

Balancing and Settlement Code

BSC PROCEDURE

CHANGES TO INDUSTRY STANDING DATA

**BSCP707 Appendix 2:
ISD Change Request Entity Validation**

Version 0.3

Date: DD MM YYYY

AMENDMENT RECORD

Version	Date	Description of Changes	Changes Included	Mods/ Panel/ Committee Refs
0.1	29/06/2023	First Draft	Market-wide Half-Hourly Settlement	
0.2	07/07/2023	Internal review	Market-wide Half-Hourly Settlement	
0.3	03/08/2023	Following Elexon review	Market-wide Half-Hourly Settlement	

Intellectual Property Rights, Copyright and Disclaimer

The copyright and other intellectual property rights in this document are vested in Elexon or appear with the consent of the copyright owner. These materials are made available for you for the purposes of your participation in the electricity industry. If you have an interest in the electricity industry, you may view, download, copy, distribute, modify, transmit, publish, sell or create derivative works (in whatever format) from this document or in other cases use for personal academic or other non-commercial purposes. All copyright and other proprietary notices contained in the document must be retained on any copy you make.

All other rights of the copyright owner not expressly dealt with above are reserved.

No representation, warranty or guarantee is made that the information in this document is accurate or complete. While care is taken in the collection and provision of this information, Elexon Limited shall not be liable for any errors, omissions, misstatements or mistakes in any information or damages resulting from the use of this information or action taken in reliance on it.

CONTENTS

1 INTRODUCTION..... 5

1.1 Background 5

1.2 Purpose of this Document 5

1.3 ISD Format..... 6

1.4 Code Subsidiary Documentation..... 6

2 ACRONYMS AND DEFINITIONS 7

3 ISD DATA ENTITIES..... 8

3.1 Entity 1 – Market Participant Organisation..... 8

3.2 Entity 2 – GSP Licensed Distribution System Operator 10

3.3 Entity 4 – SMR Agent Appointment..... 12

3.4 Entity 17 – DUoS Tariff Id 13

3.5 Entity 18 – GSP Group 16

3.6 Entity 45 - Market Participant Role 16

3.7 Entity 61 - Base BM Unit for Supplier in GSP Group 19

3.8 Entity M3 - Line Loss Factor Identifier 20

3.9 Entity M7 - Valid Market Segment/ Connection/ Meter Type/ Meter Group 23

3.10 Entity M8 - Valid Market Segment/ Metering Service Mapping 24

3.11 Entity M9 - UMS Charge Codes 25

3.12 Entity M10 - UMS Manufacturer Equipment LED Range Charge Codes 27

3.13 Entity M11 - UMS Switch Regimes..... 28

3.14 Entity M12 - UMS Variable Power Switch Regimes 30

3.15 Entity M16 - Market Participant to DIP Participant Mapping..... 32

3.16 Entities Changed by the BSCCo. 33

3.17 Entities Changed by the SVAA..... 34

3.18 Rarely Changed Entities..... 35

4 ENTITY DIAGRAM 36

4.1 Introduction 36

4.2 Entity Diagram..... 37

Appendix A: Glossary..... 38

1 INTRODUCTION

1.1 Background

Industry Standing Data (ISD) is the central repository of Supplier Volume Allocation (SVA) market information and is essential to the operation of the SVA Trading Arrangements as it includes critical information GSP Groups and Line Loss Factor Ids which are common to all Market Participants.

The development of ISD was to ensure that all Market Participants work from the same version of data and that it is updated simultaneously. In order for the trading arrangements to operate efficiently it is essential that all parties utilise the correct data at all times. Therefore, the generation, maintenance and distribution of such data requires managing in a secure and auditable manner.

To meet this requirement the SVA Agent acts as the single, central repository for all such data and is responsible for its maintenance and distribution to Market Participants, Party Agents, Data Services, BSC Agents and other interested parties.

The following Market Roles access ISD and use it to update their internal systems to keep them in step with the rest of the market:

- Smart Data Service
- Advances Data Service
- Unmetered Supplies Data Service
- Unmetered Supplies Operator Service
- SVA Agent
- Meter Operator
- SMR Agent
- Licensed Distribution System Operator
- Supplier.

Note that the ISD application and the contents of the ISD database are owned by BSCCo. The application is maintained by the SVA Agent (SVAA), which incorporates the role of Industry Standing Data Manager (ISDM).

1.2 Purpose of this Document

This document is aimed at all Market Participants who use ISD and need to raise ISD Change Requests. The purpose of the document is to provide information on the data items and validation rules that apply to each ISD Entity.

1.3 ISD Format

Industry Standing Data is held in a standalone database which is updated in accordance with the ISD release schedule published by BSCCo. The ISD application produces a series of structured files that form the input to Market Participants' internal systems. The files consist of a series of groups of related information and require specialised programmes to interpret their contents. When ISD is updated, a new version of the files is created and is then published and the relevant parties are notified that an updated version of ISD is available by the IF-047 / PUB-047 'Notification of the Publication of a Downloadable Asset'.

Once accessed, the files are managed by the recipients, who are responsible for updating their systems in accordance with instructions from BSCCo.

ISD is published approximately monthly. The ISD release schedule which states all ISD publish dates is available on the BSC Website.

1.4 Code Subsidiary Documentation

The management of the ISD process is governed by the following BSC Procedures (BSCPs).

