

NETA Central Services

Initial Settlement and Reconciliation Agency (ISRA)

Conceptual Process Model

Synopsis	This document describes the events and enquiries for the ISRA system.
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Approved by (Cognizant)	Project Manager

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1 Introduction

1.1 Purpose

This document [ICONMOD] describes all the events and the enquiries for the ISRA system.

The content is produced in accordance with the Logical Design Process Description [LDESPD]. It is derived from the requirements described in the Initial Settlement and Reconciliation Agency (ISRA) User Requirements Specification [ISRAURS] and where appropriate, from the data interfaces described in [DIS]. The Release 2 amendments are derived from the requirements described in the Invitation to Tender for Release 2 [ITTR2] as clarified in the Response to the ITT [RESPR2].

1.2 Scope

This document is one of the Logical Design stage deliverables and will be used as the basis for Physical Design of the ISRA system.

It should be read in conjunction with the following Logical Design documents:

- ISRA Logical Data Design [ILDATA], containing the following:
 - The Logical Data Model, which provides a detailed logical description of the data and its structure;
 - The Data Catalogue, which describes the data items for the system.
- ISRA Function Definition and User Catalogue [IFUNDEF], containing:
 - User Catalogue;
 - Function Definitions;

Common Processes (common within ISRA)

1.3 Structure of Document

This remainder of this document consists of the following sections:

- Section 2 contains the Event Descriptions, which describe the system events;
- Section 3 contains the Enquiry Descriptions, which describe the enquiries.

1.4 Amendment History

Version	Details
0.900	Issued for internal review
0.901	Issued to Pool for review
0.902	Issued for joint internal and Electricity Pool review
0.990	Issued for Electricity Pool Acceptance review Incorporates CRs: 22 (LCR022) 33 (LCR013) 38 (LCR018) 49 (LCR013)

Version	Details
	51 (LCR001) 52 (LCR011) 58 (LCR002) 59 (LCR003) 63 (LCR012) 88 (LCR014) 94 (LCR024) Incorporates Clarifications: 4, 5, 12, 17, 19, 20, 21, 23, 24, 28, 29, 31, 32, 33, 34, 39, 40, 41, 42, 45 Note: For the key functions I0016 Calculate Daily Profiles and I0029 Run SSR, Clarifications and Change Requests have been included in the Requirements Catalogue Ref. However this has only been done to assist the reader. The definitive set of Clarifications and Change Requests included in the document is defined by the Amendment History. Incorporates response to the Pool's review comments on Function Definitions v0.901 and Conceptual Process Model v0.901 Incorporates review changes from v0.902 internal review.
1.000	Issued as definitive release. Incorporates Clarifications: 51, 52, 53 Incorporates response to the Pool's review comments on ISRA Logical Design v0.990 Incorporates other minor changes.
1.001	Incorporates response to the Pool's review comments on ISRA Logical Design v1.000
1.100	Incorporates Change Request: CR371 (LCR047) CR346 (LCR049) Clarifications: 64, 69, 70, 83, 86, 88, 89, 90, 91, 95, 97, 99, 102, 104, 107, 108 Defects: 13, 108, 1000
2.000	Change Requests: CR175 (LCR061) CR382 (LCR056) Defects: 33, 473, 483, 536, 583, 696, 849, 999, 1018, 1065, 1067, 1068, 1071, 1112, 1113, 1283 Ors: 2067
3.000	Incorporates Pool Review comments on v2.000. This version is consistent with Release 1.1 of the ISRA Software.
3.001	Change Requests: CR458 (LCR076) This version is consistent with Release 1.2 of the ISRA Software.
3.500	Incorporates review changes from v3.001 internal review.
3.901	ISRA Release 2 (Package 1 only) for review
3.905	ISRA Release 2 (Package 1 only) for Pool review
3.906	ISRA release 2 (Package 1 only) incorporating Pool Comments

Version	Details
	Version includes amendments to release 2 functionality as specified in Pool CRS290v3
3.990	Incorporation of internal review comments, issued to Pool for Acceptance Review. Revision marks show all amendments since v3.000. ISRA Release 2 (Package 1 only).
3.991	Incorporates amendments made under Release 2 ISRA Package 2 to address change requests: CR180 part 1 CR258
3.992	Incorporates internal review comments on amendments made under Release 2 ISRA Package 2 to address change requests: CR180 part 1 CR258 Issued to Pool for review. Revision marks show amendments for Release 2 Package 2.
3.993	Incorporates Release 2 (Package 1) Pool Acceptance Review comments on version 3.990. Consistent with Pool CR290v4.
3.994	Incorporates Release 2 (Package 2) Pool Review comments on version 3.992.
3.995	Incorporates Pool comments on amendments made for Release 2 (Package 2) in version 3.994.
3.996	Incorporates LCR086 Incorporates initial design details of LCR097
3.997	Incorporates LCR097 design for internal review Incorporates LCR097 design for internal review
3.998	Incorporates Pool comments on amendments made for LCR097 in version 3.997regards
3.999	Incorporates LCR077 for internal review
4.000	Interim version. Incorporates all R2 changes, as a merger of the separate designs for LCR077 and LCR086. This version does not include documentation defects raised since the acceptance of R2 designs. These defects will be included in the next version which will also include a merger with R1.3 changes made in version 5.000. Change bars show amendments since version 3.995.
5.000	Incorporates review changes from v3.500 external review. This version is consistent with Release 1.3 of the ISRA Software.
5.990	Incorporates Release 2 changes (copied from interim version 4.000) OR 2605 (Pool defect 1550) OR 2641 (Pool defect 1559) Change bars show amendments since v5.000.
6.000	Incorporating review comments from v5.990 external review. OR 2682 (Pool defect 1628) This version is consistent with Release 2.0 of the ISRA Software.
6.100	Amendments for OR2433, OR2686
6.101	Amendments for OR2703, OR2742, LCR099 and Clarifications (028AAW)
6.102	Amendments for OR2767
6.990	Issued version for Pool review incorporating TA2000 Changes: Package 1: LCR113 (SIR R577) LCR125 (SIR R669)

Version	Details
	LCR131, LCR131/3 (SIR R918) and Clarification: 001ldr30 (v3.0) Package 2: LCR85/2 (SIR R293) LCR88/2 (SIR R574) LCR104 (SIR R294) LCR111/2 (SIR R887) LCR137 (SIR R887) LCR124/2 (SIR R295) LCR126 (SIR R728) and Clarification: 002ldr50 Package 2 (MDD) LCR128/1, LCR128/3 (SIR R1116) and Clarifications: LCR136, letter ref. 294SCL01, 002ldr50 OR 2855 (Pool defect 144), OR 2868 (Corrections to TA2000 Logical Design documentation)
6.991	Incorporating Pool review comments. Updated the Project and Line Managers.
7.000	Authorised version consistent with release 5.0.0 of the ISRA software. URS Baseline updated in line with CCN095.
7.001	Incorporating LCR108 (SIR R1724).
7.990	Issued to the Pool for review.
8.000	Authorised version consistent with release 5.1.0 of the ISRA software.
8.100	Incorporating LCR150, LCR151 and LCR155 (SIR R2215).
8.990	Incorporating internal review comments. Issued to Pool for review.
8.991	Incorporating Pool review comments. OR 2969 (SIR R1724) to correct typing errors.
8.992	Incorporating Pool review comments.
8.993	Incorporating Pool review comment.
9.000	Authorised version.
9.100	Incorporating LCR159 (SIR R2327): Multiple BM Unit support for ISRA/SVAA.
9.990	Issued to the Pool for review.
9.991	Incorporating Pool review comments.
9.992	Incorporating OR2991 (LLFCs into ISRA from D0269). Incorporating Pool review comments.
10.000	Authorised version.
10.990	Incorporating LCR166 (Further changes for SIR R2327). Updated copyright holder.
10.991	Incorporating Pool review comments.
11.000	Authorised version.
11.001	Incorporating LCR162 & LCR172 (SIR R2180), LCR173 and Ors 3048 & 3052.
11.002	Incorporating Pool review comments for SIR R2180.
11.003	Incorporating LCR174 & OR 3118
11.004	Incorporating ELEXON review comments for LCR174.

Version	Details
11.005	Incorporating LCR199
11.006	Incorporating internal review comments for LCR199.
11.990	Issued to ELEXON for review
11.991	Incorporating ELEXON review comments
11.992	Updated document template
11.993	Incorporating LCR191/5
11.994	Incorporating internal review comments for LCR191/5
11.995	Incorporating LCR215/3 Issued to ELEXON for review
11.996	Updated post ELEXON review
12.000	Authorised version
12.001	Updated for P81 (LCR203/7) Document Template Updated
12.002	Incorporating internal review comments for LCR203/7 (P81).
12.003	Further updates after internal review comments for LCR203/7 (P81).
12.004	Updated from ELEXON's review
13.000	Authorised version
13.001	Incorporating BETTA
13.002	Updated following internal review
13.990	Issued to ELEXON for review
13.991	Updated from ELEXON's review Incorporating OR3425
13.992	Incorporating OR3442
14.000	Authorised Version
15.000	Updating document references
15.990	Incorporating LCR235 (Disable the ability for a P0214 file to be loaded into SVAA)
16.000	Authorised Version
16.001	Updated for Changes CP850 & CP947 for Nov. '04 release. Issued to ELEXON for review.
16.002	Added feedback from ELEXON. Issued to ELEXON for review.
17.000	Authorised version
18.000	Incorporating changes for: CP929 Removal of performance reports from SVAA; CP1001 Improvements to facilitate reporting and improve usability; CP1093 Failure of suppliers to submit valid standing data relationships.
18.990	Incorporating changes for: CP1209 Inclusion of MSID Counts on the GSP Group Consumption Totals Report
19.000	Authorised version
19.900	Incorporating ISIS Enhancements changes
19.990	Updated following internal review. For ELEXON review.
19.991	Incorporating ELEXON review comments
20.000	Authorised version

Version	Details
20.010	Updated document classification
20.900	Incorporating INC34971 CP1209 Defect
21.00	Authorised version
21.1	P253 Changes Nov 11 Release.
21.2	P253 Address review comments.
21.5	P253 Reapply 21.2 changes.
22.0	P253 Final version
23.0	June 2014 Release – EMR ¹ Final Version
23.1	P305 & P300 - Updated for November 2015 Release changes
23.2	Incorporated the ELEXON review comments

