Issue 8 - VASMG – Apparent inconsistency between requirements for rectifying NHH meter reading history anomalies and the BSC

Summary

SVG Paper 40/006 identified an apparent inconsistency between methods currently being used for 'deeming' meter readings, associated with the correction of EAC/AA and meter reading history anomalies, and the provisions of the Code (Annex S-2). This has also been raised in the recent BSC audit report Statement of Significant Matters as the issue of "Deemed reads calculated in incorrect circumstances". The SVG agreed that an 'Issue' should be raised regarding this, for consideration by a Standing Modification Group. This paper looks at the problem in context and considers the specific questions that need to be addressed, taking account of the impacts on Settlement, billing and customer service as well as the Code and other industry documents.

Background

There are a number of circumstances (other than genuine step changes in consumption) which can give rise to EAC/AA and other NHH consumption data anomalies. These include:

- No initial meter reading
- Previous meter reading (including COS Customer Own/Deemed read) later identified as being erroneous/inaccurate
- Meter 'roll-over' not/incorrectly identified/processed
- Meter faults + Revenue Protection adjustments
- Meter standing data found to be erroneous
- Profile Class/SSC changes not/incorrectly reported/processed
- Meter/configuration changes not/incorrectly reported/processed
- New Connection/Energisation not/incorrectly reported/processed
- De-energisation/disconnection not/incorrectly reported/processed
- Duplicate MPAN

These 'events' have differing impacts on EACs/AAs and the accuracy of standing data held in MPAS, Agent and Supplier systems, and hence billing, Settlement and other industry processes, and potentially require differing methods of correction. These impacts and preferred solutions for each case need to be identified.

Where the problem covers a period for which the Settlement data has already 'crystallised' (i.e. passed Final Reconciliation), it may be necessary to treat consumption as being in a different period from that in which it actually occurred. A method that may be used in some circumstances is Gross Volume Correction (GVC). This is a process that involves deeming meter readings retrospectively to correct for errors which may have impacted Settlement for periods that have already 'crystallised'. The objectives of GVC are (Refer to paper TS2/23/0648 (See Appendix A) etc):

- To ensure that all consumption is taken into account in Settlement (even if not for the correct Settlement Periods)
- To avoid the need for additional Volume Allocation Runs
- To provide a realistic starting AA/EAC for the post-correction period
- To make correction where the benefits justify the costs and risks to Settlement
- (In NETA context) To avoid extreme impacts on Settlement liabilities (e.g. large Energy Imbalances concentrated at times of volatile Cash-out prices)
- Other?

The intention of this Issue is to address all circumstances where the deeming of meter readings (or meter advances) may be required, where this may not (apparently) be covered by current provisions of the Code. The relevant clauses of the Code (Annex S-2, 4.3) state the circumstances in which a Deemed Meter Advance may/should be calculated. Other relevant documents include:

- PSL 120 – This (clause 1.5.4.2) covers the occasions when meter readings may be deemed
- BSCP 504 – This covers the rules governing the validation of and alterations to meter readings

- Pool Circular CEO00557 – This outlines the methods being used by at least some Data Collectors currently for Gross Volume Correction

Extracts of these are included in Appendix B.

Issues to be addressed

- What are the 'root cause' problems giving rise to EAC/AA anomalies?
- What are the impacts of each of these on EACs/AAs, validation, Deeming and other estimation processes?
- What are the most appropriate methods of identification and rectification for each situation?
- Are the TS2 principles still appropriate?
- Over what length of period should GVC be applied?
- Constraints on amendments to SMRS data (e.g. retrospective amendments)
- What should the rules be for setting of the new EACs following the correction period?
- Incentive effects (in general)
- What to do where changes have (erroneously) been carried out affecting period prior to last Settlement Run (i.e. to crystallised data)?
- Is there actually an inconsistency between the Code, Code Subsidiary Documents and other guidelines etc? Arguably, the definition of "Deemed Meter Advance" only relates to the specific instances mentioned in Annex S-2. Under this interpretation, it may still be legitimate to calculate a Meter Advance and/or a Deemed Meter Reading for other situations.
- Should detailed obligations be in BSC (Annex S-2) or BSCP?
    - BSC defines obligations i.e. what should be done (and when)
    - BSCPs define <u>how</u> it should be done
    - Governance issues
    - Cost impacts for BSCCo (Trading Parties), Suppliers and other parties

Appendix A

TS2 Principles (from paper TS2/23/648)

a) The cost to [Parties] of corrective action should be consistent with the Settlement error being corrected.
b) The risks to Settlement (Accuracy or Timetable) should be consistent with the Settlement error being corrected.
c) Errors should be fully corrected wherever possible without undue risk to settlement or undue cost to [Parties].
d) Small amounts of energy can be left under or over accounted for if the risk or cost of corrective action is high.
e) Compensatory Errors should be used to ensure that overall total energy levels are correctly accounted for in preference to writing off energy.
f) Settlement data that has been effective in a Final Reconciliation run should not be modified unless specifically authorised as part of a dispute.
g) Change of Supplier readings should be corrected where the error is significant and both Suppliers are in agreement over the replacement value.
h) Where data is missing or incorrect and processes can not be operated without this data, estimates can be utilised, preferably using a deemed reading process.
i) If an erroneous EAC is to be used to derive an expected meter reading, it is recommended that the EAC is corrected before it is used.