Reference	Description
BSCP703	This document covers implementation of ISD Changes by the SVA Agent.
BSCP707	The purpose of this BSCP is to ensure that all changes to Market Domain Data are made in a controlled and auditable manner.
BSCP707 – Appendix 1: ISD Entity Change Request Forms	Prescribed forms used by Market Participants to specify which tables within ISD they wish to make changes to.
BSCP707 – Appendix 2: ISD Change Request Entity Validation	This document provides details of the information required when completing the associated Entity forms for a ISD Change Request

2 ACRONYMS AND DEFINITIONS

The terms used in this BSCP are defined as follows:

BM	Balancing Mechanism
BSC	Balancing and Settlement Code
BSCP	Balancing and Settlement Code Procedure
CRA	Central Registration Agent
DIP	Data Integration Platform
EFSD	Effective from Settlement Date
EMDS	Energy Market Data Specification
ETSD	Effective to Settlement Date
GSP	Grid Supply Point
LDSO	Licensed Distribution System Operator
LLF	Line Loss Factor
LLF Id	Line Loss Factor Identifier
ISD	Industry Standing Data
ISDM	Industry Standing Data Manager
MPID	Market Participant Identification
MPR	Market Participant Role
SMRA	Supply Meter Registration Agent
SVA	Supplier Volume Allocation
SVAA	Supply Volume Allocation Agent

A detailed glossary of terms is provided in Appendix A.

3 ISD DATA ENTITIES

This section details the tables that are required for each ISD Change Request and the validation rules for each change. The tables shown are in the format that must be provided to the SVA Agent for data entry.

The key ISD Entities and those that are most frequently updated by Market Participants are individually described in sections 3.1 to 3.15. Entities that are updated by annual data file loads, or which relate to information that is rarely changed are summarised in sections 3.16 to 3.18.

Note that BSCP707 Appendix 1 should be read in conjunction with this section.

3.1 ISD Entity 1 – Market Participant Organisation ¹

Company Registration Number	Registered Company Name	ISO Country Code

Brief Description

Defines an organisation that participates in the GB electricity market. The Company Registration Number and Registered Company Name will be checked against Companies House by the ISD Co-ordinator.

Guidance on Change Process

Approved ISD changes for new Suppliers, new LDSOs, existing LDSOs and new Party Agents should be made in accordance with the criteria detailed in BSCP707 Section 4.3.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Company Registration Number	10	A	M	Company Registration Number as per Companies House
Registered Company Name	100 Max. (including spaces)	A/N	M	Registered Company Name as per Companies House
ISO Country Code	2	A	O	A valid ISO Country Code (default is GB)

¹ **Key:** Format: A=Alphabetic, N=Numeric, A/N=Alphanumeric, D=Date (YYYY-MM-DD), T= Time (00:00)
M/O: M=Mandatory, O=Optional

Links to Other Entities

For Each Market Participant there must also be at least one Market Participant Role Code record (Entity 45).

In the case of Suppliers (role code 'X'), there must also be a Base BM Unit ([Entity 61](#)) for every GSP Group.

3.2 ISD Entity 2 – GSP Licensed Distribution System Operator

GSP Group Id	Market Participant Id	Market Participant Role Code	Effective From Date {MPR}	Effective From Settlement Date {GGD}	Effective To Settlement Date {GGD}

Brief Description

A party which is the holder of a Distribution Licence in respect of distribution activities within a GSP Group.

Guidance on Change Process

Approved ISD changes for new Suppliers, new LDSOs, existing LDSOs and new Party Agents should be made in accordance with the criteria detailed in BSCP707_Section 4.3.

There are four individual steps that Parties are required to complete during the registration process of a new Licensed Distribution System Operator (LDSO) in ISD. In theory a Party could complete all four steps of the process in parallel and in the same Publish of ISD. In practice, however, it is unlikely they would do this because of the time-scales involved in SVA Qualification Testing. It is more likely that the registration process of a new LDSO would take place over 2-3 separate ISD Publishes.

The individual steps involved in the registration of an LDSO are:

1. Submit Change Requests to create an association between new or existing Market Participant IDs of Role Codes 'P' for SMR Agent and 'R' for LDSO.
2. Submit Change Request to create SMR Agent and LDSO appointments for each GSP Group that the LDSO will operate in.
3. Submit Change Request if new DUoS Tariff Ids or Line Loss Factor Ids are required.

Note: Individual Line Loss Factors are part of ISD but the ELEX-REP-005 file will also need to be submitted to BSCCo in accordance with BSCP128.

The final stage in the LDSO registration process is the requirement to set up new LLF id data (and associated combinations) in ISD. The LLFs and corresponding ELEX-REP-005 file will be loaded into the ISRA systems.

Following SVA Qualification Testing, the MPID of the LDSO needs to be associated with the appropriate GSP Group(s) in the ISD system and subsequently entered into the ISRA system by the SVA Agent. At the same time the SMR Agent appointment data needs to be loaded into the ISD system.

Field Details				
Fieldname	No of Chars	Format	M/O	Description/Comments
GSP Group Id	2	_A	M	The unique character identifier for the relevant GSP Group
Market Participant Id	4	A	M	The unique identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	The assigned role code for the Market Participant (LDSO 'R').
Effective From Date {MPR}	10	D	M	The date on which the Market Participant was accredited as a Licensed Distribution System Operator.
Effective From Settlement Date {GGD}	10	D	M	The first Settlement Date on which the Market Participant became active as a Licensed Distribution System Operator within the GSP Group.
Effective To Settlement Date {GGD}	10	D	O	The last Settlement Date on which the Market Participant was active as a Licensed Distribution System Operator within the GSP Group.

Additional Validation

If a Market Participant has a Role code of R (LDSO), it must also have a Role code P (SMRA) with the same MPID, and vice versa.

Links to Other Entities

To add a new Licensed Distribution System Operator, there must already be a Market Participant Organisation record (Entity 1) and Market Participant Roles (Entity 45).

3.3 ISD Entity 4 – SMR Agent Appointment

GSP Group Id	Market Participant Id	Market Participant Role Code	Effective From Date {MPR}	Effective From Date {PAA}	Effective To Date {PAA}

Brief Description

An association between the MPID of the Supplier Metering Registration Agent (SMRA) and the GSP Groups in which they operate.

