

# Business Requirements Definition

for

## Project Nexus

Submitted to

### Project Nexus Workgroup Reconciliation

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## 1. Glossary

Term / Acronym	Definition
Allocation Scaling Adjustment	Methodology for sharing out un-allocated energy to Shippers after the gas day
CSEP	Connected System Exit Point (i.e. Independent Gas Transporter's network)
CV	Caloric Value
Drift	Meter readings which are derived by reading equipment have the capacity for the derived read to drift from the actual reading on the meter.
Estimates between Actuals	A period of estimate read(s) followed by an actual read. Reconciliation is performed by way of deriving better estimated reads once actual consumption is known.
Failure to Obtain Check Read	Where a Check Read has not been submitted by the Shipper the GT will use reasonable endeavours to carry out a Check Read.
LSP	Larger Supply Point
NDM	Non-Daily Metered
RbD	Reconciliation by Difference
Resynchronise / Resynchronisation / Resynch	Where the on-site data recording equipment is out of sync with the Meter (or Corrector), a 'Resynchronise' of the equipment is carried out to ensure it displays the same as the meter. The difference between the equipment and Meter (or Corrector) prior to resynchronisation, known as 'drift', is the value reconciled.
Reconciliation Factors	The ratio of actual energy to original energy (allocated or estimated) for a day
SAP	System Average Price
SSP	<a href="#">Smaller Supply Point</a>
USRV	User Suppressed Reconciliation Value (also known as NDM Filter Failures)

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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 Reconciliation Workgroup and Project Nexus UNC Workgroup (PN UNC). Adequate information should be provided to enable the industry to approve the documented requirements for Cost benefit Analysis at a later stage.

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.

### 2.1. Intended Audience

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

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### 3. Executive Summary

#### 3.1 Introduction to the change

This document defines the processes for the reconciliation of energy and transportation commodity charges for gas supply meter points.

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

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All square brackets: [ ] represent areas for clarification which must be resolved by the Workgroup prior to the business rules being finalised.

#### 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 Reconciliation Workgroup for the reconciliation of energy and commodity charges;

- To reconcile all MPRN's using actual reads
- To remove the requirement of aggregate reconciliation for Smaller Supply Points (SSP)
- Remove the need for a 'Filter Failure' type process
- Introduce appropriate incentives on Shippers to submit quality reads
- Increase transparency
- Improve accuracy of Shipper costs

##### 3.3.2 Business Goals

To develop a robust regime for the individual reconciliation of energy and commodity for all gas Meter Points.

#### 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.

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3.4.1 Areas Identified in the Initial Requirements Register (IRR)

- Increase scope of individual meter point reconciliation
- Improved filter failures system.
- A review of industry processes for validating invoice charges, support the proposed change to energy validation by amending the USRV filter from a TRE filter to a ZRE filter.

3.4.2 Business Issues Raised during the Workgroups

The following issues were raised during the reconciliation workgroups.

- RbD does not incentivise Shippers to submit reads for SSPs as the reads are not used for reconciliation purposes
- Unallocated energy is borne by the SSP market which is a risk for SSP Shippers due to the unknown volume of energy.
- RbD provides Shippers with limited flexibility
- RbD does not provide transparency
- USRVs do not necessarily incentivise Shippers to improve the quality of the read and asset information.

3.4.3 UNC Impacts

- UNC Section E (Reconciliation).
- UNC Section F may also be affected (Neutrality Charges).

3.4.4 UNC Process Impacts

- Reconciliation processes
- Invoicing calculation and formatting

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3.4.5 Licence Impacts

3.4.6 Interaction with Project Nexus High Level Principles

During the Project Nexus Principle Workgroup the following high level principles were agreed for the reconciliation of energy and transportation charges;

- Preferred option was daily settlement for all sites based on actual daily consumption with reconciliation as an exception process
  - This is still a longer term aspiration for some participants
- Alternative was for daily or periodic reconciliation
- Aspiration to reduce/remove Filter Failures
- Proposal to apply rollover tolerance to reconciliations

The requirements described in this document are aligned to the 'Alternative Approach' from the High Level Principles agreed and the workgroup and are consistent with the requirements from the Settlement Workgroup.

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### 3.5 Related Documents

Document Title	Location
Reconciliation Principles Workgroup Report (19/05/2010)	Joint Office Website
PN UNC Reconciliation Workgroup	Joint Office Website

## 4. Benefits

These will need to be aligned with the Transporters relevant objectives.

### 4.1 Industry Benefits

- 4.1.1 Help ensure that the energy is charged to the right sector
- 4.1.2 Reconcile energy at Meter Point level using actual meter readings rather than aggregated
- 4.1.3 Complement the Meter Reading and Settlement processes
- 4.1.4 Help provides an incentive to submit accurate and timely readings for the SSP sector
- 4.1.5 Provide greater clarity of the volume on un-allocated gas
- 4.1.6 Better link between GT transportation charges and customer charges billed to end consumers by Suppliers
- 4.1.7 Recognise drift on sites (that derive reads) which are currently not picked up in the NDM market
- 4.1.8 Improve transparency by removing RbD
- 4.1.9 Reduce the impact of the NDM allocation processes by introducing meter point reconciliation for SSPs.

### 4.2 Disadvantages

- 4.2.1 Individual Meter Point reconciliation for all sites could significantly increase the number of rejected transactions.
- 4.2.2 Shipper and Xoserve processes may need to change to accommodate increased volumes of data.
- 4.2.3 Number of charges will increase the size of the Reconciliation invoice

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## 5. Change Scope

### 5.1 In Scope

**Function:**

- Calculation of reconciliation energy
  - Periodic reconciliation
  - Daily reconciliation
- Methodology for adjustment/re-apportionment of un-allocated energy following reconciliation
- Transportation rates applied to the reconciliation quantity
- Calculation of reconciliation charges
- Validation of reconciliation values (Filter Failures)
- Reconciliation rollover tolerances
- Treatment of reconciliation following a re-synchronisation
- Reconciliation close-out
- Re-reconciliation

**Market Sector:**

- All directly connected supply points including Prime and Sub meters
- Daily Metered CSEPs (iGT sites above the DM Mandatory threshold)
- NTS Sites
- NDM CSEPs [aspiration for new reconciliation rules to apply to NDM CSEPs]

### 5.2 Out of Scope

**Function:**

- Any other transportation invoice or process not included as in-scope
- For clarity the calculation of energy and the allocation methodology is out of scope as this process will be documented in the Settlement Workgroup.
- Retrospective Updates including updates to meter reads after GFD+5
- Preparation, production, issue and timing of the reconciliation invoice

**Market Sector:**

- None identified.

