

Balancing and Settlement Code

BSC Procedure

**BSCP711 – Appendix A:
Fixed PAM Data Provider File Formats**

Version 0.7

Date: DD MM YYYY

BSCP711 Appendix A Relating to Fixed PAM Data Provider File Formats

1. Reference is made to the Balancing and Settlement Code and in particular, to the definition of “BSC Procedure” In Section X, Annex X-1 thereof.
2. This is BSC Procedure 711 Appendix A, Version 0.7 relating to Fixed PAM Data Provider File Formats.
3. This BSC Procedure is effective from DD MM YYYY.
4. This BSC Procedure has been approved by the Panel.

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AMENDMENT RECORD

Version	Date	Description of Changes	Changes Included	Mods /Panel/ Committee Refs
0.3	19/02/2024	Following Mop Up 2	Market-wide Half-Hourly Settlement	
0.6	21/06/2024	Consistency Check	Market-wide Half-Hourly Settlement	
0.7	24/07/2024	Updated following consultation	Market-wide Half-Hourly Settlement	
1.0	DD/MM/YYYY	Approved by the MHHSP		

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Related Documents

- Reference 1 PAM User Requirements Specification
- Reference 2 BSC Procedure: BSCP711 - Performance Assurance Monitoring Data Provision,
Reporting and Publication of Peer Comparison Data
- Reference 3 BSC Procedure: BSCP711 Appendix B - Fixed PAM Calculation Guidelines

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to specify the file format specification associated with the information outlined in BSCP711 relating to Fixed Performance Assurance Monitoring (PAM) to be submitted to the PAM system which monitors Market Participants' performance. This is intended to provide guidance for Data Providers to assist them in the development of their systems.

1.2 Fixed PAM Data

1.2.1 Fixed PAM Data: General Description

Fixed PAM Data consists of data pertaining to the performance of specified market Participants and is provided via a pre-determined series of files or other agreed methods by agreed Fixed PAM Data Providers (SVAA and the CDCA). This data is specified in BSCP711 PAM Data Provision, Reporting and Publication of Peer Comparison Data. The data will be loaded automatically into the PAM system.

The data descriptions defined in the relevant Data sections of BSCP711 have been summarised in this paper into usable data identifiers.

The appropriate files are summarised below:

Serial	Titled
TA01	GSP Group Correction Factor
TA02	Annual Demand Ratio
CM01	CVA MOA Proving Tests
CM02	CVA MOA Fault Resolution
SP07A	Supplier MSID Count – SVAA File
SP07B	SMRA MSID Count – SVAA File
SP08	Energy and MSIDs on Accurate data
Standing Data	
PAM Industry Standing Data	
Suppliers Trading / Ceased Trading in GSP Groups	

2. PHYSICAL FILE PRESENTATION

2.1 Media

Data files will be submitted into the PAM system by the Data Provider (BSC Agent) in the form of ASCII files or as otherwise agreed between the Data Provider and the PAA.

2.2 File Naming

If using ASCII files an 8-character file naming convention will be used as follows:

- The 1st to 4th characters will be the participant ID of the Data Provider;
- The 5th to 7th will relate to the File Identifier that will be used in the SVAA Data Catalogue; and
- The 8th will be the last digit of the year number (e.g. '2' for 2002, '3' for 2003).

The file extension will indicate the month to which the data pertains (JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC).

2.3 File Submission and Verification of Output Data

Data Providers should submit PAM data at a minimum frequency of +(x) WDs after the end of the reporting period as follows:

- SVAA: +7 WDs

All agreed data files will be submitted direct to the PAM system by the Data Providers specified in the File Formats or as otherwise agreed.

2.4 File Resubmission and Correction

Once a Data Provider has submitted a file, it may be resubmitted in order to correct errors subsequently identified in the file. **For each Fixed PAM Serial, if a correction is required then a complete submission for the affected GSP Group must be provided**, such that it is made clear that the data that was originally correct should remain in the system. If a file is submitted containing only the corrected data, the PAM system will assume that the rest of the data already stored in the system has been since been identified by the Data Provider as incorrect and that the data should be deleted from the system.

