Project Nexus Settlement Business Rules

1. Introduction

This version of the document contains draft business rules for settlement arrangements for gas meter points identified by the Settlement Workgroup. These options have been documented for further discussion and clarification.

The document has been based on presentations and discussions at the Project Nexus Settlement Workgroup and on the principles agreed at the Allocation Workgroup, however, all areas within the document are yet to be agreed and finalised. It is intended to assist discussions in future meetings rather than be a conclusive statement of requirements at this stage.

All square brackets – [ ] – represent areas for clarification which must be resolved by the Workgroup or by the Project Nexus UNC Workgroup prior to the Business Rules being finalised.

2. Scope

In Scope

Function:

- Receipt and processing of meter readings, actual or estimated
- After the day gas allocations
- Share of un-allocated gas
- Estimation methodology for allocation purposes
- Estimation methodology for missing reads

Market Sectors:

- All smart metered sites
- All dumb metered sites
- AMR sites for allocation and the share of un-allocated energy

Out of Scope

Function:

- Reconciliation processes
- Shrinkage calculation
- AQ processes
- Transportation Invoicing

Market Sectors:

- Receipt and processing of reads and estimates for;
  - AMR sites
  - DM Sites including NTS Telemetered sites
  - NDM CSEPs

3. Implementation Timescales

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

4. Change Drivers and Business Goals

The original drivers and goals captured during the Project Nexus High Level Principles were;

DRAFT

Drivers

- To reduce the Shippers' risk due to the mismatch between gas nomination, actual consumption and gas allocation.
- Use actual data rather than AQ or estimated reads in allocation processes
- To increase the proportion of metered information feeding the settlement processes
- Remove requirement for estimation routines and where required, improve the estimation methodology
- Remove the dependency on DM allocations for the NDM sector.
- To identify a more accurate value for un-allocated gas
- Implement a fairer smearing mechanism which is applied to all sites
- To promptly reflect consumption reduction in the transportation and settlement arrangements

Goals

- Ultimately the industry desire is for all sites to utilise actual daily reads for energy allocation (after the day), energy balancing and settlement processes.
  - However, this regime is only achievable in a fully smart world (or when 'critical mass' of smart meters has been achieved) and with a fully established DCC.
  - The requirements and rules described in this document are therefore the interim arrangements for all directly connected sites during the Smart meter roll-out.

5. 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.

Issues Raised with the Existing Settlement processes

- The following issues were identified during the Allocation Principle Workgroups;
  - To be added
- The following issues were raised during the Project Nexus Consultation (taken from the IRR);
  - To be added

6. Assumptions

- Shippers will submit validated meter readings (actual or estimated); not energy (kWh) or volume (consumption).
- Exit Close Out remains at D+5.
- The requirement for aggregate reconciliation is expected to diminish or be replaced with meter point reconciliation.
- Some LDZ sites will continue to be daily metered (and reads received daily) and their consumption is deducted from the allocation process
- A smearing mechanism for un-allocated energy will continue to be required

DRAFT

7. Constraints

- Existing Allocation processes commence at 1pm on GFD+1.
- Final CV value is not known until D+5, CV is used for the calculation of energy.

8. Risks and Issues

Risks

- Not all Shippers/Suppliers attend the Settlement Workgroup or are represented therefore there may be opposition to any potential Modifications raised.

Issues

-

9. Dependencies

- Approval of the business rules by PN UNC
- Approval by Ofgem following the appropriate UNC Modification process

10. Benefits

Details of high level benefits (tangible and intangible) are required

11. Summary of the Approaches

The following approaches for the future gas Settlement regime were agreed at the PN UNC Settlement Workgroup on March 2nd, 2011.

Process Description	Process for Allocation	Process for Energy Balancing close-out	Read Submission	Type of Read Submission
Periodic Readings	GT estimate	GT estimate	Periodic single read	Single Read submitted to a pre-notified frequency
Batched Daily Readings	GT estimate	GT estimate	Daily reads in batches	Daily reads submitted in batches monthly

Note:

- Both of the processes described will be available in the future solution; they are not alternative solutions
- All 'days' specified within this document refer to calendar days except where stated 'business days'.

DRAFT

2. Business Rules

12.1 General

Gas Nominations

1. [Shippers will nominate energy for all of their sites ahead of the day. This nomination will be in aggregate for many of these sites.]
2. [Total Shipper gas nominations will be subject to a balancing correction (smear) to ensure that total gas nominations match forecast gas demand.]
3. The Balancing Correction will be applied at LDZ level and Shipper portfolio level.

Energy Allocation and Balancing

4. Daily energy allocation will be calculated on GFD+1 by the GT.
5. The estimate generated for energy allocation is described below under 'Estimation Methodology'.
6. The closed out energy balancing position at D+5 will be based on the estimate calculated by the GT.

Share of un-allocated energy (Balancing Correction/Smear)

7. Each LDZ is balanced separately, the 'balancing correction/smear' is calculated daily and applied to all sites within the LDZ
8. The share of un-allocated energy is calculated as follows;
    a. Total of all site consumptions (daily read sites) and the total of all estimates will be combined daily to give the total LDZ consumption.
    b. Compare total LDZ consumption to the total actual LDZ offtake.

    Balancing Correction % is calculated as:

$$\frac{\text{(Actual LDZ offtake - Total LDZ site level consumption)}}{\text{Total LDZ site level consumption}}$$

9. The difference between the two could be a positive or negative and will be apportioned equally to all sites within the LDZ; smart metered, DM, AMR and dumb meters.
10. All sites within the LDZ would receive the same % correction applied to the site's consumption for the day.
11. The Balancing Correction will be applied at LDZ and Shipper portfolio level, not at individual site level.
12. A positive value denotes an increase to site level consumption and a negative value would decrease the site level consumption.

