

P274 ‘Cessation of Compensatory Adjustments’

P274 Proposed redlined changes to BSCP504.

We have redlined these changes against version 28.0

4.5.2 Deeming circumstances

p) ~~Compensating-Addressing~~ Crystallised Errors

Where an erroneous Meter register reading, EAC or AA has passed through the RF, the Metered Data which has crystallised cannot be altered without the support of an upheld Trading Dispute. When a reading in respect of a Settlement Day, for which the RF Run has already taken place, is determined to be invalid in the light of subsequent readings¹, the NHHDC must establish the Compensatory Volume, as defined in Appendix 4.14.3. The NHHDC will then use the criteria set out in 4.14.4 to determine whether the Re-initialisation technique defined in 4.14.5 should be applied. If not, the NHHDC may choose to apply Gross Volume Correction, as defined in 4.14.6.

~~—It may be desirable to compensate for the error that has crystallised in the fluid period which has not passed through the RF. The process of Gross Volume Correction should be used to compensate for this error~~

~~— This process is described fully in Appendix 4.14.~~

¹ This requires the NHHDC to assess any readings that fail validation as a result of a negative meter advance or consumption exceeding twice the expected advance (as defined in Appendix 4.2 Validate Meter Data).

4.14 Re-Initialisation and Gross Volume Correction

4.14.1 Introduction

Once a Settlement Date has been subject to the Final Reconciliation Volume Allocation Run (RF), data for that day shall not be amended unless supported by an upheld Trading Dispute.

~~–If an error in demand exists on a Settlement Date for which RF has taken place, this error will usually can be compensated for in Settlements Days for which RF is still to take place. This compensatory adjustment is a natural feature of the NHH Data Collection process. –The process of compensating this error is Gross Volume Correction (GVC). –These is process adjustments results in the correct total volume of energy being allocated to the Supplier; however this energy will be allocated to different Settlement Periods. Whilst this is an acceptable feature for small compensatory volumes, it is not desirable for larger volumes.~~

Where the Compensatory Volume (as defined in 4.14.3) is deemed to be excessive, according to the criteria set out in 4.14.4, the NHHDC shall perform the Re-initialisation process, as defined in 4.14.5. Otherwise the NHHDC may (optionally and with the agreement of the Supplier) apply Gross Volume Correction (GVC), as defined in 4.14.6.

Diagrams have been included below which show how the demand recorded by a Meter changes over time (the time axis showing time going forwards and the demand axis showing increasing demand), taking into account Meter readings (whether valid, erroneous or compensatory). It would be expected that, if all readings were valid, that the Meter readings would steadily increase over time.

4.14.2 Definitions

For the purposes of this appendix, the following definitions apply:

<u>Compensatory Volume</u>	<u>The volume that would be compensated for in the Fluid Period as a result of an incorrect volume in the Crystallised Period.</u>
<u>Compensatory Volume Threshold</u>	<u>A value established and reviewed from time-to-time by BSCCo and authorised by the Supplier Volume Allocation Group (SVG), which is used in conjunction with a Compensatory Volume to determine whether Re-initialisation should be applied. The intent is for this threshold to align broadly with an energy volume equivalent of the minimum financial value of an error to qualify for a Trading Dispute.</u>
Crystallised Period	Periods of Settlement Dates for which RF has taken place and data cannot be amended without the support of an upheld Trading Dispute.
<u>Disputes Boundary</u>	<u>Settlement Date of the latest PFSR at the time that a determination of Pre-Disputes Boundary Error is made (or where no PFSR is scheduled, a date 28 months prior to the date that the determination is made).</u>

Error freezing reading	This is a reading deemed in the current RF Window to prevent error that has crystallised being amended. It is calculated using the last valid, erroneous or compensatory Meter reading(s) obtained before and / or after RF and the associated erroneous EAC / AA that was in place at RF. Error freezing readings can only be deemed in the current RF Window. They should not be created at (or close to) the latest Post Final Settlement Run (PFSR), even in the case where the erroneous EAC or AA is subject to an authorised Trading Dispute.
Fluid Period	Periods of Settlement Dates for which RF has not taken place
<u>Pre-Disputes Boundary Error</u>	<u>This is the incorrect energy volume prior to the Disputes Boundary.</u>
Realistic reading	Where a Meter reading is required for a particular Settlement Day to carry out Gross Volume Correction and an actual Meter reading is not available, a realistic reading can be deemed for that Settlement Day using a valid Meter register reading (occurring prior to or after the realistic reading date) and a realistic EAC (i.e. a previous valid EAC or if one is not available an initial (class average) EAC).
RF Window	This is the window of time between 5WD and 20WDs prior to the RF being carried out for a particular Settlement Day (i.e. a window in the period before that Settlement Day has passed through RF). A reading for RF should be deemed in this window since corrective action takes a finite time to be reflected in Settlements as it needs to be completed by the NHHDC, sent to the Non-Half Hourly Data Aggregator (NHHDA), processed by the NHHDA, sent to the Supplier Volume Allocation Agent (SVAA) and processed by the SVAA.