3. PHYSICAL FILE FORMATS

3.1 ASCII File Format

If using the ASCII file format, applicable for Serials CM01 and CM02, a file contains a number of records, each starting with a three-character identifier and ending with a Record Delimiter character. The first record of each file will be a header; the last a footer. The last record of a physical block will not require a Record Delimiter.

Each record contains fields of various types such as text, integer, date and time. The full range is described below:

Type	Format	Example
int (Integer)	ASCII representation, no leading zeros or spaces, leading “-“ if negative (no sign if positive)	-1234 12
dec (Decimal)	ASCII representation. As for Integer, but with a decimal point and fixed number of decimal digits (including trailing zeros) dependent on precision	dec(4,2): -12.34 dec(3,2): 1.20
text	ASCII format, left aligned with trailing spaces stripped. Only includes printable characters excluding the separator	The quick fox
date	ASCII format as: YYYYMMDD	19961216
time	ASCII format as: HHMMSS (24 hour format). Note: both GMT and local time (e.g. British Summertime) will be used and will be indicated as necessary.	131501
date/time	ASCII format as: YYYYMMDDHHMMSS	19961216131501
bol (Boolean)	One ASCII character: T for True, F for False (uppercase only)	T F

A Field Separator character separates each field (**with the exception of the last field of each record**). All fields are mandatory, unless specifically indicated as optional in the ‘comments’ column. A null submission is achieved by omitting any characters between the Field Separators.

All files sent or received by the PAM system are structured as follows:

- Header - first record in file - record type = “ZHD”
- Body - other file records
- Footer - last record in file - record type = “ZPT”

For PAM Output Data, the first record of the file “Body” is a subject participant header (record type “SUB”) containing information about the subject market participant.

Note that there may be many SUB records (e.g. where a Supplier has a number of agents, or an agent contracted to many Suppliers, and where the Supplier is operating in more than one GSP Group).

The components of these three standard record types are defined in the following tables:

ZHD - File Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= ZHD
2	File Type	text(8)	5 character type (ranges allocated for DTS, pool or internal use) plus 3 character version
3	From Role Code	text(1)	
4	From Participant Id	text(4)	
5	To Role Code	text(1)	'Z' (Non-Core - PAM)
6	To Participant Id	text(4)	'
SUB - Subject Participant Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= SUB
3	Market Participant Role Code	text(1)	Role Code of the subject Market Participant
4	Market Participant Id	text(4)	Identifier of the subject Market Participant
5	Period End Date	date	Date of the last calendar day of the period (generally either a month or a quarter) to which the data applies.
6	Periodicity	text(1)	Indicates whether the Period End Date is 'W'weekly, 'M'onthly or 'Q'quarterly.

ZPT - File Footer			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= ZPT
2	Record count	int(10)	Includes header and footer
3	Checksum	int(10)	Although type is shown as int(10) the value is actually a 32-bit unsigned value and hence will fit in an "unsigned long" C variable.

The remaining component of the File is a body record containing the required PAM information. These will be specific for each Serial and, like the SUB record, will be repeated in situations where, data is required for a number of different Settlement Run types.

Some files involve the reporting of a data item against a list of Settlement dates, such as for Serial SP07. **In these instances, the dates and the associated data items should be listed in ascending order.**

The character set used is based on the ISO Level B character set and will include the following characters:

Letters, upper case	A to Z
Letters, lower case	a to z
Numerals	0 to 9
Space character	
Full stop	.
Comma	,
Hyphen/minus	-
Opening parenthesis	(
Closing parenthesis)
Slash	/
Apostrophe	'
Plus	+
Colon	:
Equals	=
Question mark	?
Exclamation mark	!
Quotation mark	"
Percentage sign	%
Ampersand	&
Asterisk	*
Semi-colon	;
Less than	<
Greater than	>
Underscore	_

Field Separator: The vertical bar character '|' will be used as the separator.

