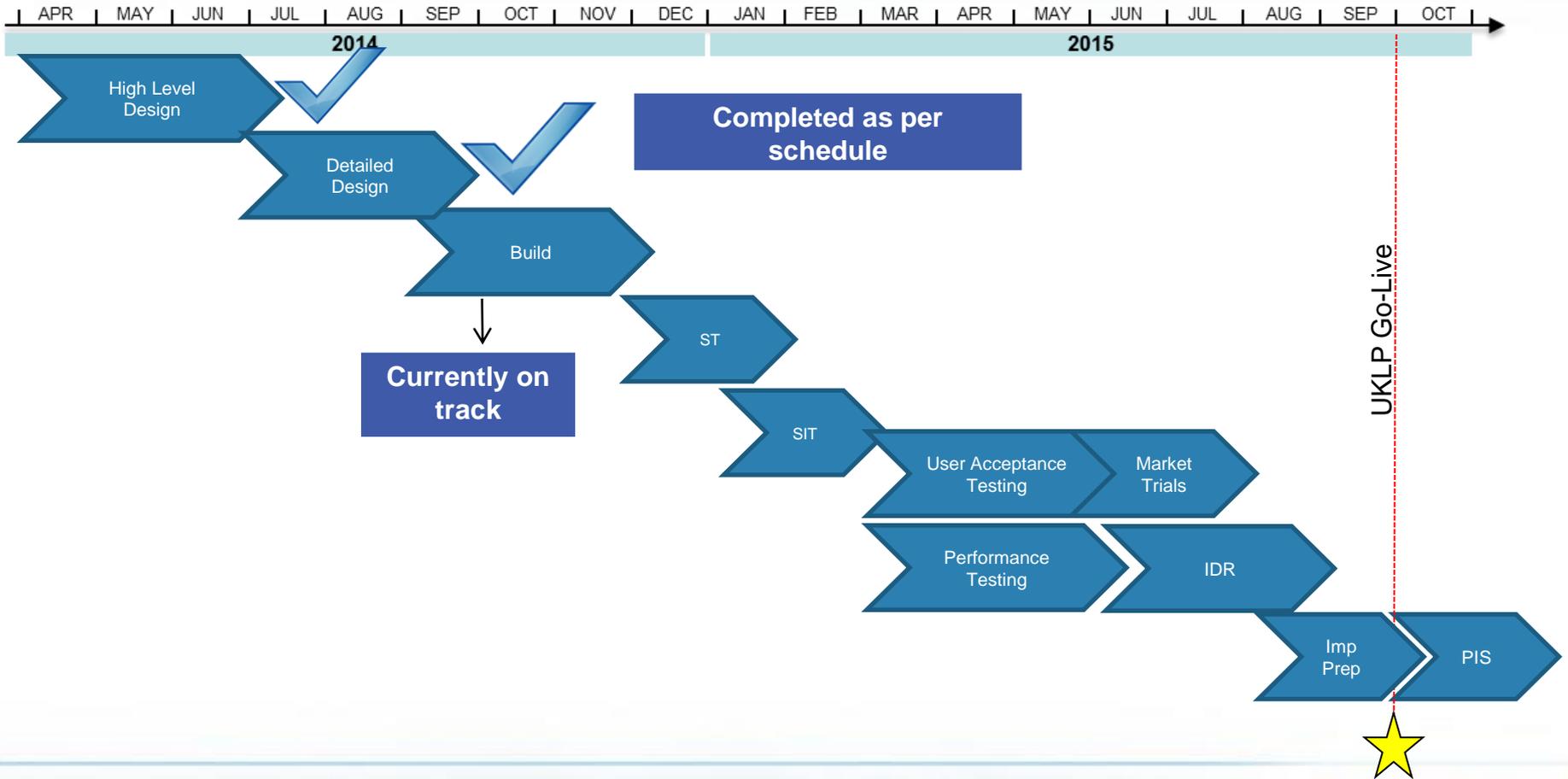
# Future Treatment of Unidentified Energy

- Sum up total Prod 1&2 measurements (~DM)
- Sum up total Prod 3&4 estimates (~NDM – new bottom-up estimation methodology)
- Compare to net LDZ consumption (after Shrinkage)
- Difference is Unidentified Gas
  - Shared in proportion to daily measurements
  - Separate allocation pot of UG – not a scaling factor





# GCC Timeline



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**Any Questions?**

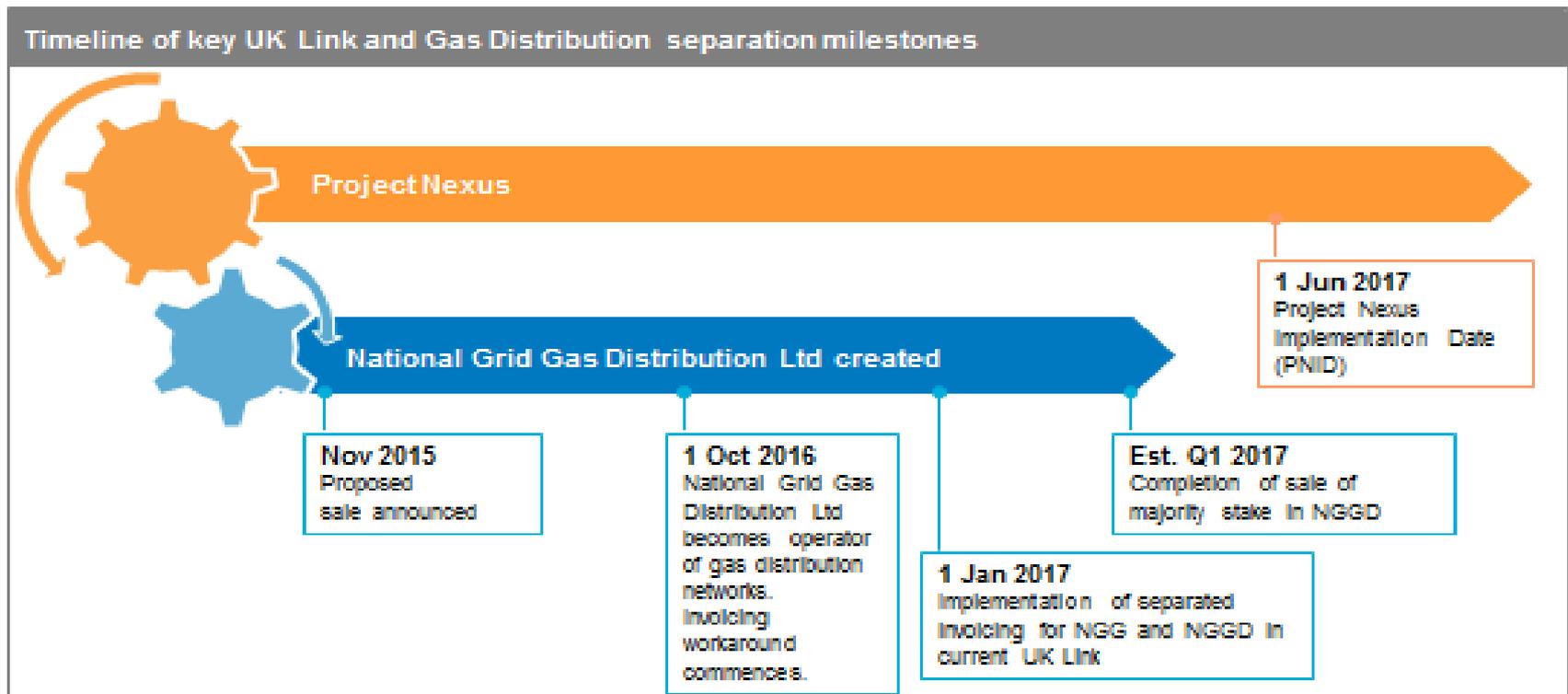
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# Post-Nexus transitional invoicing (Mod0606): Shipper briefing