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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 Shippers will submit validated meter readings
- 6.1.3 Continual monitoring to take place of SMIP developments to ensure alignment with parties obligations and DCC services
- 6.1.4 AUGE role may require amending via a Modification following approval of these business requirements.
- 6.1.5 The processes described in the Settlement workgroups are approved
- 6.1.6 Reconciliation is performed at meter point level
- 6.1.7 Reconciliation includes energy and commodity charges.
- 6.1.8 Only those reads that have passed the GT validations will be used for the purposes of reconciliation.
- 6.1.9 All estimated reads will be calculated using a standard methodology, these are described in the 'Meter Read Submission and Processing and Settlement BRD'.
- 6.1.10 These rules will also apply to NDM CSEP sites, subject to the appropriate industry governance.
- 6.1.11 There will continue to be Prime & Sub deduct meters.
- 6.1.12 A re-synchronisation will not be required on a 'Smart' meter as reads will not be derived, actual reads will be transmitted.
- 6.1.13 CSEPs above the DM Mandatory threshold will be treated as DM directly connected sites and will be processed under 'Product 1'

#### 6.2 Dependencies

- 6.2.1 The processes described within the Settlement Workgroup are unchanged
- 6.2.2 Approval of the requirements by PN UNC
- 6.2.3 Approval by Ofgem following the appropriate UNC Modification process
- 6.2.4 Meter Point reconciliation for NDM CSEP SSPs may require a single Supply Point Register on behalf of all large and small Gas Transporters

#### 6.3 Risks/Issues

- 6.3.1 There may be opposition to any potential Modifications raised, particularly because not all Shippers/Suppliers/Transporters attend the Workgroups or are represented.

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- 6.3.2 The case for moving away from RbD needs to be justified, looking at costs and benefits of doing so.
- 6.3.3 In the SSP market meter reads will be used for Reconciliation processes, creating a concern that, without data cleansing and checking, there may be an increase in exceptions.
- 6.3.4 If a single Supply Point Register is not achieved, it may not be possible to achieve meter point reconciliation for SSPs on iGT Networks. Alternative approaches are discussed in 8.7 below.

**6.4 Concerns**

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6.4.1 One Shipper did not agree with the statement regarding the potential role of the AUGÉ under the new arrangements, as outlined under section 8.14. PN UNC Workgroup agreed the AUGÉ role will need to be reviewed at a later stage by UNC Distribution Workgroup or other relevant forum.

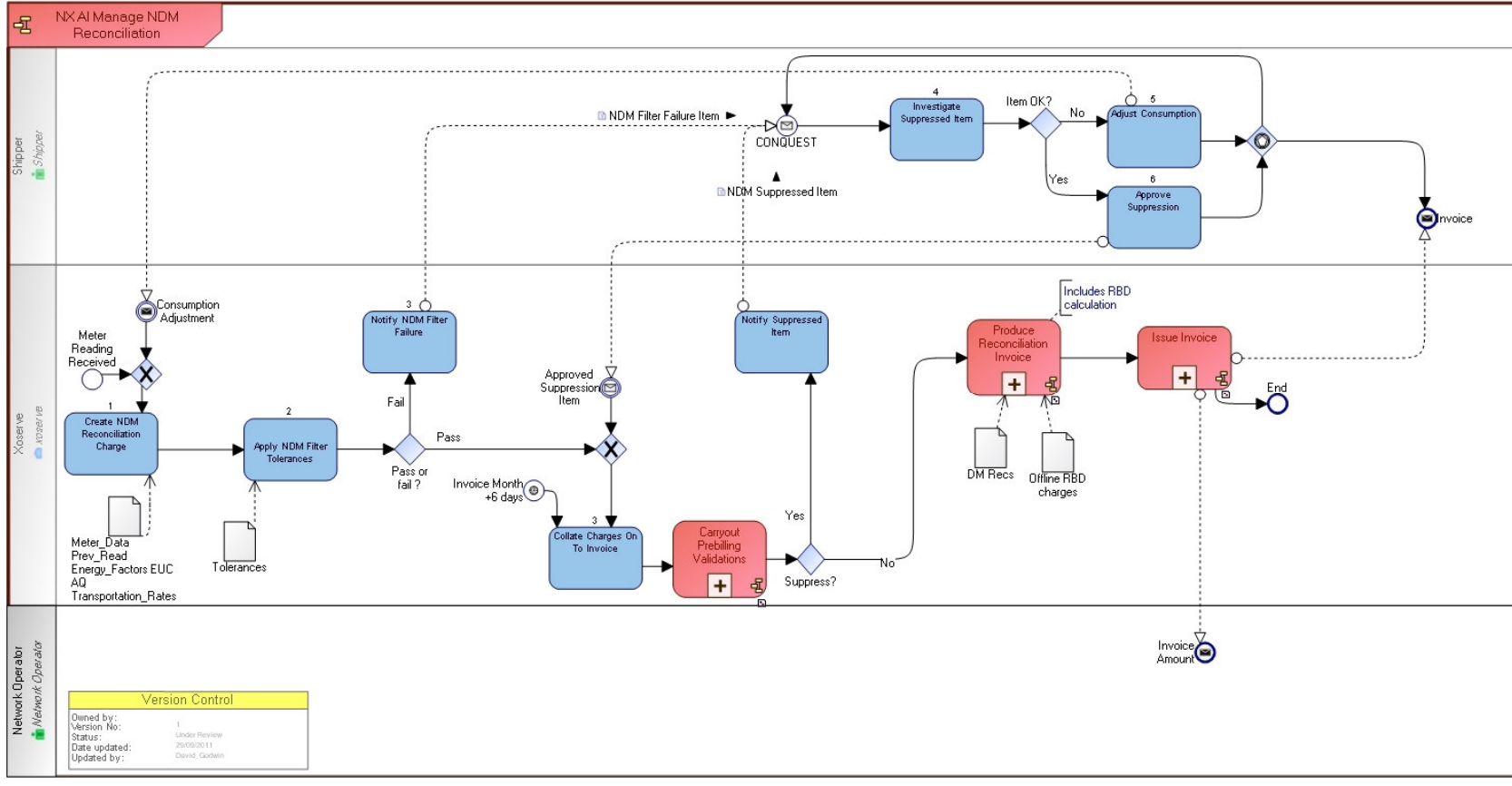
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7. Business Processes