Guidance on Change Process

Approved ISD changes for new Suppliers, new LDSOs, existing LDSOs, SMRAs and new Party Agents should be made in accordance with the criteria detailed in BSCP509_Section 4.3.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
GSP Group Id	2	_A	M	The unique identifier for the relevant GSP Group.
Market Participant Id	4	A	M	The unique identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	The assigned role code for the Market Participant (SMRA 'P').
Effective From Date {MPR}	10	D	M	The date on which the Market Participant was accredited as a SMR Agent.
Effective From Date {PAA}	10	D	M	The first day on which the Market Participant became active as a SMR Agent within the GSP Group
Effective To Date {PAA}	10	D	O	The last day on which the Market Participant became active as a SMR Agent within the GSP Group

Additional Validation

If a Market Participant has a Role code of R (LDSO), it must also have a Role code P (SMRA) with the same MPID, and vice versa.

Links to Other Entities

To add a new SMR Agent Appointment, there must already be a Market Participant (Entity 1) and Market Participant Roles (Entity 45).

3.4 ISD Entity 17 – DUoS Tariff Id

Market Participant Id	Market Participant Role Code	Effective From Date {MPR}	GSP Group id	DUoS Tariff Id	DUoS Tariff Description	Effective From Settlement Date {DUoS Id}	Effective To Settlement Date {DUoS Id}	DUoS Tariff Domestic Premise Indicator	DUoS Tariff Energy Direction	LLF Id	MS Specific LLF Id Indicator

Brief Description

The reference for a DUoS Tariff and mapping to Line Loss Factor Id, within a LDSO's system, that applies to a group of Metering Systems.

Guidance on Change Process

Licensed Distribution System Operators are required to register DUoS Tariff and Line Loss Factor Id in ISD in accordance with the processes outlined in BSCP707 and BSCP128.

When the description of an existing DUoS Tariff is changed, no other details must change (including Effective From Settlement Date DUoS Id). The change is applied as a direct overwrite of the previous description, i.e. no dates will be affected.

When creating a new LLF Id in ISD the LDSO must also provide the amended ELEX-REP-005 detailing the LLFs which will coincide with the Effective From Settlement Date of the new LLF Id. A Change Request raising a new DUoS Tariff Id cannot be implemented into ISD without a supporting LLF Id and ELEX-REP-005 (If not already provided).

If it is not the LDSO creating a DUoS Tariff Id, the appropriate authorisation must be gained from the relevant LDSO.

When raising new DUoS Tariff Ids, it is the responsible of LDSOs, or BSC Parties to ensure the appropriate combinations are entered into ISD within the relevant timescales.

When a Distribution Business discontinues a DUoS Tariff Id in ISD it is the responsibility of the Distribution Business to liaise with their SMRA and ensure that any Metering Systems that were previously registered to that DUoS Tariff Id have been migrated to another DUoS Tariff Id. If the Metering Systems are not migrated, validation warnings will be created by the ISRA system. In addition to this the LLFs will automatically default to 1.

The discontinuation of a DUoS Tariff Id is done by giving the DUoS Tariff Id an Effective To Settlement Date. The DUoS Tariff Id will remain valid for all Settlement Dates up to and including the Effective To Settlement Date {DUoS Id}, and so be valid for reconciliation runs.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Market Participant Id	4	A	M	The identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	One character code for LDSO role (R).

Field Details				
Fieldname	No of Chars	Format	M/O	Description/Comments
Effective From Settlement Date {MPR}	10	D	M	It must be the date the LSDO became active in the Market, i.e. the date provided in the Market Participant Role table.
GSP Group Id	2	_A	M	The unique identifier for the relevant GSP Group.
DUoS Tariff Id	3	A/N	M	Excluding '000' and any combination using 'I' or 'O' or starting '0' or '00'.
DUoS Tariff Description	Up to 50	A/N	M	The Description of the DUoS Tariff.
Effective From Settlement Date {DUoS id}	10	D	M	The first Settlement Date on which the DUoS Tariff is active.
Effective To Settlement Date {DUoS}	10	D	O	The last Settlement Date on which the DUoS Tariff is active.
DUoS Tariff Domestic Premise Indicator	1	A	M	T or F
DUoS Tariff Energy Direction	1	A	M	E or I
Line Loss Factor Id	3	A/N	M	Excluding '000' and any combination using 'I' or 'O' or starting '0' or '00'.
MS (Metering System) Specific LLF Id Indicator	1	A	M	See details in Additional Validation below.

Additional Validation
MS (Metering System) Specific LLF Id Indicator must take one of the following values: A - General LLF Id for Import Active Energy B - MS Specific LLF Id for Import Active Energy C - General LLF Id for Export Active Energy D - MS Specific LLF Id for Export Active Energy
When raising or end dating a DUoS Tariff Id, the Effective From/To Settlement Date {DUoS} must be greater than or equal to the ISD Go-live date.

Links to Other Entities

There must be a Market Participant Organisation (Entity 1) and a Market Participant Role (Entity 45) with Role Code 'R' assigned to the Market Participant. The LLF Id must be a valid Line Loss Factor Id (Entity M3).

3.5 ISD Entity 18 – GSP Group

GSP Group Id	GSP Group Name	Region Id

Brief Description

A set of Distribution Systems which form a distinct electrical system and are treated as a group for the purpose of allocating errors in Settlement i.e. GSP Group Correction.

Guidance on Change Process

Changes to this entity would occur on the introduction of a new GSP Group or Merger of existing GSP Groups as directed by the BSC Panel or delegated BSC Panel Committee.

There would be associated changes to SMR Agent Appointment.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
GSP Group Id	2	_A	M	The identifier for the chosen GSP Group.
GSP Group Name	30 Max. (including spaces)	A/N	M	The name of the Grid Supply Point Group.
Region Id	2 Max. (including spaces)	A	M	Either 'EW' for England & Wales, or 'S' for Scotland

Additional Validation

Within a single GSP Group, more than one reference can exist to a given LDSO and SMR Agent ID.

Within a single GSP Group, if a LDSO entry exists for a LDSO then its SMR Agent Appointment entry must also exist and vice-versa.