# 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.

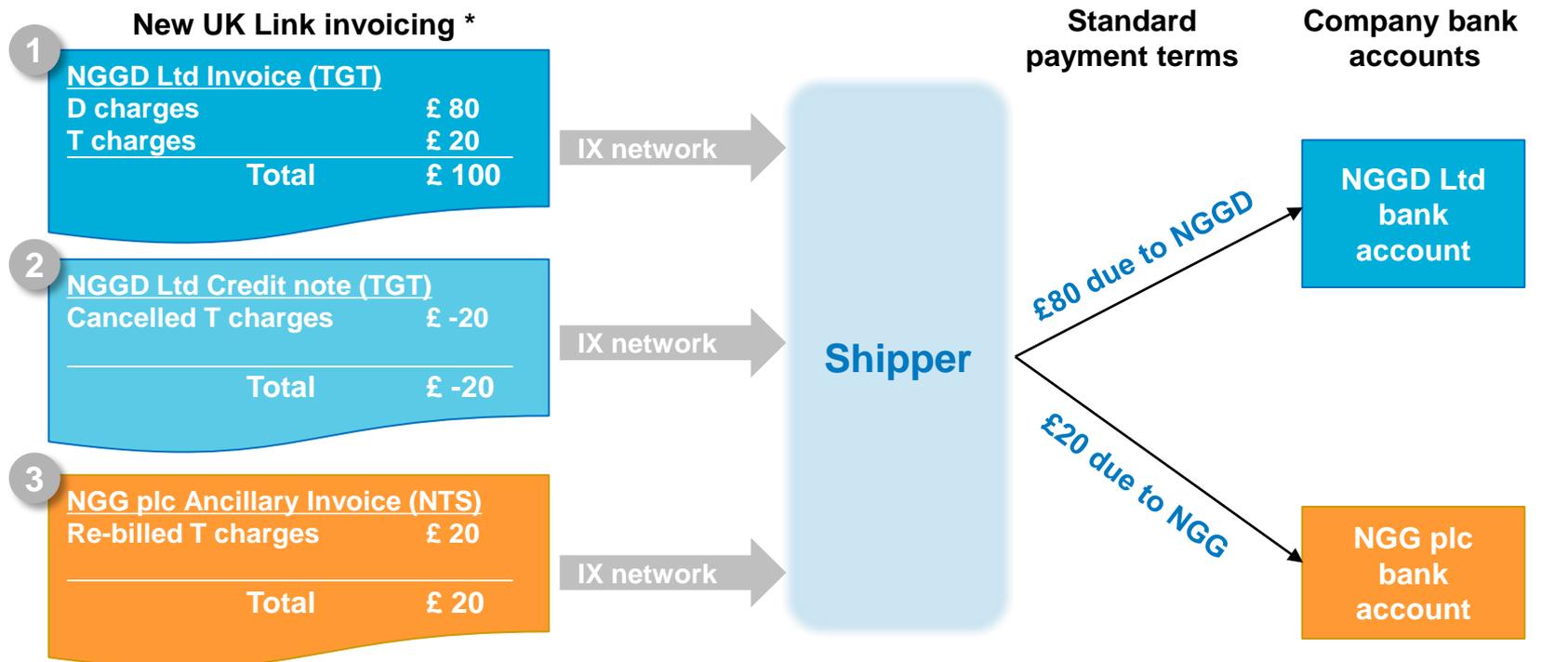
## For discussion: best available option:

- 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

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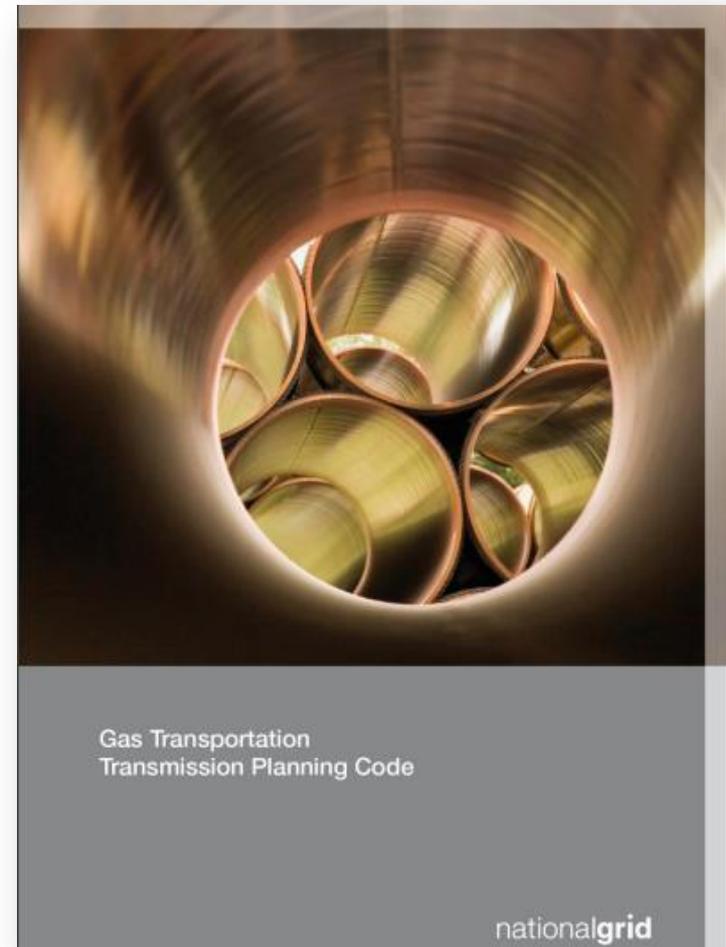
- The modification was discussed in draft at the November Distribution Work Group on 24<sup>th</sup> November 2016
- We will propose a UNC modification at the December Mod Panel
- The modification proposal will be discussed at;  
Distribution Work Group – 22<sup>nd</sup> December 2016  
Transmission 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 Planning & Operating Standard Project