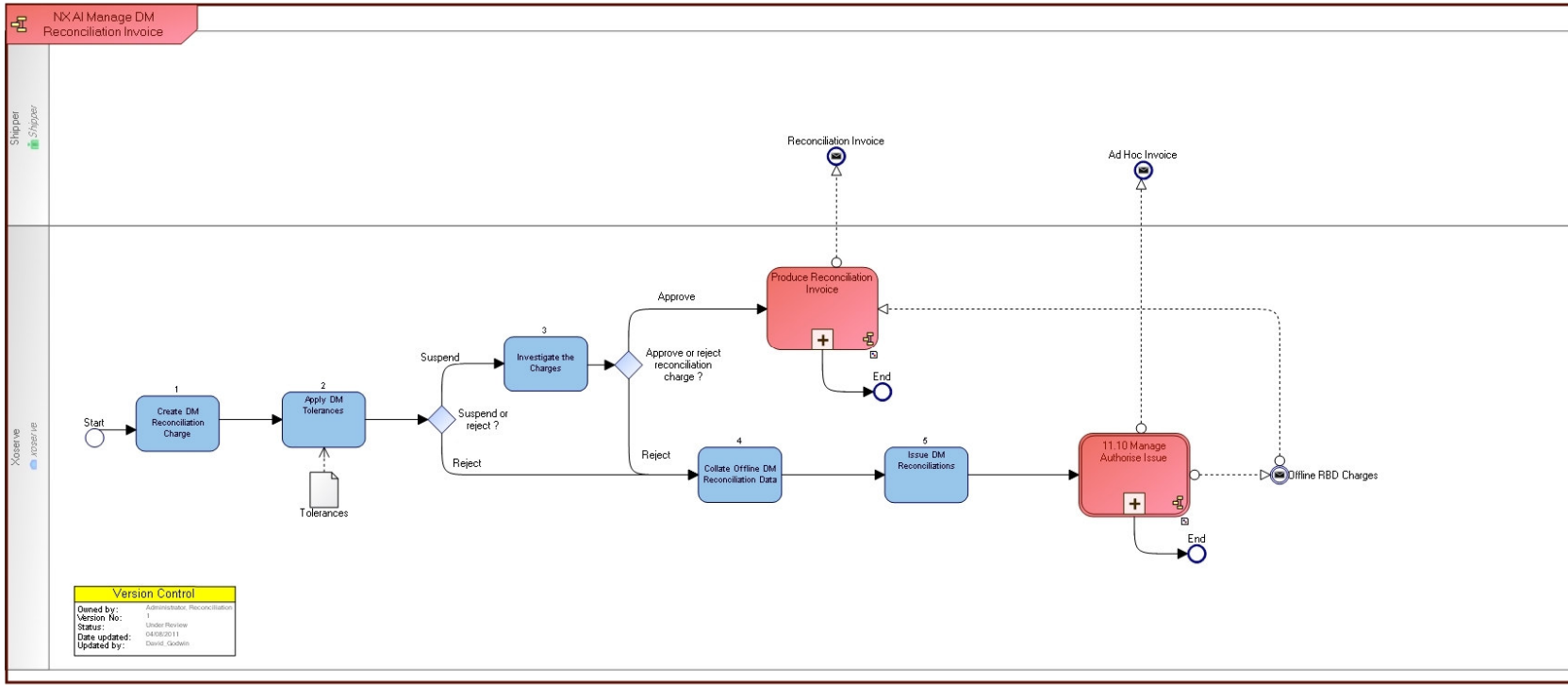
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7.1 Current Processes and Process Maps

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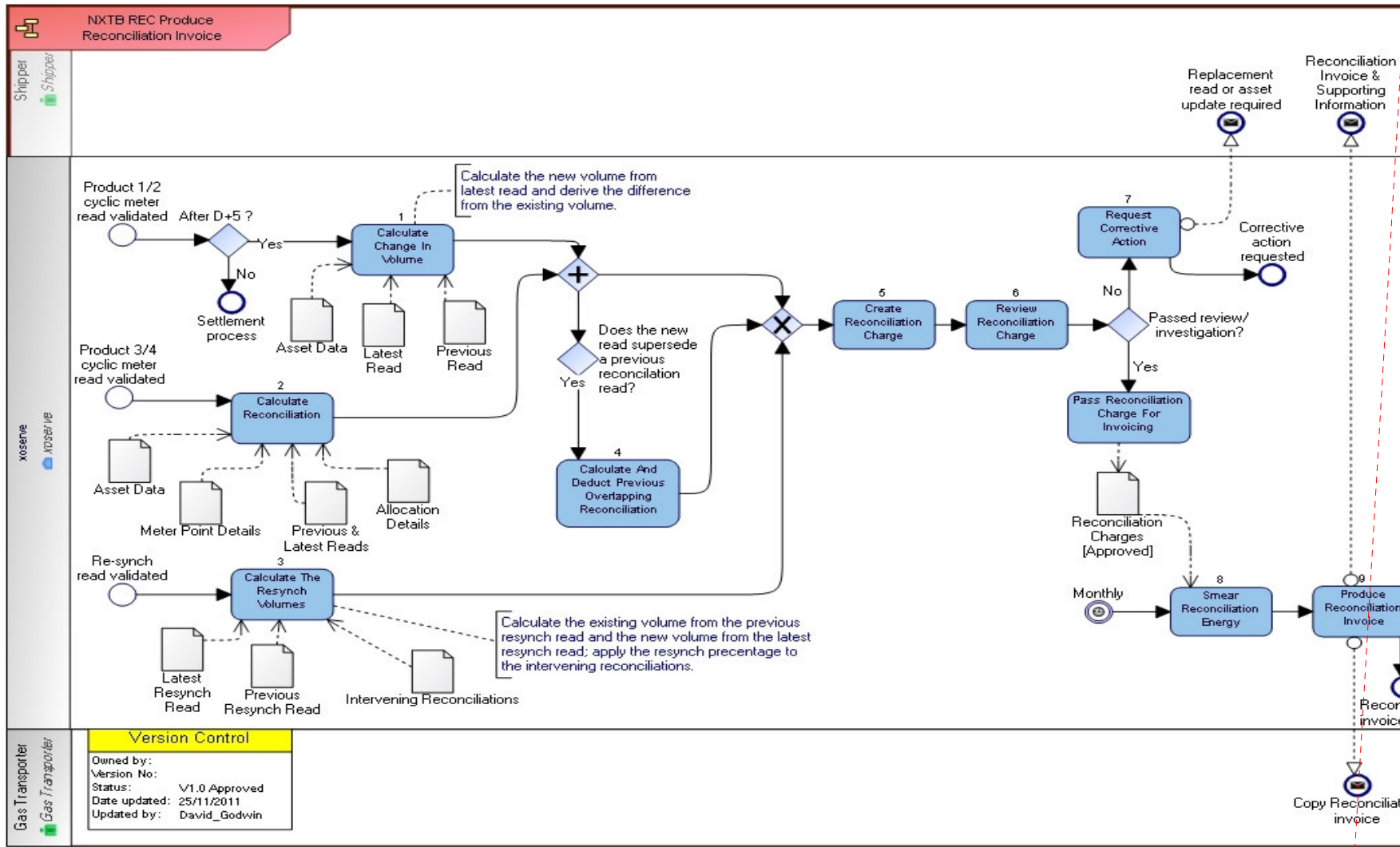


