

Business Requirements Definition

for

Project Nexus

submitted to

Project Nexus Workgroup Annual Quantity

(Distribution Workgroup from September 2016)

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1. Glossary

Term / Acronym	Definition
Annual Quantity (AQ)	Annual quantity of gas assumed to be offtaken over a period based on historical information
AQ Close-Out	The last Day on which Meter Readings or other information received by the Transporters will be considered for the purposes of the Monthly AQ Review.
AQ Effective Day	The Day on which the Notified AQ becomes effective.
Brownfield Site	Site where an MPRN is recorded, existing gas connection but currently not registered to a Shipper (Shipperless)
BSSOQ	Bottom Stop SOQ
Calculated AQ	The AQ calculated as a result of a read being loaded
Consumption Period	The period in Days between the dates of the actual two Meter Readings available for use in the Monthly AQ Review calculations.
CSEP	Connected System Exit Point (iGT Supply Points)
Current AQ	The Annual Quantity registered at a Supply Meter Point prior to a change in the Annual Quantity made as a result of the Monthly AQ Review.
DECC	Department of Energy and Climate Change
DM	Daily Metered
End Meter Reading	The later Meter Reading, that is not more recent than the Information Close-Out Day, which determines the end of the Consumption Period.
EUC	End User Category
GFD	Gas Flow Day
Greenfield Site	Site where there is a new gas service connection
GT	Gas Transporter
LSP	Larger Supply Points (AQ above 73,201 kWh)
Monthly AQ Review	The process conducted by the Transporters whereby, as a result of Meter Readings, the Annual Quantity of a Supply Meter Point is recalculated.
NDM	Non Daily Metered
Notification Day	The Day on which the Transporters notify the Registered Users of changes in the Annual Quantity.

Notified AQ	The Annual Quantity notified by the Transporters when a change of Annual Quantity of a Supply Meter Point is notified to the Registered User as a result of the Monthly AQ Review.
NTS	National Transmission System
Optimum Read	An ideal read within the required period to calculate an AQ
Prime and Sub	Is a Sub-deduct Arrangement
RbD	Reconciliation by Difference
Read Validation Override Flag	The indicator set by the User on read submission to request that despite anticipating a Supply Meter Point would fail validation, the meter reading is correct.
Revised AQ	The new AQ calculated
SAP	System Average Price
SHQ	Supply Point Hourly Offtake
Site	Supply Meter Point level
SND date	Seasonal Normal Demand Review date (SND updates WAALP factors retrospectively for a 3 year period)
SOQ	Supply Point Daily Offtake
SSP	Smaller Supply Points (AQ = to or less than 73,200 kWh)
Start Meter Reading	The earlier Meter Reading that determines the start of the Consumption Period.
Sub-deduct Arrangement	An arrangement of pipes and meters, by which a part of the gas which is conveyed by a System to premises for the purposes of supply to those premises, is further conveyed to other premises for the purposes of supply to those other premises.
Valid Read	A meter reading which has passed all GT read validations as described in the 'Meter Read Submission and Processing and Settlement Arrangements BRD'. A valid read can also be the estimated transfer reading.
Validation Override Flag	Indicator set by the Shipper to request that despite anticipating a meter read would fail validation, the read is correct and should be accepted and used for other processes including to calculate the AQ.
WAALP factors	Winter Average Annual Load Profile
Winter Consumption	The consumption of a Supply Meter Point calculated from meter readings taken, over the period 01 December to 31 March,
Winter Annual Ratio (WAR)	The ratio of the Winter Consumption of a Supply Meter Point to its Annual Quantity.

2. Document Purpose

The purpose of this document is to ensure that the business requirements associated with the referenced change have been accurately captured and to clearly specify these requirements to the Project Nexus AQ Workgroup and Project Nexus UNC Workgroup (PN UNC).

The contents refer to the business scope of the change and provide descriptions of the business requirements and the relevant existing and future process maps.

This document builds upon the Business Requirements Definition document for Annual Quantity, version 5.0 dated 25/10/2013 published on the Joint Office website:

<http://www.gasgovernance.co.uk/nexus/brd>

Following the Nexus design within the UK Link Programme, further levels of detail have been identified that needed to be presented and agreed by the industry. If necessary supporting UNC modifications will be raised. The greater detail presented in this document does not change the UNC business rules defined in Modification 0432 - Project Nexus – Gas Demand Estimation, Allocation, Settlement and Reconciliation reform.

2.1 Updates since the approval of Modification 0432

The following provides a summary of the updates since the BRD was baselined following approval of Modification 0432.

The table will show;

- Updates that have been made to clarify the business requirement
- Updates to reflect Modification 0432 legal text
- New requirements or changes to requirements that have been agreed at PN UNC
- Requirements that will not be delivered for Go Live and will need to be delivered in a later release of UKLink Replacement

Updated Section in BRD	Summary of the Reason for the Update	Source	Date Presented at PN UNC	Date Agreed at PN UNC	Section of UNC that requires update	UNC Mod Required?	Updated in Version of BRD	Date BRD Updated
1.	Added definitions for a Greenfield & Brownfield site	PN UNC	12/05/15	Clarification only	N/A	No	5.6	18/05/2015
5.1.2	Remove statement 'aspiration for all iGT sites to be treated the same as directly connected sites'.	Internal review	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
6.1.16	Updated assumption that BSSOQ will no longer exist	Internal review	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
6.1.17	Updated assumption that the Spec Calc will not be required	PN UNC	10/03/2015	10/03/2015	N/A	No	5.4	11/03/2015
6.2.5	Added a dependency that Modification 0445 will be approved to remove BSSOQ	Internal review	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
8.2.2	Clarification to the timescales for submission of a read to be used in the AQ process	Q&A X83 & X136	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.2.5	Added reference to relevant section of the BRD for clarification	Internal review	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.2.6	Removed 'no later than' for the notification of the AQ at M-5 business days.	Internal review	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
8.3.3	Added the AQ calculation formula for clarification	Q&A X84	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.6.1	AQ Correction – added further reason for submission due to read failure	Internal review	As per UNC	As per UNC	N/A	No	5.1	13/01/2015
8.6.1	AQ Correction – added further reason for submission following a proven theft of gas	Internal review	As per UNC	As per UNC	N/A	No	5.6	18/05/2015

8.6.3	Updated to an AQ Correction will only be accepted following a calculation of the AQ except where the read has failed the Outer Tolerance validation. Note: This is logged as a requirement gap.	PN U NC	20/01/2015	10/03/2015	As per UNC	No	5.4	11/03/2015
8.6.4	Added the AQ Correction timescales	PN UNC	20/01/2015	10/03/2015	G1.6.27 & G1.6.28	Yes	5.4	11/03/2015
8.6.6	AQ Correction – added that the read is required where the request is following read validation failure	Internal review	As per UNC	As per UNC	N/A	No	5.1	13/01/2015
8.6.7	(REQ23) AQ Correction – Added timescale for a request for New Business Activity within 3 months	PN UNC	09/09/2014	09/09/2014	G1.6.24	Yes	5.1	13/01/2015
8.6.5	Removed timescale for response to the AQ Correction & timescale as included in updated to 8.6.4	Internal review	Duplicate text	Duplicate text	N/A	No	5.4	11/03/2015
8.6.10	Added that a revised Offer will be sent if the AQ Correction amends the EUC	UKLIEF 19/02/20 14	N/A	N/A	N/A	No	5.4	11/03/2015
8.7	Threshold crossers – clarified the reason when a notification will be issued to the Shipper following AQ process	Q&A X85, X145 & X227	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.8.3	Added clarification on the dates the snapshot of the AQ & SOQ will be taken	DNCMF & Q&A X51	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.8.4	Added clarification of change in EUC as part of the AQ process	Q&A X69	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
8.8.5	Added clarification that where the AQ/SOQ changes the Shippers with a valid Offer will be notified.	Q&A X152	Clarification only	Clarification only	N/A	No	5.4	11/03/2015

Annual Quantity BRD

8.8.5	Further clarification added for the reason an AQ/SOQ would change.	Internal review	Clarification only	Clarification only	N/A	No	5.7	08/07/2016
8.8.6	Added clarification that the AQ/SOQ will be notified during transfer of ownership process.	Q&A X725	Clarification only	Clarification only	N/A	No	5.4	11/03/2015
8.8.7	Added clarification that the AQ/SOQ used for transportation charges will also be updated as a result of an AQ Correction.	Colette Baldwin	Clarification only	Clarification only	G1.6.18	Yes	5.5	02/04/2015
8.9	(REQ2) Added clarification regarding process for challenge on the Winter Consumption & Winter Annual Ration Bands (WAR)	PN UNC & Q&A X80 & X211	08/01/2014	08/01/2014	Not in UNC	No	5.1	13/01/2015
8.10	Clarification for assigning End User Categories (EUC)	Q&A X69 & X212	Clarification only following Q&A	Clarification only following Q&A	N/A	No	5.1	13/01/2015
8.11	Clarification on calculation of Aqs on a Prime & Sub	Q&A X148	Clarification only	Clarification only	N/A	No	5.1	13/01/2015
8.11.1	Corrected reference & added the relevant BRD	Internal review	Clarification only	Clarification only	N/A	No	5.6	18/05/2015
8.12	Included business rules for updating the AQ for new meter points	PN UNC	12/05/2015	Clarification only	N/A	No	5.6	18/05/2015
9.	Included transitional rules from annual to monthly AQ process	PN UNC	12/05/2014 for Oct 2015 implementation. Oct/Nov/Dec 2016 for June 2017	12/05/2014 for Oct 2015 implementation 05/02/2017 for June 2017	Transition Mod section 5.3	Yes	5.1	13/01/2015 05/02/2017 (Transition BRD)

2.2 Intended Audience

- Gas Shippers/Suppliers
- Gas Transporters (Large and Small)
- Xoserve
- Customer Representative

3. Executive Summary

3.1 Introduction to the change

This document defines the timescales and processes associated with the calculation of the Annual Quantity for gas meter points.