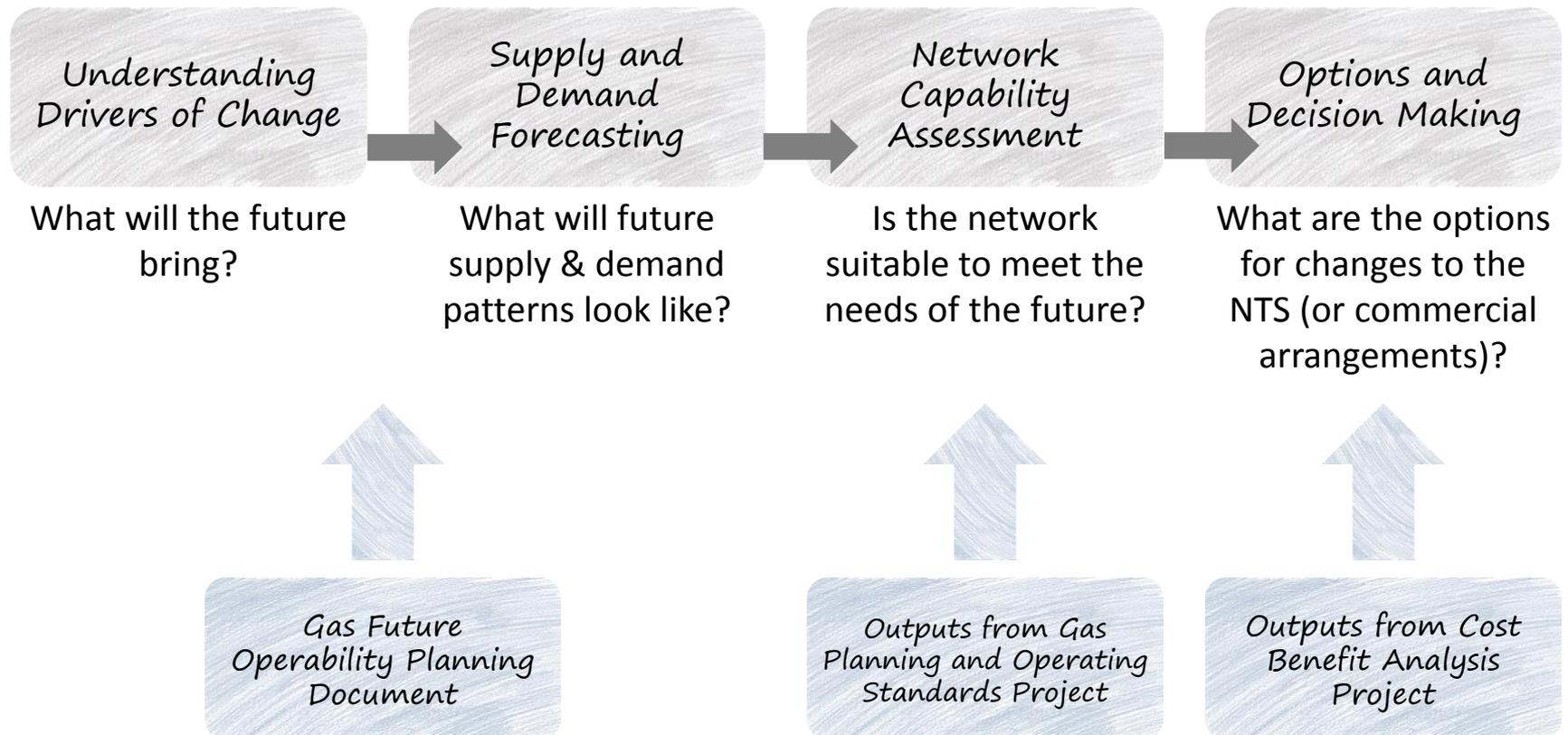
## An Overview

- To deliver further clarification around our existing Pipeline Security Standard & further align our planning and operational approaches to ensure suitability for future network operation.
- Through this, develop a clearer set of rules, that we can articulate externally, under which we plan and operate the network



# Where does this link into our planning process

A high level description of our network capability assessment process



# Gas Planning & Operating Standards Project – Motivation & Aims

---

- To deliver further clarification around our existing Pipeline Security Standard
- Required due to the changing use of the NTS
  - Reduced bulk transportation, increased use as within – day flexible storage
- Ensure that our planning processes continue to take into account the operational conditions experienced by our control room
- Be able to articulate our planning processes more clearly through Transmission Planning Code document

# Gas Planning & Operating Standards Project

## Standard Special Condition A9. Pipe-Line System Security Standard

What does our current security standard contain?

The peak aggregate daily demand which is likely to be exceeded (whether on one or more days) only in 1 year out of 20 years

Including, but not limited to, within day gas flow variations on that day

Taking account of such operational measures as are available to the licensee

Some of the questions that we asked ourselves

*Is "peak" the only demand level we should be considering, given the changing use of the NTS?*

*What sources of within day variation should we consider?*

*Do we need to update how we treat linepack management in planning processes?*

*How does this compare to what the control room actually experience?*

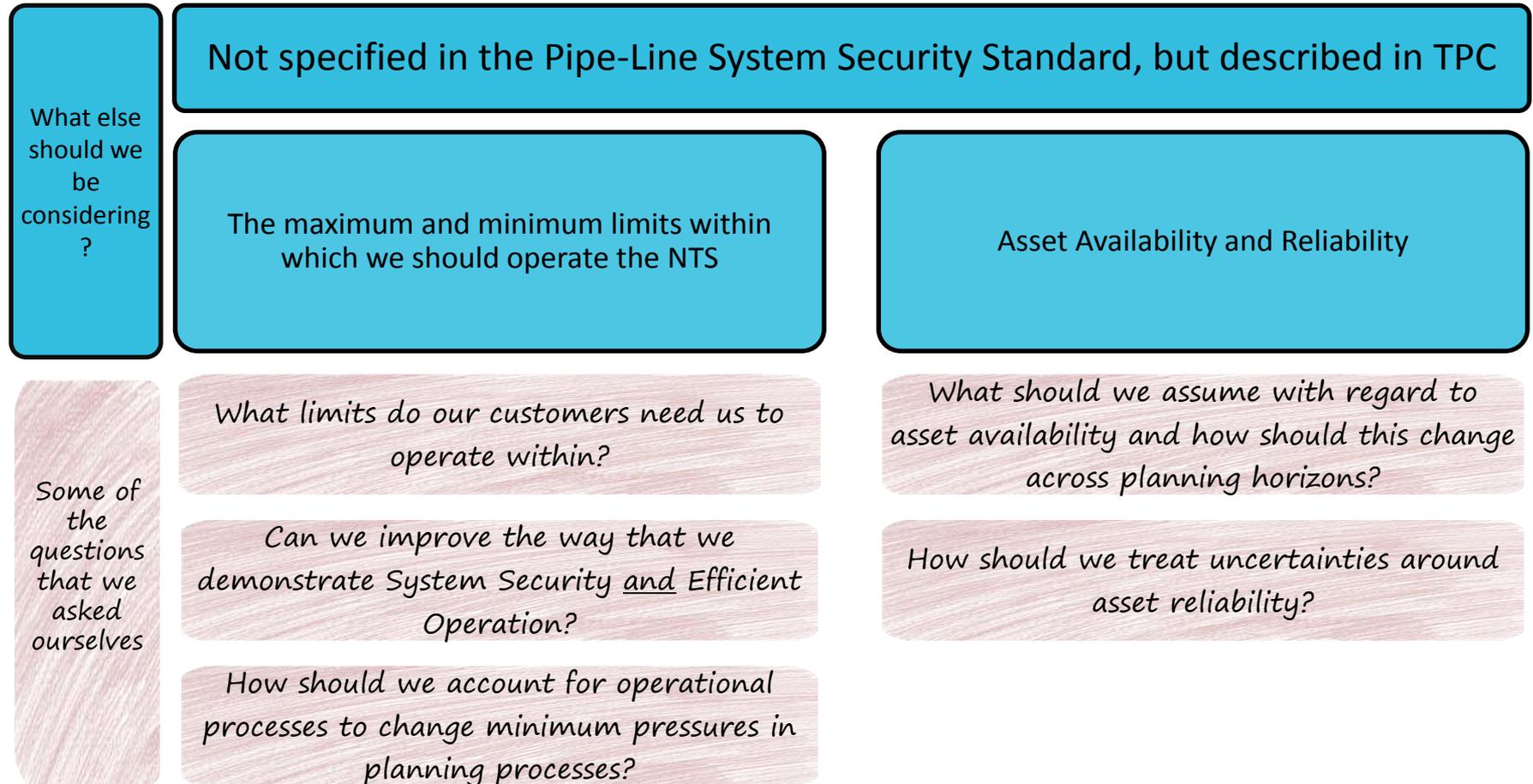
*How should we treat uncertainties around within day variation?*

*Can we create clearer links to Operating Margins Requirements?*

*What supply patterns should we be considering?*

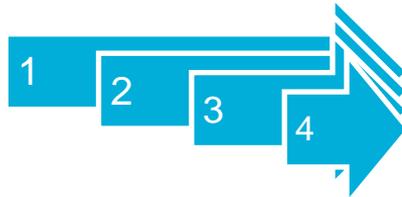
*Is the existing 2% flow margin still fit for purpose?*

# Gas Planning & Operating Standards Project



# Gas Planning & Operating Standards Project – Work to date

Identification of workstreams



Historical data gathering and analysis undertaken



Engagement with DNOs



Methodologies Developed



Network analysis completed and proposals made



Wider Industry Engagement



# Gas Planning & Operating Standards Project – Key proposals

- Improved means of ensuring resilience for uncertainties (within day gas flow variations & asset reliability?)