Table 1: Amendment History**1.5****References**

Information	Details
Title:	This document
Author:	Cognizant
Title:	ISRA Function Definition and User Catalogue
Author:	Cognizant
Title:	ISRA Logical Data Design
Author:	Cognizant
Title:	SVA Data Catalogue Volume 1: Data Interfaces
Author:	Cognizant
Title:	Logical Design Process Description
Author:	Cognizant
Title:	SVAA User Requirements Specification
Author:	ELEXON
Title:	Invitation to Tender-Release 2 of Pool Software
Author:	ELEXON
Title:	Response to ITT for Release 2
Author:	ELEXON

Table 2: References**1.6****Abbreviations**

AA	Annualised Advance
AFYC	Average Fraction of Yearly Consumption
BETTA	British Electricity Trading and Transmission Arrangements
BM	Balancing Mechanism
BMUIGG	BM Unit In GSP Group

¹ EMR changes will be directed by the Secretary of State in summer 2014

BSC	Balancing and Settlement Code
BUSTEV	BM Unit Supplier Take Energy Volume
BUSGDD	BM Unit SVA Gross Demand Data
CCC	Consumption Component Class
CDCA	Central Data Collection Agent
CTCU	Central Tele-switch Control Unit
DA	Data Aggregator
DC	Data Collector
DPP	Daily Profile Production
DRP	Data Retention Period
DUoS	Distribution Use of System
EPD	Elementary Process Description
EAC	Estimate of Annual Consumption
GMT	Greenwich Mean Time
GSP	Grid Supply Point
HH	Half-Hourly
HHDA	Half-Hourly Data Aggregator
ISR	Initial Settlement and Reconciliation
ISRA	Initial Settlement and Reconciliation Agency
LDM	Logical Data Model
LDSO	Licensed Distribution System Operator
LLF	Line Loss Factor
LLFC	LLF Class
MDD	Market Domain Date
MDDA	MDD Agent
MSID	Metering System ID
NETA	New Electricity Trading Arrangements
NHH	Non-Half-Hourly
NHHDA	Non-Half-Hourly Data Aggregator
NPG	Non-Pooled Generation
PFA	Pool Funds Administrator
PPR	Profile Production Run
SAA	Settlement Administrator Agent
SPM	Supplier Purchase Matrix
SSA	Settlements System Administrator

SSC	Standard Settlement Configuration
SSR	Supplier Settlement and Reconciliation
SVA	Supplier Volume Allocation
SVAA	SVA Agent
TPR	Time Pattern Regime
TUoS	Transmission Use of System
UTC	Universal Time Clock
VMRPC	Valid Measurement Requirement Profile Class
VSCPC	Valid combinations of Settlement Configurations and Profile Classes
<u>DPM</u>	<u>Disconnection Purchase Matrix</u>
<u>DCE</u>	<u>Demand Control Event</u>

2 Event Descriptions

This section lists and describes the system events that cause an update to the data held within the ISRA system.

2.1 Actual Noon Temperature Entered

2.1.1 Event Description

The Actual Noon Temperature for a combination of Settlement Day and GSP Group are entered onto the system. The Noon Effective Temperature is then derived from this data and the data for the two previous days using the following equation:

$$NET_d = 0.57AT_d + 0.28AT_{d-1} + 0.15AT_{d-2}$$

Where NET_d is the Noon Effective Temperature for a Settlement Day, AT_d is the Actual Noon Temperature for the same day and AT_{d-1} is the Actual Noon Temperature for the day previous to the Settlement Day etc.

If no Actual Noon Temperatures are available for the previous 2 days to the actual Settlement Date, the temperature information can be entered but no calculation of the Noon Effective Temperature is carried out.

An analogous procedure is then performed to derive the Noon Effective Temperatures for the following two Settlement Days since these figures both rely on Actual Noon Temperature for Settlement Day (d).

IC001 Update On-Line Audit log invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked.

2.1.2 Event Input Data

Actual Noon Temperature

Settlement Date

2.1.3 Function Cross References

I0011 Enter Temperature

2.1.4 Event Frequency

Low Volume

2.2 Aggregated Half Hour Data Available

2.2.1 Event Description

A Half-Hourly Data Aggregator makes a file of data available for a particular GSP Group, and Settlement Day.

Performs data marshalling of aggregated half hourly meter data from the Half Hourly Data Aggregator. For files containing data for Settlement Days before the start of the NETA, the received data must be split by Supplier and by the following Consumption Component Classes:

Actual/Estimated half hourly metered consumption:

- metered consumption;

- metered Non-Pooled Generation;
- Half Hourly unmetered consumption.

Actual/Estimated line losses attributed to:

- metering with site specific Line Loss Factors:
 - metered consumption;
 - metered Non-Pooled Generation.
- metering without site specific Line Loss Factors:
 - metered consumption;
 - metered Non-Pooled Generation.
- Half Hourly unmetered consumption.

For files containing data for Settlement Days from the start of the NETA the received data can be split in one of two ways:

- by Supplier and Consumption Component Class;
- by Supplier, BM Unit and Consumption Component Class.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- 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 existing and correct GSP Group(s).
- The data for Scottish GSP group(s) will not be loaded for the settlement days prior to the BETTA Start Date.
- 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, and the file contains data for a Settlement Code for which data updates are not allowed, an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then an appointment is created for the Data Aggregator and an association created with the Data Aggregator for each Supplier in the file on the Settlement Date / GSP Group, together with a Supplier in GSP Group association for each Supplier if one does not already exist. The details of each new association are logged in the Data Load Standing Data Update report. The logic behind the creation of the Data Aggregator Appointments and Supplier associations is detailed in case 3 of the 'Standing Data Update Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.
- 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, and the file

contains data for a Settlement Code for which data updates are not allowed, then an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then any unexpected Suppliers in the file will have an association created with the Data Aggregator on the Settlement Date / GSP Group, together with a Supplier in GSP Group association for each Supplier if one does not already exist. The details of each new association are logged in the Data Load Standing Data Update report. The logic behind the creation of the associations is detailed in case 2 of the 'Standing Data Update Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.

- 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. If not, and the file contains data for a Settlement Code for which data updates are not allowed, then an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then any missing Suppliers in the file will have their association with the Data Aggregator on the Settlement Date / GSP Group removed. The details of any association which is removed are logged in the Data Load Standing Data Update report. The logic behind the removal of the associations is detailed in case 1 of the 'Standing Data Update Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.
- That for files containing data for Settlement Days from the start of the NETA, the data is not split in both of the permitted ways within the same file. If the data is split in both ways an error exception entry will be written and the file rejected.
- That for files containing data for Settlement Days from the start of the NETA, each Supplier in the file has a Default BM Unit for Supplier in GSP Group defined for the Supplier and GSP Group combination. If no Default BM Unit for Supplier in GSP Group is defined, a warning exception report entry is generated. However, the file will not be rejected because of this i.e. the data is loaded.
- That for files containing data for Settlement Days from the start of the NETA which has been split by Supplier, BM Unit and Consumption Component Class, each BM Unit to which consumption or line loss has been allocated is valid for the Supplier and GSP Group (i.e. an instance of BM Unit for Supplier in GSP Group exists for the Settlement Day). If the BM Unit is not valid for the Supplier and GSP Group, a warning exception report entry is generated. However, the consumption or line loss is still allocated to the invalid BM Unit and the file will not be rejected because of this i.e. the data is loaded.
- The data is for valid Half Hourly Consumption Component Classes (NB: If an invalid Consumption Component Class is found an error is logged and the file processing terminates).

- No SSR Run has been done for the Settlement Date and Settlement Code of the file. If one has then a warning exception entry will be generated but this does not prevent the file from being loaded.

Each file is validated and loaded separately. If the data is successfully validated, the logical entity Supplier Data Aggregation is first created. This is the master entity created once per Supplier, Data Aggregator and GSP Group combination. For each occurrence of Supplier Data Aggregation, the logical detail entity Aggregated Supplier DA Period Consumption is then created. For Settlement Days before the start of the NETA, the entity is created for each Consumption Component Class and each Settlement Period. For Settlement Days from the start of the NETA, the entity is created for each BM Unit, each Consumption Component Class and each Settlement Period. The entity contains details of aggregated HH metered consumption or Line Loss. The Consumption Component Class determines what the Aggregated Supplier Consumption or Aggregated Line Loss represent. For Settlement Days from the start of the NETA the BM Unit attribute will be null if the consumption or line loss was not allocated to a BM Unit in the file (i.e. the data was only split by Supplier and Consumption Component Class).

In addition, the file management database is updated to indicate the load is successful, and a message is written to a log to indicate that the load is successful.

If no errors are found, the data is loaded into the database.

If validation is not successful, the file management database is updated to show the load has failed, and a message written to a log to indicate the load has failed. An exception report is generated indicating all validation errors and warnings.

Standing Data Update Logic

In case 1 below, 'association' refers to an instance of the entity Data Aggregator in GSP Group.

In cases 2 and 3 below, 'association' refers to an instance of the entity Data Aggregator in GSP Group and/or the entity Supplier in GSP Group.

In each case, before any standing data updates are made, the load process will ensure that there is no SSR Run in progress or waiting to start which is using data that will be altered by the standing data update. If there is a run in progress or waiting to start then the file load will wait until this has finished before updating standing data.

Case 1. Data Missing for a Supplier

Suppliers in the file will have their association with the Data Aggregator on the Settlement Date / GSP Group removed. The logic for doing this depends upon the Settlement Date D to which the file relates and the Effective From Settlement Date (EFSD) X_1 and the Effective To Settlement Date (ETSD) X_2 of the existing association:

If $X_1 < D < X_2$, the existing association is closed off (i.e. $ETSD = D-1$), and a new association is created spanning the period from $D+1$ to X_2 .

If $X_1 = D < X_2$ (i.e. the existing association starts on the Settlement Date in question), the existing occurrence is deleted, and a new association is created spanning the period from $D+1$ to X_2 .

