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Project Nexus

Treatment of Unidentified Gas in Settlement

Presented at AUG Methodology Walkthrough
February 2017

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Terminology and Abbreviations

- ALP – Annual Load Profile
- AQ – Annual Quantity
- DAF – Daily Adjustment Factor
- DM – Daily Metered
- LDZ – Local Distribution Zone
- LSP – Larger Supply Point
- NDM – Non-Daily Metered
- SF – Scaling Factor
- SSP – Smaller Supply Point
- UG – Unidentified Gas
- UNC – Uniform Network Code
- WCF – Weather Correction Factor
- AUGE – Allocation of Unidentified Gas Expert
- Datalogger – equipment attached to a meter to capture and relay pulses of gas (does not capture the index of the meter)
- UKLink – the suite of applications operated by Xoserve, including Sites & Meters, Supply Point Admin and Invoicing

Settlement and Unidentified Gas

Part I - Current Arrangements

(before implementation of Project Nexus
Settlement Modifications – incl. 0432 & 0473)

Key Principles of Current Daily Energy Allocation

- Key principles:
 - Allocation takes place on an LDZ by LDZ basis
 - All energy is shared out for a day – no gas is left “unallocated”
- Gas is allocated for a “Gas Day” – runs for 24 hours starting at 5am

Brief Overview of Current Arrangements

- NDM Energy is the balancing figure each day in each LDZ – LSP and SSP NDM are subject to the same process
- Meter point reconciliation applies to LSP only
- SSP subject to Reconciliation by Difference – calculated in aggregate
- Unidentified Gas is fixed annually – monthly contribution from LSP to SSP billed in arrears

Settlement and Unidentified Gas

Part II - Future Arrangements

(following implementation of Modifications
0432 – Project Nexus Settlement and
0473 – Allocation of Unidentified Gas)

Key Principles of Daily Energy Allocation – Future

- Key principles:
 - Allocation will take place on an LDZ by LDZ basis
 - All energy will be shared out for a day – no gas is left “unallocated”
- A “Gas Day” will still run for 24 hours starting at 5am

Classes of Meter Point

- Four new services – “Classes”
- Although DM & NDM terminology will continue there will be two services that align with DM & the other two with NDM
 - The services define the way gas is allocated, reads are obtained, received & processed
 - Shippers elect the Class for the meter point (with the exception of Class 1 which is mandatory for certain meter points)
 - Depending on the Class elected defines the type of service provided
 - The Class of the meter point does not change the transportation charges, it is purely Shipper & end consumer choice