*2% National  
Flow Margin*



*Locational Pressure cover  
at systems extremities*

- *Covering for supply losses, forecast demand turn-up, compressor trips*
- *Defined methodologies for calculation*
- *Can be applied consistently across time horizons*
- *Clear link to Operating Margins*



# Gas Planning & Operating Standards Project – Key proposals

*Both Assured Pressures and appropriate lower pressures, linked to LDZ demand, for DNs to be used as standard in planning processes*

*Network capability (and investment options) to be assessed against a range of probable supply and demand patterns (up to levels specified in current Pipe-Line System Security Standard)*

*Take probability into account when undertaking cost benefit analysis of investment options*

# Gas Planning & Operating Standards Project – Key proposals

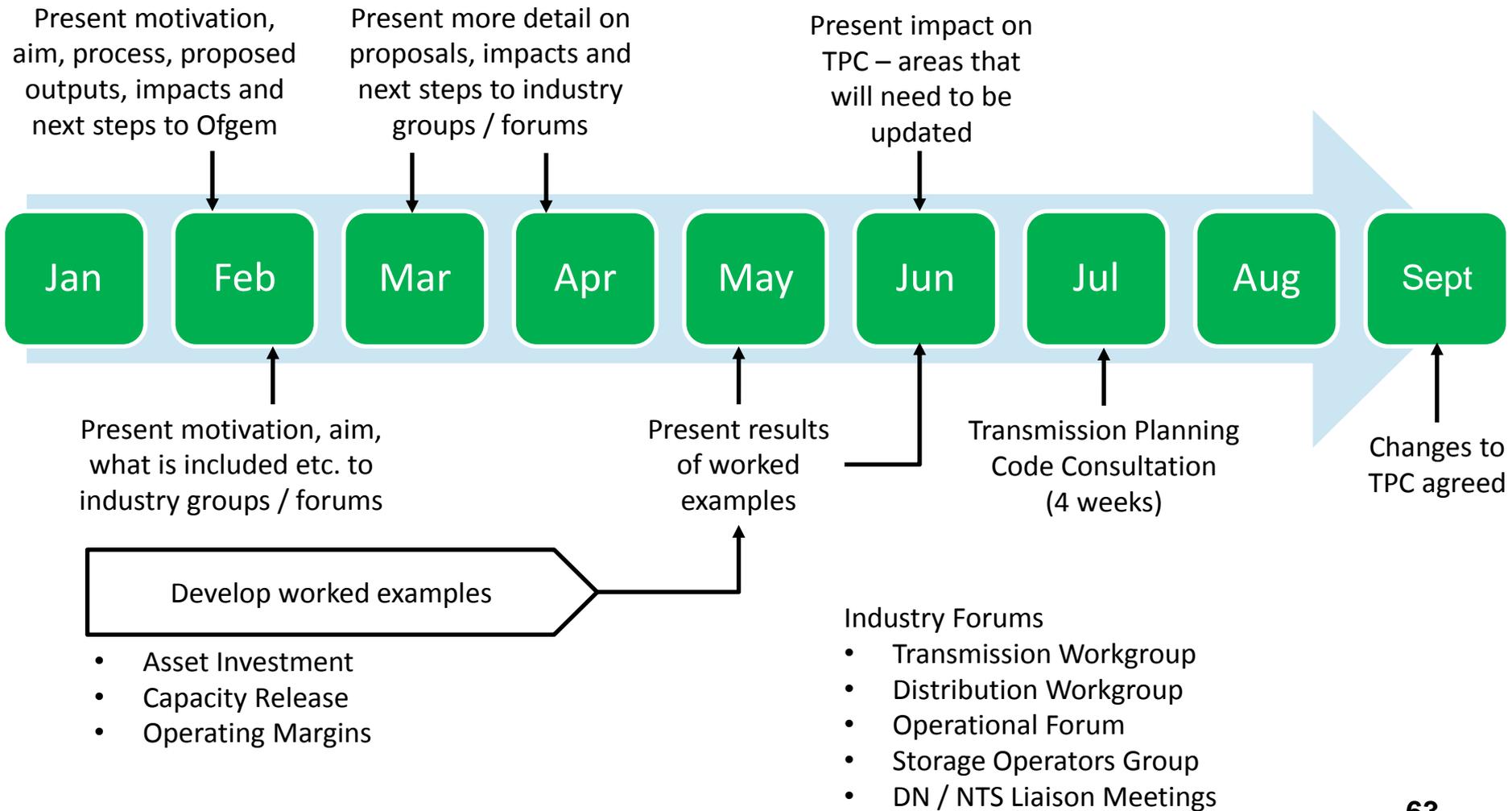
*Planning processes to consider a range of (opening and closing) national linepack levels to assess future linepack management requirements*

Further details on the Proposals can be found in the Appendix slides

*Planning processes to consider the impact of supply driven linepack depletion (Supply profiling)*

*We do not currently include profiled supplies, as a standard approach, in our planning processes*

# Gas Planning & Operating Standards Project – Next Steps



Appendix 1 - Gas Planning and Operating Standards Project - Proposals



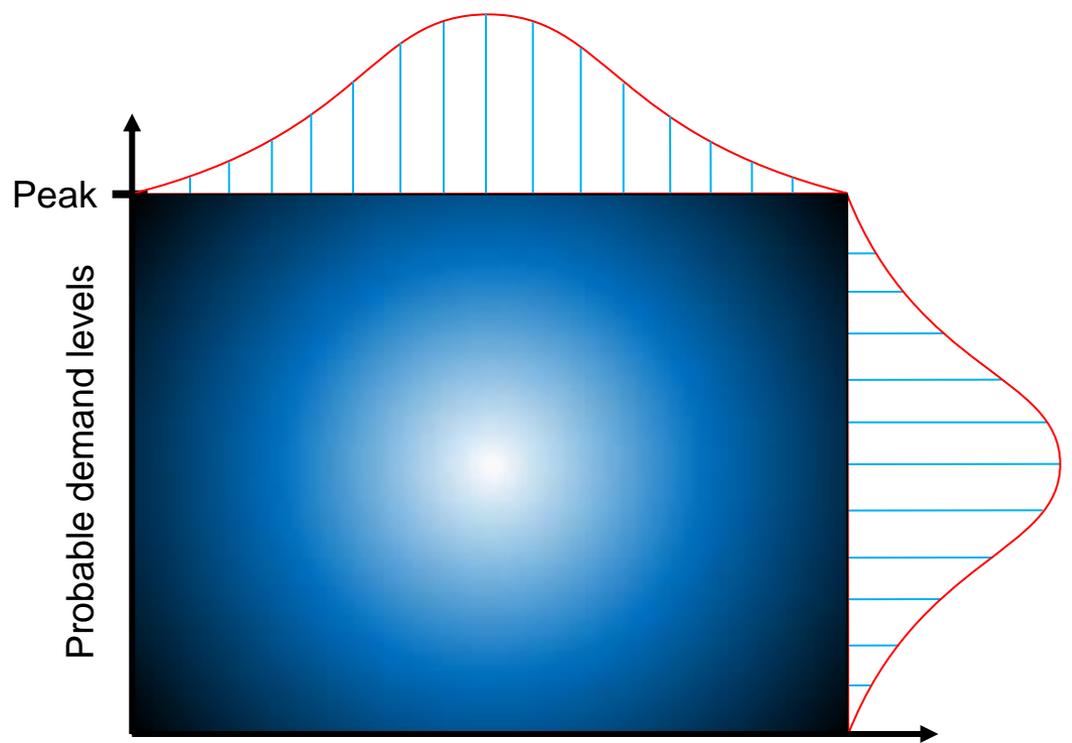
# Gas Planning and Operating Standards Project - Proposals