If $X_1 < D = X_2$ (i.e. the existing association ends on the Settlement Day in question), the existing association is closed off (i.e. ETSD = D-1), but no new association is created.

If $X_1 = D = X_2$ (i.e. a one-day association), the existing association is removed, and no new associations are created.

Note that the above processing will not remove the parent Supplier in GSP Group entity for a Supplier, even if it's left without any Data Aggregator associations for any Settlement Date and GSP Group.

Case 2. Data for an Additional Supplier

Suppliers in the file will have an association with the Data Aggregator on the Settlement Date / GSP Group created for the Settlement Date D to which the file relates. The Supplier will also be appointed to the GSP Group (i.e. have an instance of the entity Supplier in GSP Group created) for the Settlement Date / GSP Group to which the file relates if it is not already appointed.

If there is an association ending on day D-1, but not one starting on day D+1, the one ending on day D-1 is updated to end on Day D.

If there is an association ending on day D-1, and another starting on day D+1, the second association is removed, but its ETSD is transferred to the first association.

If there is an association starting on day D+1, but not one ending on day D-1, the one starting on day D+1 is replaced with one starting on day D.

If there isn't an association ending on day D-1 or starting on day D, a one-day association is created for day D.

Case 3. Unexpected Data Aggregator File Received

The logic for this is the same as for case 2 i.e. associations are created between the Data Aggregator and each Supplier in the file for the Settlement Date / GSP Group to which the file relates. Each Supplier will also be appointed to the GSP Group (i.e. have an instance of the entity Supplier in GSP Group created) for the Settlement Date / GSP Group to which the file relates if it is not already appointed.

IC002 Update Off-Line Audit Log is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception.

IC010 Report Data Load Standing Data Update.

2.2.2 Event Input Data

Data Aggregator Id

Data Aggregator Run Number

GSP Group

Settlement Code

Settlement Date

2.2.3 Function Cross References

I0017B - Load Aggregated Half Hour Data

2.2.4 Event Frequency

Once per Half-Hourly Data Aggregator per Settlement date and code

2.3 Aggregator Assigned To GSP Group**2.3.1 Event Description**

A Supplier / GSP Group Entry combination is associated with a Data Aggregator. The user adds a new Supplier/ GSP Group association by entering a GSP Group ID, Supplier Id, Effective From and Effective To Settlement Dates.

When the user attempts to link a Data Aggregator to an existing Supplier in GSP Group, then the link should only be successful if the Effective date range of the Data Aggregator In GSP Group falls within the date range of Supplier In GSP Group.

IC001 Update On-Line Audit log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.3.2 Event Input Data

Data Aggregator Id

Data Aggregation Type

Effective From Settlement Date {DAIGG}

Effective To Settlement Date {DAIGG}

GSP Group Id

Supplier Id

2.3.3 Function Cross Reference

I0010 Specify Aggregator for GSP Group

2.3.4 Event Frequency

Low Volume

2.4 Aggregator Assignment Deleted**2.4.1 Event Description**

A Data Aggregator link to a Supplier / GSP Group combination is physically deleted.

IC003 Authorise & Produce Standing Data Audit Report invoked for the Effective From Settlement Date of the Data Aggregator in GSP Group link. If there has been a Final Initial Settlement Run for this date then the deletion must be authorised.

IC001 Update On-Line Audit log invoked.

2.4.2 Event Input Data

Data Aggregation Type

Data Aggregator Id

Effective From Settlement Date {DAIGG}

GSP group Id

Supplier Id

2.4.3 Function Cross Reference

I0010 Specify Aggregator for GSP Group

2.4.4 Event Frequency

Low Volume

2.5 Archive SSR and DPP Daily Data**2.5.1 Event Description**

All data up to and including the Settlement Date specified by the user is archived providing Final Reconciliation has been performed for these Settlement Dates. This is achieved using the following sequence of steps. Only a single copy of non Settlement Date specific data is taken.

2.5.1.1 Archive Settlement Data

All settlement data specific to a settlement day and falling in the archive period is archived and physically deleted from the system.

This consists of:

- Aggregated Supplier DA Period Consumption
- Aggregated Supplier Period Consumption
- Aggregated BM Unit Period Consumption
- Data File
- GSP Group Take
- GSP Grp Correction Scaling Factor used in SSR Run
- Period Supplier Purchase
- Profiled SPM
- Settlement Period LLF used in SSR Run
- Settlement Period Prices
- SSA Settlement GSP Group
- SSA Settlement Run
- SSR Run
- SSR Run GSP Group
- SSR Run GSP Group Period

- Supplier Data Aggregation
- Supplier Data Aggregation Used In SSR Run
- Supplier Purchase Matrix

2.5.1.2 Archive Profile Data

All profiling data specific to a settlement day and falling in the archive period is archived and physically deleted from the system.

This consists of:

- Basic Period Profile Coefficient
- Combined Period Profile Coefficient
- Daily Profile Coefficient
- Daily Profile Parameters
- Period Profile Class Coefficient
- Period Time Pattern State
- Profile Production Run
- Tele-switch Interval
- Tele-switch Contact Interval

2.5.1.3 Archive Profile Set Data

All profiling data relating to *profile sets* which are not effective after the archive period are archived and deleted from the system.

This consists of:

- GSP Group Average EAC
- Profile Regression Equation Set
- Profile Set
- Period Regression Equation
- Regression Coefficient

2.5.1.4 Copy Still Effective Profile Set Data

All profiling data relating to *profile sets* which are effective during and after the archive period are copied to the archive, but not deleted from the system.

Entity list as for Archive Profile Set Data

2.5.1.5 Archive Standing Data

All standing data which is not effective after the archive period is archived and deleted from the system.

This consists of:

- Average Fraction Of Yearly Consumption
- Average Fraction Of Yearly Consumption Set
- Clock Time Change

- Data Aggregator In GSP Group
- Distributor in GSP Group
- GSP Group Correction Scaling Factor
- Line Loss Factor Class
- Profile
- Settlement
- Settlement Day
- Settlement Period
- Settlement Period Line Loss Factor
- Supplier In GSP Group
- Valid Measurement Requirement Profile Class
- Valid Settlement Configuration Profile Class
- BM Units for Supplier in GSP Group
- Non-Half Hourly BM Unit Allocation

2.5.1.6 Copy Still Effective Standing Data

All standing data which is effective during and after the archive period are copied to the archive, but not deleted from the system.

List of entities as per Archive Standing Data list above.

2.5.1.7 Copy Non Settlement Date Data

All standing data which does not have an effective settlement dates is copied to the archive but not deleted from the system.

This consists of:

- Clock Interval
- Clock Time Pattern Regime
- Consumption Component Class
- Data Aggregator
- Data Collector
- Data Collector in GSP Group
- Data File
- Date Block
- Day of the Week
- Day Type
- Distributor
- File Location
- GSP Group

- GSP Group Distributor
- Market Participant
- Market Participant Role
- Market Role
- Measurement Quantity
- Measurement Requirement
- Profile Class
- Regression Coefficient Type
- Settlement Class
- Settlement Type
- Standard Settlement Configuration
- Supplier
- System Configuration
- Tele-switch Contact
- Tele-switch Contact Interval
- Tele-switch Contact Rule
- Tele-switch Register Rule
- Tele-switch Time Pattern Regime
- Time Block
- Time Pattern Regime

2.5.1.8 This ensures that the archive data set contains all data necessary to provide an audit record for the archived days. It also contains sufficient data to re-run a settlement if the archive is restored. Archive & Copy Files

All input and output files specific to a settlement day and falling in the archive period are archived and physically deleted from the system.

All input and files which do not relate directly to a Settlement Date are deleted from the system if their creation time falls within the archive period. Record Archive Log Entry.

An entry is added to the *archive log* which records the settlement dates included in the archive, the calendar data on which the archive was performed, the identity of the user requesting the archive, the version of the ISRA software in use, and the identity of the archive file(s) produced.

The number of records removed from the database, by table and in total, along with a list of all the files deleted during archiving is recorded in an exception log.

Note: Whenever the underlying software such as the operating system or Oracle is updated, a full system backup must be taken. This backup should be retained for at least seven years to support the recovery from archive. This backup is a procedural issue for the ISR Agent.

2.5.2 Event Input Data

Settlement Date

2.5.3 Function Cross References

I0015 Archive ISRA Data

2.5.4 Event Frequency

Low Volume

2.6 Assignment to Profile Class Updated**2.6.1 Event Description**

The Effective To Settlement Date {VSCPC} on an existing association between a Standard Settlement Configuration and a Profile Class is updated.

If the Profile is a Switched Load type, the Switched Load Indicators of the associated Valid Measurement Requirement Profile Class can also be amended.

IC001 Update On-Line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.6.2 Event Input Data

Standard Settlement Configuration Id

Profile Class Id

Effective From Settlement Date {VSCPC}

Effective To Settlement Date {VSCPC}

Switched Load Indicator

2.6.3 Function Cross References

I0032 Specify Profile Class and Configuration Combinations

2.6.4 Event Frequency

Low Volume

2.7 BM Unit for Supplier and GSP Group Deleted**2.7.1 Event Description**

The user selects a Supplier and a GSP Group, and then selects an existing association to a BM Unit to be removed. The instance of BM Unit for Supplier in GSP Group is physically deleted along with any dependent occurrences of Non-Half Hourly BM Unit Allocation. Any GSP Group and Supplier combination can be chosen, not just those Suppliers trading in a GSP Group.

It is possible to delete more than one BM Unit for Supplier in GSP Group before the committing the changes.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {BMUIGG} is a date that has had a Final Initial Settlement Run.

2.7.2 Event Input Data

BM Unit Id

Effective From Settlement Date {BMUIGG}

GSP Group Id

Supplier Id

2.7.3 Function Cross Reference

I0046 Define BM Units For Supplier In GSP Group

2.7.4 Event Frequency

Low Volume

2.8 BM Unit for Supplier and GSP Group Entered

2.8.1 Event Description

A BM Unit is entered for a Supplier in a GSP Group. The user enters the BM Unit Id, GSP Group Id, Supplier Id, Default BM Unit Flag, the Effective From Settlement Date and optionally the Effective To Settlement Date. Any GSP Group and Supplier combination can be chosen, not just those Suppliers trading in a GSP Group.