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**7.2 To-Be Processes and Process Map**

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## 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'
  - Daily reads obtained and submitted to the GT daily before 10.00 am on GFD+1
  - Actual or estimated reads may be submitted by the Shipper
  - The latest read loaded 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 10.00 am they will be used for allocation purposes otherwise a read must be received before end of the GFD+1.
  - Actual or estimated reads may be submitted by the Shipper
  - The latest 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 or estimated reads may be submitted within the batch by the Shipper
  - Reconciliation will be based on the 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.
  - Reconciliation is carried out using the methodology determined within the Reconciliation Workgroup
  - Allocation and energy balancing is based on the [allocation profiles and AQ](#)

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## 8.1 General Reconciliation Principles

- 8.1.1 Reconciliation charges for the difference between original (initial) daily energy measurements and actual measurements based on a meter reading.
- 8.1.2 Re-reconciliation charges for the difference between the latest measurements (reads) not the original.
- 8.1.3 Reconciliation charge can be a positive or a negative value
- 8.1.4 Each individual reconciliation will consist of;
  - An energy charge calculated using daily CV values and daily SAP process for each day in the reconciliation period
  - Transportation commodity charges calculated using the relevant price(s) for each gas day in the rec period. Transportation commodity includes NTS Exit Commodity and LDZ Commodity (and / or any new commodity charge introduced in the future).
- 8.1.5 In exceptional circumstances, for example due to unusual trends in SAP prices, a reconciliation with a positive energy quantity may have a negative energy financial value or vice versa.
- 8.1.6 Meter reads that will trigger a reconciliation are;
  - Actual meter reading (including derived reads)
  - Customer reading
  - Read obtained from a 'Must Read'
  - Transfer read, either estimated or actual or a Shipper Agreed Read (SAR)
  - Check Read
  - Estimated reads where stated (Shipper estimated reads for Products 1 and 2)
- 8.1.7 Meter reads that will not trigger a reconciliation are;
  - Shipper estimated reads except an estimated transfer read or an estimated daily read received for Products 1 and 2
  - GT estimated reads except an estimated transfer read

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## 8.2 Periodic Reconciliation for Product 4: Periodic Readings

Periodic reconciliation is designed for sites within Product 4: 'Periodic Readings' where an actual meter reading is submitted periodically to the GT for the purposes of reconciliation.

Periodic reconciliation will use the same principles and methodology as the existing NDM LSP Reconciliation principles (TPD Section E6.2) which is summarised below.

8.2.1 On receipt of a valid reading the GT will perform reconciliation for each gas day from the date of the preceding reconciliation reading, or the transfer reading where applicable, up to and including the date of the current reading.

8.2.2 Reconciliation process compares the energy offtaken using the actual meter reads to the energy allocated by the GT.

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8.2.3 The reconciled energy is apportioned using the same 'profile' as the allocation model (see Figure 1 & 2)

8.2.4 Reconciliation quantities will be calculated as follows;

- Calculate a Reconciliation Factor (RF) for the period as Actual Volume/ Allocated Volume.
- Reconciliation Energy = RF \* Allocated Energy.

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8.2.5 Reconciliation is performed at meter point level, not aggregated.

## 8.3 Daily Reconciliation for Product 1 and 2: Daily Metered

Daily reconciliation is designed for Products 1 & 2 where daily reads are submitted to the GT after close out (GFD+5) . This methodology is also used for Product 3 sites to apportion energy across missing days although the trigger and treatment of reconciliation is different for 'Batched Daily Readings' this is described in Section 8.4. This section will describe the process for reconciliation of energy for the following scenarios where reconciliation involves the apportionment of energy across days;

- Receipt of a Shipper meter reading following a GT estimated reading (Products 1 & 2) after GFD+5
- Estimated reads between actual reads after GFD+5

8.3.1 On receipt of a valid reading the GT will perform reconciliation for each gas day since the last actual read date up to and including the date of the current reading

8.3.2 Reconciliation process compares the energy offtaken using the latest meter read(s) to the estimated energy allocated.

8.3.3 The reconciled energy is apportioned using the same 'profile' as the allocation model (see Figure 2).

8.3.4 Reconciliation quantities will be calculated as follows;

- Calculate daily actual volume as RF x Allocated Volume.

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- Daily Reconciliation volume = daily actual – daily allocated volume.

### 8.4 Daily Reconciliation for Product 3: Batched Daily Readings

Product 3 sites are allocated energy daily by the GT. The Shipper will submit a batch of daily reads, actual or estimated, to the GT for reconciliation purposes.

Section 8.4.1 to 8.4.3 describes the treatment of the reconciliation of energy using the daily reads received and reconciling to the daily energy allocated by the GT.