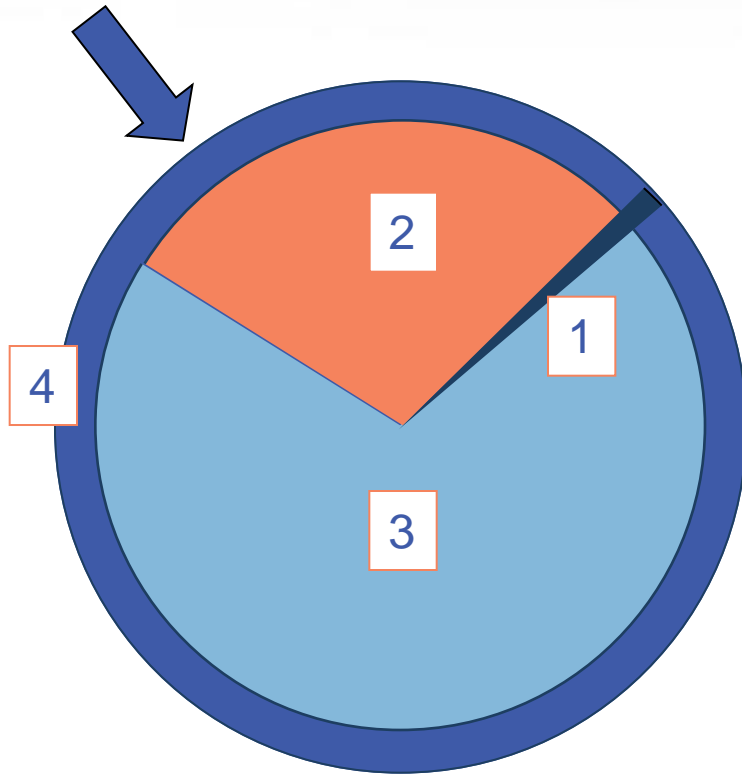
Summary of the Classes

Process Description	Meter Points Eligible	Process for initial Allocation	Process for Energy Balancing close-out	Read Submission Timescales	Type of Read Submission	AQ Calculation	Reconciliation
Class 1 – Daily Metered, DM Mandatory threshold	Only those that meet DM Mandatory Threshold	Uses daily read	Uses daily read	By 1pm on GFD+1	All reads daily on GFD+1	Monthly using Optimum Read	Meter Point level following a re-synch or estimate
Class 2 - Daily Metered	Any meter point except those that must be Class 1	Transporter estimate	Uses daily read	By end of GFD+1 (04.59 am)	All reads daily by end of GFD+1	Monthly using Optimum Read	Meter Point level following a re-synch or estimate
Class 3 – Batched Daily Readings	Any meter point except those that must be Class 1	Allocation Profiles	Allocation Profiles	Daily Reads in batches	All daily reads in batches	Monthly using Optimum Read	Daily Rec at Meter Point level on receipt of a batch of reads
Class 4 – Periodic Readings	Any meter point except those that must be Class 1	Allocation Profiles	Allocation Profiles	Periodic	Periodic reads	Monthly using Optimum Read	Meter Point level at receipt of read



Overview of Future Daily Energy Allocation

- Total inputs to the LDZ



1. Shrinkage deducted – fixed daily amount
2. Classes 1 & 2 (DM) - actual measurements from recording equipment
3. Classes 3 & 4 (NDM) – new bottom-up NDM Algorithm, new WCF calculation:

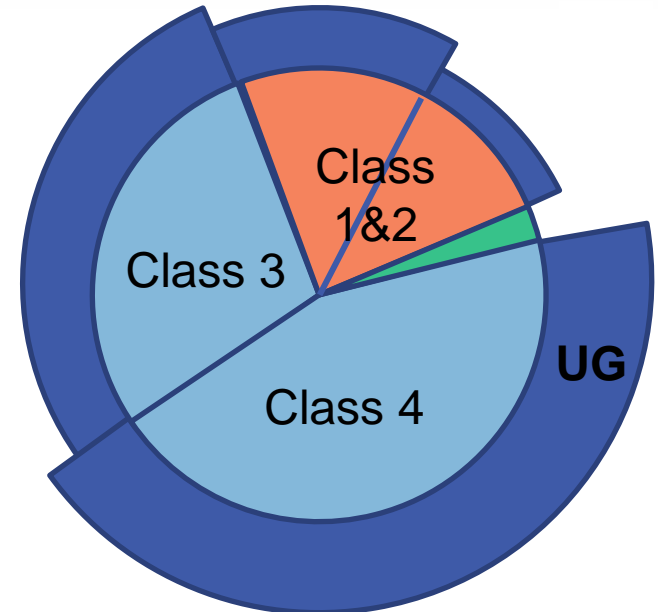
$$\text{Supply Point Demand} = (\text{AQ}/365) * \text{ALP} * (1 + [\text{DAF} * \text{WCF}])$$

4. New balancing figure is Unidentified Gas

Caution - not to scale

Future Apportionment of UG

- UG shared out at Shipper level – not site level
- Separate allocation “pot” – not an uplift to site level consumptions
- Sharing based on Shippers’ initial measurements/ allocations in an LDZ
- Weighting factors applied to initial measurements allocations by Class and/or EUC
- Subject to reconciliation