The document has been based on presentations and discussions at the Project Nexus AQ Workgroup and considering the high level principles agreed at the AQ Principle Workgroup in April 2010. .

All square brackets [] indicates values that can be parameterised for the purposes of the BRD although will require confirming for system design or system design or system development.

3.2 Implementation Timescales

Implementation of the developed solution will be confirmed once all requirements are captured following the Project Nexus Requirements Definition Phase.

3.3 Change Drivers and Business Goals

3.3.1 Drivers

The drivers detailed below are those identified by the AQ Workgroup for the derivation of the Annual Quantity (AQ);

- a. AQ to accurately reflect site consumption
- b. To utilise the reads obtained from remotely read meters in the calculation of the AQ
- c. To simplify the process wherever possible without affecting the accuracy of the AQ
- d. To systematise processes
- e. To smooth out workloads throughout the year
- f. Provide an incentive to Shippers to submit accurate and timely reads
- g. Provide transparency throughout the AQ review process and via industry reports

3.3.2 Business Goals

To develop a robust regime for the derivation of a site's annual consumption (AQ) that is utilised in downstream processes. The AQ to be as accurate as possible using the latest available historic meter reads.

3.4 Change Background

The changes have been identified as a result of Xoserve's Project Nexus consultation for the replacement of UKLink systems and following DECC's consultation on Smart metering and Supplier licence obligation for the installation of advanced meters.

The changes are also as a result of Modification 0209 which was allocated to the Project Nexus Workgroup in May 2009 and more recently Modification 0380 which is a replacement for Mod 0209.

3.4.1 Areas Identified in the Initial Requirements Register (IRR)

- Introduction of a rolling AQ is a core services required to ensure energy is accurately allocated
- Rolling AQ will reduce the risk to RbD shippers and their costs associated with reconciliation
- Increased energy consumption data should feed into an updated AQ rather than waiting for the annual review
- Rolling AQ being developed by Mod 0209 workgroup and should feature in Project Nexus
- Review of the SOQ for DM and NDM sites throughout the year as currently it can be up to 12 months out of date

3.4.2 Business process Issues raised during the Workgroups

- Changes in consumption are not immediately reflected in the AQ
- Current AQ is based on historic consumption data, the AQ does not accurately reflect current consumption
- Unable to appeal SSP AQs
- Manually labour intensive during the summer months for all parties
- Impacts on other processes during the processing and updating of the AQ
- Current process does not provide an incentive to submit reads more frequently

3.4.3 UNC and Licence Impacts

- UNC Section G1.6
- UNC Section H3

3.4.4 UNC Process Impacts

- Annual AQ Review

3.4.5 Interaction with Project Nexus High Level Principles

In April 2010 the following high level principles for an AQ review were agreed at the Project Nexus Principle Workgroup;

- Preference for a 'No AQ' regime. This regime is only possible where daily allocations are performed based on actual reads.
- However, it was recognised that an AQ will continue to be required for UNC processes, industry processes and licence obligations. GTs would also require an AQ for network operations.
- Transitional arrangements in a 'No AQ' regime would use a 'Rolling AQ' principle.
- 'Rolling AQ' was the preferred option where allocations were not performed daily using actual reads.
- Fallback position was an improved Annual AQ review.

3.5 Related Documents

Document Title	Location
Modification 0209: Rolling AQ	Joint Office Website
Modification 0380: Periodic AQ Calculation	Joint Office Website
AQ Principles Workgroup Report (19/05/2010)	Joint Office Website
Meter Read Submission and Processing and Settlement Arrangements BRD	Joint Office Website
PN UNC Workgroups	Joint Office Website

4. Benefits

4.1 Industry Benefits

The following benefits will need to be aligned with the Transporter relevant objectives;

- 4.1.1 Site AQ will more accurately reflect site consumption
- 4.1.2 Utilising the reads received from remotely read meters
- 4.1.3 More accurate allocations
- 4.1.4 Simplified Shipper and GT processes
- 4.1.5 Reduction in manual intervention due to systematised approach
- 4.1.6 Spread out workload
- 4.1.7 Incentivise more frequent read submission
- 4.1.8 Greater User confidence in the AQ calculation regime

5. Change Scope

5.1 In Scope

5.1.1 Function:

- a. Calculation of a site's AQ
- b. Timing of the calculation
- c. Validation of the AQ
- d. Submission of the AQ to Shippers
- e. Challenges to the AQ
- f. Updating the AQ
- g. SOQ, SHQ and BSSOQ calculation and timing of the calculation

5.1.2 Market Sector:

- a. All directly connected gas meter points
- b. Daily Metered CSEP sites
- c. NTS sites
- d. Prime and Sub sites
- e. NDM CSEPs

5.2 Out of Scope

5.2.1 Function:

- a. Any process not described above as In Scope

5.2.2 Market Sector:

Detailed Requirements Analysis

6. Assumptions and Concerns

6.1 Assumptions

- 6.1.1 The business rules will need to be appropriate for dumb metered sites as well as remotely read sites
- 6.1.2 The processes described in the Settlement Workgroups are approved
- 6.1.3 The proposed validations carried out by the GT at read receipt will ensure that any significant erroneous reads are rejected and not used for AQ calculation.
- 6.1.4 Only the latest replaced valid read at the time the AQ is calculated will be used.
- 6.1.5 Ratchets will continue as an incentive regime where Shippers nominate the SOQ and SHQ.
- 6.1.6 There will not be a requirement to retrospectively update the AQ.
- 6.1.7 If 'Monthly Rolling AQ Review' is implemented prior to the 4 processes determined in the Settlement Workgroup, the current UNC read limits would continue to apply.
- 6.1.8 An AQ will not be calculated if the validations on the read have failed due to asset data
- 6.1.9 Estimated reads will not be used to trigger an AQ calculation
- 6.1.10 Sub deduct arrangements will continue and the Prime and Sub-deduct meter(s) will continue to have an AQ for each meter (currently the AQ for the Sub-deduct meter is deducted after calculating the Prime meter AQ).
- 6.1.11 AQ process during a 'Leap Year' will be treated the same as the current arrangements, i.e. calculate 365+1 daily consumptions.
- 6.1.12 Threshold Crosser adjustments, Mod 0640, will not be required where rolling AQ is implemented with or after individual Meter Point Reconciliation. If the business rules described in this document are implemented before Meter Point Reconciliation Mod 0640 adjustments may need to continue (see Section 9) until Meter Point Rec is implemented.
- 6.1.13 Where an AQ is calculated the GT will not perform validation on the AQ before submission to the Shipper as meter reads will be validated by the GT on receipt of the read, this is described in the 'Meter Read Submission and Processing and Settlement Arrangements BRD'.
- 6.1.14 Where an AQ is calculated from a read subsequently identified as incorrect, the Shipper can submit a new read within the timescales described under Section 8.2 and a new AQ will be calculated and be effective, subject to validation, for the 1st of the following month.

- 6.1.15 There will not be a retrospective adjustment to energy or transportation charges where the AQ calculated is later found to be calculated based on incorrect reads.
- 6.1.16 BSSOQ will not apply and no longer exist from implementation of Modification 0432.
- 6.1.17 It is unlikely that the 'Spec Calc' will be required in a 'Rolling AQ' regime, however, this assumption will need to be re-assessed by the industry once the detailed business rules have been approved. Agreed at PN UNC on 10/03/2015 that the Spec Calc will not be required, this will be reviewed by the industry following implementation of Modification 0432 and a change raised if it is required as a service in the future.
- 6.1.18 Only validated meter reads, as described in the 'Meter Read Submission and Processing and Settlement Arrangements BRD' will be used for AQ calculation (options on how this will work for the transitional period will be considered further under Section 9).
- 6.1.19 The existing methodology for calculating the AQ will continue unless specified under Section 8 of this document.

