# Business Requirements Definition

for

# Project Nexus

submitted to

# Project Nexus Workgroup
# Annual Quantity

| Author (for this version): | Xoserve |
|---|---|
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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. |
| 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 |
| 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 |

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| 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. |

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## 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

| Updated Section in BRD | Process | Date Presented at PN UNC | Date Agreed at PN UNC | Section of UNC that requires update |
|---|---|---|---|---|
| 8.2.2 | Clarification to the timescales for submission of a read to be used in the AQ process | Clarification only | Clarification only | N/A |
| 8.2.5 | Added reference to relevant section of the BRD for clarification | Clarification only | Clarification only | N/A |
| 8.3.3 | Added the AQ calculation for clarification | Clarification only | Clarification only | N/A |

| 8.6.1 | AQ Correction – added reason of read failure | As per UNC | As per UNC | N/A |
|---|---|---|---|---|
| 8.6.5 | AQ Correction – added that the read is required where the request is following read validation failure | As per UNC | As per UNC | N/A |
| 8.6.6 | (REQ23) AQ Correction – Added request for New Business Activity within 3 months | 09/09/2014 | 09/09/2014 | G1.6.21 |
| 8.7 | Threshold crossers – clarified what will be notified to the Shipper following AQ process | Clarification only | Clarification only | N/A |
| 8.8.3 | Added clarification on the dates the snapshot of the AQ & SOQ will be taken | Clarification only | Clarification only | N/A |
| 8.9 | (REQ2) Winter Consumption & Winter Annual Ration Bands (WAR) | 08/01/2014 | 08/01/2014 | Not in UNC |
| 8.10 | End User Categories (EUC) | Clarification only following Q&A | Clarification only following Q&A | N/A |
| 8.11 | Clarification on calculation of AQs on a Prime & Sub | Clarification only | Clarification only | N/A |
| 8.15 | Transitional rules | 12/05/2015 | 12/05/2015 | |

## 2.2    Intended Audience

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

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## 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

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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;

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- 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 |

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## 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

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## 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 (aspiration for all iGT sites to be treated the same as directly connected sites)

### 5.2    Out of Scope

5.2.1    Function:

    a.    Any process not described above as In Scope

5.2.2    Market Sector:

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# 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.

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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 The existing arrangements will apply for the application and calculation of the BSSOQ annually.

6.1.17 BSSOQ will only apply to Product 1 and Product 2 sites.

6.1.18 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.

6.1.19 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).

6.1.20 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.

## 6.3 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.

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## 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.

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