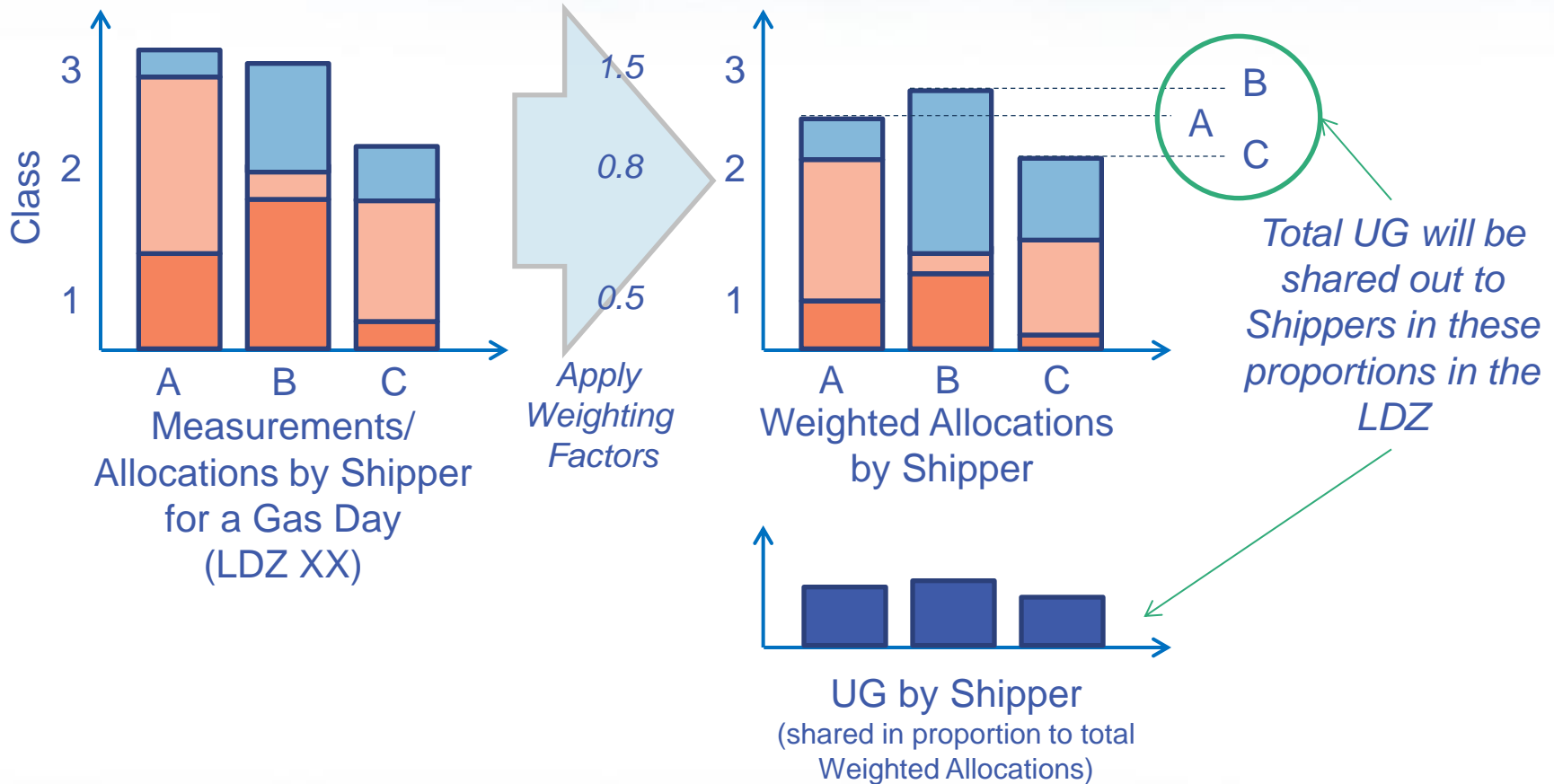


Caution - not to scale

UG Weighting Factors

- Weighting factors will target more or less energy to different Classes of meter points and or EUCs, based on an assessment of their contribution to UG
- UNC Modification 0473 reintroduces the concept of an Allocation of Unidentified Gas Expert (AUGE)
- A new AUGE has been appointed to determine what the weighting factors should be
- Until the new AUGE's first outputs have been approved, a set of interim Weighting Factors will apply – these can be found in the new “AUG Framework” UNC Related Document