6.2 Dependencies

- 6.2.1 The processes described within the Settlement Workgroup are unchanged.
- 6.2.2 The GT read validations described under the 'Meter Read Submission and Processing and Settlement Arrangements BRD' would need to be implemented before the rules described in this document are implemented.
- 6.2.3 Approval of the requirements by PN UNC
- 6.2.4 Approval by Ofgem following the appropriate UNC Modification process.
- 6.2.5 Modification 0445 will be approved and implemented.

6.3 Risks & Issues

- 6.3.1 Not all Shippers/Suppliers attend the workgroups or are represented therefore there may be opposition to any potential Modifications raised.
- 6.3.2 If the monthly AQ regime were to be implemented before the read validations described under the Settlement regime, interim/transitional arrangements may need to be applied to ensure erroneous AQs are not implemented as a result of an invalid read being loaded.
- 6.3.3 Impacts on allocation will continue if the AQ is not calculated due to incorrect asset data held on the Supply Point Register as a new AQ will not be calculated.

6.3.4 Efficient AQ calculation is dependent on improved Shipper Meter Reading performance and increased frequency of read submission: if the significant roll-out of remote reading equipment does not occur (or is delayed) then there is a risk that read performance will not improve and that AQs will not be recalculated regularly.

6.4 Constraints

6.4.1 None identified.

6.5 Design Considerations

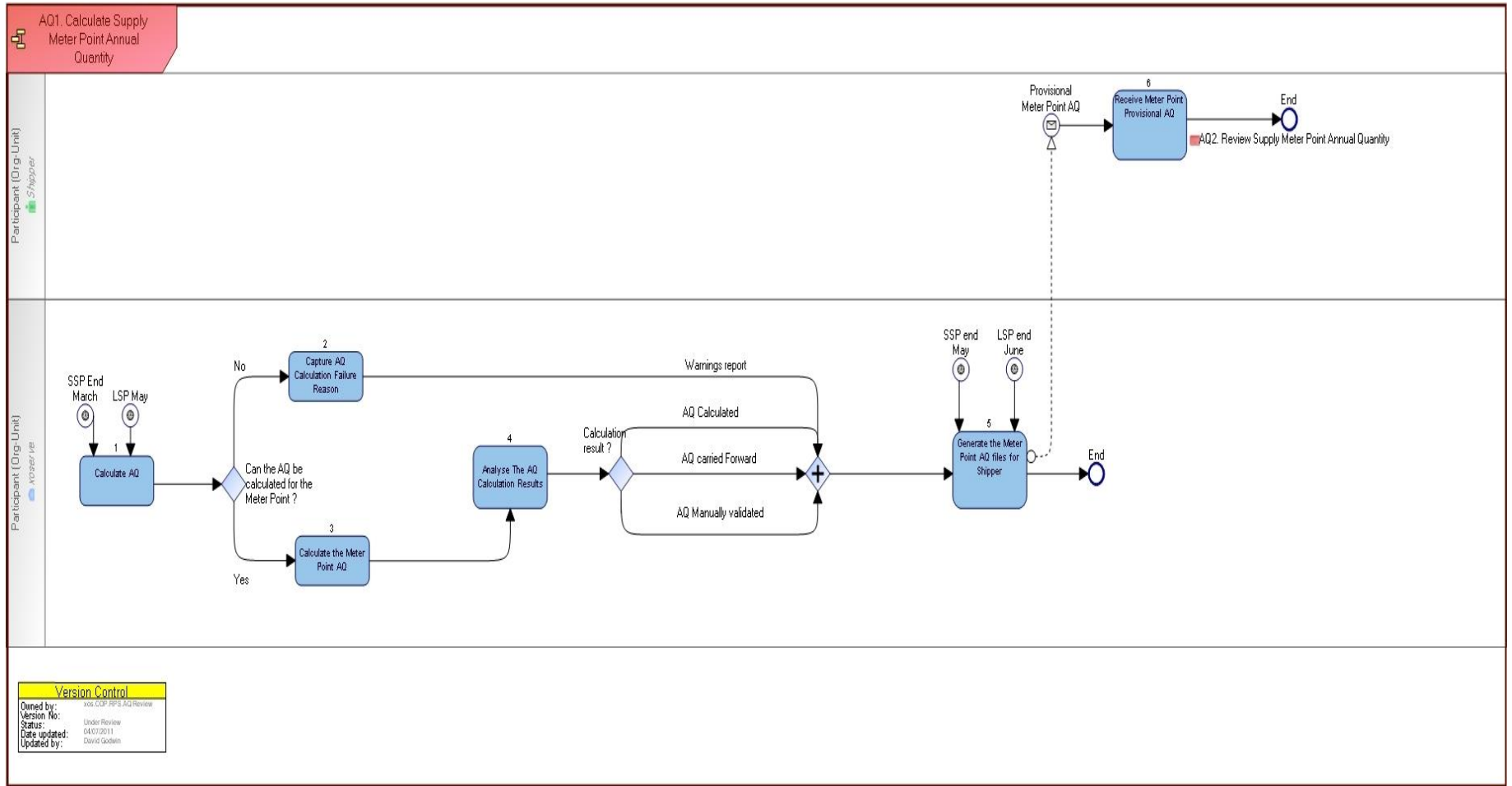
6.5.1 Values for start and end dates, durations, bands (lower & upper) etc. must be parameterised.