3.6 ISD Entity 45 - Market Participant Role

Company Registration Number	
Market Participant Id	
Market Participant Role Code	
Effective From Date {MPR}	
Effective To Date {MPR}	
LDSO Short Code	
Trading Party Id	

Guidance on Change Process				
Approved ISD changes for new Suppliers, new LDSOs, existing LDSOs and new Party Agents should be made in accordance with the criteria detailed in BSCP707 Section 4.3.				
Field Details				
Fieldname	No of Chars	Format	M/O	Description/Comments
Company Registration Number	10	A	M	Company Registration Number as per Companies House
Market Participant Id	4	_A	M	The unique identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	Defines the role of the Market Participant, the organisation must already be defined in Entity 1 .
Effective From Date {MPR}	10	D	M	The calendar date from which the Market Participant will perform this Role. This date must match the Effective From Date {BMU ID} and the Supplier Base BM Unit in CRA)
Effective To Date {MPR}	10	D	O	The calendar date on which the Market Participant will cease to perform this Role.
LDSO Short Code	2	N	O	A code taken from the first two characters of the MPAN for the LDSO. This field is mandatory for Role Code 'R' (LDSO), but should be left blank for all other Role Codes.
Trading Party Id	4	A	O	For Suppliers, this field is mandatory and should be the same as the Market Participant Id unless otherwise agreed with BSCCo. For Market Participants who are not Suppliers, this field must be left blank.

Additional Validation
If the Role code is 'X' (Supplier), this Entity 45 must include the Trading Party Id.
If a Participant has a Role code of 'R' (LDSO), it must also have a Role code 'P' (SMRA) with the same MPID, and vice versa.

Links to Other Entities

A new Market Participant Role can only be created if an associated Market Participant record (Entity 1) and Role Code record (Entity 21) already exists.

3.7 ISD Entity 61 - Base BM Unit for Supplier in GSP Group

GSP Group	Market Participant (Supplier) ID	Market Participant Role Code	Effective From Date {MPR}	BM Unit ID	Effective From Settlement Date {BMU ID}	Effective To Settlement Date {BMU ID}

Brief Description

A BM Unit is a representation of an association of generation equipment or of consumption, as the case may be, registered under the BSC for the purposes of participation in the Balancing Mechanism. Every single Metering System in Great Britain, whether for generation or consumption, is a component of a Primary BM Unit (and only one Primary BM Unit).

There are two different types of BM Unit, Base BM Units and Additional BM Units. For the purpose of clarification the distinction between the two types of BM Unit is as follows:

- A set of Base BM Units will be assigned to the first Supplier ID registered by a Party. All Suppliers must have one Initial Base BM Unit in each GSP Group.
- Suppliers are permitted to register Additional BM Units and can choose to use any of the Supplier IDs that they have registered, provided that the Supplier ID chosen is effective in ISD. There is no requirement for a Supplier to register an Additional BM Unit in each GSP Group and there is no limit to the number of Additional BM Units that a Supplier can register in each GSP Group.

Guidance on Change Process

For any SVA BM Unit to be successfully registered, it needs to be recorded in two separate systems that operate independently of one another, the Industry Standing Data (ISD) system and the Central Registration Agency (CRA) system. Both systems need to be synchronised with the same data at the same time and in order to ensure that this occurs, a number of process controls are in place. The registration and de-registration processes for each type of BM Unit are documented in BSCP707 and BSCP15, for Base BM Units and Additional Base BM Units BSCP65 and for Additional BM Units BSCP707 and BSCP15. The following paragraph gives a brief description of how the validation process works.

All types of SVA BM Unit are subject to the same process controls during registration or de-registration. The Party is required to register or de-register the BM Units in the CRA and ISD systems in parallel, with the same Effective From / To Date in both systems. The process takes approximately 30 Working Days and is initiated by the Party declaring their intention to register or de-register a set of SVA BM Units to both the CRA and BSCCo. BSCCo will ensure the following criteria are met:

- that the Party is aware of their obligation to register in both the ISD and CRA systems simultaneously
- that the Party is aware of the time-scales involved
- that the Party is aware of the requirement to synchronise the Effective To / From Dates in both the ISD and CRA systems
- that the Effective To / From Dates are required to be on or after the next 'Go-Live' date of ISD.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments

Guidance on Change Process				
GSP Group Id	2	_A	M	The identifier for the relevant GSP Group.
Market Participant (Supplier) Id	4	A	M	The identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	The assigned role code for the Market Participant (Supplier 'X').
Effective From Date {MPR}	10	D	M	The date on which the Market Participant was accredited as a Supplier.
BM Unit Id	11	A/N	M	See Additional Validation for format of the BM Unit Id.
Effective From Date {BMU ID}	10	D	M	The first day on which the BM Unit was active within the GSP Group
Effective To Date {BMU ID}	10	D	O	The last day on which the BM Unit was active within the GSP Group

Additional Validation										
<p>The naming convention for Base and Additional BM Units is as follows:</p> <table border="0"> <tr> <td>Base BM Unit, 2__ASUPP000</td> <td>Additional BM Unit, 2__ASUPP001</td> </tr> <tr> <td>(2_) = SVA BM Unit</td> <td>(2_) = SVA BM Unit</td> </tr> <tr> <td>(_A) = GSP Group _A</td> <td>(_A) = GSP Group _A</td> </tr> <tr> <td>(SUPP) = 4 Character Supplier ID</td> <td>(SUPP) = 4 Character Supplier ID</td> </tr> <tr> <td>(000) = Base BM Unit</td> <td>(001)* = Additional BM Unit</td> </tr> </table> <p>*The number increments as more additional BM Units are registered.</p>	Base BM Unit, 2__ASUPP000	Additional BM Unit, 2__ASUPP001	(2_) = SVA BM Unit	(2_) = SVA BM Unit	(_A) = GSP Group _A	(_A) = GSP Group _A	(SUPP) = 4 Character Supplier ID	(SUPP) = 4 Character Supplier ID	(000) = Base BM Unit	(001)* = Additional BM Unit
Base BM Unit, 2__ASUPP000	Additional BM Unit, 2__ASUPP001									
(2_) = SVA BM Unit	(2_) = SVA BM Unit									
(_A) = GSP Group _A	(_A) = GSP Group _A									
(SUPP) = 4 Character Supplier ID	(SUPP) = 4 Character Supplier ID									
(000) = Base BM Unit	(001)* = Additional BM Unit									
<p>You cannot have more than one occurrence of BM Unit for Supplier in GSP Group for the same BM Unit Id effective on the same Settlement Date.</p>										
<p>Each combination of GSP Group and Market Participant with a Supplier Role Code of 'X' must have one instance of BM Unit for Supplier in GSP Group with the Default BM Unit Flag set to 'T' TRUE from the Effective From Settlement Date, this must be greater than or equal to either the NETA Start Date (27/03/2001) where Region Id equals 'EW' (GSP Group's in England/Wales) or BETTA Start Date (01/04/2005) where Region Id equals 'S' (GSP Group's in Scotland).</p>										