8.4.1 For each valid read (actual or estimate) submitted to the GT within a batch of reads, the energy will be compared to the allocated energy for the day (GFD).

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8.4.2 The difference, positive or negative, will be used to calculate the reconciliation value for each day.

8.4.3 Reconciliation quantities will be calculated as follows;

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- Calculate daily actual volume as RF x Allocated Volume
- Daily Reconciliation volume = daily actual – daily allocated volume

Section 8.4.4 to 8.4.7 describes the treatment of energy for missing read days (either a read has not been submitted for a day or the read has been rejected) following receipt of a batch of reads.

8.4.4 On receipt of a valid reading the GT will perform reconciliation for each gas day since the last actual read date up to and including the date of the current reading

8.4.5 Reconciliation process compares the energy offtaken using the latest meter read(s) to the estimated energy allocated.

8.4.6 The reconciled energy is apportioned using the same 'profile' as the allocation model (see Figure 2).

8.4.7 Reconciliation quantities will be calculated as follows;

- Calculate daily actual volume as RF x Allocated Volume.
- Daily Reconciliation volume = daily actual – daily allocated volume.

### 8.5 Reconciliation following a Re-synch, all Products

As a result of a Check Read where equipment is fitted to the meter that derives the reads via pulses from the meter, there will be a requirement for a periodic resynchronisation to be carried out to align the read on the equipment with the read on the meter. Any variance in the reads is known as 'drift'. This section describes the methodology to attribute the drift to the relevant period of the drift, that is between the last re-synch read (or when the equipment was installed) to the current re-synch read. A re-synch can be carried out at any time.

8.5.1 The drift is apportioned using the same 'profile' as the allocation model; the energy is apportioned in line with the original (or latest reconciled) value of recorded energy, (see Figure 1 & 2).

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8.5.2 This methodology will be applied to all sites where drift has been identified following a re-synchronisation.

8.5.3 Where there has been a change of Shipper during the re-synch period the energy from the drift will be attributed to the Incoming Shipper from the transfer date as per existing UNC rules (see Figure 3). Existing processes between Shippers outside of UNC will continue to apply to agree any energy and charges owing pre transfer of ownership (described further under Section 8.12)

8.5.4 Reconciliation quantities will be calculated as follows;

- Calculate a Reconciliation Factor (RF) for the period as  $\frac{\text{Re-synch Volume}}{\text{Previous Volume}}$ .
- Calculate  $\text{re-synch volume}$  as  $\text{RF} \times \text{Previous Volume}$ .
- Daily Reconciliation volume =  $\text{daily resynch volume} - \text{previous daily volume}$ .

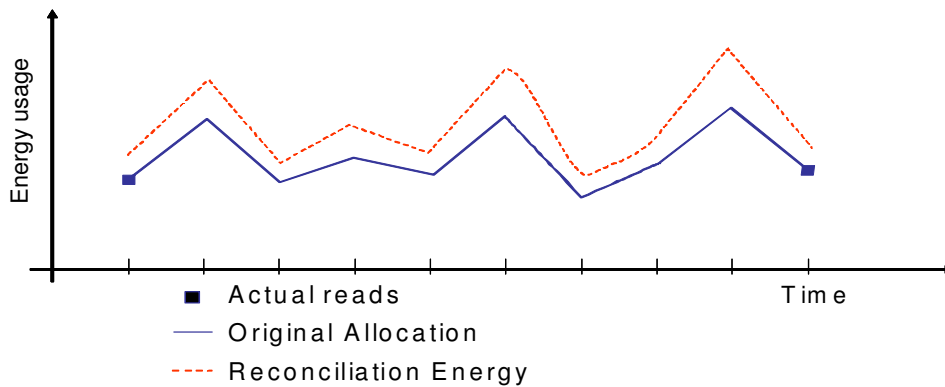
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8.5.5 All energy will be reconciled and the associated reconciliation charges will be included on the invoice and not rolled over

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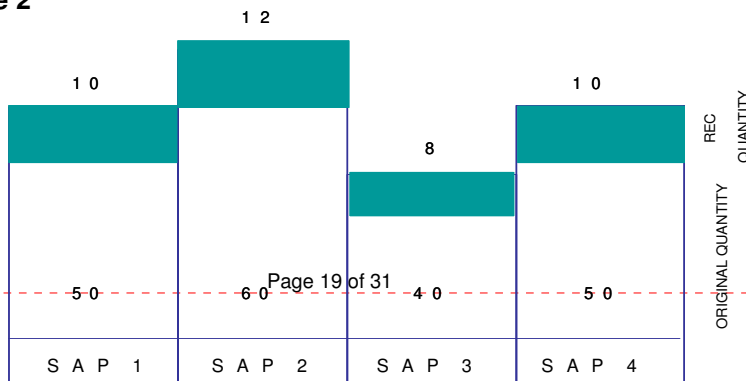
8.5.6 Where a Check Read is received from the GT following a 'Failure to Obtain Check Read' scenario the treatment of the drift will be as per this section 8.5. Note: the obligations and timing of this will be covered under the 'Settlement Workgroup' and documented in the Settlement BRD.

Figure 1



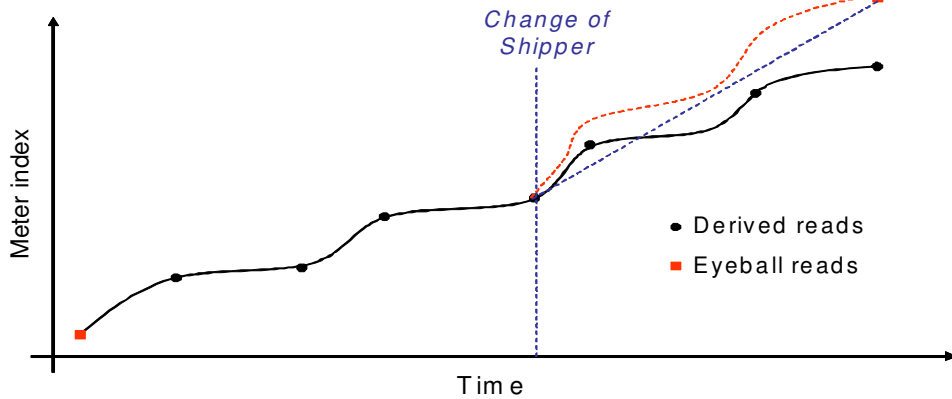
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Figure 2



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Figure 3



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### 8.6 Re-Reconciliation

A re-reconciliation would be triggered following receipt of a read(s) after a previous read has already been processed for the same day/period and reconciled.