The peak aggregate daily demand which is likely to be exceeded (whether on one or more days) only in 1 year out of 20 years

*Is "peak" the only demand level we should be considering, given the changing use of the NTS?*

*How does this compare to what the control room actually experience?*

*What supply patterns should we be considering?*



Assess network capability (and investment options) against a range of probable supply and demand patterns (up to peak levels)

Take probability into account when undertaking cost benefit analysis of investment options

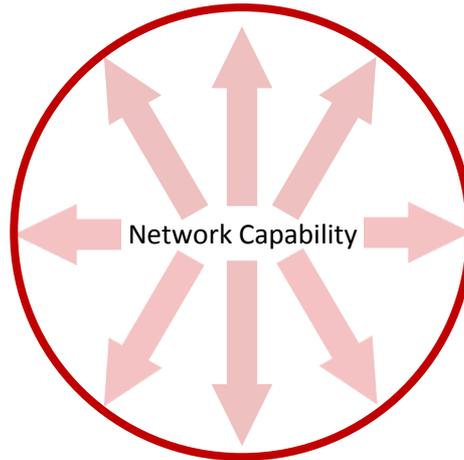
# Gas Planning and Operating Standards Project - Proposals

The maximum and minimum limits within which we should operate the NTS

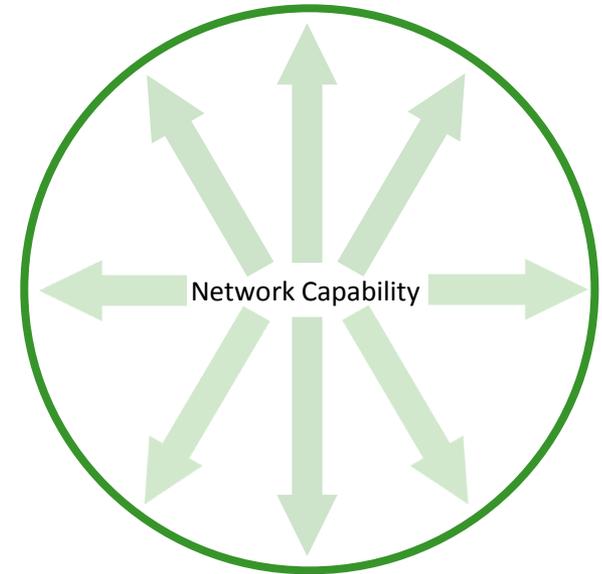
*What limits do our customers need us to operate within?*

*Can we improve the way that we demonstrate System Security and Efficient Operation?*

*How should we account for operational processes to change minimum pressures in planning processes?*



Assess Network Capability using Assured Offtake Pressures (System Security)



... and appropriate lower levels of pressure depending on demand levels (efficient operation)

Discussions on these lower levels of pressure started with DNOs



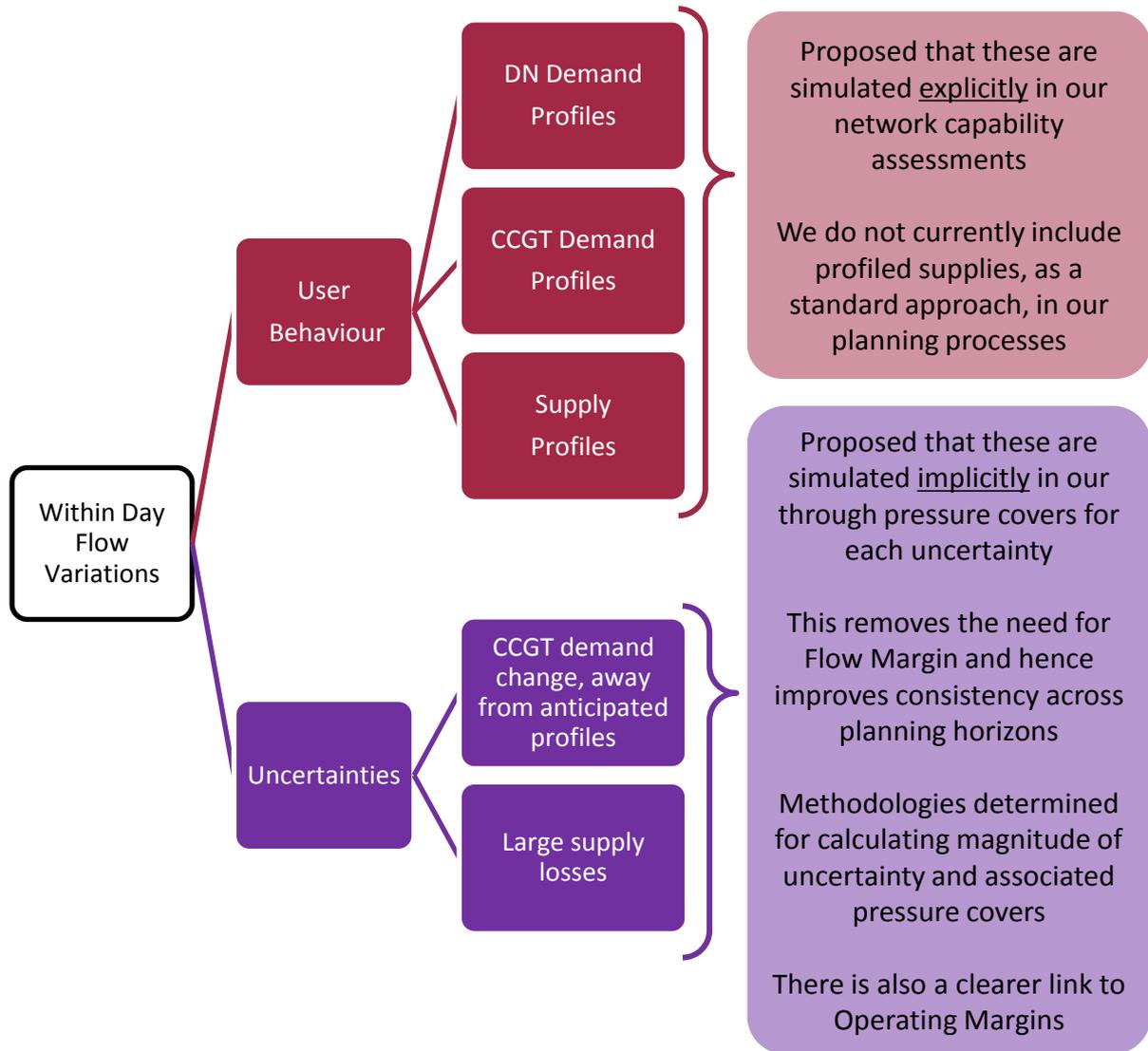
# Gas Planning and Operating Standards Project - Proposals

Including, but not limited to, within day gas flow variations on that day

*What sources of within day variation should we consider?*

*How should we treat uncertainties around within day variation?*

*Is the existing 2% flow margin still fit for purpose?*



# Gas Planning and Operating Standards Project - Proposals

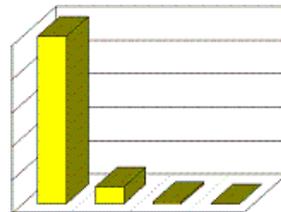
Including, but not limited to, within day gas flow variations on that day

*What sources of within day variation should we consider?*

*What magnitude of within day variation should we plan for?*

*How should we treat uncertainties around within day variation?*

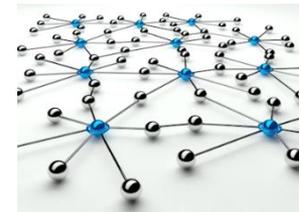
## Calculation of pressure cover.....