4.14.3 Quantifying the Compensatory Volume

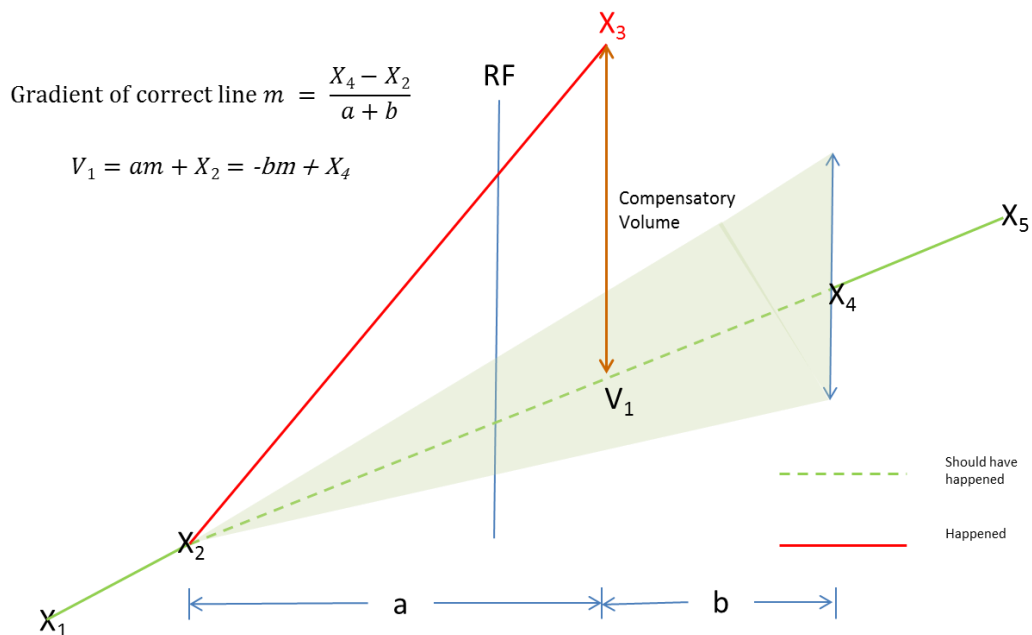
As part of reading validation, the NHHDC will identify any negative advances or advances that are more than twice the expected value. Where a review of the validation failure identifies that a reading previously determined to be valid, is invalid, the NHHDC will determine the Compensatory Volume as defined below.

There are three situations to consider:

- the error reading is inside the fluid period, but the previous reading isn't;
- the error reading is in the crystallised period and the next reading is more than 14 months later;
- the error reading is in the crystallised period and the next reading is less than 14 months later.