- 8.6.1 The methodology applied would be the same as the process applied for the original reconciliation except;
- 8.6.2 The process would use the previously reconciled read to carry out the re-reconciliation not the original read.
- 8.6.3 The reconciliation period could be for a longer period than the original reconciliation.
- 8.6.4 The circumstances of when a re-reconciliation will occur will be covered under the Retrospective Updates Workgroup and documented in the Retrospective Updates BRD.

### 8.7 NDM CSEP Reconciliation

If the aspiration for NDM SSP CSEPs to be subject to meter point reconciliation is not achieved, e.g. due to lack of a single Supply Point register, a fall back arrangement will be required.

Alternative options were presented at PN UNC Workgroup on 24 October 2011, having been identified at an earlier meeting. The two most viable options were:

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- Option A: No Meter Point Reconciliation for SSP on CSEPs – sites attract a share of Reconciliation Neutrality only (in proportion to original allocation). Meter readings are not used by the GT for individual reconciliation purposes.
- Option B: Reconciliation on AQ, for every AQ change. Following an AQ change, the iGT advises Xserve of old and new AQ for each individual affected sites, with applicable start dates and applicable Shippers. The difference in AQ billed as a change to allocation, split between applicable Shippers. This would be a separate process to LMN AQ updates, which would still take place. It may be difficult to cross-check the listing of amended AQs to the regular LMN AQ updates.

For the longer term, if a Single Supply Point Register is still not possible, Option E (where each NDM CSEP SSP becomes an individual Logical Meter Number for allocation, system balancing and reconciliation purposes) may be considered.

Further details of these options and the other alternatives can be found in the presentation material.

### 8.8 Reconciliation Scaling Adjustment (Smear)

The 'Allocation Scaling Adjustment' shares out unallocated energy each day to Shippers based on their portfolio and in proportion to the initial allocations. Reconciliation changes the amount of unallocated energy, either increase or decreases the value therefore a further sharing out of the energy following a reconciliation must take place in order to balance to the total LDZ energy offtaken. The Reconciliation Scaling Adjustment therefore amends the share of unallocated energy to Shippers.

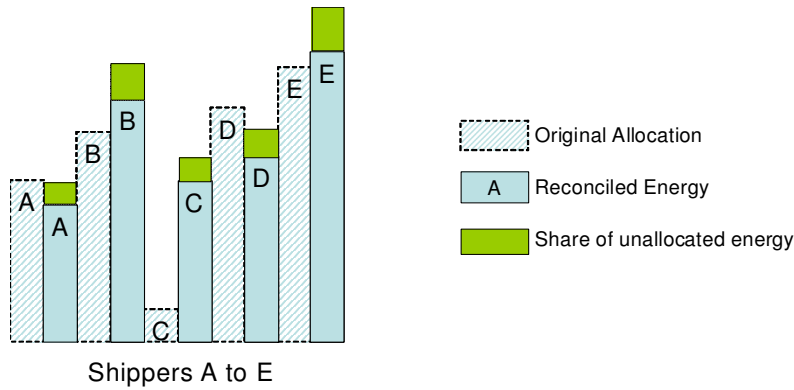
- 8.8.1 Following a reconciliation calculation and its inclusion on an invoice, the value of un-allocated energy is re-calculated and shared between Shippers.
- 8.8.2 The value can be a positive or a negative value.
- 8.8.3 The recalculation of unallocated energy is calculated monthly and based on the latest measurements at the time of the calculation (see Figure 4)
- 8.8.4 The adjustment is billed at LDZ and Shipper level and applies to all sites within the LDZ
- 8.8.5 The charges applied will be energy only, commodity will not be charged. Note; this was the preferred option and will need to be discussed and agreed at DNCMF as there may be impacts on GTs' revenue and pricing.

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Figure 4



**8.9 Validation of Reconciliation Values (USRV/Filter Failures)**

- 8.9.1 At read receipt validations will be carried out by the GT on the read. The details of the validations on the read are covered under the Settlement BRD.
- 8.9.2 There may be a need for Xoserve to suppress charges from the invoice, for example following an update to data which would trigger a re-reconciliation in which case a validated read has not initiated the Rec charge.
- 8.9.3 Charges not triggered by a read, e.g. consumption adjustment / asset change will still need to be validated, to prevent erroneous charges. The read validation tolerances described in the Settlement BRD can be applied to the energy values generated by those adjustments/amendments, prior to the charge being issued. If the initial tolerances are breached, the transaction can be re-submitted and processed. However, the ‘Market Breaker’ tolerances can not be overridden.

**8.10 Rollover Tolerances**

All energy will be reconciled and the associated reconciliation charges will be included on the Reconciliation invoice and not rolled over onto subsequent invoices.

**8.11 Reconciliation ‘Line in the Sand’**

A reconciliation period will not go back further than the ‘Line in the Sand’ principles as per UNC.

**8.12 Change of Shipper during Reconciliation Period following a Resynch.**

- 8.12.1 Energy will be calculated from the latest Resynch read to the previous Resynch read, or last actual read as per Section 9.
- 8.12.2 The appropriate charges will be invoiced to the Registered Shipper as per existing UNC rules.
- 8.12.3 A re-synch at transfer of ownership would mitigate the risk to the Incoming Shipper.

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8.12.4 In all other transfer scenarios there will be a transfer read (either actual or estimated) which will close out the Outgoing Shippers position.