It is possible to enter more than one BM Unit for Supplier in GSP Group before committing the changes. Once the new data is committed the following validation is performed.

The BM Unit for Supplier in GSP Group Effective Dates will be checked to ensure that they do not overlap with any other instances with the same BM Unit Id. The BM Unit can be associated with more than one Supplier and GSP Group combinations, but can be associated with only one combination on each Settlement Day.

The Effective Date ranges of the Default BM Units for a combination of Supplier and GSP Group do not overlap.

The Effective From Settlement Date of the BM Units must be on or after the BETTA start date for Scottish GSP Groups.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {BMUIGG} is a date that has had a Final Initial Settlement Run.

2.8.2 Event Input Data

BM Unit Id

Default BM Unit Flag

Effective From Settlement Date {BMUIGG}

Effective To Settlement Date {BMUIGG} (O)

GSP Group Id

Supplier Id

2.8.3 **Function Cross Reference**

I0046 Define BM Units For Supplier In GSP Group

2.8.4 **Event Frequency**

Low Volume

2.9 **BM Unit for Supplier and GSP Group Updated**

2.9.1 **Event Description**

The user selects a Supplier and a GSP Group, and then selects an existing association to a BM Unit to be updated. Any GSP Group and Supplier combination can be chosen, not just those Suppliers trading in a GSP Group. The user may change the BM Unit Id, GSP Group Id, Supplier Id, Effective From Settlement Date, Effective To Settlement Date and the Default BM Unit Flag. The user specifies the Effective To Settlement Date on which the BM Unit's association with a Supplier in a GSP Group finishes.

Updates to the BM Unit Id, GSP Group Id, Supplier Id and Effective From Settlement Date are prohibited if there exists a dependent occurrence of Non-Half Hourly BM Unit Allocation (i.e. the combination of BM Unit, GSP Group, Supplier and Effective From Settlement Date have been allocated to a Valid Settlement Configuration Profile Class).

It is possible to make more than one update before committing the changes. Once the updates are committed the following validation is performed.

Updates to the Effective To Settlement Date are not permitted if the effective to date entered is earlier than the effective to date of a dependent occurrence of Non-Half Hourly BM Unit Allocation.

Updates to the Effective From Settlement Date are not permitted if the effective from date entered is earlier than the BETTA start date for Scottish GSP Groups.

The Effective Date ranges of the BM Unit for Supplier in GSP Group data will be checked to ensure that they do not overlap with any other instances with the same BM Unit Id. The Effective Date ranges of the Default BM Unit for Supplier in GSP Group data will be checked to ensure that they do not overlap with any other BM Units with the same Supplier and GSP Group combination having the Default BM Unit Flag value set to TRUE.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {BMUIGG} is a date that has had a Final Initial Settlement Run.

2.9.2 **Event Input Data**

BM Unit Id

Default BM Unit Flag

Effective From Settlement Date {BMUIGG}
Effective To Settlement Date {BMUIGG} (O)
GSP Group Id
Supplier Id

2.9.3 **Function Cross Reference**

I0046 Define BM Units For Supplier In GSP Group

2.9.4 **Event Frequency**

Low Volume

2.10 **BM Unit Registration Data Loaded**

2.10.1 **Event Description**

A file containing BM Unit Registration Data is loaded.

The incoming data will be validated to ensure the following:

- Physical integrity of the file using the checksum.
- The data is from the Market Domain Data Agent.

If either of these conditions is not satisfied the data file is rejected. The file management database is updated to show that the load has failed and a message is written to a log to indicate that the load has failed. An Exception Report is generated for the SVA Agent.

If the file passes this validation it is processed. BM Unit Registration Data which is not already defined on the system is loaded. BM Unit Registration Data which is already present on the system is updated. Updates are permitted to the following (subject to the validation detailed below):

- GSP Group Id
- Supplier Id
- BM Unit for Supplier in GSP Group Effective To Settlement Date {BMUIGG}
- Default Flag

The following validation is applied as the file is processed:

- The GSP Group Id is valid;
- For the Scottish GSP Groups, the effective from settlement dates of the BM Units must be on or after the BETTA start date;
- The Supplier Id is valid;
- Updates to the GSP Group Id and Supplier Id are prohibited if there exists a dependent occurrence of Non-Half Hourly BM Unit Allocation (i.e. the combination of BM Unit, GSP Group, Supplier and Effective From Settlement Date have been allocated to a Valid Settlement Configuration Profile Class). An update which fails for this reason will cause an error

message to be logged in the Exception Report. Processing will continue, but the load will fail and no changes will be applied to the SVAA system;

- The BM Unit for Supplier in GSP Group Effective From Settlement Date {BMUIGG} is not greater than the BM Unit for Supplier in GSP Group Effective To Settlement Date {BMUIGG}.

Any data failing this validation will cause an error to be logged in the Exception Report at the appropriate level (e.g. an invalid Supplier will only cause one exception to be logged, not one exception for each BM Unit associated with that Supplier) and the invalid data rejected. The file load will fail, but processing will continue to identify further errors.

Any new BM Unit Registration Data or any amendments to existing BM Unit Registration Data which affect a Settlement date for which a Final Initial Settlement Run has occurred must be authorised and, if successful, will generate a Standing Data Audit report. This excludes BM Unit for Supplier in GSP Group Effective To Settlement Date amendments to a date after the most recent Final Initial Settlement Run. Data which fails this validation will cause an error to be logged in the Exception Report. The processing of the file will continue, with appropriate messages written to the Exception Report. However, no changes will be applied to the SVAA system.

Once the data in the file has been processed, the following validation is applied:

- Any BM Unit Registration Data which is defined on the system but not contained in the file will be logged in the Exception Report as a warning at the appropriate level. Processing will continue and this will not cause the file load to fail;
- The effective date range of any BM Unit for Supplier in GSP Group does not overlap with any other instance of a BM Unit for Supplier in GSP Group with the same BM Unit Id. Data which fails this validation will be logged in the Exception Report as an error. Processing will continue but no changes will be applied to the SVAA system;
- The Effective Date ranges of the Default BM Units for a combination of Supplier and GSP Group do not overlap;
- Each BM Unit for Supplier in GSP Group effective date range must cover the effective date range of any dependent occurrence of Non-Half Hourly BM Unit Allocation. Data which fails this validation will be logged in the Exception Report as an error. Processing will continue but no changes will be applied to the SVAA system.

Subject to the validation above, the data changes are then applied to the SVAA system.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.10.2 Event Input Data

Market Participant Id
Market Participant Role Code
File Creation Timestamp

2.10.3 Function Cross References

I0048 Load BM Unit Registration Data

2.10.4 Event Frequency

Low Volume

2.11 Clock Change Deleted**2.11.1 Event Description**

A clock change for a Settlement Day is physically deleted.
IC003 Authorise & Produce Standing Data Audit Report invoked.

2.11.2 Event Input Data

Change Date

2.11.3 Function Cross References

I0003 Define Calendar

2.11.4 Event Frequency

Low Volume

2.12 Clock Change Entered**2.12.1 Event Description**

A clock change for a Settlement Day is defined, consisting of the GMT Time at which the time change occurs and the local time after the change.
IC003 Authorise & Produce Standing Data Audit Report invoked.

2.12.2 Event Input Data

Change Date
GMT Time
Post Change Local Time

2.12.3 Function Cross References

I0003 Define Calendar

2.12.4 Event Frequency

Low Volume

2.13 Clock Change Updated**2.13.1 Event Description**

A clock change for a Settlement Day is updated.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.13.2 Event Input Data

Change Date

GMT Time

Post Change Local Time

2.13.3 Function Cross References

I0003 Define Calendar

2.13.4 Event Frequency

Low Volume

2.14 Clock Interval Deleted**2.14.1 Event Description**

A Clock Interval associated with a Time Pattern Regime is physically deleted.

If the Clock Interval being deleted is linked to a Time Pattern Regime which has been used in an SSR Run then the deletion must be performed by an authorised user. To this end, IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date of any associated Valid Measurement Requirement Profile Class instances.

2.14.2 Event Input Data

Time Pattern Regime Id

Day of the Week Id

End Day

End Month

Start Time

Start Day

Start Month

2.14.3 Function Cross References

I0040 Define Time Pattern Regimes

2.14.4 Event Frequency

Low Volume

2.15 Clock Interval Entered**2.15.1 Event Description**

A Clock Interval is entered for a clock switched Time Pattern Regime.

If the Clock Interval being entered is linked to a Time Pattern Regime which has been used in an SSR Run then the entry must be performed by an authorised user. To this end, IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date of any associated Valid Measurement Requirement Profile Class instances.

2.15.2 Event Input Data

Time Pattern Regime Id

Day of the Week Id

End Day

End Month

Start Time

End Time

Start Day

Start Month

2.15.3 Function Cross References

I0040 Define Time Pattern Regimes

2.15.4 Event Frequency

Low Volume

2.16 Data Aggregator Deleted**2.16.1 Event Description**

A set of Data Aggregators and associated Supplier / GSP Group assignments are deleted. The Data Aggregator is logically deleted the assignments are physically deleted.

If Data Aggregation data has been loaded for this Data Aggregator then a warning is displayed.

IC001 Update On-Line Audit log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked for the earliest Effective From Settlement Date of the Data Aggregator in GSP Group links. If there has been a Final Initial Settlement Run for this date then the deletion must be authorised.

2.16.2 Event Input Data

Data Aggregator Id

2.16.3 Function Cross Reference

I0010 Specify Aggregator for GSP Group

2.16.4 Event Frequency

Low Volume

2.17 Data Aggregator Entered**2.17.1 Event Description**

A Data Aggregators is entered. Data Aggregator Id, Data Aggregator Name will be specified for the Data Aggregator.

IC001 Update On-line Audit Log invoked.

2.17.2 Event Input Data

Data Aggregator Id

Data Aggregator Name

2.17.3 Function Cross Reference

I0010 Specify Aggregator for GSP Group

2.17.4 Event Frequency

Low Volume

2.18 Data Aggregator Updated**2.18.1 Event Description**

A Data Aggregators and associated GSP groups are updated. The user is permitted to amend the Data Aggregator Name and the Effective To Dates of the Supplier/GSP Group association.