Uncertainties identified

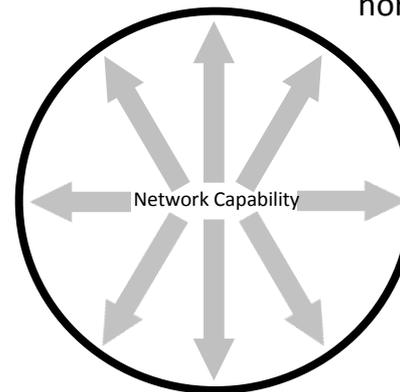


Methodologies for determining magnitude and duration developed

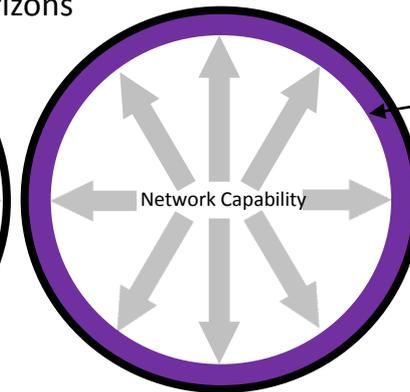


Network analysis to calculate pressure cover undertaken

## Consistent application of pressure covers in planning and operating time horizons



Without Pressure Cover for uncertainties



With Pressure Cover for uncertainties around within day variation?

A portion of network capability provides resilience for the identified uncertainties

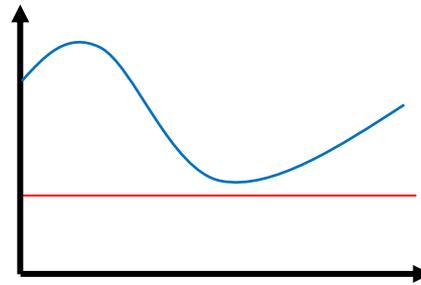
# Gas Planning and Operating Standards Project - Proposals

## Asset Availability and Reliability

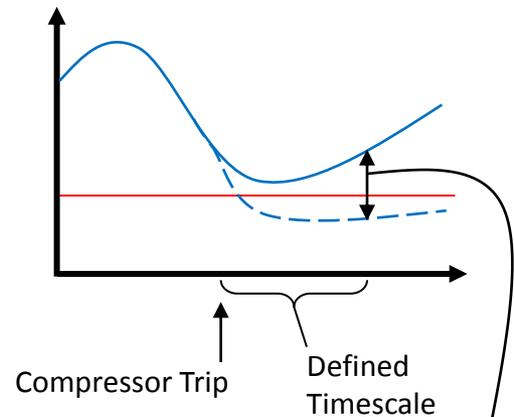
*What should we assume with regard to asset availability & how should this change across planning horizons?*

*How should we treat uncertainties around asset reliability?*

Pressure cover to also provide resilience for compressor trips...

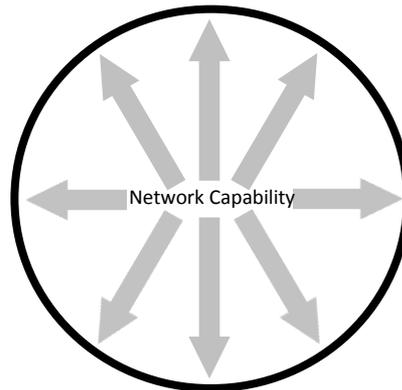


Normal Compressor Operation

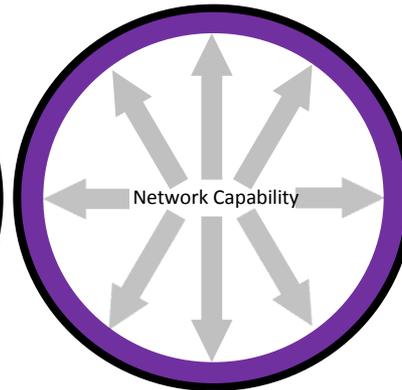


Compressor Trip

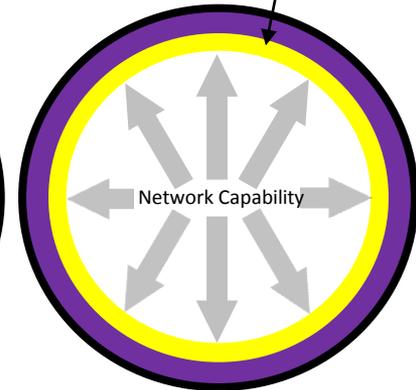
Defined Timescale



Without Pressure Cover for uncertainties



With Pressure Cover for uncertainties around within day variation



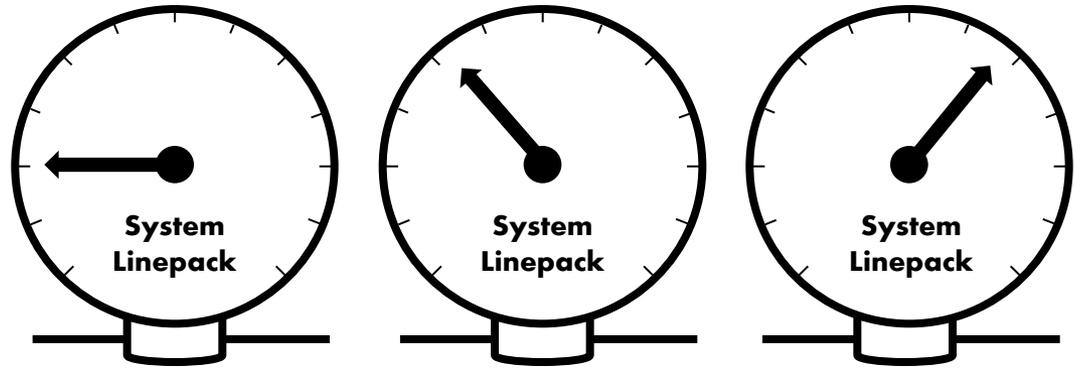
With Pressure Cover for uncertainties around within day variation and asset reliability