Links to Other Entities
<p>There must be a Market Participant Organisation (Entity 1) and a Market Participant Role (Entity 45) with Role Code 'X' assigned to the Market Participant.</p>

3.8 ISD Entity M3 - Line Loss Factor Identifier

Market Participant ID	Line Loss Factor Identifier	LLF Id	MS Specific LLF Id Indicator	Effective From Settlement Date {LLF Id}	Effective To Settlement Date {LLF Id}

Market Participant ID	Line Loss Factor Identifier	LLF Id	MS Specific LLF Id Indicator	Effective From Settlement Date {LLF Id}	Effective To Settlement Date {LLF Id}

Brief Description

The mapping of Market Participant to Line Loss Factor Id (LLF Id), within a LDSO's system, that applies to a group of Metering Systems.

Guidance on Change Process

Licensed Distribution System Operators are required to register LLF Ids in ISD in accordance with the processes outlined in BSCP707 and BSCP128.

When the description of an existing LLF Id is changed, no other details must change (including Effective From Settlement Date LLF Id). The change is applied as a direct overwrite of the previous description, i.e. no dates will be affected.

When creating a new LLF Id in ISD the LDSO must also provide the amended ELEX-REP-005 detailing the LLFs which will coincide with the Effective From Settlement Date of the new LLF Id. A Change Request raising a new DUoS Tariff Id cannot be implemented into ISD without a supporting LLF Id and an ELEX-REP-005 Line Loss Factor Data (If not already provided).

When raising new LLF Ids, it is the responsible of LDSOs, or BSC Parties to ensure the appropriate combinations are entered into ISD within the relevant timescales.

When a Distribution Business discontinues a LLF Id in ISD it is the responsibility of the Distribution Business to liaise with their SMRA and ensure that any Metering Systems that were previously registered to that DUoS Tariff Id/ LLF Id combination have been migrated to another DUoS Tariff Id/ LLF Id combination. If the Metering Systems are not migrated, validation warnings will be created by the ISRA system. In addition to this the LLFs will automatically default to 1.

The discontinuation of a LLF Id is done by giving the LLF Id an Effective To Settlement Date. The LLF Id will remain valid for all Settlement Dates up to and including the Effective To Settlement Date {LLF Id}, and so be valid for reconciliation runs.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Market Participant ID	4	A	M	The unique identifier for the Market Participant (LDSO).
Line Loss Factor Identifier	3	A/N	M	Excluding '000' and any combination using 'I' or 'O' or starting '0' or '00'.
LLF Id Description	50 Max. (including spaces)	A/N	M	A description of the LLF Id.
MS Specific LLF Id Indicator	1	A	M	See details in Additional Validation below.

Guidance on Change Process				
Effective From Settlement Date {LLF Id}	10	D	M	The first Settlement Date on which the Line Loss Factors are active.
Effective To Settlement Date {LLF Id}	10	D	O	The last Settlement Date on which the Line Loss Factors are active.

Additional Validation
MS (Metering System) Specific LLF Id Indicator must take one of the following values: A - General LLF Id for Import Active Energy B - MS Specific LLF Id for Import Active Energy C - General LLF Id for Export Active Energy D - MS Specific LLF Id for Export Active Energy
When raising or end dating a Line Loss Factor Id, the Effective From/To Settlement Date {LLF Id} must be greater than or equal to the ISD Go-live date.

Links to Other Entities
The LLF Id must be linked to a valid DUoS Tariff Id (Entity 17).

3.9 ISD Entity M7 - Valid Market Segment/ Connection/ Meter Type/ Meter Group

Market Segment Indicator	Connection Type Indicator	Meter Type	Meter Group

Brief Description

The mapping of Market Segment to the Connection Type Indicator, Meter Type and Meter Group.

Guidance on Change Process

RECCo needs to be submitted on every occasion a new Meter Type is introduced in EMAR.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Market Segment Indicator	1	A	M	The indicator of a Market Segment. Either S or A
Connection Type Indicator	1	A	M	The indicator of a Connection Type. Either W, L, H or E
Meter Type	5 Max (including spaces)	A/N	M	Must be a valid Meter Type in EMAR.
Meter Group	Up to 11	A	M	Either Smart, Traditional or Advanced

Additional Validation

The Market Segment must be valid entry in Entity M1.

The Connection Type Indicator must be valid as in Entity M2.

Links to Other Entities

Market Segment (M1) and Connection Type (M2)

3.10 ISD Entity M8 - Valid Market Segment/ Metering Service Mapping

Market Segment Indicator	Metering Service ID {MS Id}	Effective From Date {MS Id}	Effective To Date {MS Id}

Brief Description

The mapping of a Metering Service to a Market Segment.

Guidance on Change Process

This entity needs to be raised each time a new Metering Services is Qualified.

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Market Segment Indicator	1	A	M	The indicator of a Market Segment. Either S or A
Metering Service ID {MS Id}	4	N	M	The Market Participant ID for the Metering Service.
Effective From Date {MS Id}	10	D	M	The first Settlement Date on which the Metering Service is active.
Effective To Date {MS Id}	10	D	O	The last Settlement Date on which the Metering Service is active.

Additional Validation

The Market Segment must be valid entry in Entity M1.