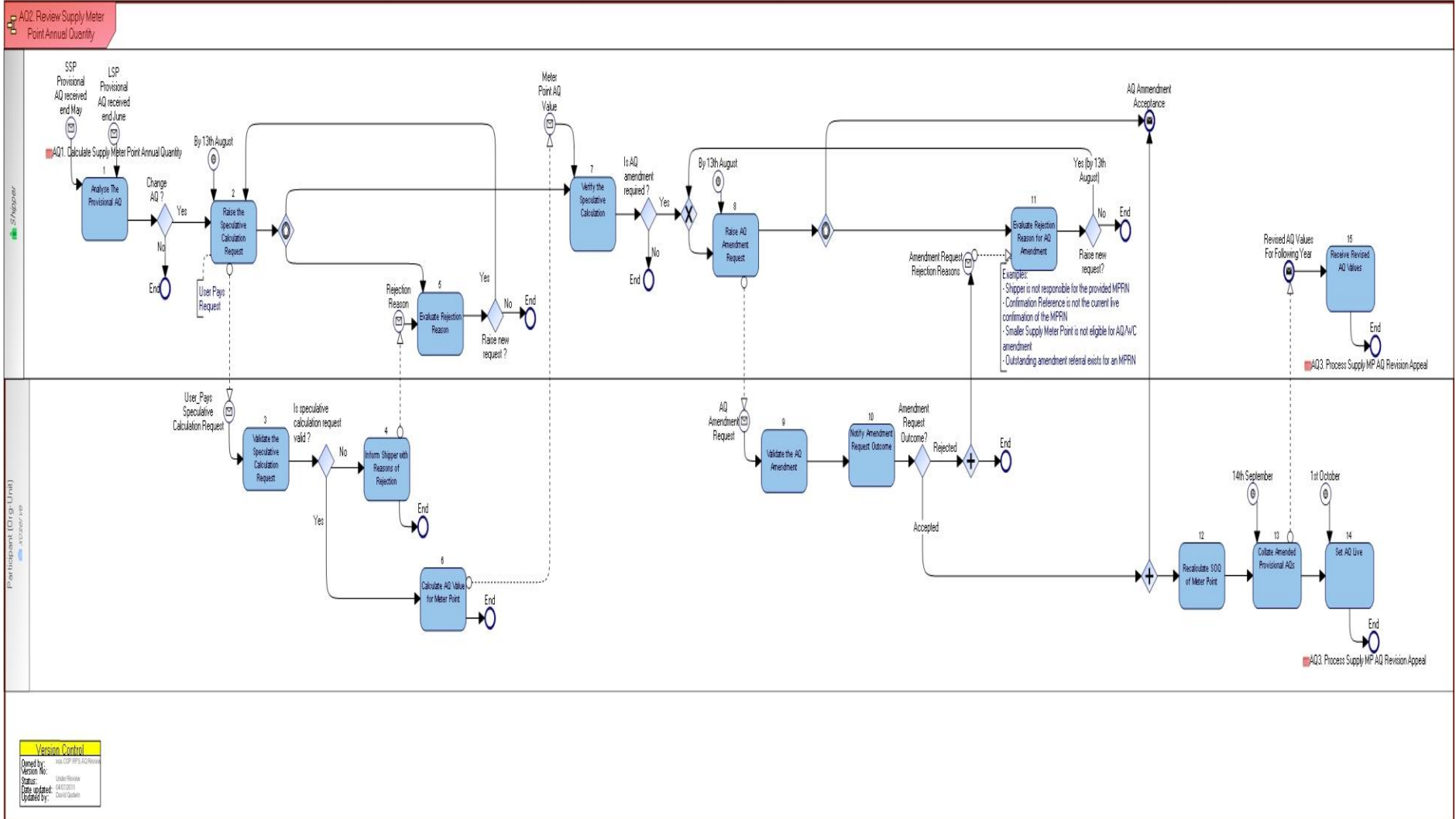
6.6 Concerns

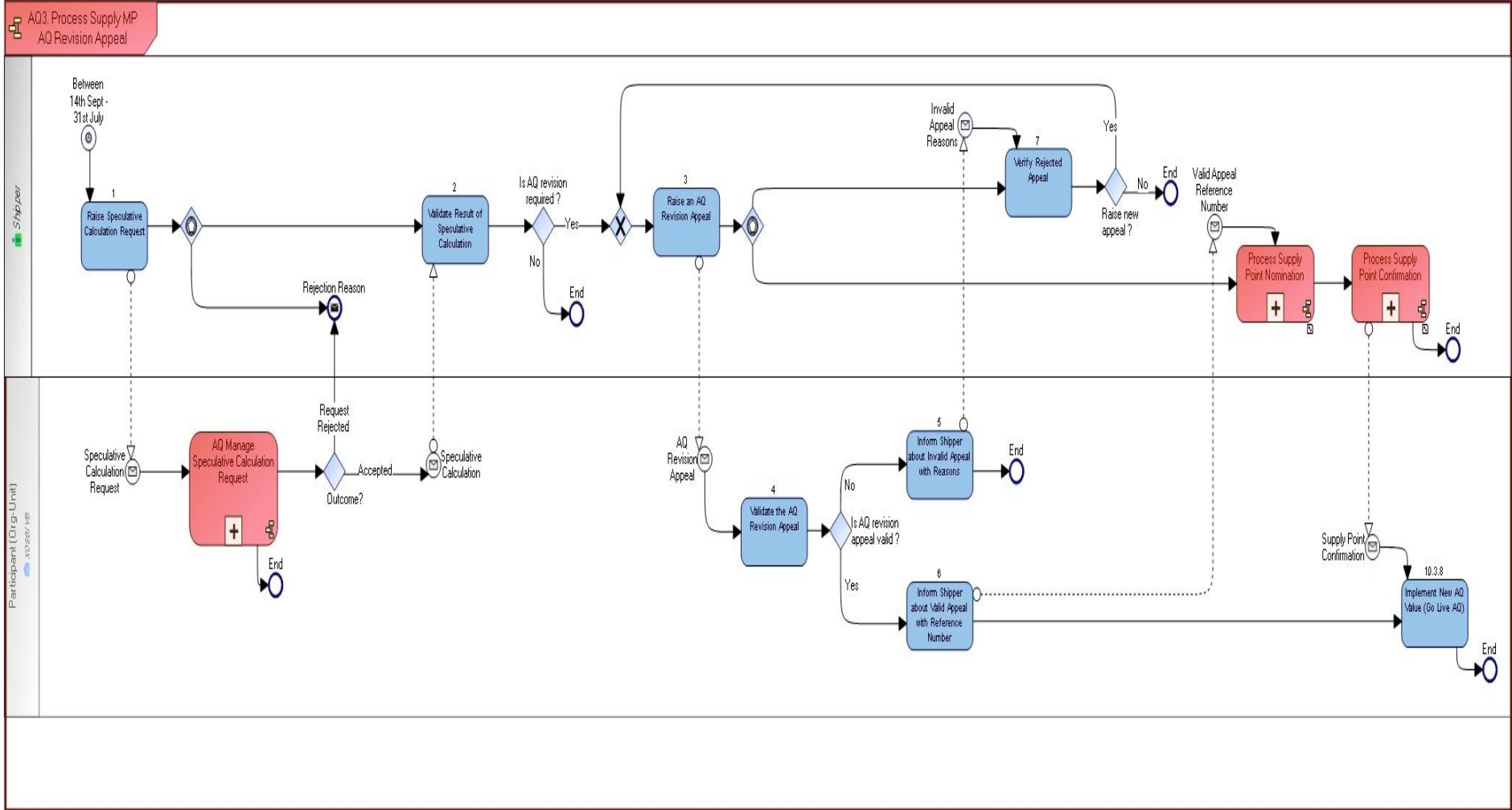
6.6.1 Ofgem have raised concerns regarding the submission of estimates by Shippers as this can provide an opportunity for gaming, for example by submitting over or understated estimated reads depending on the SAP rates. However, it was agreed by the Workgroup that all estimated reads will be calculated using a standard methodology. Update from 7th February 2012 PNUNC; Estimated reads will not be used for AQ calculation.