# Gas Planning and Operating Standards Project - Proposals

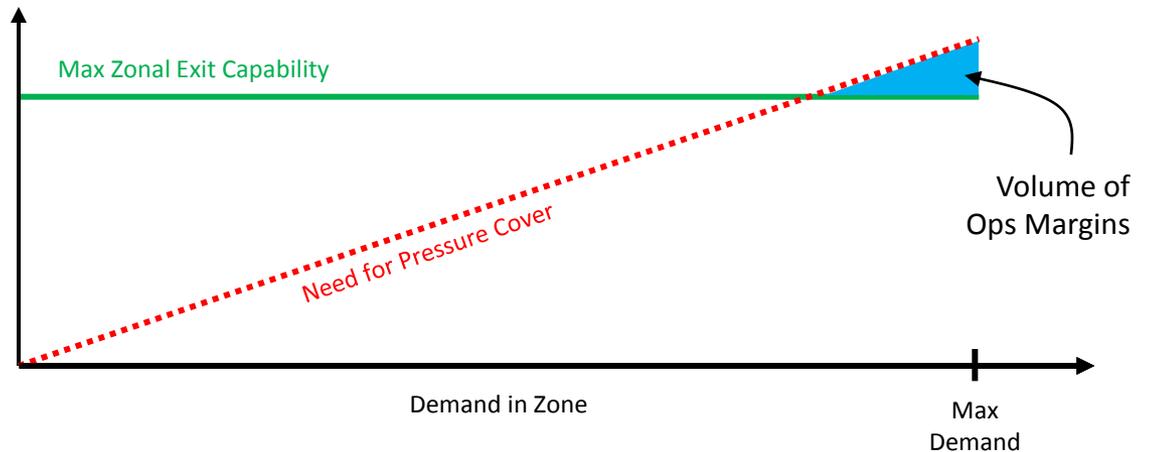
Taking account of such operational measures as are available to the licensee

*Do we need to update how we treat linepack management in planning processes?*

*Can we create clearer links to Operating Margins Requirements?*



Ranges of opening linepack to be considered in all planning processes to assess future linepack management requirements



If network has insufficient capability to meet pressure cover levels at highest demand levels, Operating Margins requirements will be identified – this is consistent with current OM calculation methodology

# Reviewing Communication Process



Operational Forum – February 2017  
John McNamara

## Reviewing Communication Process

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- National Grid Gas is seeking to improve electronic communication between the gas community
  - In response to your feedback
  - Provision of Fax is increasingly expensive and difficult to maintain
- Starting with replacing Fax for notifications and settlements
  - Building on current processes and systems
  - Needs to be a secure, accurate and efficient exchange of information
  - A range of methods including email, file transfer and API (webservice)

## Reviewing Communication Process

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- Discussions have already taken place and this is a continuation of the process.
- Our ambition is to design a flexible system
  - Incorporate your way of working as much as possible
  - Provide simplified standard pro-formas and protocols
- As a start to moving towards this aspiration
  - National Grid has commenced the process with a survey to customers, based on our contact list
    - If you would like to participate please let us know
- Expectations are that this will take some time to implement and will continue to communicate with you on progress.

# GB REMIT (Update)



Operational Forum – February 2017  
John McNamara

## GB Remit (Update)

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- Site has been live since 29/12/2017 and to date there have been no outages or loss of service
- Acer have started pulling off the information from the National Grid site
- National Grid has added links to the “Provider User Guide” and the “EIC Code site” in the “Useful Information” section of the site to aid users, as these have been common queries

## GB Remit (Update) cont.

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- Multi Editing Capability with a company
  - Issue: National Grid have had several queries around one user only being able to update a UMM once raised as an issue, especially where shift staff are raising
  - What we are doing: National Grid is arranging a code change to enable “grouping” of users so that Multi User editing of a UMM is possible
  - Only National Grid as Administrators to the system will be able to set a group
    - If this is a requirement please send a mail to [box.remit@nationalgrid.com](mailto:box.remit@nationalgrid.com) of the grouping you require
    - Planned go live date is early March 2017. We will put out a news item on the site once date confirmed.

# MIPI Statistics

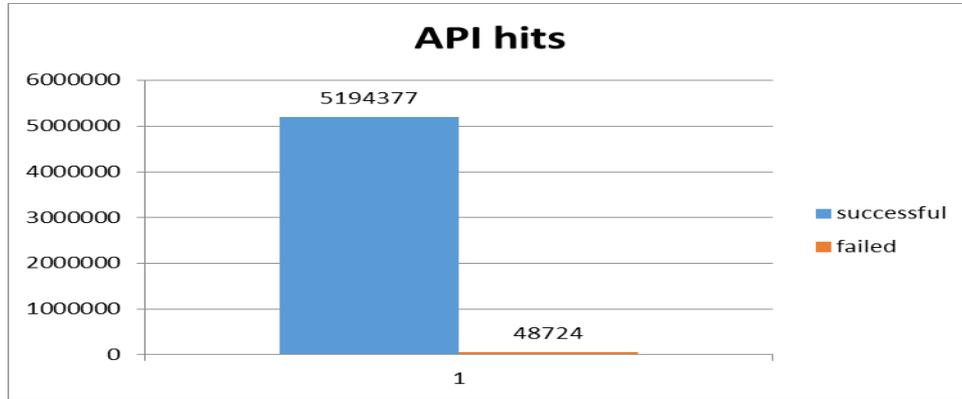


Operational Forum – February 2017  
John McNamara

# IS Service Management – MIPI Performance – Jan 2017

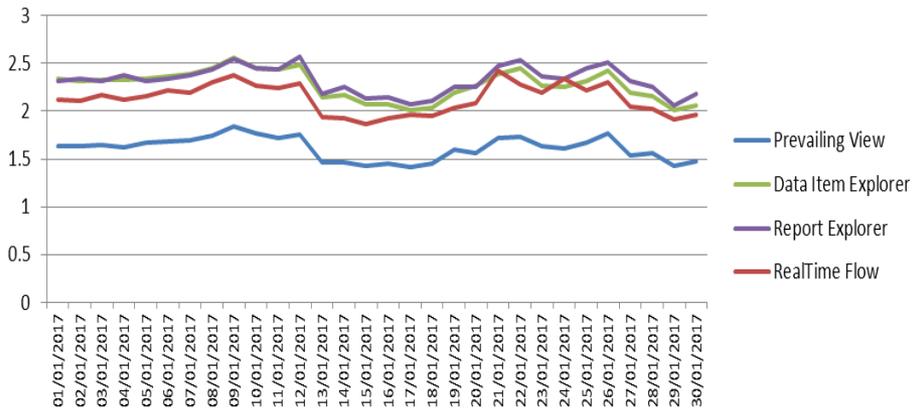
## Highlights

**Overall hits**  
97,993,947



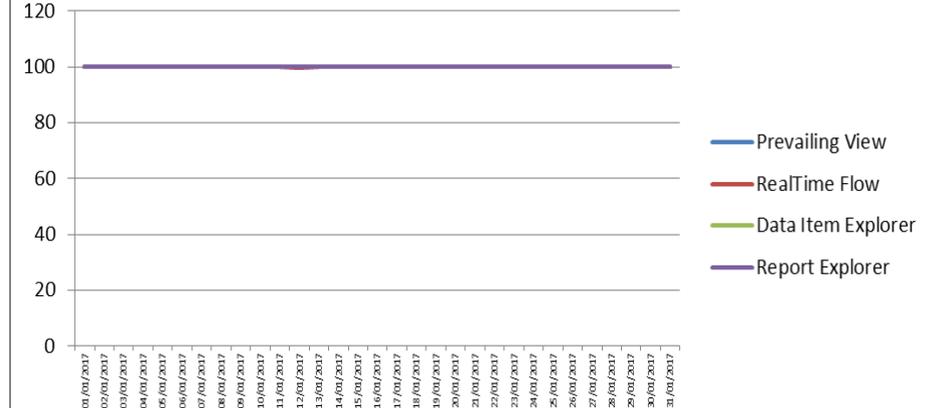
## MIPI Page Load Speeds

MIPI Page Load Speeds - Jan 2017



## MIPI Page Availability

MIPI Availability - Jan 2017



# Break



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

slido

# Constraint Management on the NTS



Operational Forum – February 2017  
Abby Hayles

# Constraint Management on the NTS

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## **PART ONE**

1. Constraint Management Objectives
2. What Constitutes a Constraint?

## **PART TWO**

1. System Operator Actions
2. Contact Details

# Constraint Management Objectives

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Some of our key objectives are:

## Managing constraints **Economically and efficiently**

- To manage the constraint with minimum costs to the community
- To use market based mechanisms to manage constraint situations whenever possible

## Maintaining **Transporter Reputation**

- Ensuring UNC and Licence compliance

## Optimising **Customer Service**

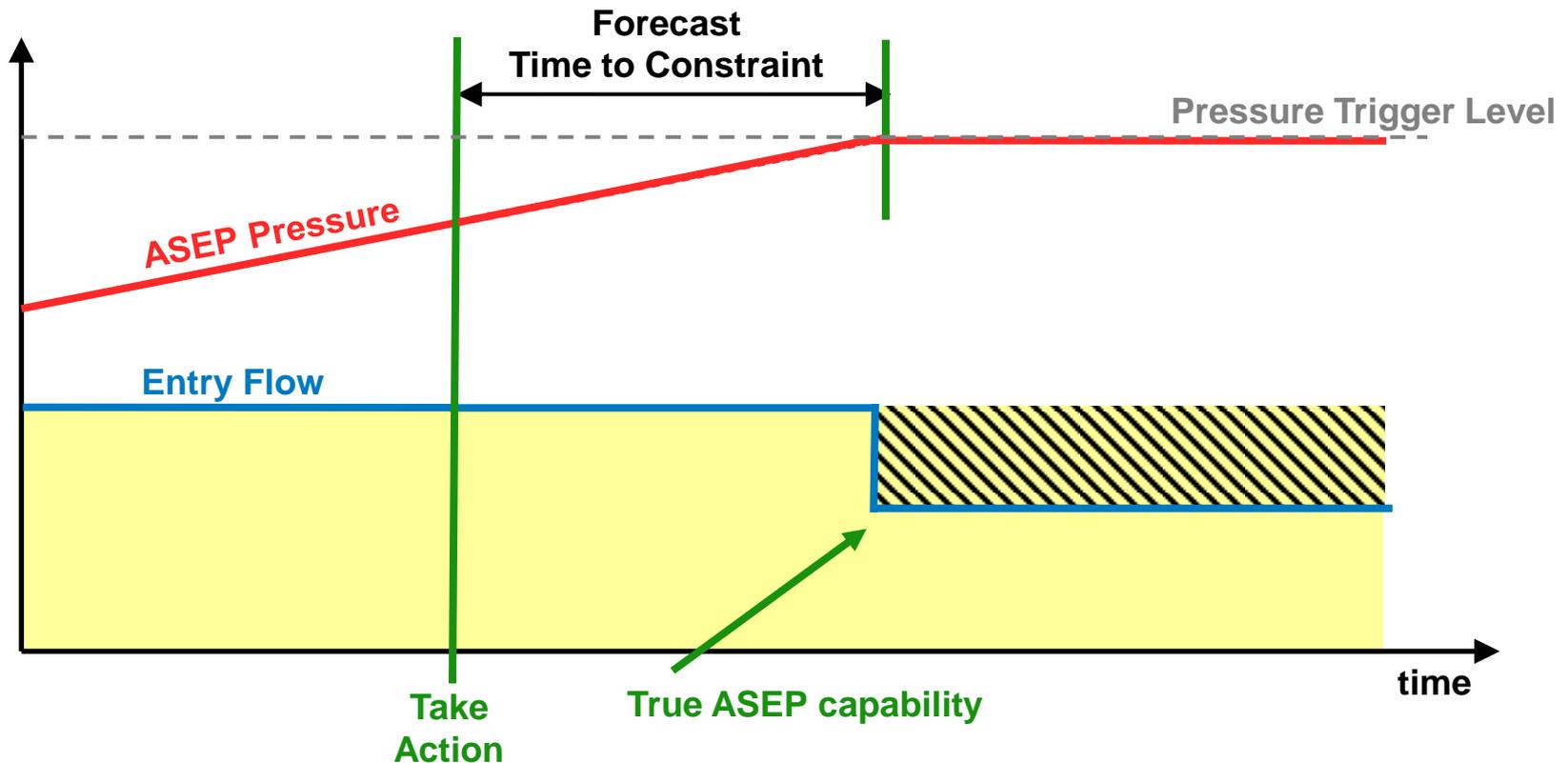
- Ensuring Users can offtake gas as per contractual and capacity obligations
- Minimising the impact on Users when taking actions

## Driving **Continual Improvement** in Processes

- Understanding lessons learned to improve operating efficiency

# What Constitutes a Constraint?

## Entry Example:



In constraint situations, National Grid will communicate with Users via the Active Notification System (ANS). It is therefore important to ensure that your contact details are up to date.

# System Operator Actions - Overview

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 (Distribution Network Operator (DNO) Only)</p> <p>Flow Swaps (Distribution Network Operator (DNO) Only)</p> <p>Enforce Contractual Offtake Rules</p> <p>Restrict Daily Capacity</p>	<p>Scaleback Capacity (Entry Interruptible &amp; Exit Off peak)</p> <p>Locational Energy Actions</p> <p>Capacity Surrender</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>

## Contact Details

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- Please provide any feedback or questions to the Capacity team:  
Email: [Capacityauctions@nationalgrid.com](mailto:Capacityauctions@nationalgrid.com)  
Phone: 01926 65 4057
- Further capacity information is available on the website:  
<http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/capacity/>
- Further information on EU Changes is available on the website:  
<http://www2.nationalgrid.com/uk/industry-information/europe/eu-project---implementation-information/>
- Our recent webinars are available on the website:  
<http://www2.nationalgrid.com/UK/Industry-information/Gas-transmission-operational-data/Webinars/>

# Constraint Management Scenario Game



Operational Forum – February 2017  
Abby Hayles/Mike Wassell

# AOB



Operational Forum – February 2017  
Karen Thompson

## Emergency Planning Update

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- Emergency Exercise X-Ray Report is complete and will be published shortly by the HSE.
- There has been an open letter issued advising that Andrew Malins will take the role of the NEC.
  - This can be read here under NEC Industry Letter 2017
    - <http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/network-emergency-coordinator/>

# Gas Transmission - Customer Satisfaction

## Survey coming soon....

Finding a better way

### WHEN?

**Friday  
24<sup>th</sup> February 2017**

- Interviews will start from Friday 24<sup>th</sup> February.
- You will receive an reminder email a week prior to the survey.

### WHO?

#### Explain

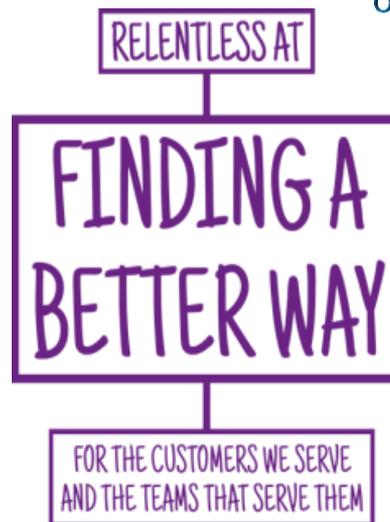
- On behalf of National Grid – Gas Transmission a company called 'Explain' will be in contact to receive your feedback on the Operational Forum.

**£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.

# Future Operational Forum Dates 2017

Finding a better way

Month	Date
February	23 <sup>rd</sup> February 2017
April	20 <sup>th</sup> April 2017
June	22 <sup>nd</sup> June 2017
September	21 <sup>st</sup> September 2017
October	19 <sup>th</sup> October 2017
November	23 <sup>rd</sup> November 2017
December	14 <sup>th</sup> December 2017

**See you at the next Gas Ops Forum – Thursday 20<sup>th</sup> April, for any queries in relation to forum please contact:**

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