The Metering Service must have a valid entry in the Market Participant Role (Entity 45) with a Market Role Code of 'S' or 'T'.

Links to Other Entities

Market Segment (Entity M1), Market Participant Role (Entity 45)

3.11 ISD Entity M9 - UMS Charge Codes

Charge Code	Nominal Watts	Unit Description 1	Unit Description 2	Company	Manufacturer's Designation	Circuit Watts	Dimmed Circuit Watts	Effective From Date {CC}	Effective To Date {CC}	Equipment Type

Brief Description

This entity contains approved Charge Codes that are used in the calculation of Unmetered energy volumes.

Guidance on Change Process

The change process for Unmetered Supplies is set out in Section 3.1 of this BSCP707. The applicant will provide the required data relating to its apparatus to the ISD Coordinator. The Charge Code will be validated against the required structure for the apparatus as defined in the Operational Information Document (OID).

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Charge Code	13	N	M	Format as defined in the OID.
Nominal Watts	Max 7 (with up to 2 decimal places)	N	M	As defined by applicant. Up to 7 numbers before the decimal point.
Unit Description 1	Max 50 (including spaces)	A/N	M	As defined by applicant.
Unit Description 2	Max 50 (including spaces)	A/N	O	As defined by applicant.
Company	Max 50 (including spaces)	A/N	M	As defined by applicant.
Manufacturer's Designation	Max 50 (including spaces)	A/N	O	As defined by applicant.
Circuit Watts	Max 7 (with up to 2 decimal places)	N	M	As calculated from test data provided by the applicant.
Dimmed Circuit Watts	Max 7 (with up to 2 decimal places)	N	O	As calculated from test data provided by the applicant.

Guidance on Change Process				
	decimal places)			
Effective From Date {CC}	10	D	M	The first Settlement Date on which the Charge Code is active.
Effective To Date {CC}	10	D	O	The last Settlement Date on which the Charge Code is active.
Equipment Type	Max 50 (including spaces)	A/N	M	Lamps, Traffic Equipment, Miscellaneous, Control Equipment and Highway Message and Indicator Signs.

3.12 ISD Entity M10 - UMS Manufacturer Equipment LED Range Charge Codes

Manufacturer	Manufacturers Designation	Generic LED Codes – Lower Limit	Generic LED Codes – Upper Limit	Effective From Date {LEDCC}	Effective To Date {LEDCC}

Brief Description

This entity sets out a range of LED Charge Codes that can be used for LED apparatus depending on their power levels.

Guidance on Change Process

The change process for Unmetered Supplies is set out in Section 3.1 of this BSCP707. The applicant will provide the required data relating to its apparatus to the ISD Coordinator. The LED Charge Code range will be validated against the required structure for the apparatus as defined in the Operational Information Document (OID).

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Manufacturer	Max 50 (including spaces)	A/N	M	As defined by applicant.
Manufacturers Designation	Manufacturer's Designation	Max 50 (including spaces)	A/N	As defined by applicant
Generic LED Codes – Lower Limit	13	N	M	As defined by applicant.
Generic LED Codes – Upper Limit	13	N	M	As defined by applicant.
Effective From Date {LEDCC}	10	D	M	The first Settlement Date on which the LED Charge Code is active.
Effective To Date {LEDCC}	10	D	O	The last Settlement Date on which the LED Charge Code is active.

3.13 ISD Entity M11 - UMS Switch Regimes

Switch Regime	SR Description	After Sunset	Before Sunrise	Lux On	Lux Off	Intermediate Off	Intermediate On	Switch On	Switch Off	Default Switch Regime	GMT/CLK	Effective From Date {SR}	Effective To Date {SR}

Brief Description

Switch Regimes are three character alpha-numeric codes that allow the operating hours for equipment to be determined. This information together with the power information obtained from the Charge Code allows consumption (kWh) to be calculated.

Guidance on Change Process

The change process for Unmetered Supplies is set out in Section 3.1 of this BSCP707. The applicant will provide the required data relating to its equipment to the ISD Coordinator. The Switch Regimes will be validated against the required structure for the equipment type as defined in the Operational Information Document (OID).

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Switch Regime	3	A/N	M	As defined in OID for equipment type.
SR Description	100 Max. (including spaces)	A/N	M	As defined by applicant.
After Sunset	2	N	M	Minutes after Sunset e.g. 30
Before Sunrise	2	N	O	Minutes before Sunrise e.g. 30
Lux On	3	N	O	On Lux level e.g. 55
Lux Off	3	N	O	Off Lux Level e.g. 110
Intermediate Off	5	T	O	A time e.g. 00:00
Intermediate On	5	T	O	A time e.g. 00:00
Switch On	5	T	O	A time e.g. 00:00
Switch Off	5	T	O	A time e.g. 00:00
Default Switch Regime	3	A/N	M	The Switch Regime required for defaulting.
GMT/CLK	3	A	M	Either GMT or CLK
Effective From Date {SR}	10	D	M	The first Settlement Date on which the Switch Regime is active.

Guidance on Change Process				
Effective To Date {SR}	10	D	O	The last Settlement Date on which the Switch Regime is active.

Links to Other Entities
Entity M12 - UMS Variable Power Switch Regimes

3.14 ISD Entity M12 - UMS Variable Power Switch Regimes

Switch Regime	PECU lux level/ Time Settings	GMT or Clock	On Event	% Power	Switch Event 2	% Power	Switch Event 3	% Power	Switch Event 4	% Power	Switch Event 5	% Power	Switch Event 6

% Power	Switch Event 7	% Power	Switch Event 8	% Power	OFF Event

Brief Description

A Switch Regimes that defines the power levels and event times for equipment that is capable of variable power levels. E.g. A streetlight with dimming capability.

Guidance on Change Process

The change process for Unmetered Supplies is set out in Section 3.1 of this BSCP707. The applicant will provide the required data relating to its equipment to the ISD Coordinator. The UMS Variable Power Switch Regimes will be validated against the required structure for the equipment type as defined in the Operational Information Document (OID).