7. Overview of Business Processes

7.1 Current Processes and Process Maps

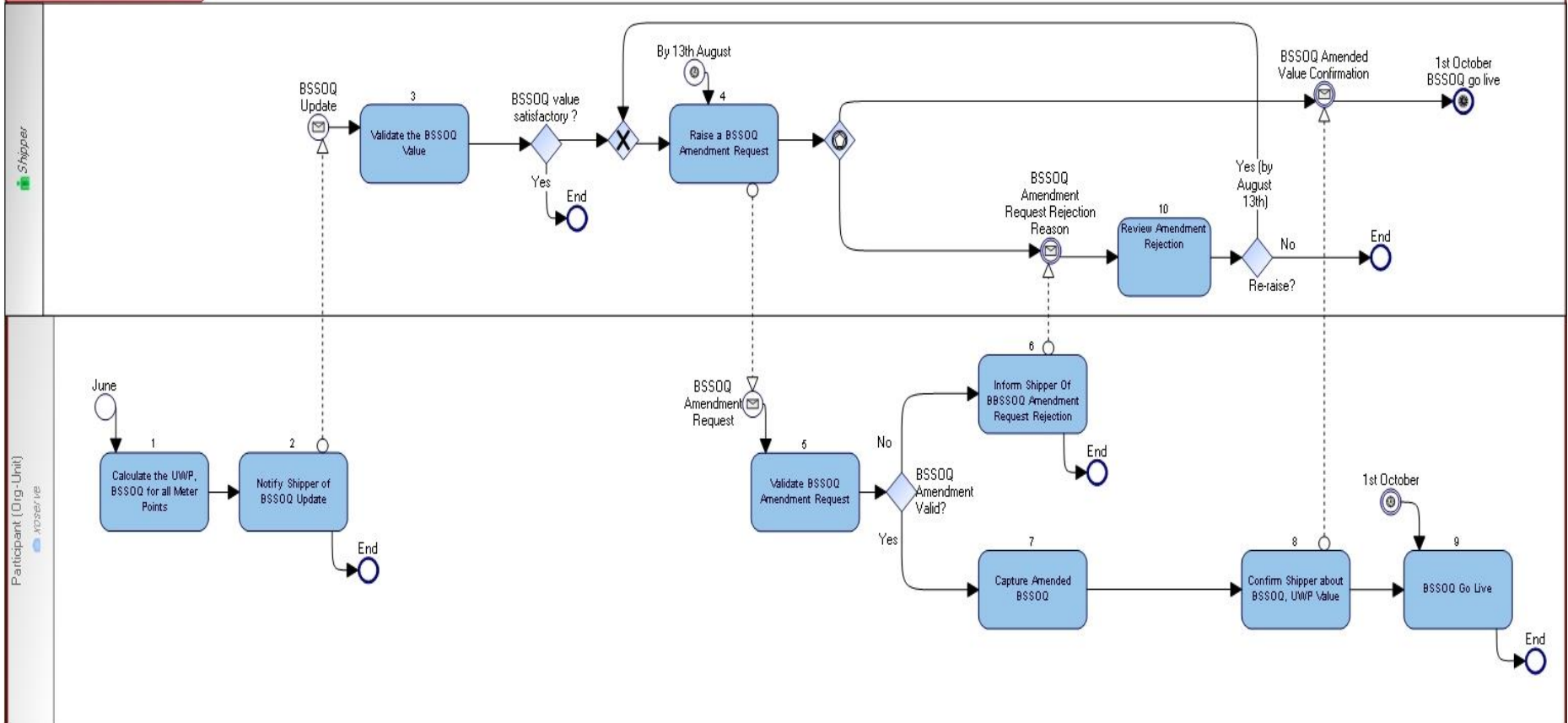




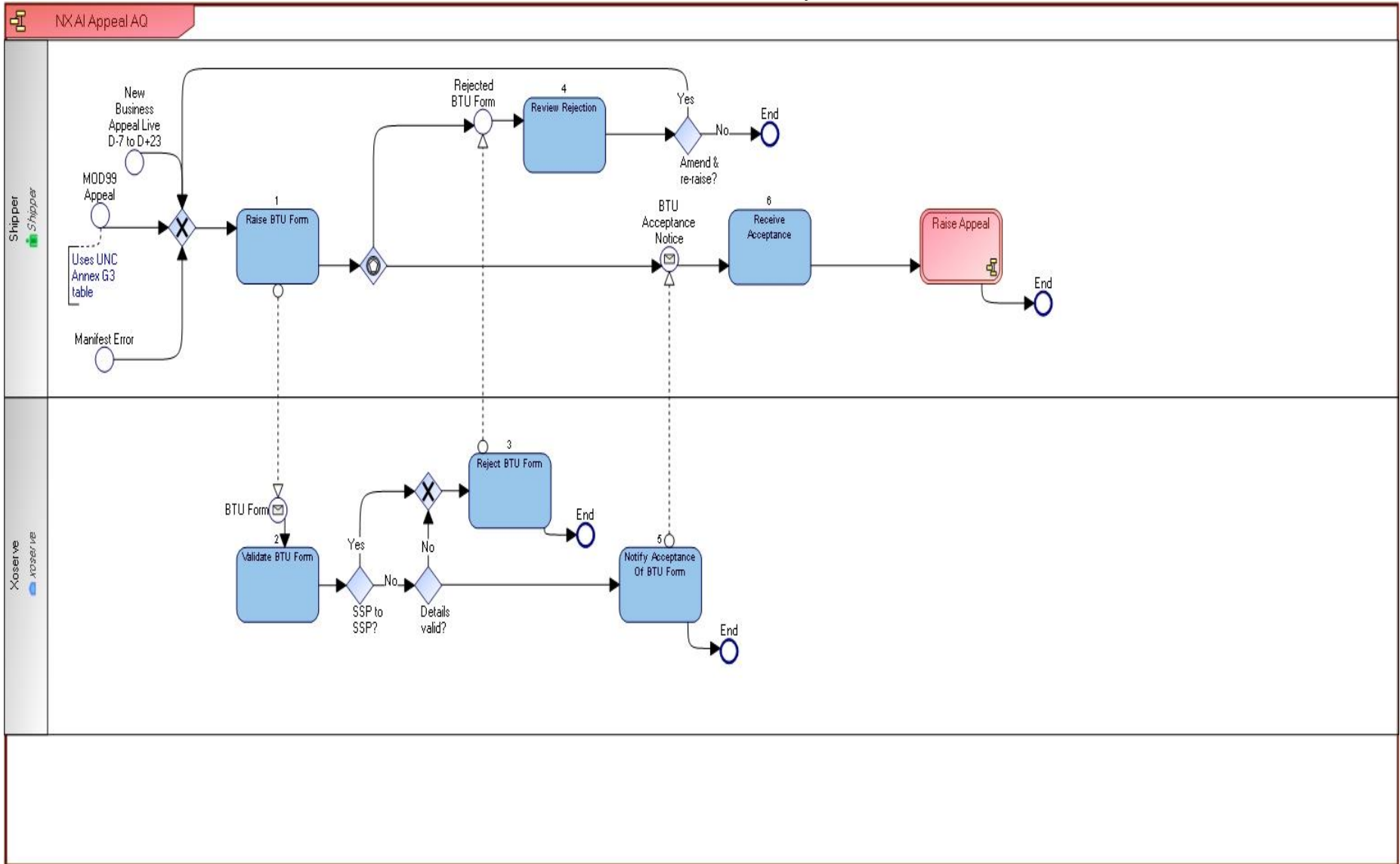


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Version No:	
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Date updated:	30/06/2011
Updated by:	David Godwin

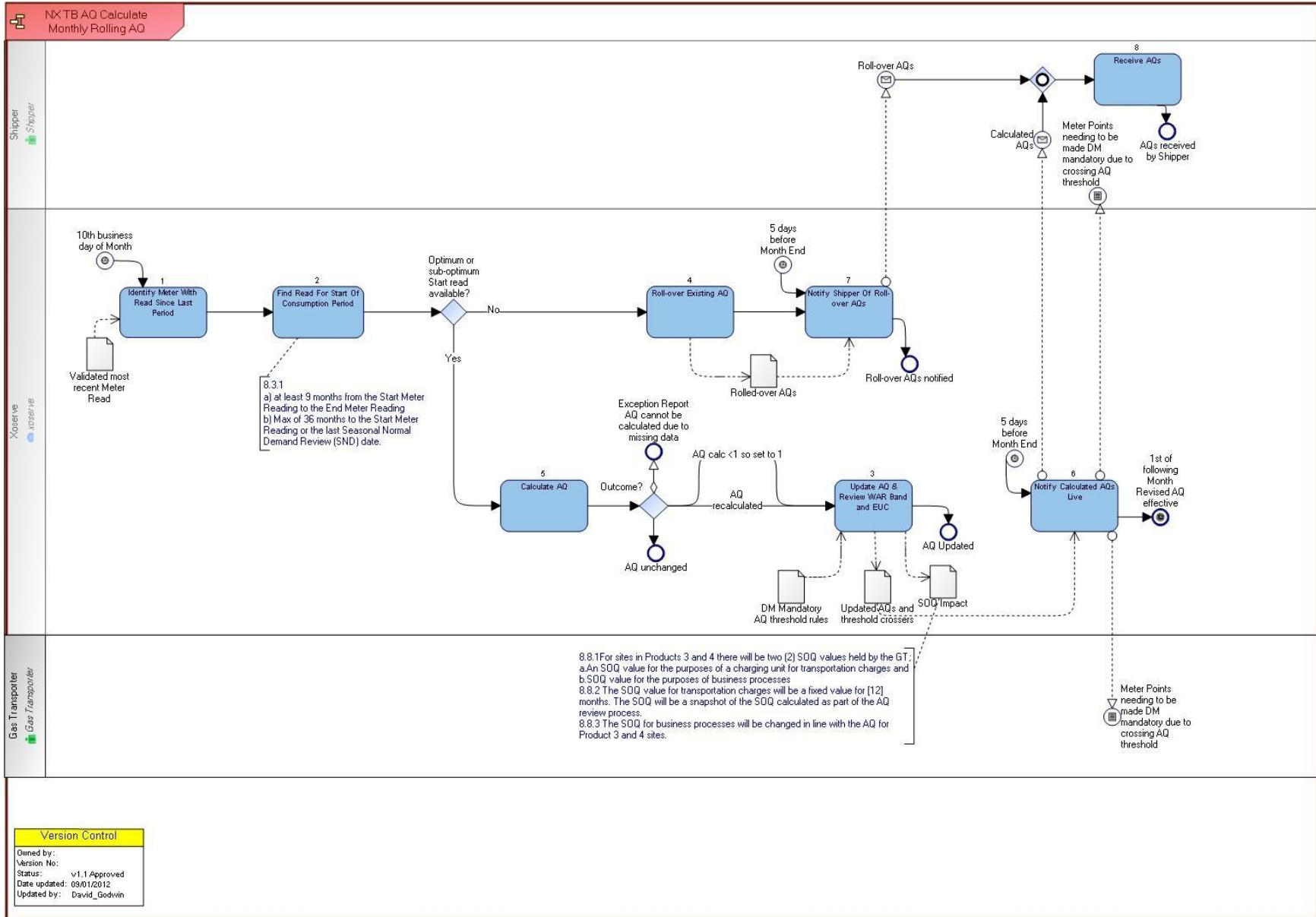
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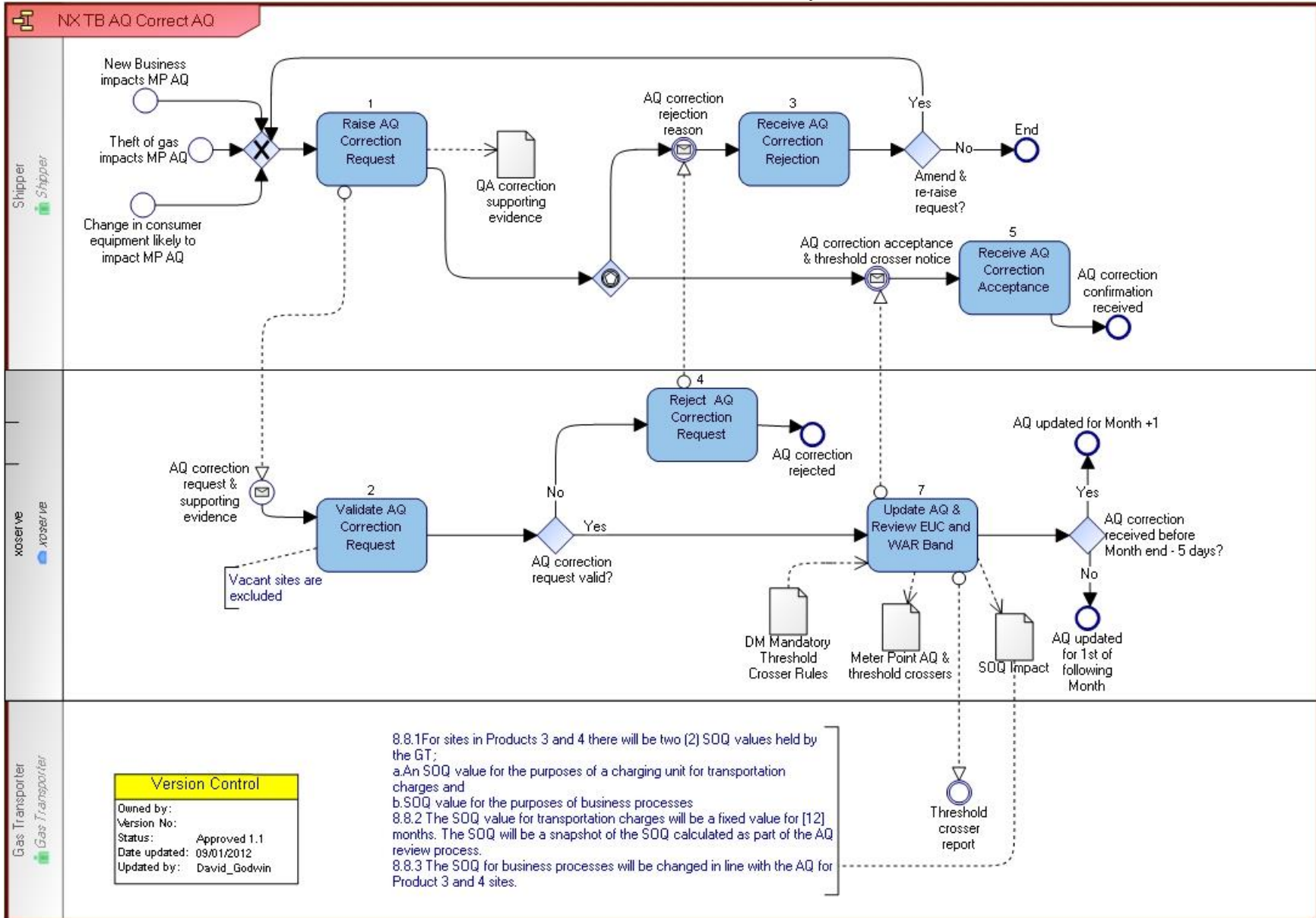


