

Approved redlined SVAA URS text for CP1484 'Introduction of Additional SVAA Validation at SVA Run time'

This CP proposes changes to sections 6.2.3.3, 6.2.3.4, 6.2.6.1 and 6.2.8.1. We have redlined these changes against Version 15.0.

There is no impact on any other part of this document for this CP.

Amend section 6.2.3.3 as follows:

6.2.3.3 Process 1.1.3 - Validate HH Data

This process performs data marshalling of aggregated half hourly meter data from the Half Hourly Data Aggregator. The file that is sent by the Half Hourly Data Aggregator will depend on whether Additional BM Units have been implemented. If they have, the HHDA will send a BM Unit Aggregated Half Hour Data File (D0298) to ISRA, whereas if they have not, the HHDA will send an Aggregated Half Hour Data File (D0040). The HHDA, however, will not send both for a given Settlement and GSP Group. Where a Demand Control Event has occurred, the HHDA may submit a separate Demand Disconnection Volume Data (D0376) reporting those volumes associated with any disconnection. The received data must be aggregated to GSP Group, Supplier, Consumption Component Class, BM Unit and Settlement Period.

The incoming data will be validated to ensure:

- The file is not a null file
- Physical integrity
- Any data for Settlement dates and times which are already within the system must be a later version than that in the system
- The data has the correct number of Settlement Periods
- The data is for the correct GSP Group(s)
- The file is from an expected Data Aggregator, i.e. a Data Aggregator who has an appointment to the GSP Group on the Settlement Date for which the data relates. If not, an exception entry will be written.
- The file only contains data for the expected set of Suppliers, i.e. only Suppliers who have an association with the Data Aggregator on the Settlement Date / GSP Group combination of the file. If not then an exception entry will be written.
- The file contains data for the full set of expected Suppliers, i.e. all Suppliers who have an association with the Data Aggregator on the Settlement Date /

GSP Group combination of the file. If not then an exception entry will be written.

- That the combination of Supplier and GSP Group has a valid Base BM Unit. If not then the file will be loaded into the flat files and a warning produced.
- That there is no duplicated Supplier / GSP Group / consumption component class combinations.
- That the additional BM Units referenced in the D0298 flow are valid. If not then the file will be loaded into the flat files and a warning produced.
- That the file, if it is for a Scottish GSP Group, will not be loaded if the Settlement date is before the BETTA start date.
- Any Standing Data changes resulting from the file load will be stored as an audit record.

Any invalid data will be reported to the HH Data Aggregator, ELEXON and the ISR Agent.

If the data is valid, the data will then undergo the following validation checks:

- The total consumption volume per file will be compared to the equivalent total from the comparator data and the difference calculated.
- The total MSID count per file will be compared to the equivalent total from the comparator data and the difference calculated.

If this difference lies outside of tolerances set by BSCCo, the file will be quarantined pending confirmation from the HH Data Aggregator that the variance is correct.

If the data ~~is valid~~ passes the validation checks, the data will be written to the Supplier HH Demand datastore, with the consumption component class set appropriately.

Amend section 6.2.3.4 as follows:

6.2.3.4 Process 1.1.4- Validate SPM Data

This process performs data marshalling of Supplier purchase matrix data (including any Disconnection purchase matrix data) from the Non-Half Hourly Data Aggregator.

The incoming data will be validated to ensure:

- The file is not a null file
- Physical integrity
- Any data for Settlement dates and times which are already within the system must be a later version than that in the system

- The data is for the correct GSP Group(s)
- The file is from an expected Data Aggregator, i.e. a Data Aggregator who has an appointment to the GSP Group on the Settlement Date for which the data relates. If not, an exception entry will be written.
- The file only contains data for the expected set of Suppliers, i.e. only the Suppliers who have an association with the Data Aggregator on the Settlement Date / GSP Group combination of the file. If not then an exception entry will be written.
- The file contains data for the full set of expected Suppliers, i.e. all Suppliers who have an association with the Data Aggregator on the Settlement Date / GSP Group combination of the file. If not then an exception entry will be written.
- The data is for the correct Profile Classes
- The data is for the correct line loss factor classes
- The data is for the correct measurement requirements
- That the combination of Supplier and GSP Group has a valid Base BM Unit. If not then the file will be loaded into the flat files and a warning produced.
- That for each combination of Supplier and GSP Group the file contains no more than one instance of a particular Profile Class / distributor / line loss factor class / Standard Settlement Configuration / time pattern regime combination.
- That there is no duplicated Supplier / GSP Group / consumption component class combinations.
- That the file, if it is for a Scottish GSP Group, will not be loaded if the Settlement Date is before the BETTA start date.
- Any Standing Data changes resulting from the file load will be stored as an audit record.