If the Data Aggregator/Supplier/GSP Group association's Effective To Settlement Date is updated and Data Aggregator data has been loaded which now falls outside the effective date range of the link then a warning is displayed.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked if the dates of the Supplier / GSP Group association are amended.

2.18.2 Event Input Data

Data Aggregator Id

Data Aggregator Name

Data Aggregation Type

Effective From Settlement Date {DAIGG}

Effective To Settlement Date {DAIGG}

GSP Group Id

Supplier Id

2.18.3 Function Cross Reference

I0010 Specify Aggregator for GSP Group

2.18.4 Event Frequency

Low Volume

2.19 Data Collector Appointed to GSP Group**2.19.1 Event Description**

A Data Collector is appointed to a GSP Group.

The Data Collector in GSP Group Effective Dates will be checked to ensure that they do not overlap with any other instances of the link between this GSP Group and Data Collector.

IC001 Update On-line Audit Log is invoked.

2.19.2 Event Input Data

Data Collector Id

GSP Group Id

Effective From Date {DCIGG}

Effective To Date {DCIGG}

2.19.3 Function Cross References

I0009 Specify Data Collector for GSP Group

2.19.4 Event Frequency

Low Volume

2.20 Data Collector Appointment Deleted**2.20.1 Event Description**

The user selects a Data Collector and selects an existing link to a GSP Group to be removed. The Instance of Data Collector in GSP Group is physically deleted.

IC001 Update On-line Audit Log is invoked.

2.20.2 Event Input Data

Data Collector Id

GSP Group Id

Effective From Date {DCIGG}

2.20.3 Function Cross References

I0009 Specify Data Collector for GSP Group

2.20.4 Event Frequency

Low Volume

2.21 Data Collector Deleted**2.21.1 Event Description**

A Data Collector is physically deleted. The Data Collector cannot be deleted if there are links to GSP Groups for the Data Collector.

IC001 Update On-line Audit Log is invoked.

2.21.2 Event Input Data

Data Collector Id

2.21.3 Function Cross References

I0009 Specify Data Collector for GSP Group

2.21.4 Event Frequency

Low Volume

2.22 Data Collector Details Entered**2.22.1 Event Description**

Data Collector details are entered.

IC001 Update On-line Audit Log is invoked.

2.22.2 Event Input Data

Data Collector Id

Data Collector Name

2.22.3 Function Cross References

I0009 Specify Data Collector for GSP Group

2.22.4 Event Frequency

Low Volume

2.23 Data Collector Details Updated**2.23.1 Event Description**

Details of a Data Collector are updated. The Effective Dates of existing links can also be updated.

The Data Collector in GSP Group Effective Dates will be checked to ensure that they do not overlap with any other instances of the link between this GSP Group and Data Collector.

IC001 Update On-line Audit Log is invoked.

2.23.2 Event Input Data

Data Collector Id

Data Collector Name

Effective From Date {DCIGG}

Effective To Date {DCIGG}

2.23.3 **Function Cross References**

I0009 Specify Data Collector for GSP Group

2.23.4 **Event Frequency**

Low Volume

2.24 **Day Type Specified**

2.24.1 **Event Description**

The Day Type or Scottish Day Type associated with a Settlement Day is specified.

IC001 Update On-Line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.24.2 **Event Input Data**

Settlement Date

Day Type Id

Scottish Day Type Id

2.24.3 **Function Cross References**

I0003 Define Calendar

2.24.4 **Event Frequency**

Low Volume

2.25 **Distributor Assigned To GSP Group**

2.25.1 **Event Description**

A GSP Group is associated to at least one Distributor. The user adds a new GSP Group association by entering a GSP Group Id and an Effective From Settlement Date for the Distributor.

The system validates that multiple distributors per GSP group relationships cannot be created for any settlement days before the Multiple Distrib Start Date² (1st August 2003).

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check the Effective From Settlement Date {GGD}.

2.25.2 **Event Input Data**

Effective From Settlement Date {GGD}

Effective To Settlement Date {GGD}

GSP Group Id

² Multiple Distrib Start Date is a non-maintainable system parameter.

Distributor Id

2.25.3 **Function Cross Reference**

I0006 Specify Distributor for GSP Group

2.25.4 **Event Frequency**

Low Volume

2.26 **Distributor Assignment Deleted**

2.26.1 **Event Description**

A GSP Group associated to a given Distributor is physically deleted.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check the Effective From Settlement Date {GGD}.

2.26.2 **Event Input Data**

Effective From Settlement Date {GGD}

GSP Group Id

Distributor Id

2.26.3 **Function Cross Reference**

I0006 Specify Distributor for GSP Group

2.26.4 **Event Frequency**

Low Volume

2.27 **Distributor Entered**

2.27.1 **Event Description**

A Distributor is entered into the system. The Distributor Id, and Distributor Name will be specified for each Distributor.

IC001 Update On-line Audit Log invoked.

2.27.2 **Event Input Data**

Distributor Id

Distributor Name

2.27.3 **Function Cross Reference**

I0006 Specify Distributor for GSP Group

2.27.4 **Event Frequency**

Low Volume

2.28 Distributor Updated**2.28.1 Event Description**

A Distributor and associated GSP Group details are updated. The user is permitted to amend the Distributor Name and the Effective To Settlement Date {GGD}.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.28.2 Event Input Data

Distributor Id

Distributor Name

GSP group Id

Effective From Settlement Date {GGD}

Effective To Settlement Date {GGD}

2.28.3 Function Cross Reference

I0006 Specify Distributor for GSP Group

2.28.4 Event Frequency

Low Volume

2.29 Distributor Deleted**2.29.1 Event Description**

A Distributor and associated GSP Group assignments is deleted. The Distributor is logically deleted, the assignments physically deleted.

If the Distributor has associated GSP Group assignments then a warning is displayed.

If the Distributor is associated with Line Loss Factor Classes which have not been logically deleted then the Distributor cannot be deleted.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check the earliest associated Effective From Settlement Date {GGD}.

2.29.2 Event Input Data

Distributor Id

2.29.3 Function Cross Reference

I0006 Specify Distributor for GSP Group

2.29.4 Event Frequency

Low Volume

2.30 Final Dispute Expected Data Aggregation Entry Deleted**2.30.1 Event Description**

One or more GSP Groups and associated Market Participant are deleted from the Final Dispute Expected Data Aggregation. The associations are physically deleted from the database.

2.30.2 Event Input Data

Data Aggregator Role

Effective From Settlement Date {FDEDA}

Effective To Settlement Date{FDEDA}

GSP Group Id

Data Aggregator Market Participant Id

2.30.3 Function Cross Reference

I0051 Define Final Dispute Expected Data Aggregation

2.30.4 Event Frequency

Low Volume

2.31 Final Dispute Expected Data Aggregation Entry Entered**2.31.1 Event Description**

One or more GSP Groups, details and associated Market Participants are entered into the system for a specific Settlement Date range. The GSP Group Id, Aggregator Role and associated Market Participants Id form the GSP Group details.

On entry the GSP Group Id must not already exist for the same aggregator role.

2.31.2 Event Input Data

Data Aggregator Role

Effective From Settlement Date{FDEDA}

Effective To Settlement Date{FDEDA}

GSP Group Id

Data Aggregator Market Participant Id

2.31.3 Function Cross Reference

I0051 Define Final Dispute Expected Data Aggregation

2.31.4 Event Frequency

Low Volume

2.32 Final Dispute Expected Data Aggregation Entry Updated**2.32.1 Event Description**

Details of the Final Dispute Expected Data Aggregation are updated. The user is permitted to amend the Market Participant associated with each GSP Group, but not the GSP Group itself or the aggregator role.

2.32.2 Event Input Data

Data Aggregator Role

Effective From Settlement Date{FDEDA}

Effective To Settlement Date{FDEDA}

GSP Group Id

Data Aggregator Market Participant Id

2.32.3 Function Cross Reference

I0051 Define Final Dispute Expected Data Aggregation

2.32.4 Event Frequency

Low Volume

2.33 GSP Correction Scaling Factors Entered**2.33.1 Event Description**

GSP Correction Scaling Factor(s) are entered. A scaling factor will be for a particular Consumption Component Class and date range. The user therefore selects from a list of existing Consumption Component Classes and then enters a Scaling Factor for the Class.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.33.2 Event Input Data

Consumption Component Class Id

Effective From Settlement Date {GGCSF}

GSP Group Correction Scaling Factor

2.33.3 Function Cross Reference

I0004 Define GSP Correction Scaling Factors

2.33.4 Event Frequency

Low Volume

2.34 GSP Correction Scaling Factors Updated**2.34.1 Event Description**

An existing set of GSP Correction Scaling Factor(s) are updated. The user is permitted to amend the Effective From Settlement Date and the GSP Group Correction Factor.

The system validates that there is at least one non-zero GSP Group Correction Scaling Factor across all Consumption Component Classes on a Settlement Date, and issues an appropriate warning message.

IC001 Update On-Line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.34.2 Event Input Data

Consumption Component Class Id

Effective From Settlement Date {GGCSF}

GSP Group Correction Scaling Factor

2.34.3 Function Cross Reference

I0004 Define GSP Correction Scaling Factors

2.34.4 Event Frequency

Low Volume

2.35 GSP Correction Scaling Factors Deleted**2.35.1 Event Description**

Existing GSP Correction Scaling Factor(s) are physically deleted for a given Consumption Component Class.

The system validates that there is at least one non-zero GSP Group Correction Scaling Factor across all Consumption Component Classes on a Settlement Date, and issues an appropriate warning message.

IC001 Update On-Line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.35.2 Event Input Data

Consumption Component Class Id

Effective From Settlement Date {GGCSF}

2.35.3 Function Cross Reference

I0004 Define GSP Correction Scaling Factors

2.35.4 Event Frequency

Low Volume

2.36 GSP Group Deleted**2.36.1 Event Description**

Details of a GSP Group are physically deleted from the system.

Any instances of GSP Group Average EAC will also be physically deleted. A warning prompt will be displayed in this case.