Record Delimiter: The Line Feed character (hex "A") or a Carriage Return is used as the delimiter.

4. STANDING DATA PROVISIONS

4.1 PAM Industry Standing Data

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Any Industry Standing Data required for Performance Assurance activities held by the SVAA, which includes datasets pertaining to:

- Record Creation Date and Times
- ISD Entity Data
- ISD Version History
- BMU data for Suppliers in GSP Groups
- Clock Time Changes
- Line Loss Factors for SVA and CVA
- GSP Group Data
- Day Types
- Load Shape Categories
- Market Participant Roles
- Master Settlement Timetables
- GSPG Scaling Weights
- Settlement Period Durations
- Settlement Codes
- Measurement Quantities

4.2 Suppliers Trading / Ceased Trading in GSP Groups

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Any Suppliers Trading / Ceased Trading in GSP Groups Data required for Performance Assurance activities held by the SVAA, which includes datasets pertaining to:

- Record Creation Date and Times
- Market Participant Industry Standing Data
- GSP Group Data
- Effective from Date Supplier Trading in GSP Group
- Effective to Date Supplier Trading in GSP Group
- Suppliers Trading / Ceased Trading in GSP Groups Version History

5. OUTPUT DATA PROVISIONS

5.1 TA01 – GSP Group Correction Factor

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

GSP Group Correction Factor Data required for Performance Assurance activities held by the SVAA, which includes datasets:

- Record Creation Date and Times
- Market Participant Industry Standing Data
- GSP Group Data
- Measurement Quantities (including Import and Export GCF)
- Group Correction Factor Values
- Group Correct Factor Period
- Group Correction Factor Queries

5.2 TA02 – Annual Demand Ratio

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to allow the PAM System and PAA to calculate ADR by the Data Provider;

Annual Demand Ratio Data required for Performance Assurance activities held by the SVAA, which includes datasets:

- Record Creation Date and Times
- Market Participant Industry Standing Data
- GSP Group Data
- Measurement Quantities (including Import and Export GCF)
- Annual Demand Ratio Values
- Annual Demand Ratio Period
- Annual Demand Ratio Queries

5.3 CM01 – CVA MOA Proving Tests

Unless otherwise agreed by the Data Provider and PAA, the following datasets and file format should be used by the Data Provider;

ZHD - File Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= ZHD
2	File Type	text(8)	= P0133001
3	From Role Code	text(1)	= Z
4	From Participant Id	text(4)	= CDCA
5	To Role Code	text(1)	= Z (Non-Core - PAM)
6	To Participant Id	text(4)	
7	Creation Time	date/time	Date & time of file generation
SUB - Subject Participant Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= SB1
3	Market Participant Role Code	text(1)	= M (MOA)
4	Market Participant Id	text(8)	ID of CVA MOA
5	Period End Date	date	Date of last day of calendar month
6	Periodicity	text(1)	'M'onthly
CM01 CVA MOA Serial 1 Data			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= CM1
2	GSP Group Id	text(2)	= 'NULL' if directly-connected site
3	Number of MSIDs affected in period	int(7)	
4	Average number of working days Proving Test is outstanding after Effective From Date at time of report	dec(4,1)	
5	Count of faults outstanding after Effective From Date	int(7)	

Backus-Naur Form:

CVA MOA Proving Tests ::= ZHD {SB1 {CM1}} ZPT

5.4 CM02 – CVA MOA Fault Resolution

Unless otherwise agreed by the Data Provider and PAA, the following datasets and file format should be used by the Data Provider;