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Owned by:	ixos COP RFS AQ Review
Version No:	Under Review
Status:	04/07/2011
Date updated:	David Godwin
Updated by:	



7.2 To-Be Processes and Process Maps





8. Business Requirements

Throughout this section reference is made to four new processes designed in the Project Nexus Settlement Workgroup for the submission and processing of meter readings and settlement arrangements. These four future state processes are summarised below;

- Product 1, 'Daily Metered Time Critical'
 - Service for DM Mandatory sites only
 - Daily reads obtained and submitted by the DMSP daily before 11.00 am on GFD+1.
 - The reads are issued to the Shipper.
 - The latest valid read loaded by GFD+5 will be used for allocation and energy balancing purposes.

- Product 2, 'Daily Metered Not Time Critical'
 - Daily reads obtained and submitted to the GT daily.
 - If the reads are submitted before 11.00 am they will be used for allocation purposes otherwise a read must be received before end of the GFD+1.
 - Actual reads to be submitted by the Shipper
 - The latest valid read loaded by GFD+5 will be used for final allocation and energy balancing purposes.

- Product 3, 'Batched Daily Readings'
 - Daily readings are obtained for each day but are not submitted daily
 - The daily reads are received in batches to a pre-notified frequency
 - Actual reads will be submitted within the batch by the Shipper.
 - Reconciliation will be carried out based on the valid daily reads received
 - Allocation and energy balancing is based on allocation profiles and AQ

- Product 4; 'Periodic Readings'
 - An actual meter reading is submitted periodically.
 - Allocation and energy balancing is based on allocation profiles and AQ
 - Reconciliation is carried out using the methodology determined within the Reconciliation Workgroup

Figure 1 provides a summary of the AQ processes by Settlement Product;

Figure 1: Summary of the 4 meter reading processes and related AQ processes

Process Description	Read Used for Allocation	Read used for Energy Balancing	Shipper Read Submission	Timing of AQ calculation	Reads used for AQ calculation	Read Type used for the AQ calculation	SOQ Calculation	Reconciliation
Product 1: Daily Metered Time Critical Readings	Daily Read	Daily Read	Daily by 11 am on GFD+1	Monthly	2 reads a minimum of 9 months & max of 36 months apart	Actual read	Shipper Nominates	Meter Point level following a re-synch or estimate
Product 2: Daily Metered not Time Critical Readings	GT Estimate	Daily Read	Daily by end of GFD+1	Monthly	2 reads a minimum of 9 months & max of 36 months apart	Actual read	Shipper Nominates	Meter Point level following a re-synch or estimate
Product 3: Batched Daily Readings	Allocation Profiles	Allocation Profiles	Daily Reads in Batches	Monthly	2 reads a minimum of 9 months & max of 36 months apart	Actual read	GT Derives	Daily Rec at Meter Point level on receipt of a batch of reads
Product 4: Periodic Readings	Allocation Profiles	Allocation Profiles	Periodically	Monthly	2 reads a minimum of 9 months & max of 36 months apart	Actual read	GT Derives	Meter Point level at receipt of read

8.1 Meter Reads

8.1.1 All valid actual meter readings will be considered for use in the AQ review, including the transfer read. If the read has been loaded it is deemed as valid for the purposes of the Monthly AQ Calculation. For clarification the read types that will be considered for AQ review are;

- Cyclic Read
- Transfer Read including a Shipper Agreed Read
- Check Read
- Must Read
- Meter removal reading

8.1.2 For Product 1 & 2: only 'Closed Out' reads (after GFD+5) will be considered for AQ calculation.

8.1.3 For Product 1, 2 & 3: The latest valid read loaded at AQ Close Out will be used to trigger the AQ calculation.

8.1.4 For Product 4: Identify Meter Reads that have been validated since the last valid read used to calculate the AQ for the associated Meter Point. This could be triggered more than once during the period since the last review if more than one read has been loaded. The latest valid read loaded at AQ Close Out will be used for the AQ calculation.

8.2 Monthly Process

8.2.1 The AQ review will take place monthly for all sites where a valid read has been loaded. On the 10th day of the month, 'AQ Close Out', the latest valid read loaded will be considered for the AQ calculation.

Note: If during analysis the 10th day can be extended this would be an aspiration from Shippers to increase the time to submit a read for use in the AQ review.

8.2.2 AQ process will consider reads loaded since 11th calendar of the previous month and 10th calendar day of the current month.

8.2.3 Where a read has not been loaded since the last AQ review the current AQ will continue until a valid read is loaded.

8.2.4 The AQ calculation will use the latest valid actual read (as per 8.1) to determine the End Meter Reading and a valid Start Meter Reading obtained from a minimum period of 9 calendar months previous and a maximum period of 36 months.

- 8.2.5 Where a read has been replaced during the period specified in 8.2.2, the latest replaced read will be used for the calculation of the AQ.
- 8.2.6 The Registered Shipper and any Proposing Shipper with a Confirmation status of 'Requested', 'Confirmed' or 'Live' will be notified of the revised AQ 5 business days prior to the end of the month (Notification Day).
- 8.2.7 The Revised AQ will become effective on the 1st day of the month following the AQ Notification Day.