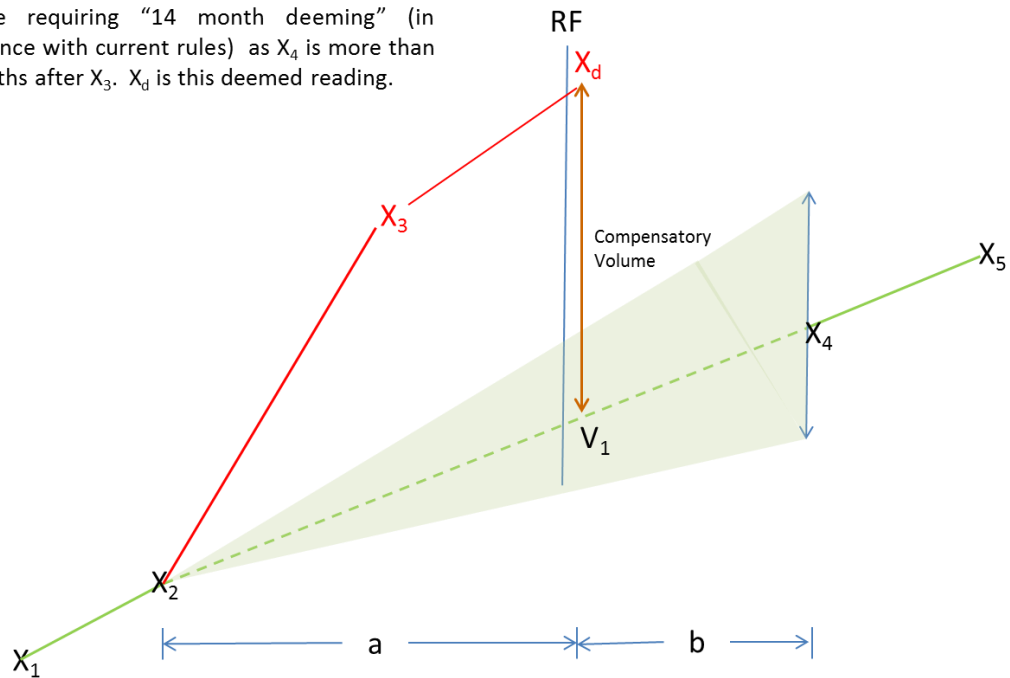
The Compensatory Volume is the maximum difference in the fluid period between an expected/actual reading with the error in place and an expected/actual reading without the error in place. In determining these expected readings, as well as deeming readings, a straight line approximation between the two other readings is acceptable. This is shown for the three scenarios in the diagrams below. Where the error reading is in the crystallised period and the next reading is more than 14 months later, 14 month deeming must take place in order to convert the EAC settled at RF into an AA in line with the current rules.

Scenario 1: The error reading is inside the fluid period, but the previous reading isn't.



Scenario 2: The error reading is in the crystallised period and the next reading is more than 14 months later.

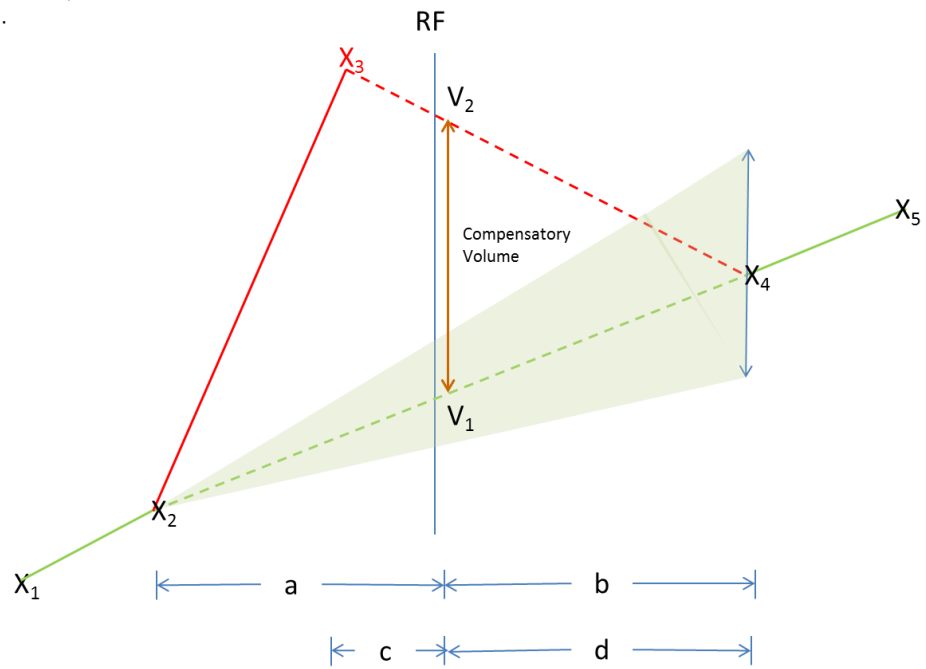
Example requiring "14 month deeming" (in accordance with current rules) as X_4 is more than 14 months after X_3 . X_d is this deemed reading.



In accordance with 4.5.2 (e), a reading should be deemed where the date of the previous reading has already been subject to an RF Run, to ensure that crystallised data is not changed after the RF Run. This has the effect of pushing the error reading into the fluid period and makes the resultant error equivalent to scenario 1.

Scenario 3: The error reading is in the crystallised period and the next reading is less than 14 months later.