Appendix B - Relevant extracts from the Code and Code Subsidiary Documents

Annex S-2

4.3.2 Each Supplier shall ensure that for each metered Metering System "K" for which it is responsible, the Non Half Hourly Data Collector responsible for such Metering System shall calculate Meter Advance values ($MADV_{KR}$) for each Settlement Register and, for this purpose, the provisions of paragraphs 4.3.3 to 4.3.8 (inclusive) shall apply, except in the cases where:
(a) such Non Half Hourly Data Collector is supplied with an initial value of Estimated Annual Consumption (EAC_{KR}) together with its Effective From Settlement Date for such Settlement Register (such date being the Settlement Day on which the event giving rise to the actions taken pursuant to this paragraph (a) occurs), which such Supplier undertakes to supply in the event that:
(i) the Profile Class "P" of such Metering System "K" changes, in which case the provisions of paragraphs 4.3.9 and 4.3.10 only shall apply;
(ii) such Metering System "K" is registered as a new metered Metering System (and for which a Meter Advance has not yet been calculated) in which case the provisions of paragraph 4.3.11 shall apply;
(iii) the physical meter for such metered Metering System "K" changes or, as the case may be, is reconfigured, in which case the provisions of paragraphs 4.3.12 to 4.3.17 (inclusive) shall apply;
(b) such Non Half Hourly Data Collector is notified of a change of Supplier for such metered Metering System, in which case:
(i) if the metered Metering System "K" is not subject to half hourly metering on the Settlement Day of the change of Supplier, then the provisions of paragraphs 4.3.18 to 4.3.20 (inclusive) shall apply; or

(ii) if the metered Metering System "K" is subject to half hourly metering on the Settlement Day of the change of Supplier, then the provisions of paragraphs 4.3.23 to 4.3.24 (inclusive) shall apply;
(c) (i) such Non Half Hourly Data Collector has submitted to the Non Half Hourly Data Aggregator responsible for such Metering System an Estimated Annual Consumption (EAC_{KR}) in respect of such Metering System for inclusion in a Final Reconciliation Volume Allocation Run in respect of a Settlement Day but has not so submitted an Annualised Advance (AA_{KR}) in respect of such Metering Systems for inclusion in such Final Reconciliation Volume Allocation Run; and
(ii) the Meter Advance Period associated with the Meter Advance values calculated pursuant to this paragraph 4.3.2 for such Metering System "K" includes one or more of the Settlement Days identified in paragraph (c)(i) above;
in which case the provisions of paragraph 4.3.21 shall apply.

The definition of a Deemed Meter Advance is:
"An estimated Meter Advance at the time of a change of SVA Supplier or in the other circumstances described in paragraph 4.3 of Annex S-2, calculated by the relevant Non Half Hourly Data Collector pursuant to paragraph 4.3 of Annex S-2."

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1.5.4.2 Readings may be deemed on the following occasions:-
a. when an actual change of Supplier meter reading has not been provided within the timescale set out in BSC Procedure BSCP504;
b. when a meter reading has been processed as a result of change of Supplier, another Deemed reading calculated from a meter reading obtained after the Supplier Start Date may be substituted in accordance with BSC Procedure BSCP504;
c. when the Associated Meter Operator Agent has reported a meter fault and it is necessary to estimate consumption during the period of the fault;
d. where an Estimated Annual Consumption has been used for a Final Volume Allocation Run and a meter reading is obtained by the Non Half Hourly Data Collector after that Final Volume Allocation Run, the Non Half Hourly Data Collector shall calculate a Deemed meter reading for the last Settlement Day (or one shortly thereafter) for which an Estimated Annual Consumption was submitted for inclusion in a Final Volume Allocation Run, based on the Estimated Annual Consumption which has been used for the Final Volume Allocation Run, using the Estimation of Annual Consumption (EAC/AA) System or any equivalent Certified system. The Non Half Hourly Data Collector shall then calculate a new Annualised Advance for the period between that Deemed meter reading and the meter reading obtained after the Final Volume Allocation Run and pass the new Estimated Annual Consumption or Annualised Advance to the Associated Non Half Hourly Data Aggregator.
e. when a meter has been read and the Final Volume Allocation Run for the previous reading date has taken place a meter reading may be Deemed for a Settlement Day for which the Final Volume Allocation Run has yet to take place;
f. where the latest meter reading is more than 2 years old and Daily Profile Coefficients subsequent to the meter reading date are about to be archived, a Deemed reading may be calculated for the date at the latest Final Volume Allocation Run.
This clause e will be superseded by clause 1.5.4.2.1.1 with effect from 1st April 2000.
1.5.4.2.1 With effect from 1st April 2000 the following clause 1.5.4.2.1.1 shall supersede clause 1.5.4.2 e above.
1.5.4.2.1.1 Where the latest meter reading is more than 15 months old and Daily Profile Coefficients subsequent to the meter reading date are about to be archived, a Deemed reading may be calculated for the date at the latest Final Volume Allocation Run.