GSP Groups cannot be deleted if any related settlement or daily profile data exists i.e. if any occurrences of the following entities are present: BM Unit for Supplier in GSP Group, Supplier in GSP Group, Data Collector in GSP Group, GSP Group Take, GSP Group Distributor, Daily Profile Parameters, Profile Production Run, Average Fraction of Yearly Consumption Set, Data Aggregator in GSP Group. This data must be archived or deleted before the GSP Group can be deleted.

IC001 Update On-line Audit Log is invoked.

2.36.2 Event Input Data

GSP Group Id

2.36.3 Function Cross References

I0002 Define GSP Group

2.36.4 Event Frequency

Low Volume

2.37 GSP Group Entered**2.37.1 Event Description**

Details of a GSP Group are entered onto the system, including the details of the period during which the ISR Agent is responsible for the GSP Group. Any new GSP groups created are in English and Wales.

IC001 Update On-line Audit Log is invoked.

2.37.2 Event Input Data

GSP Group Id

GSP Group Name

Effective From Date {IAIGG}

Effective To Date {IAIGG} (O)

2.37.3 Function Cross References

I0002 Define GSP Group

2.37.4 Event Frequency

Low Volume

2.38 GSP Group Take Available

2.38.1 Event Description

A file of GSP Group Take data becomes available from the existing settlements system.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- The file has been sent by the appropriate market participant. For settlement dates prior to the NETA Start Date, the file must be sent by the SSA. For settlement dates on or after the NETA Start Date, the file must be sent by the CDCA.
- Any GSP Group Take 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 (determined by reading Clock Time Change).
- The data is for existing GSP Group(s).
- The data for Scottish GSP Group(s) will not be loaded for the settlement days prior to BETTA Start Date.

Each file is validated and loaded separately in file creation order. If the file is for a settlement date on or after the NETA Start Date the SSA Settlement Run Type is converted to the value 'F', regardless of the value contained in the file. If the data is successfully validated, the logical entity SSA Settlement Run is checked to see if it already exists. If it does exist (i.e. GSP Group Take data for another GSP Group for the same SSA Settlement Run has been loaded previously, or the Settlement Price Data for the same SSA Settlement Run has already been loaded separately - see Settlement Price Data Available Section), the SSA Settlement Run Type ("II" – Initial Interim Settlement Run added to list of valid Settlement Run Types after P253 implementation) and CDCS Extract Number are checked to match the SSA Settlement Run Type and CDCS Extract Number in the data file (NB: For settlement days from the start of the NETA, the SSA Settlement Run Types will always match regardless of the value in the file as both will have been converted to 'F'). If the logical entity SSA Settlement Run does not exist, it is created to contain the SSA Settlement Run Details. The logical entity SSA Settlement GSP Group is then created with the Daily GSP Group Purchases. The logical entity GSP Group Take is created with the GSP Group Take and Period GSP Group Purchases for each Settlement Period. For files where the settlement date is on or after the NETA Start Date, a check is made to ensure that the logical entity Settlement Period Prices exists. If not, then an entity containing dummy values is created for each period of the settlement day and the Period Purchases Valid attribute of the SSA Settlement GSP Group entity is set to 'Y'. A message is written to a log to indicate that dummy price values have been created. The file management database is updated to indicate the load is successful, and a message is written to a log to indicate the load is successful.

If no errors are found, the data is loaded into the database.

If validation is not successful, the file management database is updated to show the load has failed, and a message is written to a log to indicate the load has failed.

An exception report is generated, and the SSA (the CDCA for Settlement Dates on or after the NETA Start Date) and ISR Agent notified.

If the load is successful, the Period GSP Group Purchases and Daily GSP Group Purchases are validated such that:-

$$PD_{gj} = \text{PeriodGSPGroupPurchases}_{gj} - \left[\text{GSPGroupTake}_{gj} \times \text{PSP}_j \times (1 + \text{TLM}_j) \times (1 + \text{LRM}_j) \right]$$

$$DD_g = \text{DailyGSPGroupPurchases}_g - \sum_j (\text{PeriodGSPGroupPurchases}_{gj})$$

where PSP is the Pool Selling Price, TLM is the Transmission Loss Multiplier and LRM is the Transmission Losses Reconciliation Multiplier. *PD*, and *DD* are the period and daily discrepancies. See SSR Run Event Section for description on subscripts used.

If the value of *DD* or any of the *PD* values are not zero, a warning is put in the exception report for the data load. If the absolute values of any of the discrepancies are greater than a threshold, then the warning is upgraded to an error and the data is marked as invalid. There are two separate thresholds, one for daily purchases, and one for period purchases; these are held as system configuration parameters.

The above check is only performed if the appropriate set of Settlement Price Data have been previously loaded and the settlement date is before the NETA Start Date. (See Settlement Price Data Available Section) If validation is performed or the settlement date is on or after the date that NETA becomes effective, the logical entity SSA Settlement GSP Group is updated to indicate if all the Period GSP Group Purchases for the GSP Group are valid (i.e. any discrepancies are less than the thresholds).

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.38.2 Event Input Data

File Creation Timestamp

SSA Settlement Date

SSA Settlement Run Type Id

SSA Settlement Run Number

GSP Group Id

2.38.3 Function Cross References

I0013B - Load GSP Group Take

2.38.4 Event Frequency

Once per GSP Group per Settlement date and code

2.39 GSP Group Updated**2.39.1 Event Description**

Details of an existing GSP Group are updated, including the dates which define the period during which the ISR Agent is responsible for the GSP Group.

IC001 Update On-line Audit Log is invoked.

2.39.2 Event Input Data

GSP Group Id

GSP Group Name

Effective From Date {GG}

Effective To Date {GG}(O)

2.39.3 Function Cross References

I0002 Define GSP Group

2.39.4 Event Frequency

Low Volume

2.40 Line Loss Factor Class Entered**2.40.1 Event Description**

A list of Line Loss Factor Classes are entered. This will consist of a Distributor Id, a Line Loss Factor Class Id, an Effective From Settlement Date and an optional Effective To Settlement Date.

If the combination of Line Loss Factor Class and Distributor already exist then the date range for which it is effective must not overlap the date range for these combinations.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked.

2.40.2 Event Input Data

Distributor Id

Effective From Settlement Date {LLFC}

Effective To Settlement Date {LLFC}

Line Loss Factor Class Id

2.40.3 Function Cross Reference

I0001 Define Line Loss Factor Classes

2.40.4 Event Frequency

Low Volume

2.41 Line Loss Factor Class Updated

2.41.1 Event Description

A list of Line Loss Factor Classes are displayed to the user for amendment.

The user is permitted to amend the Effective To Settlement Date. It must be later than the date from which the Line Loss Factor is effective (Effective From Settlement Date).

If the Effective To Settlement Date is moved to an earlier date and this results in instances of Settlement Period Line Loss Factor which fall outside the Effective Period of the Class, a warning message is displayed to the user.

If the combination of Line Loss Factor Class and Distributor already exist then the date range for which it is effective must not overlap the date range for these combinations.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to ensure that changes impacting a day subject to Final Initial Settlement are authorised.

2.41.2 Event Input Data

Distributor Id

Line Loss Factor Class Id

Effective From Settlement Date {LLFC}

Effective To Settlement Date {LLFC}

2.41.3 Function Cross Reference

I0001 Define Line Loss Factor Classes

2.41.4 Event Frequency

Low Volume

2.42 Line Loss Factor Class Deleted

2.42.1 Event Description

A set of Line Loss Factor Classes are logically deleted.

A warning will be displayed to the user if there are associated Settlement Period Line Loss Factors.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check Effective From Settlement Date {LLFC}.

2.42.2 Event Input Data

Distributor Id

Effective From Settlement Date {LLFC}

Line Loss Factor Class Id

2.42.3 Function Cross Reference

I0001 Define Line Loss Factor Classes

2.42.4 Event Frequency

Low Volume

2.43 Line Loss Factors Available

2.43.1 Event Description

A file/files of Line Loss Factor values for a distributor becomes available. Each file is validated and loaded separately in file creation order.

The incoming data will be validated to ensure that the following conditions are true:

- Physical integrity of the file using the file checksum.
- Line Loss Factor data which are to be loaded must be the same or a later version than that in the system. This is done by checking File Creation Timestamp.
- The data is from a known Distributor.
- The 'From Participant Id' in the File Header matches the Distributor Id in the DIS field.

If any of the above validation fails, the data file is rejected. The file management database is updated to show that the load has failed, and a message written to a log to indicate the load has failed. An exception report is generated, and the sender and the ISR Agent are notified.

If validation succeeds, the file is loaded into the database. The earliest Settlement Date for all Line Loss Factor Classes defined in the file is determined. Line Loss Factor data loaded previously, if any, (i.e. logical entity Settlement Period Line Loss Factor exists for these) for all Line Loss Factor Classes associated with the Distributor from this Settlement Date onwards are deleted from the database. The logical entity Settlement Period Line Loss Factor is then created with Line Loss Factors read from the data file. The master logical entity Settlement Period for the Settlement Period Line Loss entity is checked to see if it already exists. If not, it is created.

Further validation is performed during the loading of the data file. Should an error occur at this stage, an exception report entry will be generated and the data in question is not loaded. However, the loading of other valid data from the file is unaffected. These errors include the following:

- A missing Line Loss Factor Class for a particular Settlement Date: for each Settlement Date included in the date range of the file a check is made that all the Line Loss Factor Classes effective on that Settlement Date are included;
- Line Loss Factor data missing for a particular Settlement Date/Line Loss Factor Class combination i.e. for the set of Settlement Periods determined by reading Clock Time Change;

- Line Loss Factor data defined for Line Loss Factor Classes that are not valid. These include data defined for a Line Loss Factor Class that does not exist, and data defined for Settlement Dates that are outside of an existing Line Loss Factor Class effective date range.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Settlement Date included in the file. If this date has had a Final Initial Settlement Run then the load must be authorised, otherwise the complete load fails.

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception.

2.43.2 **Event Input Data**

File Creation Timestamp

Market Participant Id

Market Participant Name

2.43.3 **Function Cross References**

I0014 - Load Line Loss Factor Data

2.43.4 **Event Frequency**

Low Volume - expected annually

2.44 **Market Domain Data Complete Set Loaded**

2.44.1 **Event Description**

A file of Market Domain Data Complete Set is uploaded.