Example that does not require "14 month deeming", as X_4 is less than 14 months after X_3).



4.14.4 Use of Re-Initialisation or Gross Volume Correction

The NHHDC will treat the Compensatory Volume as ‘excessive’, if the absolute Compensatory Volume (yet to be subject to a RF Run) for the Metering System (i.e. summed over all Settlement Registers) is either:

- Greater than twice the GSP Group Profile Class Default EAC in effect for the GSP Group and Profile Class at the time the determination is made; or
- Greater than the Compensatory Volume Threshold in effect at the time the determination is made.

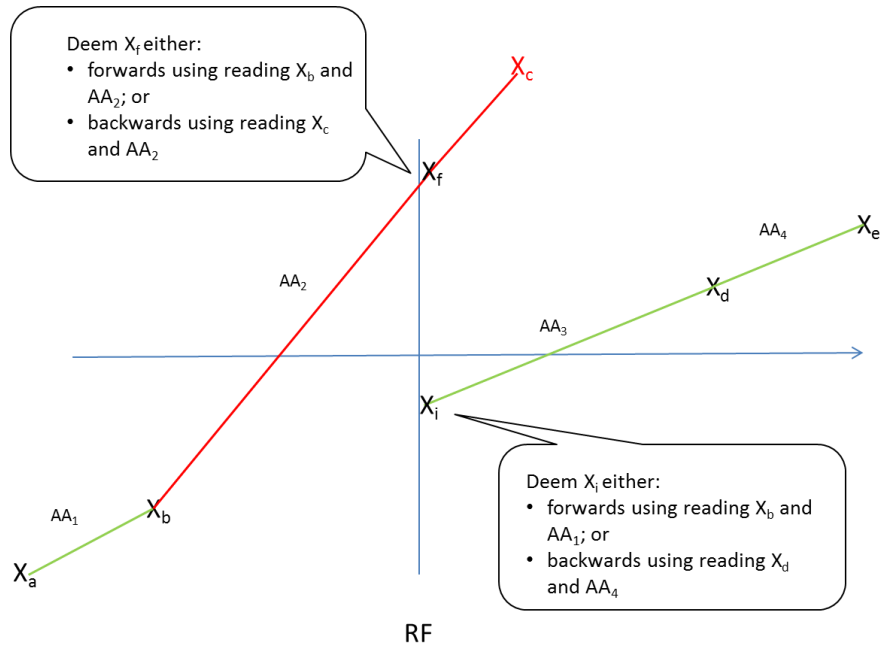
Where either of the above criteria applies, the error must be addressed using Re-initialisation, as described in 4.14.5 below.

Where neither of the above criteria applies, the error may be addressed using Gross Volume Correction, as described in 4.14.6 below.

Re-initialisation may be applied optionally, where neither of the above criteria applies.

The Compensatory Volume Threshold will be determined from time-to-time by BSCCo, with changes authorised by the Supplier Volume Allocation Group (SVG) and notified to interested parties by BSCCo. The intention is that the Compensatory Volume Threshold is broadly comparable to the Trading Dispute materiality threshold as specified in BSCP11. As the latter is defined as a cost (in £) and the Compensatory Volume Threshold as a kWh value, a suitable price will be agreed which tracks historical Credit Assessment Price values, without necessarily always reflecting the latest value of CAP, in order to avoid volatility.

4. There is no obligation to reassess any instances, just because of a change to the Compensatory Volume Threshold, although it might be necessary to reassess for other reasons.



4.14.5 The Re-Initialisation Process

Re-initialisation should be undertaken at the RF boundary such that as much as possible of the fluid period is correct. The NHHDC should deem a “final reading” 10WD after the RF date, using the (erroneous) annualised consumption in place on this date and either the meter reading at the start of this advance (if deeming forwards) or the end of this advance (if deeming backwards), see diagram below.

The NHHDC will then deem an “initial reading” also 10 WD after the latest Final Reconciliation date, using a correct reading and correct (or realistic) annualised consumption. To complete the Re-initialisation, the NHHDC should calculate the relevant annualised consumptions (AAs and EACs), using a class average or MPAN / TPR specific realistic “initial EAC” to accompany the “initial reading”, if required.

Where there is an interaction with the relevant requirements for disputing and correcting change of Supplier readings, the requirements for disputing and correcting change of Supplier readings prevail.

The NHHDC shall keep an audit record of every instance of Re-initialisation undertaken. These records shall be made available on request to Suppliers, BSCCo or the BSC Auditor in a comma separated value (.csv) file or other agreed format.