### 8.13 Reconciliation Communication

The read communication will include, but is not limited to, the following data items; The following data is based upon the current reconciliation file formats;

#### 8.13.1 Products 3 and 4: Primary Reconciliation Record (i.e. first instance in file)

- Meter Point Reference
- Confirmation Number
- Shipper provided reference number (if applicable)
- Meter Serial Number
- Meter details:
  - Meter model
  - Number of dials
  - Correction factor
  - Read factor
- Converter details
  - Where applicable, same details as for meter
- Start meter read: date, reason and reading
- End meter read: date, reason, type and reading
- End meter read reference (system generated)
- Converter start and end reads
- Volume consumed (m<sup>3</sup>)
- Variance period start date
- Variance period end date and reason
- Allocated volume – m<sup>3</sup> (for variance period)
- Allocated energy – kWh (for variance period)
- Actual energy – kWh (for variance period)
- Reconciliation quantity (kWh)
- Through the zeros count (“round the clock indicator”)
- LDZ
- Meter point AQ, SOQ, EUC (for variance period)
- Charge type
- Amount (£)
- Invoice number
- Charge status
- Current month indicator
- Original read reference, previous invoice number and amount (re-recs and adjustments only)

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8.13.2 Products 3 and 4: Subsidiary Reconciliation Records (second and subsequent records)

- Meter Point Reference
- Confirmation Number
- Shipper provided reference number (if applicable)
- Meter Serial Number
- End meter read reference (system generated)
- Variance period start date
- Variance period end date and reason
- LDZ
- Charge type
- Amount (£)
- Invoice number
- Charge status
- Current month indicator

8.13.3 Products 1 and 2: Daily Metered Reconciliation Records

- Meter Point Reference
- Confirmation Number
- Charge date
- Original quantity (kWh)
- New quantity (kWh)
- Reconciliation quantity (kWh)
- LDZ
- Charge rate
- Charge type
- Amount (£)
- Invoice number
- Charge status

8.13.4 Reconciliation following a Re-Synch Records

- Meter Point Reference
- Confirmation Number
- Shipper provided reference number (if applicable)
- Meter Serial Number
- Meter details:
  - Meter model
  - Number of dials
  - Correction factor
  - Read factor
- Converter details
  - Where applicable, same details as for meter
- Start meter read: date, reason and reading
- End meter read: date, reason, type and reading
- End meter read reference (system generated)
- Converter start and end reads
- Volume consumed (m<sup>3</sup>)
- Variance period start date

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- Variance period end date and reason
- Allocated volume – m<sup>3</sup> (for variance period)
- Allocated energy – kWh (for variance period)
- Actual energy – kWh (for variance period)
- Reconciliation quantity (kWh)
- Through the zeros count (“round the clock indicator”)
- LDZ
- Meter point AQ, SOQ, EUC (for variance period)
- Charge type
- Amount (£)
- Invoice number
- Charge status
- Current month indicator
- Original read reference, previous invoice number and amount (re-recs and adjustments only)

8.13.5 Products 3 and 4 Subsidiary Reconciliation Records (second and subsequent records)

- Meter Point Reference
- Confirmation Number
- Shipper provided reference number (if applicable)
- Meter Serial Number
- End meter read reference (system generated)
- Variance period start date
- Variance period end date and reason
- LDZ
- Charge type
- Amount (£)
- Invoice number
- Charge status
- Current month indicator

8.13.6 Reconciliation Scaling Adjustment Charges

- Charge month
- LDZ
- Reconciliation source/sector (if applicable)
- Charge type
- Quantity (kWh)
- Amount (£)
- Total LDZ [UDQOs]
- Shipper LDZ [UDQOs]
- Shipper % share
- Reconciliation neutrality quantity (kWh)
- Reconciliation neutrality amount (£) – for each charge type if applicable

8.13.7 NDM CSEP

Reconciliation communications for NDM CSEPs will be dependent on how meter point reconciliation is achieved for these meter points.

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### 8.14 Allocation of Unidentified Gas Expert (AUGE)

The AUGE currently determines an annual amount of energy to be borne by NDM LSP sites and transferred from the RbD sector. The introduction of an industry wide energy smear (Allocation Scaling Adjustment) will supersede the current RbD arrangements. The AUGE's role will need to change as a result.

The Workgroup envisages that the AUGE may continue to review levels and causes of Unidentified Gas. The AUGE may determine that the amounts apportioned to different sectors via Allocation Scaling Adjustments and Reconciliation Scaling Adjustments should be altered to reflect differing levels of contribution to Unidentified Gas. This alteration could be in the form of an amount of energy to be transferred between sectors or a % transfer between sectors.

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## 9. Transitional Rules

Transitional rules are required to deal with the period immediately before and after the implementation of these rules.

### 9.1 Meter Point reconciliation for Smaller Supply Points

- 9.1.1 After the implementation date, Smaller Supply Points will be subject to meter point reconciliation.
- 9.1.2 The first reconciliation will be treated consistently with existing UNC rules which apply when an SSP moves to LSP and becomes subject to Meter Point Rec.
- 9.1.3 The first meter read submitted after the implementation date will trigger a reconciliation back to the previous valid (billable) meter reading.
- 9.1.4 Only the portion relating to days on and after the implementation date will be issued on a reconciliation invoice.
- 9.1.5 The reconciliation will be divided into two variances and the first variance will be treated as being subject to RbD.

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9.1.6 It should be noted that this approach will mean that SSPs will have a later (i.e. more recent) effective "Line in the Sand" date than LSP for a transitional period. I.e. reconciliations and other energy adjustments will only go back to the implementation date rather than to any line in the sand, if earlier. This scenario will persist until the Line in the Sand date catches up and passes the implementation date.

### 9.2 Reconciliation by Difference (RbD)

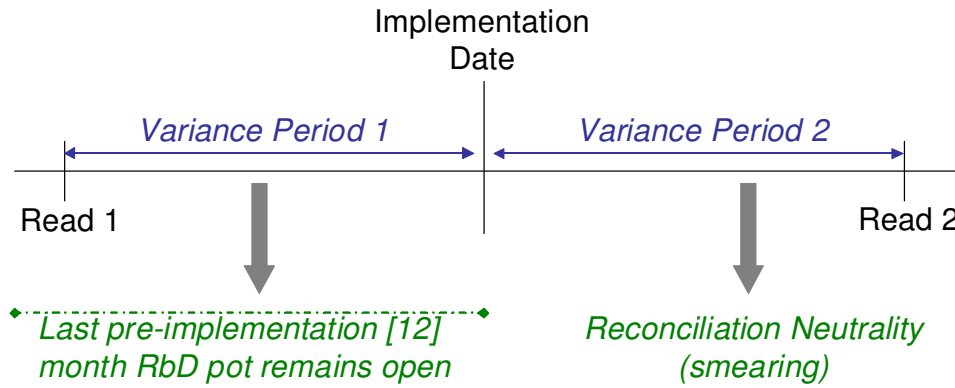
- 9.2.1 After the implementation date, Smaller Supply Points will be subject to meter point reconciliation and not RbD. However, for days prior to the implementation date, RbD will still apply.
- 9.2.2 LSP reconciliations for days prior to the Implementation date will be calculated as normal. There are two options for the treatment of the energy as described below. The workgroup agreed both options were feasible although a majority preference for Option 1. Agreed by the workgroup that both options should be analysed and costs provided. Following this the workgroup will decide on their preference;