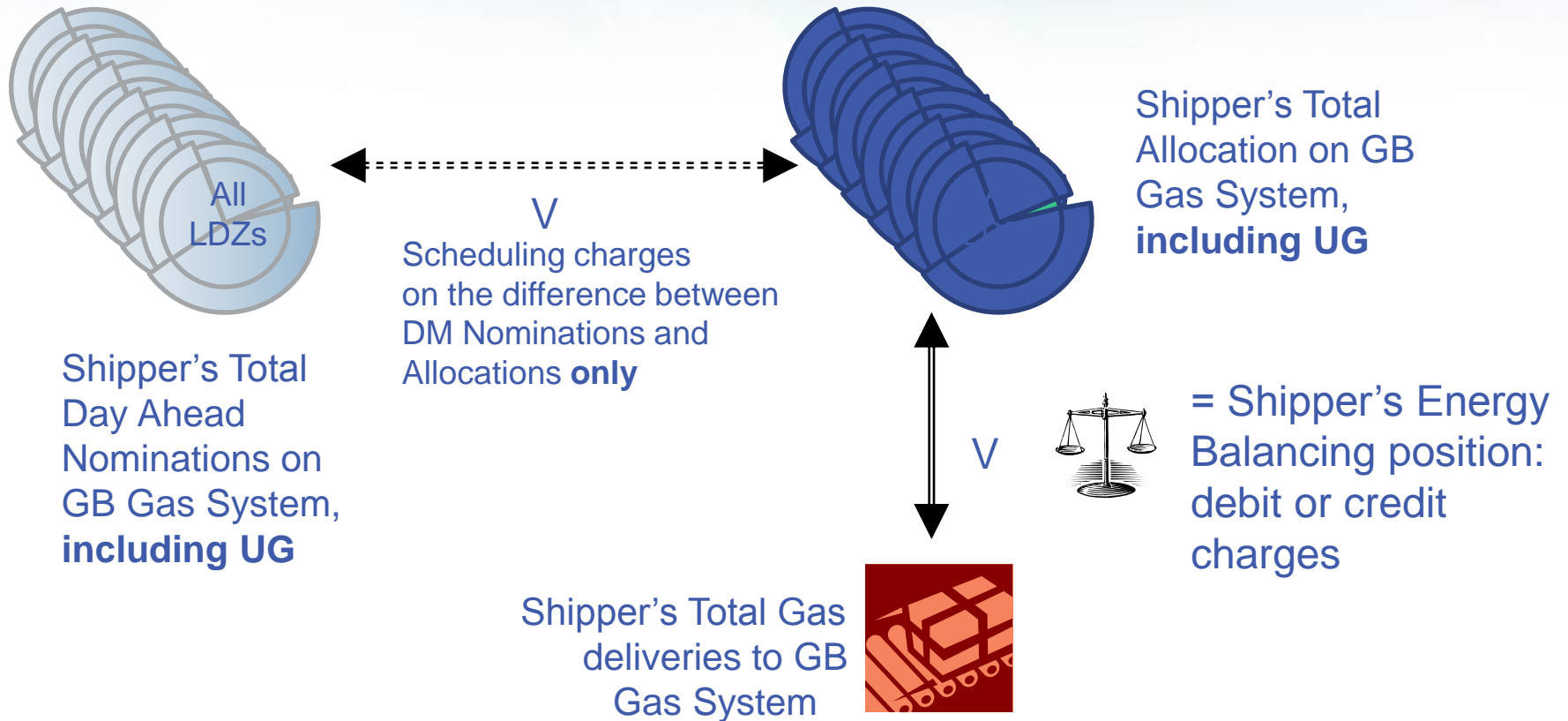
Example of Applying Weighting Factors



Notes:

- Weighting factors are multipliers and do not need to add up to any fixed value
- Above diagrams are for illustration only and not accurate or to scale

How the Gas is paid for – Future

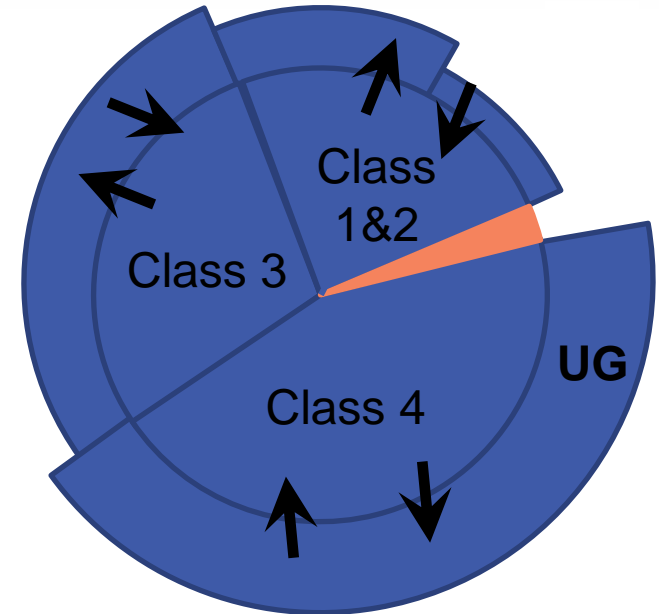


Determination of Energy Values – Future

<i>Data item</i>	<i>Before the Gas Day – Gas Nominations</i>	<i>After the Gas Day – Gas Allocations</i>
Total LDZ Inputs	Forecast of LDZ off-take – produced by the Network Operator	Total gas measured into the LDZ
Shrinkage	Fixed daily amount provided by the Network Operator	Fixed daily amount provided by the Network Operator
Class 1 & 2 (DM) Quantities	DM Nominations – provided by the Shippers	Daily measurements obtained using automated meter reading equipment
Class 3 & 4 (NDM) Quantities	Stand-alone figure, using the new NDM Algorithm	Stand-alone figure, using the new NDM Algorithm
Unidentified Gas	Balancing figure in the LDZ	Balancing figure in the LDZ

Subsequent Reconciliation – Future

- Each reconciliation changes amount of Unidentified Energy
- Need to amend Shipper shares for all new reconciliations
- Recalculate share of unidentified gas based on latest measurements/ estimates proportions and relevant weighting factors
- UG reconciliation energy shared out across previous 12 months weighted shares of consumption
- Reconciliation continues for 3 to 4 years after end of Gas Day



Not to scale

Where to go for more information

- Joint Office Website (www.gasgovernance.co.uk)
 - Approved and pending modifications
 - Project Nexus Workgroup pages
 - Previous meeting minutes
 - Baselined Business Requirements documents
 - Approved Demand Estimation Methodology document
- Xoserve.com Website
 - Our Change Programme – UKLink
 - Programme documents including Q&As and process walkthroughs
 - MHub presentation on Reconciliation (under Documents/ Presentations)
- Your Xoserve Stakeholder Business partner can connect you to the information you need.