- MSID;
- SSC, Profile Class, GSP Group and Energisation Status;
- Date re-initialisation applied;
- For each Settlement Register:
 - Time Pattern Regime;
 - Final Meter Reading;
 - Initial Meter Reading;
- Effective Date(s)
- Rationale for Change (‘above threshold’ for mandatory application, or reason for change, where applied optionally)

4.14.6 Use of Gross Volume Correction

Where an erroneous Meter Advance is identified, the associated AA, EAC and (where applicable) the associated reading may be withdrawn if none of the Settlement Dates in the Meter Advance Period have been subject to a last Volume Allocation Run (i.e. the RF run or, where the AA/EAC is subject to a Trading Dispute, the Post Final Settlement Run (PFSR)).

Where all Settlement Dates within a Meter Advance Period have been subject to a RF run (or, as applicable, PFSR), the associated AA, EAC and reading may not be withdrawn.

If the erroneous Meter Advance has partially crystallised (i.e. a RF run has taken place for some, but not all Settlement Dates within the Meter Advance Period), GVC can be applied, subject to the provisions in 4.14.4 above, to correct the error without amending the energy values which have already been subject to a RF run.

Any part of any error that pre-dates the Disputes Boundary cannot be compensated for.

If the Compensatory Volume is less than or equal to the thresholds in 4.14.4 but some of the error pre-dates the Disputes Boundary, then GVC may be employed but the compensatory reading must allow for (not compensate for) the Pre-Disputes Boundary Error. This variant on the GVC process is defined in 4.14.8.

Other than being used to compensate for a partially crystallised error in a single Meter Advance Period, as described above, GVC should only be used where an energy error for a given Metering System is affecting the NHHDC's ability to process subsequent Meter Readings. For example, GVC can be used where the forward EAC is out of line with the expected consumption for the Metering System to the extent that subsequent valid readings for the Metering System are failing validation (or should be likely to fail validation).

GVC cannot be used to compensate for errors across two Meters or two Standard Settlement Configurations (SSCs). In order to correct errors across different Meters or SSCs, the Final/Initial readings need to be withdrawn and replaced (and potentially the change of Meter/SSC needs to be backed out). GVC cannot be applied for any disconnected Metering System or any Metering System that has undergone a change of Measurement Class (NHH to HH), because the principle of applying GVC where there is an ongoing Settlement impact does not apply.

The application of GVC in relation to Change of Supplier readings is described in Section 4.14.59.

Where there is insufficient reading history to apply GVC, or where compensation will introduce further error, the NHHDC may apply Re-initialisation, ~~but only as an action of last resort, take such steps as are necessary to address the ongoing validation problem, without ensuring that the gross volume of energy settled is~~

~~correct. This will have the effect of “writing off” historic error, but ensuring that future error is minimised (e.g. the application of “dummy meter exchanges”². Where such action is taken by the NHHDC it should be subject to a robust and auditable process.~~

The use of GVC does not remove the requirement to identify and resolve Settlement errors prior to the RF run, but is intended as a reasonable provision for errors that could not have reasonably been detected when they were originally created.

GVC is an optional requirement for the Supplier; however the NHHDC must be able to carry out GVC if required to by the Supplier. GVC shall be carried out by the NHHDC when this has been agreed with the Supplier, and when the use of GVC meets the criteria described above. Where the NHHDC receives a request from the Supplier to apply GVC, which does not meet the criteria described above, it should be referred back to the Supplier with supporting rationale for why the NHHDC does not consider that GVC is appropriate. The NHHDC may also initiate the use of GVC, although only with the agreement of the relevant Supplier or Suppliers. Such approval can be obtained on a per-instance or delegated authority basis, as agreed with the Supplier.

The NHHDC may identify that GVC should be carried out if the EAC is above BSCCo monitoring levels or where reads are consistently failing validation but in line with each other.

Where an AA or EAC is subject to an authorised Trading Dispute and the Effective From Settlement Date is after the latest Settlement Date which has been subject to a PFSR, the AA or EAC may be withdrawn without the need to apply GVC. GVC can be applied to any AA or EAC, irrespective of whether these are subject to a Trading Dispute, but error freezing readings can only be applied in the RF Window. Error freezing readings should not be applied at the latest PFSR.