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Switch Regime	3	A/N	M	As defined in OID for equipment type.
PECU lux level/ Time Settings	10 Max.	A/N	M	e.g. 70/35, 55/28, 35/18, 20/20, 10/10 and 5/5
GMT or Clock	3	A	M	Either GMT or CLK
On Event	5	A	M	PECUS or TIMER
% Power	3 Max.	N	M	Percentage of full power (0 – 100)
Switch Event 2	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 3	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 4	5	T	O	Time of Switch Event e.g. 00:00

Guidance on Change Process				
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 5	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 6	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 7	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
Switch Event 8	5	T	O	Time of Switch Event e.g. 00:00
% Power	3 Max.	N	O	Percentage of full power (0 – 100)
OFF Event	5	A	M	PECUS or TIMER

Additional Validation

The Switch Regime must appear in Entity M11 - UMS Switch Regimes.

Links to Other Entities

Entity M11 - UMS Switch Regimes

3.15 ISD Entity M16 - Market Participant to DIP Participant Mapping

Market Participant Id	Market Participant Role Code	DIP Participant Id	DIP Role Code	Effective From Date {MP2DPM}	Effective To Date {MP2DPM}

Brief Description

The mapping of Market Participants and Market Participant Role Codes to the Data Integration Platform Participant Ids and Role Codes.

Guidance on Change Process

Field Details

Fieldname	No of Chars	Format	M/O	Description/Comments
Market Participant Id	4	_A	M	The unique identifier for the Market Participant.
Market Participant Role Code	1	A/N	M	Defines the role of the Market Participant, the organisation must already be defined in Entity 1 .
DIP Participant Id	Max 10.	A/N	M	The generated DIP Participant Id.
DIP Role Code	4	A/N	M	The Role Code used in the DIP e.g. SUPP
Effective From Date {MP2DPM}	10	D	M	The first Settlement Date on which the Market Participant became active.
Effective To Date {MP2DPM}	10	D	O	The last Settlement Date on which the Market Participant was active.

Additional Validation

DIP Participant Id must be checked against that held in the DIP.

Links to Other Entities

Entity 1 – Market Participant Organisation and Entity 45 - Market Participant Role

3.16 ISD Entities Changed by the BSCCo.

The following entity is used for the Base Calendar information and are updated annually by the BSCCo.

ISD Entity No.	Entity Name	Description and comments
14	Clock Time Changes	A change in the Time, e.g. a change from BST to GMT (or vice-versa).

3.17 ISD Entities Changed by the SVAA

The following entity is provided by the SVAA and is updated annually.

ISD Entity No.	Entity Name	Description and comments
M14	Master Settlement Timetable	Used by all Market Participants to give them notification of their Payment dates and the dates to process data for the SVA Agent.

3.18 Rarely Changed ISD Entities

The following entities are hardly ever changed as part of the Industry Standing Data process.

ISD Entity No.	Entity Name	Description and comments
21	Market Role	A code representing a Market Role that a Market Participant may take.
23	Settlement Period Duration	A period of N minutes, used in the BSC for Settlement purposes. The Settlement Period Id is unique within the Settlement Date.
43	Day Type	A two character code for the type or day e.g. Weekday, Saturday, Boxing Day etc.
44	Energisation Status	A one character code identifying the Energisation Status (either 'E' for Energised or 'D' for De-energised).
47	Measurement Quantity	A two character code that identifies the quantity that may be measured.
51	Settlement Type	The types of Settlement and reconciliation which can be performed for a Settlement Day.
M1	Market Segment	Identifies the Market Segment: Smart (S), Unmetered (U) or Advanced (A).
M2	Connection Type Indicator	Either Whole Current (W), Low Voltage with Current Transformer (L) High Voltage with Current transformer, Extra High Voltage with Current Transformer (E) or Unmetered (U)
M4	Load Shape Categories	A categorisation of Metering Systems by defined criteria e.g. Market Segment, Domestic or Non-domestic used for producing Load Shapes
M5	MHHS Consumption Component Classes	A categorisation of Metering Systems by defined criteria e.g. Market Segment, Consumption or Losses
M6	MHHS GSPG Scaling Weight	A weight which can be applied to the GSP Group Correction Factor to define to what degree it will be applied to a particular Consumption Component Class.
M15	Consent Granularity	Identifies the granularity of data that can be collected from a Metering System: Half-Hourly (H), Daily (D) or Monthly (M).
M17	Valid Energy Direction/ Domestic Premise Indicator /Consent Granularity	Identifies which Metering Systems can opt-out of providing Half-Hourly data.