    Example:

Actual LDZ offtake	=	1,010,000 kWh
Total of individual Site level consumptions	=	1,000,000 kWh
Difference	=	10,000 kWh
Balancing Correction	=	+1%

DRAFT

+1% balancing correction (smear) applied to the consumption of all sites within the LDZ

Estimation Methodology for GFD+1 Allocation

13. These business rules need to contain the nature of the methodology and the source of the parameters, not necessarily the parameter values.

12.2 Settlement of Periodic Readings (Approach 2)

Read Submission and Processing

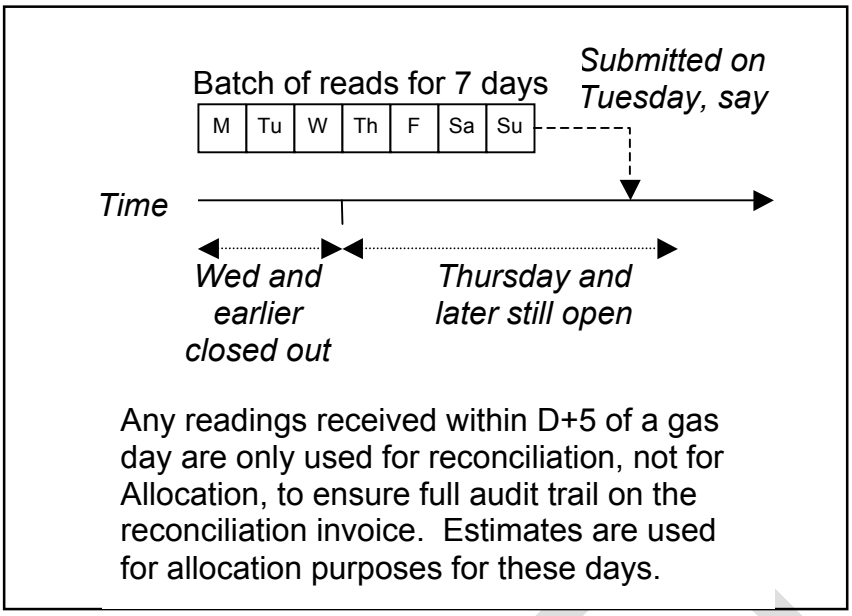
1. Shippers obtain and validate the periodic read.
2. A single actual meter reading is submitted to an agreed frequency by the Shipper to the GT. Estimated readings will not be submitted.
3. The read frequencies are: [Monthly, Quarterly, 6 monthly or annually].
4. The maximum planned interval for submission of readings is [annual].
5. On receipt of a reading the GT will carry out 'logic checks' and a response issued notifying the Shipper if the read has [passed] or failed.
6. Shippers will have an obligation to ensure that a valid read is submitted for [90%] of sites per read frequency in the Shippers portfolio (% will need to be appropriate for the read frequency, e.g. 90% of monthly read each month, 50% of annual read each year etc.).
7. The Must Read requirement will apply where an actual valid meter read is not received for [x] consecutive months (may depend on read frequency or AQ).
8. On receipt of a valid reading the GT will perform reconciliation for each gas day since the last read and upto and including the date of the current reading.
9. Treatment of reconciliation and the impact of the reconciliation on the balancing correction will be covered under the Reconciliation Workgroup.

12.3 Settlement of Batched Daily Readings (Approach 3)

Read Submission and Processing

1. Shippers obtain & validate the daily reads.
2. Single daily readings are not submitted daily. Daily readings are submitted in batches [monthly].
3. The reads submitted will not be used in allocation or energy balancing processes; A read may be submitted before D+5 close out but it only be used for reconciliation processes, see example below;

DRAFT



Any readings received within D+5 of a gas day are only used for reconciliation, not for Allocation, to ensure full audit trail on the reconciliation invoice. Estimates are used for allocation purposes for these days.

4. Readings submitted may be actual reads [or estimated reads]. The read notification must specify whether the read is actual or estimated.
5. On receipt of a batch of readings the GT will carry out 'logic checks' and a response issued notifying the Shipper of which reads have [passed] or failed and any missing read days.
6. A completeness check will also be performed on receipt of a batch of reads.
7. If there is a gap between the last reading date of the previous batch and the first reading date of the new batch, or for any missing reads within the batch, the GT will estimate the read and notify the Shipper of the estimated reading.
8. Shippers will have an obligation to ensure that valid daily reads are submitted (actual or estimated) for [90%] of sites in the Shippers portfolio on any given calendar month.
9. The Must Read requirement will apply where an actual valid meter read is not received for [x] consecutive months.
10. On receipt of a batch of accepted meter readings the GT will perform individual daily reconciliations for each gas day upto and including the date of the last reading in the batch. Treatment of reconciliation and the impact of the reconciliation on the balancing correction will be covered under the Reconciliation Workgroup.

14. Election for change in regime or read frequency (no change in Shipper)

1. Change in read frequency: The GT needs to know [10] business days (as per existing requirement) before the gas day of the elected read frequency. A change in Meter Reading Frequency can only be effective [2 months] after the current Meter Reading Frequency effective date, except where;
    - There has been a change of Shipper.
    - [There has been a meter exchange e.g. dumb to Smart meter]

DRAFT

2. Change in regime: An election for a change of regime must be received and accepted by [D-8] business days using the existing Reconfirmation process as per UNC G2.2.5, 2.5.1 & 2.5.8. A change in settlement regime can only be effective [2 months] after the current regime effective date.
3. Only the Registered User or a Confirming User (with a confirmation about to become effective after D-7) can submit an election described in 1 or 2 above. If the requesting User will not be the Registered User on the day to which the election refers, the election will be rejected.

DRAFT