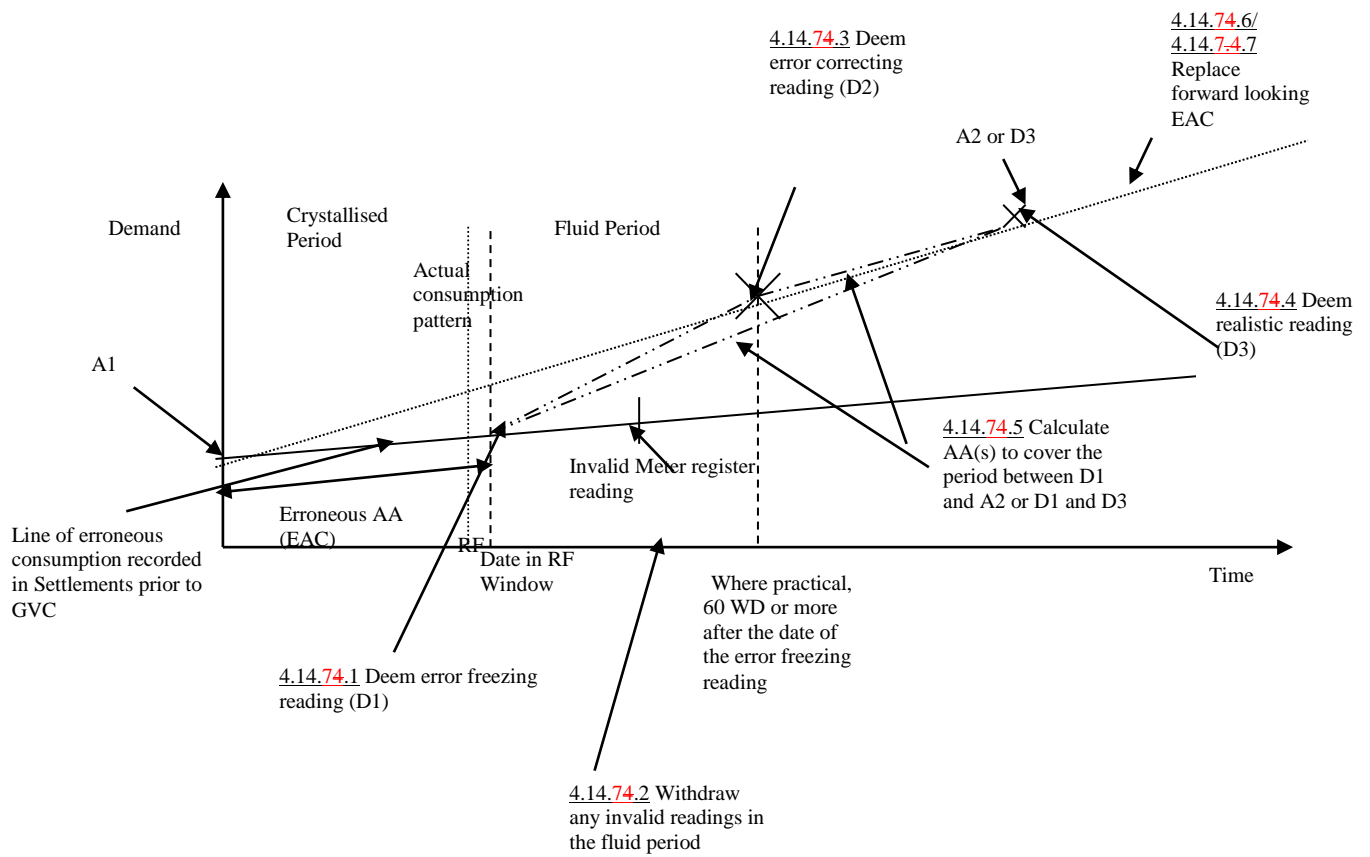
4.14.47 Gross Volume Correction Process

In order to undertake GVC it is first necessary to have an actual, valid Meter register reading and a known realistic annual demand (i.e. have a previous valid AA which indicates the likely demand of the Metering System). This section refers to the processing to be carried out by the NHHDC. Section 3.4.4 should be followed for the interaction between the NHHDC and other participants in this process.

The process is set out below with an explanatory diagram.

Note that there may not be any invalid Meter register reading in the fluid period meaning that there will be an erroneous EAC as opposed to an erroneous AA. Also there may not be a second valid actual reading A2, however the actual or likely consumption pattern will be known.