The incoming data will be validated to ensure the following:

- Physical Integrity of the file using the checksum
- The data is from the Electricity Pool originator
- File version is D0269002

If any of these conditions are not satisfied the data file is rejected. The file management database is updated to show that the load has failed and a message is written to a log to indicate that the load has failed. An Exception report is generated for the ISR Agent.

Once validated, Settlement Day and Line Loss Factor (LLF) Class data is processed according to the following:

- Any amendment affecting a Settlement date for which a Final Initial Settlement Run has occurred must be authorised and, if successful, will generate a Standing Data Audit report;
- Any data processing which will update an existing database entry will be recorded as a warning in an Exception report;

- When Settlement Day details for a particular Settlement Day are received for the first time, the Day Type Id and Scottish Day Type Id in the database are both populated with the Day Type Id from the input file;
- When Settlement Day details are received for a particular Settlement Day and a record already exists in the database, the database record is updated as follows:
 - If the Day Type Id and Scottish Day Type ID in the database are the same, they are both updated from the Day Type Id from the input file;
 - If the Day Type Id and Scottish Day Type ID in the database are different, the Day Type Id is updated from the Day Type Id from the input file. The Scottish Day Type Id is not updated.
- Counts of the number of record types that are updated and inserted will be recorded in an Exception report;
- The file contains details of all existing Settlement Day and Line Loss Factor Class Details defined on the system. A warning will be issued if Settlement Day and Line Loss Factor Class data is missing. These warning messages are reported in the Exception Report and will not prevent the file from loading;
- The processing of the file will continue in the event of file rejection due to a validation failure, with appropriate messages written to the Exception report. However, no changes will be applied to the ISRA system.

The following data will be specified in the file for Settlement Day data:

- i. The Settlement Date of the data;
- ii. The Day Type Id associated with the Settlement Day;
- iii. The Season Id specifying the season associated with the Settlement date.

Validation will take place on the Settlement Day data to ensure that the Day Type Id and Season Id values are valid. No other specific validation is necessary.

The following data will be specified in the file for Line Loss Factor Class data:

- i. The Distributor Id of the Market Participant;
- ii. The Market Participant Role Code;
- iii. The Line Loss Factor Class Id;
- iv. The MS Specific LLF Class Indicator;
- v. The Effective From Settlement Date of the LLFC;
- vi. The Effective To Settlement Date of the LLFC.

Line Loss Factor (LLF) Class data will be processed using the following conditions:

- i. The LLF Class must be assigned to a valid Distributor. This is processed by checking that the Distributor is appointed to one or more GSP Groups for at least a part of the period that the Line Loss Factor Class is active. (This

filters Scottish Line Loss Factors by assuming that Scottish GSP Groups are not loaded into ISRA);

- ii. If the combination of Line Loss Factor Class and Distributor already exists on the system then the date range for which the new combination is effective must not overlap the date range of the existing combinations. This check is only performed if the new combination is of class General Import / Export;
- iii. Only General LLF Class Imports / Exports will be loaded;
- iv. The Effective To Settlement Date must be greater than, or equal to, the Effective From Settlement Date.

In addition, the process will also validate details of any updated Line Loss Factor Classes according to the following rule:

- i. If the Effective To Settlement Date is moved to an earlier date and this results in instances of Settlement Period Line Loss Factor which fall outside the Effective Period of the Class, a warning message is written to the Exception Report.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.44.2 **Event Input Data**

File Creation Timestamp

2.44.3 **Function Cross References**

I0043 Load Market Domain Data Complete Set

2.44.4 **Event Frequency**

Low Volume

2.45 **Non-Half Hourly BM Unit Allocation Entered**

2.45.1 **Event Description**

A Valid Settlement Configuration Profile Class is allocated to a BM Unit for Supplier in GSP Group.

The user adds a new Non-Half Hourly BM Unit Allocation by entering:

- The GSP Group Id, Supplier Id, BM Unit Id and Effective From Settlement Date of the BM Unit for Supplier in GSP Group;
- The Valid Settlement Configuration Profile Class (VSCPC);
- The Non-Half Hourly BM Unit Allocation Effective From Settlement Date {NHHBMUA} and optionally the Non-Half Hourly BM Unit Allocation Effective To Settlement Date {NHHBMUA}.

The Non-Half Hourly BM Unit Allocation is permitted if:

- The BM Unit for Supplier in GSP Group exists.
- The Valid Settlement Configuration Profile Class exists.
- The effective date range of the Non-Half Hourly BM Unit Allocation for a combination of GSP Group, Supplier and VSCPC does not overlap any other Non-Half Hourly BM Unit Allocation for the same GSP Group, Supplier and VSCPC (i.e. the combination of GSP Group, Supplier and VSCPC is assigned to only one BM Unit on any one settlement day).
- The effective date range of the Non-Half Hourly BM Unit Allocation is not outside the effective date range of the BM Unit for Supplier in GSP Group.
- For Scottish GSP Groups the effective from settlement date of the Non-Half Hourly BM Unit Allocation is not before the BETTA start date.
- There exists one or more sets of Average Fraction of Yearly Consumption for the GSP Group, Profile Class and Standard Settlement Configuration whose effective date range cover every settlement day for which the Non-Half Hourly BM Unit Allocation is effective.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {NHHBMUA} is a date that has had a Final Initial Settlement Run.

2.45.2 Event Input Data

BM Unit Id

GSP Group Id

Supplier Id

Standard Settlement Configuration Id

Profile Class Id

Effective From Settlement Date {NHHBMUA}

Effective To Settlement Date {NHHBMUA} (O)

2.45.3 Function Cross References

I0047 Specify Non-Half Hourly BM Unit Allocation

2.45.4 Event Frequency

Low Volume

2.46 Non Half Hourly BM Unit Allocation Updated

2.46.1 Event Description

A Non-Half Hourly BM Unit Allocation is updated. The user enters the BM Unit Id, GSP Group Id and Supplier Id. Updates are permitted to:

- The Non-Half Hourly BM Unit Allocation Effective From Settlement Date {NHHBMUA}.

- The Non-Half Hourly BM Unit Allocation Effective To Settlement Date {NHHBMUA}.

The updates are permitted if:

- The effective date range of the Non-Half Hourly BM Unit Allocation for a combination of GSP Group, Supplier and VSCPC does not overlap any other Non-Half Hourly BM Unit Allocation for the same GSP Group, Supplier and VSCPC (i.e. the combination of GSP Group, Supplier and VSCPC is assigned to only one BM Unit on any one settlement day).
- The effective date range of the Non-Half Hourly BM Unit Allocation is not outside the effective date range of the BM Unit for Supplier in GSP Group.
- For Scottish GSP Groups the effective from settlement date of the Non-Half Hourly BM Unit Allocation is not before the BETTA start date.
- There exists one or more sets of Average Fraction of Yearly Consumption for the GSP Group, Profile Class and Standard Settlement Configuration whose effective date range cover every settlement day for which the Non-Half Hourly BM Unit Allocation is effective.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {NHHBMUA} is a date that has had a Final Initial Settlement Run.

2.46.2 Event Input Data

BM Unit Id

GSP Group Id

Supplier Id

Standard Settlement Configuration Id

Profile Class Id

Effective From Settlement Date {NHHBMUA}

Effective To Settlement Date {NHHBMUA} (O)

2.46.3 Function Cross References

I0047 Specify Non-Half Hourly BM Unit Allocation

2.46.4 Event Frequency

Low Volume

2.47 Non Half Hourly BM Unit Allocation Deleted

A Non-Half Hourly BM Unit Allocation is deleted. The user enters the BM Unit Id, GSP Group Id, Supplier Id and Effective From Settlement Date and then deletes the allocation of a Valid Settlement Configuration Profile Class from the BM Unit for Supplier in GSP Group.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {NHHBMUA} is a date that has had a Final Initial Settlement Run.

2.47.1 Event Input Data

BM Unit Id
 GSP Group Id
 Supplier Id
 Standard Settlement Configuration Id
 Profile Class Id

2.47.2 Function Cross References

I0047 Specify Non-Half Hourly BM Unit Allocation

2.47.3 Event Frequency

Low Volume

2.48 Profile Class Deleted

2.48.1 Event Description

Details of a Profile Class are logically deleted.

If any occurrences of Valid Settlement Configuration Profile Class associated with the Profile Class exist, the Profile Class cannot be deleted and a suitable message is displayed. Valid Settlement Configuration Profile Class data for the Profile Class must be deleted (together with associated data e.g. Valid Measurement Requirement Profile Class) before the Profile Class can be deleted.

Any associated Basic Period Profile Coefficients, GSP Group Average EAC, Period Regression Equations, Profile Regression Equation Sets, Profile Sets and Regression Coefficients will be physically deleted automatically by the function. Associated Profiles will be logically deleted automatically.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date {PROF} of the associated Profiles. If this date has had a Final Initial Settlement Run then the change must be authorised.

2.48.2 Event Input Data

Profile Class Id

2.48.3 Function Cross References

I0007 Define Profile

2.48.4 Event Frequency

Low Volume

2.49 Profile Class Entered**2.49.1 Event Description**

Details of a Profile Class are entered.
IC001 Update On-line Audit Log is invoked.

2.49.2 Event Input Data

Profile Class Id
Profile Class Description
Switched Load Profile Class Ind

2.49.3 Function Cross References

I0007 Define Profile

2.49.4 Event Frequency

Low Volume

2.50 Profile Class Updated**2.50.1 Event Description**

Details of a Profile Class are updated.

- The Switched Load Indicator can only be updated if there are no Profiles defined for the Profile Class.

IC001 Update On-line Audit Log is invoked.

2.50.2 Event Input Data

Profile Class Id
Profile Class Description
Switched Load Profile Class Ind

2.50.3 Function Cross References

I0007 Define Profiles

2.50.4 Event Frequency

Low Volume

2.51 Profile Data Loaded**2.51.1 Event Description**

A file of Profile Class and Profile data is read, and any which are not already defined on the system are loaded. If the file entry is defined on the system (i.e. an entry exists with the same Id) and the details in the file are different then the system entry will be updated.