ZHD - File Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= ZHD
2	File Type	text(8)	= P0134001
3	From Role Code	text(1)	= Z
4	From Participant Id	text(4)	= CDCA
5	To Role Code	text(1)	= Z (Non-Core - PAM)
6	To Participant Id	text(4)	
7	Creation Time	date/time	Date & time of file generation
SUB - Subject Participant Header			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= SB2
3	Market Participant Role Code	text(1)	= M (MOA)
4	Market Participant Id	text(8)	ID of CVA MOA
5	Period End Date	date	Date of last day of calendar month
6	Periodicity	text(1)	'M'onthly
CM02 CVA MOA Serial 2 Data			
Field	Field Name	Type	Comments
1	Record Type	text(3)	= CM2
2	GSP Group Id	text(2)	= 'NULL' if directly-connected site
3	Number of MSIDs affected in period	int(7)	
4	Count of faults identified	int(7)	
5	Average number of working days faults outstanding at time of report	dec(4,1)	
5	Average number of working days taken to resolve faults	dec(4,1)	

Backus-Naur Form:

CVA MOA Fault Resolution ::= ZHD {SB2 {CM2}} ZPT

5.5 SP07A - Supplier MSID Count Report – SVAA File

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Supplier MSID Count Report Data required for Performance Assurance activities held by the SVAA, which includes datasets:

- Record Creation Date and Times
- Market Participant Role Codes and ID
- GSP Group Data
- Applicable Periods and Periodicity
- Applicable Settlement Date and Time
- MSID Count Data

5.6 SP07B – SMRA MSID Count Report – SVAA File

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

This data should be distributed in line with BSCP711 3.5 SMRA Metering System Count Report. The report must include:

For each Supplier recorded in its SMRS, the number of Metering Systems to which that Supplier was registered on the 15th day of each calendar month.

5.7 SP08 – Energy and MSIDs on Accurate data

Unless otherwise agreed by Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Energy and MSIDs on Actuals Data required for Performance Assurance activities held by the SVAA, which includes datasets:

- Record Creation Date and Times
- Market Participant Role Codes and ID
- GSP Group Data
- Applicable Periods and Periodicity
- Applicable Settlement Date and Time
- Market Segment
- Total Energy
- Total MSID Count
- Energy Per CCC ID (to be aggregated by the PAM System in line with Performance Standards prior to publication in Peer Comparison)
- MSID Count Per CCC ID (to be aggregated by the PAM System in line with Performance Standards prior to publication in Peer Comparison)

6. MARKET INDICATOR PROVISIONS

6.1 Settlement Consumption Data

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Any Settlement Consumption Data required for Performance Assurance activities held by the SVAA, which includes datasets pertaining to:

- Record Creation Date and Times
- Market Participant Role Codes and ID
- Consumption Component Class ID
- Settlement Timetable Data (including Settlement Date, Time and Run)
- All UTC Settlement Period Consumption Data (disaggregated at MSID level including but not limited to defaulted, missing and rejected data, de-energised and energised data, Accurate or limited, and Actual or Estimated UTC Settlement Period Consumption data (Active and where appropriate Reactive for each MSID, for each Settlement Period across all Settlement Runs.

6.2 Settlement Registration Data

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Any Settlement Registration Data required for Performance Assurance activities held by the SVAA, which includes datasets pertaining to:

- Record Creation Date and Times
- Market Participant Role Codes and ID
- MSID Status Details (disaggregated including but not limited to Migration Status, Disconnection Status and Energisation Status)
- MSID Registration Details (disaggregated including but not limited to GSP Group, Energy Direction, Domestic Premises, Connection Type, Market Segment)

6.3 Settlement Load Shaping Data

Unless otherwise agreed by the Data Provider and PAA, the following datasets should be made available to the PAA by the Data Provider;

Any Settlement Registration Data required for Performance Assurance activities held by the SVAA, which includes datasets pertaining to:

- Record Creation Date and Times
- Market Participant Role Codes and ID
- Load Shape Period Data (disaggregated including but not limited to Settlement Period Load Shapes calculated on a daily basis)