² A “dummy meter exchange” involves the use of Initial and Final Meter readings to effectively re-start consumption histories even though no actual, physical change of Meter has taken place.



Ref	Action
4.14.74.1 Mandatory Step	A Deemed Meter Reading, D1, should be calculated in the RF Window to freeze the error that has already crystallised. This shall be calculated using the actual, valid Meter register reading, A1 and the EAC / AA that crystallised in the RF ³ for the Deemed Meter Advance Period starting on the date that the realistic reading A1 was obtained and ending on the date for which D1 was deemed. D1 and A1 may then be used to calculate an AA between D1 and A1. This AA will be the same value as the AA that has already crystallised in the period between A1 and D1.
4.14.74.2 Mandatory step	If there are any invalid Meter readings in the fluid period, these should be withdrawn.
4.14.74.3 ⁴ Optional step	If there is a second actual reading in the fluid period (A2) an AA can be calculated between A1 and A2. Use this to deem a correcting read (D2) for a date as long after the date of the error freezing read as is practical (ideally 60 WD or longer, if possible). The Deemed Meter Advance Period starts on the date of A1 and ends on the day before the Date of D2.
4.14.74.4 Mandatory step if 4.14.74.3 not completed or there is no valid actual reading A2, otherwise optional	If there is no valid Actual reading (A2) in the fluid period, a realistic reading, D3, should be generated in the fluid period, for a Settlement Date as long after the date of the error freezing reading as is practical (ideally 60 WD or longer, where possible). This should be a Deemed Meter Reading (created from the previous actual, valid Meter register reading, A1 and an EAC that is representative of demand for that Metering System (i.e. a previous valid EAC) or, if not available, an initial (class average) EAC).
4.14.74.5 Mandatory step	An AA should be calculated between either D1 and D2 or D1 and A2 or D1 and D3. If the AA has been calculated between D1 and D2, a second AA should be calculated between D2 and A2.
4.14.74.6 Mandatory step	If the deeming process has created a negative forward EAC, this will be replaced by a replacement EAC in accordance with Appendix 4.5.2 e.
4.14.74.7 Optional step	If the forward EAC is demonstrably inconsistent with normal generation or demand for that Metering System and is likely to lead to failure to validate subsequent readings, the EAC going forwards from A2, D2 or D3 may be replaced with a realistic EAC (i.e. an EAC that has been based on a previous valid AA or, if none are available, an initial (class average) EAC). Please note that an EAC should only be replaced where no later readings exist that would allow for the calculation of a further AA that would bring the EAC back into line with previous valid demand or generation trends. Any replacement EACs should be subject to a robust audit process to identify how the replacement EAC was derived.

³ This may involve reference to D0095 Non-Half Hourly Data Aggregation Exception Report and / or D0023 Failed Instructions data flows to determine if EACs / AAs have been rejected or default EACs applied.

⁴ Note that if there has been a discontinuity in the effective Meter reading (e.g. due to a Meter fault or incorrect standing data or processing) within the crystallised period that was not previously taken into account, the corrective Meter Advance (and AA) will need to be adjusted to allow for this.

The NHHDC shall keep an audit record of every instance of GVC undertaken. These records shall be made available on request to Suppliers, BSCCo or the BSC Auditor in a comma separated value (.csv) file or other agreed format.

- MSID;
- SSC, Profile Class, GSP Group and Energisation Status;
- Date GVC undertaken;
- Settlement Date at the start of the error period (i.e. date of the last valid reading prior to the error freezing reading);
- Settlement Date of error freezing reading;
- Settlement Date of error correcting reading;
- For each Settlement Register:
 - Time Pattern Regime;
 - Compensatory volume (i.e. Meter Advance between error freezing reading and error correcting reading);
 - Pre-disputes Boundary Error volume (where applicable)
 - Error volume (i.e. Meter Advance between start of error period and error freezing reading);
 - Correct volume (i.e. Meter Advance between start of error period and error correcting reading)
 - Forward looking EAC following application of GVC.

4.14.8 GVC Where the Error Pre-Dates the Disputes Boundary

Where the start of the error period pre-dates the Disputes Boundary, any error prior to the Disputes Boundary cannot be compensated for.

The Pre-Disputes Boundary Error should be determined as the difference between an estimate of what the error reading would have been on the disputes boundary (Settlement Date), and an estimate of what the reading should have been on the same Settlement Date (see below). These estimates may be derived by either deeming a reading or using a “straight line” approximation between two readings.