Any invalid data will be reported to the Non-Half Hourly Data Aggregator system and the ISR Agent.

If the data is valid, the data will then undergo the following validation checks:

- The total consumption volume per file will be compared to the equivalent total from the comparator data and the difference calculated.
- The total MSID count per file will be compared to the equivalent total from the comparator data and the difference calculated.

If this difference lies outside of tolerances set by BSCCo, the file will be quarantined pending confirmation from the Non-Half Hourly Data Aggregator that the variance is correct.

If the data ~~is valid~~ passes the validation checks, the data will be written to the Trading Day Data datastore.

Amend section 6.2.6.1 as follows:

6.2.6.1 Process 1.4.1 - Invoke Run

This process will check that the necessary data has been collected for the Settlement Day, i.e. that the appropriate occurrences of the following data items exist:

Settlement;

CDCA Data (GSP Group Take, CDCA Initial Settlement Run);

Supplier Data Aggregation (half hourly data) for all assigned data aggregators;

Supplier Data Aggregation (non-half hourly data) for all assigned data aggregators;

Line Loss Factor Data; and

Profile Production Run.

If any data is missing, determine the action to be taken from the following table. Otherwise, the SSR run will be started:

Data Item	Action
Line Loss Factors	This situation should not arise as Line Loss Factors are published by the distributor in advance and do not have a 'effective to' date. If the file does not contain data for a Line Loss Factor Class which is valid, the file will still be loaded, but any SSR runs requiring the missing data will use a standard default value of 1 (i.e. no line loss). This will be reported in an exceptions report.
Settlement	The ISRA Operator must select a Settlement Run (i.e. a Settlement Date and Settlement Code) entered in the Settlement Calendar, otherwise a run cannot be invoked.
CDCA Data (GSP Group Take, SSA Initial Settlement Run)	The run cannot proceed without consistent and complete CDCA Data. If such CDCA Data is not available, the ISRA Operator must select another Settlement Day from which the substitute CDCA data will be taken, as instructed by the Pool Executive Committee (PEC) or its nominated agent. The substitute GSP Group Take and SSA Initial Settlement Run data must all be consistent (i.e. for the same Settlement Day, Settlement Code and CDCA Set Number).
Non Half Hourly Aggregated Data	The ISRA Operator will be prompted to select the Data Aggregation data to be used as a default for all missing Data Aggregation files. <u>If a file was quarantined following the validation checks and the Non-Half Hourly Data Aggregator did not confirm</u>

Data Item	Action
Half Hourly Aggregated Data	<p><u>whether the file was correct or incorrect, the ISRA Operator will be able to select this quarantined file to use instead of default data.</u></p> <p>If data from a HH Data Aggregator has not been received, the ISRA system will continue on the basis of the data selected by the ISR Agent, and will raise an exception report for any data it was expecting and had not received.</p> <p>ISRA will not automatically substitute data, but it must allow the ISR Agent to select a set of historic HH data for a specific Data Aggregator which is to be used for a specific run (e.g. data supplied for an earlier Settlement for the same Settlement Day; or data supplied for another ‘appropriate’ Settlement Day). The ISR Agent will determine what data should be substituted based on Agreed Procedures.</p> <p><u>If a file was quarantined following the validation checks and the Half Hourly Data Aggregator did not confirm whether the file was correct or incorrect, the ISRA Operator will be able to select this quarantined file to use instead of default data.</u></p> <p>If no substitute data can be found, the ISRA Operator can let the run proceed without any HH Aggregated Data.</p>
Profile Production Run	No default action is taken - the run will fail.

A report will be produced detailing the data used and warning of any missing data.

The ISRA system will check that the all files received from Data Aggregators are expected for the designated run. If there is an unexpected file, the system will give the ISR Agent the option of continuing with the run. If the ISR Agent continues with the SSR run, the ISRA system will ignore the file and its data when performing the SSR run and will issue a warning message giving details.