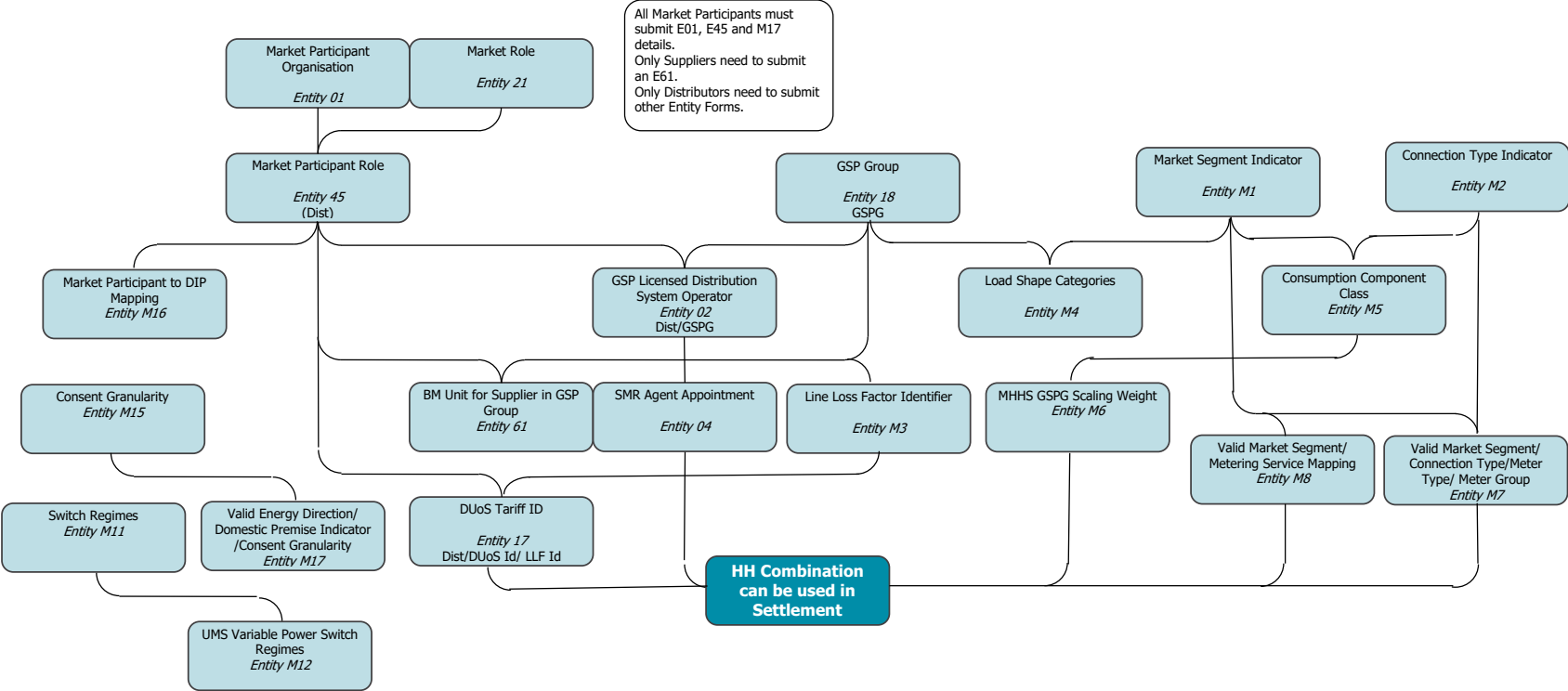
4 ISD ENTITY DIAGRAM

4.1 Introduction

The purpose of this diagram is to show the relationship of the most common data entities raised and held in Industry Standing Data.

The structure of the diagrams displays how records are positioned in a relationship format and should not be used for format checks or creating new records or profiles. The Participant should use existing information from their ISD records and Section 3 of this document which provides a valid check of the table entities needed to create an overall profile or new record.

4.2 Entity Diagram



Appendix A: Glossary

Term	Description
BM Unit	Balancing Mechanism (BM) Units are used as units of trade within the Balancing Mechanism. Each BM Unit accounts for a collection of plant and/or apparatus, and is considered the smallest grouping that can be independently controlled. As a result, most BM Units contain either a generating unit or a collection of consumption meters.
Clock Time Change	A change in the Date and Time or a change from BST to GMT or vice versa.
Connection Type	The level of connection to the Distribution Network e.g. Low Voltage (L)
Consent Granularity	The granularity of data that can be collected from a smart Meter e.g. Half-Hourly (H)
Consumption Component Class	Identifies the category of consumption. For example, metered or unmetered.
Day Type Id	An identifier for the type of Settlement Day.
Data Integration Platform	The infrastructure for interfaces under Market-wide Half Hourly Settlement.
DUoS Tariff Id	An identifier used to map Metering Systems to Distribution Use Of System Tariffs for network charging purposes.
Energisation Status	Identifies the Energisation status of the Metering System.
GSP Group	The identifier of a distinct electrical system, consisting of all or part of a distribution system owned and operated by a LDSO that is supplied from one or more Grid Supply Points for which the total supply into the GSP Group can be determined for each half hour. There are currently 14 GSP Groups in England, Scotland and Wales. In Scotland the equivalent term BSP (Bulk Supply Point) is used and this has more or less the same definition to that described for a GSP Group in England and Wales. For simplicity the England and Wales GSP Groups and Scottish BSP Groups are held in the same GSP Group table of ISD.
GSP Group Correction Scaling Weight	A weight which can be applied to the GSP Group Correction Factor to calculate how the GSP Group Factor will be applied to a particular consumption component class.
Licensed Distribution System Operator	The LDSO for a GSP Group, from the specified Effective From Settlement Date.
Line Loss Factor Id	The reference for a Line Loss Factor Id within a LDSO's system which applies to a group of Metering Systems.
Market Participant	The unique market wide reference for a Market Participant.
Market Participant Role	Identifies the role that a Market Participant performs in the market.
Market Role	The Valid Set of market roles, identifying a Market Participant's role. For example 'Supplier'.
ISD Version	Identifies the version of the Industry Standing Data publication.
Measurement Quantity	Identifies the quantity which may be measured. For example, consumption or generation.

Term	Description
Metering System	A Metering System is made up of items of Metering Equipment; voltage transformers, current transformers, Meters and Outstations, the wires and connections between each item and connections required to transfer metered data to the outside world (e.g. modems and communication lines).
Parent record and child record relationship	ISD Datasets that contain related data tables are represented as a parent/child relationship. When creating or updating information in these tables it will also affect the relevant parent/child record containing the same data.
Settlement	Calendar or Settlement activities specifying dates that files must be delivered to the SVA Agent for processing.
Settlement Day	The date on which energy is deemed to be used and must be later settled through Supplier Volume Allocation Settlement and Reconciliation.
Settlement Period	The reference for a Settlement period, unique within Settlement Date. Periods Ids are assigned sequentially to each period in local time day.
Settlement Type	The types of Settlement and reconciliation which can be performed for a Settlement Day.
SMR Agent Appointment	SMR Agent appointed to a specific GSP Group.
Valid Sets	Valid Sets are tables of information that define the discrete set of values allowable for certain data items and are used to check ISD against mis-specification or inconsistency.
Year	A valid Settlement year.

Need more information?

For more information please contact the **BSC Service Desk** at bscservicedesk@cgi.com or call **0870 010 6950**.