1.5.7 Data Processing
1.5.7.1 The Non Half Hourly Data Collector shall ensure that the Meter Register Multiplier and the Pulse Multiplier is applied to the Register Reading, as provided by the Associated Meter Operator Agent, before validating the meter reading for each SVA Metering System.

1.5.7.2 For each SVA Metering System with valid meter readings, the Non Half Hourly Data Collector shall calculate the meter advance values for the meter advance period for all the Settlement Registers of the SVA Metering System as soon as reasonably practicable. Data from a SVA Metering System shall only be processed by the Non Half Hourly Data Collector if the meter readings of all the Settlement Registers are valid.
1.5.7.3 The Effective From Date for a meter advance period shall be set to the date of the first meter reading and the Effective To Date for a meter advance period shall be set to the day before the date of the next meter reading.
1.5.7.4 In general, the meter advance for a Settlement Register will correspond to the meter advance for the equivalent physical meter register defined in the Metering Equipment Technical Details. Where there is no direct correspondence between a Settlement Register and a physical meter register, the Non Half Hourly Data Collector shall calculate the relevant meter advance by aggregation or differencing of the physical registers of the SVA Metering System defined by the Metering Equipment Technical Details.
1.5.7.5 The Non Half Hourly Data Collector shall convert meter advances into kWh from which to calculate Estimated Annual Consumptions and Annualised Advances.
1.5.7.6 The Non Half Hourly Data Collector shall calculate an Annualised Advance corresponding to the period of the meter advance and a revised Estimated Annual Consumption/Annualised Advance applicable to subsequent days. The Non Half Hourly Data Collector shall use the Estimation of Annual Consumption (EAC/AA) System or any equivalent Certified system.
1.5.7.7 The Non Half Hourly Data Collector shall calculate Estimated Annual Consumption and Annualised Advance values for each Settlement Register of a SVA Metering System such that at any time there is an Estimated Annual Consumption or an Annualised Advance (but not both) applicable to any Settlement Day for which the Non Half Hourly Data Collector has been appointed.
1.5.7.8 The Non Half Hourly Data Collector shall treat Import consumption and Export generation in the same way, unless otherwise stated in BSC Procedure BSCP504
1.5.7.9 In accordance with BSCP504 the Non Half Hourly Data Collector shall calculate a Deemed meter reading and applicable Estimated Annual Consumption or Annualised Advance when a SVA Metering System has been registered to its Associated Supplier and no actual or agreed final meter reading is available. The Non Half Hourly Data Collector shall calculate Deemed meter readings using the Estimation of Annual Consumption (EAC/AA) System or any equivalent Certified system which has been certified by the Certification Agent.
1.5.7.10 The Non Half Hourly Data Collector shall, as soon as reasonably practicable, send details of Estimated Annual Consumptions and Annualised Advances to the relevant Associated Non Half Hourly Data Aggregators and Associated Supplier for one or more Settlement Days during the meter advance period for which the Annualised Advances and associated Estimated Annual Consumptions have been calculated.
1.5.7.11 When informed by the Associated Supplier of the intended date for a change of Profile Class for a SVA Metering System the Non Half Hourly Data Collector will ascertain whether a meter reading is required. Valid reasons for requiring a meter reading are:-
• the Non Half Hourly Data Collector's system constraints;
• the change of Profile Class requiring a change of Settlement System Configuration or change of meter or reprogramming of the meter;
• a coincident reading being requested by the Supplier.
1.5.7.12 Where a meter reading is required the Non Half Hourly Data Collector shall provide the meter reading and date thereof to the Associated Supplier in accordance with BSC Procedure BSCP504 for use as the effective date of the profile class change. Where no meter reading is required the Non Half Hourly Data Collector shall confirm to the Supplier that the intended date of change should be used as the effective date of the Profile Class change registered in the SMRS.

1.5.9 Revenue Protection Adjustments
1.5.9.1 Where the Non Half Hourly Data Collector has been informed by the Revenue Protection Business that there is evidence of tampering with a SVA Metering System, the Non Half Hourly Data Collector shall record an adjustment to the meter advance based on the unrecorded units estimated by the Revenue Protection Business.
1.5.9.2 When an adjustment has been made referred to in paragraph 1.5.9.1 the Non Half Hourly Data Collector shall calculate a new Annualised Advance and Estimated Annual Consumption based on the adjusted meter advance and send the new Annualised Advance and Estimated Annual Consumption to the Associated Non Half Hourly Data Aggregator.