The ISRA system will check that the latest file that it has received from each Data Aggregator for each GSP Group for the SSR run contains data for all the Suppliers expected to be in the file. If there is a file that does not contain data for all expected Suppliers, the system will update the standing data and continue with the SSR run.

The ISRA system will check that the latest file it has received from each Data Aggregator for each GSP Group for the SSR Run only contains data from Suppliers expected to be in the file. If there is a file that contains data for unexpected Suppliers, the system will update the standing data and continue with the SSR run.

Except for the case where default data has been specified, the ISRA system should only use data from the latest Data Aggregation run for the Settlement Date, Settlement Code and GSP Group for each Data Aggregator.

Amend section 6.2.8.1 as follows:

6.2.8.1 Process 1.4.9.1 - Calculate & Apply GSP Group Correction

This will, on a half hourly basis, adjust appropriate consumption components to ensure that the total consumption from this system equals the actual GSP Group Take provided by SSA.

The requirement as expressed in the Operational Framework (reference 1) is to apply GSP Group Correction only to Line Loss Factored profiled consumption. However, the system will support a more general mechanism, in which a weight W_n is specified for each Consumption Component Class n , specifying the degree to which it is to be corrected.

To calculate C_{njs} the values for each Consumption Component Class, BM Unit and Settlement Period in the Aggregated BM Unit Period Consumption entity are summed across BM Unit to create values for Consumption Component Class, Supplier and Settlement Period:

$$C_{nsj} = \sum_i C_{nij}$$

Where C_{nij} refers to values for all BM Units within a Consumption Component Class and Settlement Period which are assigned to a particular Supplier in the GSP Group.

The unadjusted consumption for Consumption Component Class n , C_{nj} , is given by summing C_{nsj} across Suppliers:

$$C_{nj} = \sum_s C_{nsj}$$

Any demand in the following Consumption Component Classes will be subtracted during the summation, as it is generation:

- half hourly Non-Pooled Generation for metering systems with metering system specific line loss
- half hourly Non-Pooled Generation for metering systems without metering system specific line loss
- line losses attributed to half hourly Non-Pooled Generation for metering systems with metering system specific line loss
- line losses attributed to half hourly Non-Pooled Generation for metering systems without metering system specific line loss

Next, for each Settlement Period in the trading day, the GSP Group Correction Factor CF_{gj} is calculated as follows:

$$\text{GSP Group Correction Factor}_j = 1 + \frac{\text{GSP Group Take}_j - \sum_n C_{nj}}{\sum_n C_{nj} \times W_n}$$

where C_{nj} is the unadjusted consumption for Consumption Component Class n , and W_n is the associated GSP Group Correction Scaling Factor. The rule given above for subtracting demand falling within 'generation' Consumption Component Classes must also be applied to this equation.

The GSP Group Correction Factors will be validated against tolerances set by BSCCo. If a GSP Group Correction Factor lies outside of this tolerance, the SSR run is aborted.

Following this, the total consumption volume per GSP Group will be compared to suitable comparator data and the variance calculated. If this variance lies outside of tolerances set by BSCCo, the SSR run is halted and the breach raised with BSCCo. If the breach is deemed by BSCCo to be valid, the SSR run will continue; otherwise it is aborted.

Following this, the GSP Group Take volumes will be compared to the total consumption volumes and the variance calculated. If this variance lies outside of tolerances set by BSCCo, the SSR run is halted and the breach raised with BSCCo. If the breach is deemed by BSCCo to be valid, the SSR run will continue; otherwise it is aborted.

The GSP Correction Factor is then applied by setting the appropriate field (either Corrected Supplier Consumption or Corrected Line Loss Component) of each row in

$$\text{Corrected Component}_{nj} = C_{nj} \times (1 + (CF_{gj} - 1) \times W_n)$$

the Supplier HH Demand datastore as follows:

Note: it is expected that the SSR system will initially be configured with values of W_n restricted to zero and one. GSP Correction will then not be applied at all to those components with zero scaling factors, and will be applied equally to the others.

If $\sum_n (C_{nj} \times W_n)$ equals zero, the system must fail with an error message.

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