8.3 Consumption Periods

- 8.3.1 For all Products the AQ will be calculated using a consumption period of;
 - a. At least 9 months from the Start Meter Reading to the End Meter Reading
 - b. Maximum of 36 months to the Start Meter Reading or last Seasonal Normal Demand Review (SND) date (SND updates WAALP factors retrospectively for a 3 year period. WAALP factors are used to calculate AQ).
- 8.3.2 For all Products, the optimum consumption period from the Start Meter Reading and End Meter Readings available is a consumption period closest to 365 days
- 8.3.3 The AQ will be determined
 - 1. For Class 1 and 2, as the sum of the Supply Meter Point daily quantities for all days in the AQ period
 - 2. For Class 3 and 4, $AQ \text{ Metered Quantity} \times 365 / \text{sum of } (ALP \times (1+DAF \times WCF))$
- 8.3.4 If an 'Optimum Read' as per 8.3.2 is not available;
 - 1. Obtain a valid read for a more recent date upto a minimum of 9 months if no read available
 - 2. Obtain a valid read for an older date upto a maximum of 36 months,
- 8.3.5 If the Meter Point has been 'Isolated' during the Consumption Period and the Start and End Meter readings are equal to or greater than 9 months, an AQ will be calculated. An AQ will not be calculated if the consumption period is less than 9 months after deducting the isolated period.
- 8.3.6 For clarity, for new MPRN's, a revised AQ will not be calculated until 9 months consumption history is available.
- 8.3.7 Where none of the conditions set out in 8.3.1 to 8.3.5 can be satisfied a Revised AQ will not be calculated and the Current AQ will continue to apply.

8.4 Validation

- 8.4.1 An AQ will not be calculated for the reasons described under Section 8.4.4.
- 8.4.2 Where the calculated AQ is less than 1 kWh the new AQ will equal 1 kWh.
- 8.4.3 Where the Calculated AQ is the same as the current AQ the Calculated AQ will be the Revised AQ.
- 8.4.4 A Revised AQ will not be calculated for the following reasons. Where an AQ is not calculated, the current AQ will apply and the Shipper will be advised;
 - a. A more recent End Meter Reading is not available than that used previously to successfully determine the Notified AQ;
 - b. From the meter readings available, a Consumption Period of greater than 9 months can not be established.
 - c. From the meter readings available, a Consumption Period of less than or equal to three years can not be established.
 - d. Insufficient data to calculate an AQ (e.g. new Supply Meter Point)

Note: Further validations may be identified during the detailed analysis of the requirements.

- 8.4.5 There will not be any validations on the AQ against the SOQ for Products 1 and 2 sites.

8.5 Read Validation Override Flag

Note: The following business rules are detailed in the 'Meter Read Submission and Processing and Settlement Arrangements BRD' but have been summarised here for information purposes.

- On the read submission communication a field will be included for the Shipper to notify and warrant to the GT that the read for the MPRN will fail the read tolerance checks but confirms that the read is correct, has been validated and should be accepted and processed by the GT. Note this warrant will not allow a read to pass through the "market breaker" validation.
- The Validation Override Flag is a request by the Shipper for the GT to bypass the read tolerance checks only.
- Checks will continue to be carried out on the asset data and where the standing data provided by the Shipper on the read communication does not match the data held on the Supply Point Register (as per existing validations) the read will be rejected and not used for AQ calculation.

8.6 AQ Correction

- 8.6.1 This is an exception process to amend the AQ in certain circumstances. This process is not to be used for 'normal' AQ increases or decreases whereby the submission of reads will update the AQ over time. This process can only be used for the following reasons:
- a. following registration of a new Supply Meter Point (evidence that available reads do not represent the AQ recorded)
 - b. because of a change in the consumer's equipment which results in an expected change in gas consumption
 - c. where a reading has been rejected due to the Outer Tolerance (Market Breaker) validation
 - d. following a proven theft of gas
- For the avoidance of doubt, and for the purposes of confirming workgroup discussions, vacant sites are excluded from this exceptions process.
- 8.6.2 Checks will be carried out to ensure the conditions described under 8.6.1 have been complied with, those that fail will be rejected and the Shipper notified.
- 8.6.3 An AQ Correction can only be raised following a calculation of the AQ except where an AQ was unable to be calculated due to the meter read failing the Outer Tolerance (Market Breaker) validation.
- 8.6.4 AQ Correction timescales are as follows:
- 8.6.4.1 In order for an AQ Correction to be effective for the 1st of the following month it must be submitted by month minus 15 (M-15) business days (1st of the month less 15 business days).
 - 8.6.4.2 A response will be submitted with 2 business days of receipt if the request has been accepted or rejected
 - 8.6.4.3 A pending AQ Correction can be cancelled up to month minus 8 (M-8) business days
 - 8.6.4.4 The AQ from a successful AQ Correction request will be notified on month minus 5 (M-5) business days
 - 8.6.4.5 The AQ will become effective from the 1st of the month
- 8.6.5 The Shipper will notify the GT of the revised AQ with the request (Shipper's reasonable estimate of the site's AQ), a pair of actual meter readings (if available) and the reason for the change in AQ.
- 8.6.6 Where an AQ Correction is requested following failure of a meter reading due to the Outer Tolerance (Market Breaker) the read that failed the validation must be submitted with the request.
- 8.6.7 Where an AQ Correction is requested following a 'New Business Activity', this must be submitted by the Registered Shipper within 3 months of registration.

Note: a valid read will not have been loaded to trigger the AQ review therefore this may require the GT to load a read in order for the Meter Point to be included in the monthly AQ review.

- 8.6.8 A successful AQ Correction request will create a 'back-stop' date so any future AQ calculations will not use consumptions prior to the AQ Correction.
- 8.6.9 If the successful AQ Correction updates the EUC for the Meter Point, where applicable, a revised Offer will be issued to the Registered Shipper, Shipper where the Confirmation will become effective and Shipper(s) with a valid Offer.
- 8.6.10 The Shipper will record and retain all evidence in support of the AQ Correction request and provide it to the GT when requesting a change.
- 8.6.11 Any rejected requests will be notified to the Shipper together with the reasons for rejection and the Current AQ will apply.
- 8.6.12 The Current AQ will continue to apply until the AQ Correction has been accepted as valid by the GT and the new AQ is effective.
- 8.6.13 If the GT receives further Meter Readings that better meet the criteria set out in Section 8.3 than those submitted by the Shipper, the Notified AQ will be calculated from these Meter Readings.

8.7 Threshold Crossers

- 8.7.1 As part of the AQ process, where an AQ crosses an AQ threshold, either above or below, that requires the Shipper to take action, a notification will be issued to the Shipper. The criteria where a notification will be issued are;
 - 8.7.1.1 Where the Revised AQ of a Meter Point is greater than 58,600,000 kWh for 3 consecutive calculations of the AQ or for 3 calculations in the preceding 18 month period, but is not already classified as a DM Mandatory site and within Product 1, the Daily Read Requirement will apply. Where an AQ has reached the DM Mandatory threshold, or where currently in Product 1 where the AQ is below the DM Mandatory threshold, a notification will be issued to the Shipper and the relevant GT notifying of the Revised AQ.

Note: The responsibility remains with the Shipper to liaise with the relevant Network for Daily Read Equipment to be installed and transfer the Supply Meter Point into Class 1.
 - 8.7.1.2 Where a Supply Meter Point in Product 4 is not recorded as a Monthly Meter Read Frequency but exceeds 293,000 kWh a notification will be sent to the Shipper
 - 8.7.1.3 Where Emergency Contact Details are required due to the AQ of the Supply meter Point, a notification will be sent to the Shipper
 - 8.7.1.4 Where a Supply Meter Point is classified as a Priority Consumer but the AQ has fallen below the AQ threshold a notification will be issued to the Shipper

- 8.7.1.5 Where a Supply Meter Point requires a site specific Correction factor
- 8.7.1.6 Where the Supply Meter Point has a Distribution Network Interruption (DNI) contract but the AQ has fallen below the eligibility threshold for DNI.

8.8 Supply Point Offtake Quantity (SOQ) & AQ for Transportation Charging Purposes

- 8.8.1 For sites in Products 3 and 4 there will be two (2) AQ and SOQ values held by the GT;
 - a. An AQ and SOQ value for the purposes of a charging unit for transportation charges and
 - b. An AQ and SOQ value for the purposes of business processes
- 8.8.2 The AQ and SOQ value for transportation charges will be a fixed value for 12 months. The values will be a snapshot of the AQ & SOQ calculated as part of the AQ review process.
- 8.8.3 For the purpose of transportation charges effective from the 1st April each year, the AQ and SOQ as at the 1st December the previous year will be used

Note: The AQ derives the charging band, the SOQ derives the rate.

- 8.8.4 The EUC is based on the AQ and will change if required as a result of the AQ process.
- 8.8.5 Where there is a change in the AQ/SOQ used for transportation charges (as a result of the AQ process, AQ Correction or annual EUC update) the Registered Shipper, Shipper where the Confirmation will become effective and any Shipper with a valid Offer will be notified M-5 days of the effective date.
- 8.8.6 The AQ/SOQ used for transportation charges will be issued to the Shipper on a Supply Point Enquiry response, Offer, Confirmation response and at transfer of ownership.
- 8.8.7 A successful AQ Correction will update the AQ & SOQ used for transportation charges for Product 3 and 4 Supply Meter Points with effect from the effective date of the new AQ.
- 8.8.8 The SOQ for business processes will be changed in line with the AQ for Product 3 and 4 sites.
- 8.8.9 The Shipper will continue to nominate the SOQ and SHQ for Product 1 and 2 sites only.