- Option 1 Legacy RbD Pot

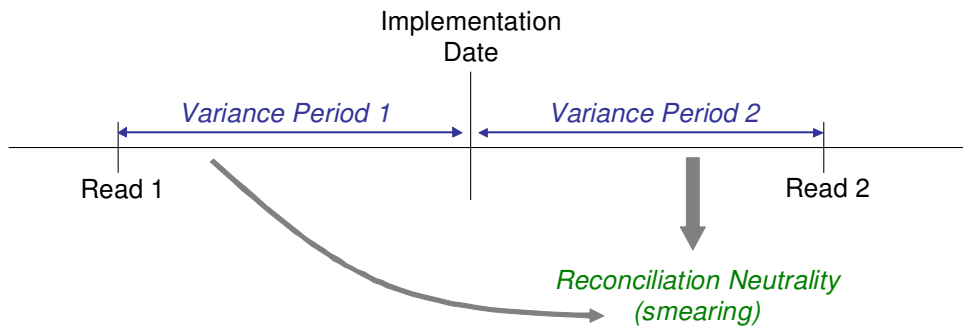
This option involves the maintenance of a final pre-implementation RbD pot.

Note: Although the effective dates of the reconciliation span the implementation date the reconciliation may not be processed for [5] years depending on Line in the sand.

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- Option 2: Neutrality Smearing  
This option would continue to use RbD pot for [12 months], after this energy would be smeared through the Reconciliation Scaling Adjustment mechanism.



### 9.3 Resynchronisation

#### 9.3.1 Product 1-3 sites

- After the implementation date, sites in Products 1-3 will supply daily reads (either within or after D+5). Where the reads are derived from the meter reading equipment rather than taken directly from the index of the meter, there will be an opportunity for drift to arise. Transitional rules are required to ensure that differences arising on the first resynchronisation are treated equitably.
- Sites which were previously daily metered – at the first resynchronisation after the implementation date, treat the resynch energy as arising over the period back to the last DM resynch.

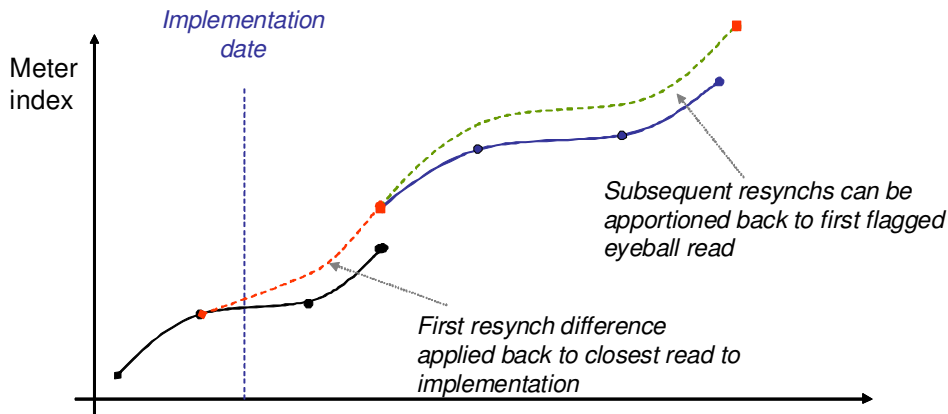
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- Sites which were previously NDM – can only be transferred to Product 1, 2 or 3 after the implementation date.
- A “Resynch Start date” will apply whereby an actual valid read closest to the implementation date (either before or after) will be used to reconcile the drift back to (see Figure 5).

9.3.2 Product 4 sites

- After the implementation date, sites which were previously NDM which are transferred to Product 4 and require a resynchronisation a process is required for the energy determined as drift be apportioned.
- Transitional rules are required for Product 4 sites for any resynch energy identified at the first resynch.
- A “Resynch Start date” will apply whereby an actual valid read closest to the implementation date (either before or after) will be used to reconcile the drift back to (see Figure 5).

Figure 5



“Resynch start date” is closest read to implementation date (before or after)

- Derived reads
- Eyeball reads = Resynch

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## 10. Non-Functional Business Requirements

### 10.1 Parameters

There are some parameters within the requirements that still require agreement. These are shown in square brackets [ ]. These values, and any other values, should not be 'hard coded' and should be set as a parameter value. These values may need to be clarified for the design and development phases.

11. Appendices

12. Document Control

Version History

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Version	Status	Date	Author(s)	Summary of Changes
0.1	Draft	20/05/2011	Xoserve	First draft
0.2	Draft	21/06/2011	Xoserve	Updated following the PN UNC Workgroup on the 21 <sup>st</sup> June 2011.
0.3	Draft	03/08/2011	Xoserve	Updated following the PN UNC Workgroup on the 2 <sup>nd</sup> August 2011
0.4	Draft	22/08/11	Xoserve	Updated following the PN UNC Workgroup on the 22 <sup>nd</sup> August 2011
0.5	Draft	28/09/11	Xoserve	Updated following PN UNC Workgroup meeting on 19 <sup>th</sup> September 2011
0.6	Draft	28/10/11	Xoserve	Updated following PN UNC Workgroup meeting on 24 <sup>th</sup> October 2011
<u>0.7</u>	<u>Draft</u>	<u>22/11/11</u>	<u>Xoserve</u>	<u>Updated following PN UNC Workgroup meeting on 22<sup>nd</sup> November 2011</u>
<u>1.0</u>	<u>Baselined</u>	<u>24/11/11</u>	<u>Xoserve</u>	<u>Approved version including updates agreed at 22/11/2011 PN UNC</u>

Reviewers

Name	Version	Date
Workgroup attendees		
<u>Xoserve</u>		

... [1]

Approval

Name	Role	Date
PN UNC		

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