8.9 Winter Annual Ratio (WAR Bands)

- 8.9.1 A WAR band will be applied to all NDM (Class 3 & 4) Meter Points where the AQ is equal to or greater than 293,000 kWh when the winter consumption is calculated in May each year.
- 8.9.2 WAR Bands will continue to be calculated and notified to the Shipper annually in May based on the winter consumption during the previous year. A notification of the WAR Band will be issued again in September.
- 8.9.3 The WAR Band will be effective from 1st October.
- 8.9.4 The Shipper can challenge the WAR band via the AQ Correction process providing the relevant information.
- 8.9.5 The request will need to specify the winter consumption value which will be validated against the AQ (less than or equal to the AQ).

8.10 EUCs

- 8.10.1 The applicable EUCs will be updated in line with the AQ following receipt of a valid read.
- 8.10.2 The EUC will be allocated based on the revised AQ and will be effective from the 1st day of the month following the AQ Notification day.

8.11 Prime and Sub-deduct Meters

- 8.11.1 Except for the requirements described under the Settlement BRD Section 5.21, the existing arrangements for Sub-deduct Arrangements will continue to apply as per UNC G1.8.
- 8.11.2 The requirement to obtain meter readings within a 5 day window will continue to apply as per UNC G1.8.4 for all Prime and Sub-deduct meters in the same configuration.
- 8.11.3 Except for Prime or Sub-deduct meters which meet the DM Mandatory threshold, all Prime and Sub-deduct meters in the same configuration shall be processed under the same Meter Reading Frequency.
- 8.11.4 When a valid read is received for the Prime meter the AQ will be calculated based on the netted off position from the Sub meters, either actual or estimated,
- 8.11.5 When a valid read is received for the Sub-deduct meter the AQ will be calculated.

8.12 New Meter Points

- 8.12.1 Greenfield site

- Where a new MPRN has been created following a gas service connection, the AQ can be updated before registration of the MPRN.

8.12.2 Brownfield site

- Where the MPRN has been registered previously but is currently Shipperless, the AQ can be updated via the AQ Correction process within 3 months of registration of the MPRN.

8.13 Other Parameter Changes

8.13.1 Following a revision to the Seasonal Normal Composite Weather Variables, the AQ and SOQs will be revised at the first Notification Day following the update in Weighted Average Annual Load Profile.

8.14 AQ Communication

8.14.1 A notification will be issued to the Shipper of all Revised AQs. The communication will include;

- MPRN
- Existing AQ
- Existing SOQ & SHQ
- Existing EUC & EUC Description*
- Existing WAR band*
- Revised AQ
- Revised SOQ and SHQ*
- Revised EUC & EUC Description*
- Revised WAR Band*
- Effective date
- Start Meter Reading & Date
- End Meter Reading & Date
- Prorated Winter Consumption* (Prorated WC over the optimum winter period, potentially used to derive EUC)
- Percentage AQ Change
- BSSOQ *

8.14.2 A notification will be issued to the Shipper of all AQs that have not been calculated although a valid read was loaded. The communication will include;

- MPRN
- Reason why a revised AQ was not calculated
- Existing AQ value rolled over
- Existing SOQ and SHQ rolled over*
- Existing EUC & EUC Description*

- Existing WAR band*
- Start Meter Reading & Date
- End Meter Reading & Date
- Prorated Winter Consumption * (Prorated WC over the optimum winter period, potentially used to derive EUC)
- Rejected BSSOQ *

8.14.3 The above notifications will be issued separately.

* value will only be populated where applicable

8.14.4 GTs will be issued with monthly reports detailing a summary of AQ and SOQ changes.

8.14.5 Notifications to also be issued to the current and prospective Shippers when the 'Billing AQ and SOQ have changed.

8.15 Publication of Information

8.15.1 Both the current and prospective AQ to be made visible to Shippers (currently via Data Enquiry service)

8.15.2 The data items listed under 8.13.3 are likely to be required for industry reporting.

Note: This is not a complete list, the reports will be defined once existing Modifications around AQ reporting are completed which will provide the Workgroup with reporting principles and the scope of the reports based on decisions made within the Modification Workgroups.

8.15.3 Data items required for industry reports include, but is not limited to;

- No. of MPR's by Shipper by Product where a new AQ has been calculated and Revised
- No. of MPR's by Shipper by Product where a new AQ has not been calculated
- % of portfolio
- Sum of current AQ
- Sum of Revised AQ
- Total MPR's where AQ amended via the AQ Correction process
- Total no. of AQ increases by Shipper
- Total no. of AQ decreases by Shipper

9. Transitional Rules

Transitional rules are required to deal with the period following the implementation of these rules

See Transition Business Rules for further information.

10. Non-Functional Business Requirements

11. Document Control

Version History

Version	Status	Date	Author(s)	Summary of Changes
0.1	Initial Draft	05/07/2011	Xoserve	First draft
0.2	Draft	19/07/2011	Xoserve	Updated following PN UNC Workgroup meeting on 18/07/2011
0.3	Draft	16/08/2011	Xoserve	Updated following PN UNC Workgroup on 03/08/2011
0.4	Draft	08/09/2011	Xoserve	Updated following PN UNC Workgroup on 06/09/2011
0.5	Draft	23/09/2011	Xoserve	Updated following PN UNC Workgroup on 20/09/2011
0.6	For industry review	28/10/2011	Xoserve	Updated following PN UNC Workgroup on 25/10/2011
1.0	Baselined Approved version	22/11/2011	Xoserve	Approved at PN UNC Workgroup on 21/11/2011
2.0	Updated Baselined Approved version	30/03/2012	Xoserve	Updated following request at PN UNC on 06/12/2011 to add paragraph under section 8.2.1 and amended format for uploading document into Requirements management tool. Replaced process maps as minor amendments made (clarifications) & amended document to reflect changes agreed at PN UNC on 07/02/12 and 13/03/12.
2.1	Updated baselined version for approval	21/01/2013	Xoserve	Updates agreed at PN UNC
2.2	Updated baselined version for approval	05/02/2013	Xoserve	Updates agreed at 05/02/2013 PN UNC.

3.0	Approved	05/02/2013	Xoserve	Version 2.1 agreed at PN UNC on 05/02/2013
3.1	Updated for Approval	07/03/2013	Xoserve	Updated following changes agreed at PN UNC
3.2	Updated for approval	02/04/2013	Xoserve	Updated process maps
4.0	Baselined	07/05/2013	Xoserve	Baselined version of 3.2
4.1	Updated for approval.	07/10/2013	Xoserve	Updated version following review of legal text v BRD
4.2	Updated for approval	25/10/2013	Xoserve	Clarification added to section s 6.1.9, & 8.3.4 following a query.
5.0	Baselined	25/10/2013	Xoserve	Baselined & clean version of 4.2
5.1	Updated for approval	13/01/2015	Xoserve	Updated to reflect UNC legal text for Modification 0432 and changes as agreed at PN UNC.
5.2	Updated for approval	26/01/2015	Xoserve	Updated following PN UNC on 20/01/2015. Additional clarifications to the table under section 2.1
5.3	Updated for approval	11/02/2015	Xoserve	Updated following PN UNC on 10/02/2015. Additional clarifications to the table under section 2.1
5.4	Updated for approval	11/03/2015	Xoserve	Updated to identify requirements that are not being delivered for Go Live and AQ Correction timescales
5.5	Updated for approval	02/04/2015	Xoserve	Updates as agreed at PN UNC & corrected references
5.6	Updated for approval	18/05/2015	Xoserve	Updates to correct references and clarification to requirements
5.7	Updated for approval	26/08/2016	Xoserve	Clarification added to section 8.8

5.8	Updated for approval	06/02/2017	Xserve	Updated table under section 2.1 to correct UNC references & whether an update to legal text is required.
5.9	Updated for approval	21/02/2017	Xserve	Corrected UNC references in table under section 2.1
6.0	Approved	10/03/2017	Xserve	Approved as part of Mod 0610 at Distribution Workgroup on 10/03/2017

Reviewers

Name	Version	Date
AMR Workgroup attendees	All	
PN UNC	All	

Approval

Name	Version	Date
PN UNC	1.0	21/11/2011
PN UNC	2.0	30/03/2012
PN UNC	3.0	05/02/2013
PN UNC	4.0	07/05/2013
PN UNC	5.0 (PN UNC approved version 4.1)	22/10/2013
Distribution Workgroup	6.0 (approved version 5.9)	10/03/2017