The File Creation Timestamp of the file is validated to ensure that it is later or equal to the File Creation Timestamp of the last successfully loaded (if any) file of this type.

For the Profile Class section of the file, the Description of an existing profile Class can be updated. The Switched Load Ind can only be updated for an existing Profile Class if there are no Profiles defined for the Class (as this would probably invalidate the Profile data already present).

For the Profile section of the file, it is validated that:

- i. The Profile Class Ids are already defined on the system / in the file.
- ii. If the Profile is for a non switched load Profile Class then the profile must have a duration of 48 settlement periods.
- iii. For a Switched load Profile Class there must be one Profile of duration 48 settlement period and one or more profiles of duration less than 48 settlement periods regardless of the effective dates of the Profile.
- iv. For both Switched Load and Non Switched Load Profiles there can only be one 48 Settlement Period Profile effective at once. If any other Profile for the Profile Class exists with 48 Settlement Periods and a blank Effective To Date then the Effective To Date of this Profile is set to ensure there is no overlap. If the date range of the Profile still overlaps with any other 48 Settlement Period Profile for the Profile Class then an exception is generated and the file load with fail.

If any entries in the file fail validation then an exception report is generated and none of the file will be loaded.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit is invoked to check the earliest Effective From Settlement Date {PROF} contained in the file. If this or any subsequent date has had a Final Initial Settlement then the load must be initiated by an authorised user.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.51.2 Event Input Data

Market Participant Id

Market Participant Role Code

File Creation Timestamp

2.51.3 Function Cross References

I0041 Load Profile Data

2.51.4 Event Frequency

Low Volume

2.52 Profile Deleted**2.52.1 Event Description**

A Profile is logically deleted. Any GSP Group Average EAC, Period Regression Equations, Profile Regression Equation Sets, and Regression Coefficients will be physically deleted automatically by the function.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check whether a date on or after the Effective From Settlement Date {PROF} has had a Final Initial Settlement Run. If so the change must be authorised.

2.52.2 Event Input Data

Profile Class Id

Profile Id

Effective From Settlement Date {PROF}

2.52.3 Function Cross References

I0007 Define Profiles

2.52.4 Event Frequency

Low Volume

2.53 Profile Entered**2.53.1 Event Description**

Details of a Profile are entered.

- If the Profile is for a non switched load Profile Class then the profile must have a duration of 48 settlement periods
- For a Switched load Profile Class there must be one Profile of duration 48 settlement period and one or more profiles of duration less than 48 settlement periods regardless of the effective dates of the Profiles
- For both Switched Load and Non Switched Load Profiles there can only be one 48 Settlement Period Profile effective at once. If any other Profile for the Profile Class exists with 48 Settlement Periods and a blank Effective To Date then the Effective To Date of this Profile is set to ensure there is no overlap. If the date range of the Profile still overlaps with any other 48 Settlement Period Profile for the Profile Class then an error message is displayed

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report invoked to check whether a date on or after the Effective From Settlement Date {PROF} has had a Final Initial Settlement Run. If so the change must be authorised.

2.53.2 Event Input Data

Profile Class Id

Profile Id

Profile Description

No of Settlement Periods

Effective From Settlement Date {PROF}

Effective To Settlement Date {PROF} (O)

2.53.3 Function Cross References

I0007 Define Profiles

2.53.4 Event Frequency

Low Volume

2.54 Profile Updated

2.54.1 Event Description

Details of a Profile are updated.

- If the Profile is for a non switched load Profile Class then the profile must have a duration of 48 settlement periods.
- For a Switched load Profile Class there must be one Profile of duration 48 settlement period and one or more profiles of duration less than 48 settlement periods regardless of the effective dates of the Profiles.
- For both Switched Load and Non Switched Load Profiles there can only be one 48 Settlement Period Profile effective at once. If any other Profile for the Profile Class exists with 48 Settlement Periods and a blank Effective To Date then the Effective To Date of this Profile is set to ensure there is no overlap. If the date range of the Profile still overlaps with any other 48 Settlement Period Profile for the Profile Class then an error message is displayed.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked.

2.54.2 Event Input Data

Profile Class Id

Profile Id

Profile Description

Profile Settlement Periods

Effective To Settlement Date {PROF} (O)

2.54.3 Function Cross References

I0007 Define Profiles

2.54.4 Event Frequency

Low Volume

2.55 Profiling Run

2.55.1 Event Description

This process is triggered by a request from the ISR Agent to calculate Profile Coefficients for a Settlement Day. If there are no tele-switch Switching Time details for the settlement date for the run, the user must select an alternative set of data to be used from a different settlement date. Details of the run request are stored in Profile Production Run prior to the batch run process.

Tele-switch Contact Interval data is always expressed in GMT, thus the data relevant to a single settlement date can come from two separate GMT days. In order to be sufficient, data must be available for both GMT days where GMT and local time are different. The sufficiency of data is determined by the existence of both intervals ending at the GMT day boundary and intervals starting at the GMT day boundary.

The calculation of the daily profiles occurs in four consecutive stages. These are:

- Determine Time Pattern State
- Evaluate Regression Equations
- Combine Base & Switched Load Profiles
- Chunking

At the end of the profile calculations the daily profile coefficients are derived and sent to non half hourly data collectors (see enquiry Daily Profile Coefficient File Extraction).

2.55.1.1 Determine Time Pattern State

This process will convert the Clock Intervals and Tele-switch Contact Intervals for each Time Pattern Regime into a vector of Period Register On State Indicators for the day in entity Period Time Pattern State.

The Tele-switch Contact Intervals relevant to the calculation are those with Start or End Dates falling within the settlement day of the Profiling Run, or within the alternative settlement day corresponding to the specified Tele-switch Data Date. Since all tele-switch contact intervals are expressed in GMT, the data for a single settlement date can span two GMT days. In those cases where the settlement date of the run is not the same as the settlement date of the tele-switch data, then the local time of the date for the tele-switch data must be mapped to local time of the settlement day for the profiling run (For example an interval starting at 6am local time on the alternative date is mapped to a start time of 6am local time on the settlement date irrespective of whether there has been an intervening clock change. The GMT time on the different days may therefore be different).

The Clock Intervals relevant to the calculation are those whose Day of the Week Id, Start Day, Start Month, End Day and End Month attributes are consistent with the Settlement Day. Note: clock intervals cannot be entered that cross a day boundary.

These Intervals will be processed as follows:

2.55.1.1.1 Convert Tele-switch Contact Intervals to Tele-switch Intervals

The first stage is to convert the Tele-switch Contact Intervals into Tele-switch Intervals, i.e. the on and off switching times for each active Settlement register. Any pre-existing Tele-switch intervals for the settlement date (of the profiling run) calculated from a previous run of the profile calculations are first deleted. The Tele-Switch Contact intervals are calculated as described below:

- a. For each Tele-switch Group identify the Standard Settlement Configurations (SSCs) to which it relates from the list of SSCs held in the ISRA database;
- b. Identify the set of Time Pattern Regimes (TPRs) associated with each tele-switched SSC found from the list of valid TPRs held in the ISRA database;
- c. For each set found,
 - Retrieve all Tele-switch Contact Intervals for the appropriate Tele-switch Group and Settlement Day;
 - Process all these records in chronological order, using the Tele-switch Contact-Register Rules to determine the state of the TPR after the start of each Tele-switch Contact Interval. If a Contact interval exists for which there is no register rule, it is ignored. If a register rule exists for a contact for which there is no interval (and hence state is not defined), then a warning message is generated and the Time Pattern Regime is ignored;
 - Store this information on the database as one or more Tele-switch Intervals. If the processing results in one or more consecutive tele-switch intervals, these are merged into, and stored as, a single tele-switch interval.

Once the Tele-switch Contact Intervals have been converted to tele-switch intervals, these, along with clock intervals from Time switched TPRs are processed to calculate the vector of Period Register On State Indicators for the day.

2.55.1.1.2 Round Intervals

The following processing will be performed for each Standard Settlement Configuration:

The Clock Intervals and Tele-switch Intervals associated with the Standard Settlement Configuration will be identified by determining its Measurement Requirements.

By using the following rules, each interval will have its start and end times rounded to the nearest half-hour prior to determining the corresponding period register on state indicators:

Consider, in chronological order, each spot time on which one or more of the Intervals for this Standard Settlement Configuration starts or ends. If the spot time is not on an hour or half-hour, then it will be rounded using the following algorithm:

For each Interval I which starts or ends at the spot time, calculate:

1. The Unrounded Duration UDI of the Interval prior to any rounding;
2. The Rounded-Up Duration RUD_I of the Interval after rounding, calculated on the assumption that the spot time is rounded up to the nearest half-hour.
 - If the Interval ends on the spot time, the RUD_I will be calculated using the rounded start time, which has already been calculated.
 - If the Interval starts on the spot time, then the End Time has not yet been rounded. The RUD_I must be calculated on the assumption that the End Time will be rounded to the nearest half-hour.
 - If the End Time is at 15 minutes past the hour, it will be rounded back to the previous hour; if the End Time is at 45 minutes past the hour then it will be rounded forward to the next hour.
3. The Rounded-Down Duration RDD_I of the Interval, calculated in the same manner as the RUD_I but on the assumption that the spot time is rounded down to the previous half-hour.

All Interval Start and End Times which fall on that spot time will then be rounded to the same half-hour boundary, according to the following rules:

1. If the number of Intervals for which $RUD_I < 0$ is less than the number of Intervals for which $RDD_I < 0$, then round up to the next half-hour.
2. Otherwise, if the number of Intervals for which $RUD_I < 0$ is greater than the number of Intervals for which $RDD_I < 0$, then round down to the previous half-hour.
3. Otherwise, if the number of Intervals for which $RUD_I = 0$ is less than the number of Intervals for which $RDD_I = 0$, then round up to the next half-hour.
4. Otherwise, if the number of Intervals for which $RUD_I = 0$ is greater than the number of Intervals for which $RDD_I = 0$, then round down to the previous half-hour.
5. Otherwise, if $SUM[(RUD_I - UDI)^2] < SUM[(RDD_I - UDI)^2]$, then round up to the next half-hour.
6. Otherwise, if $SUM[(RUD_I - UDI)^2] > SUM[(RDD_I - UDI)^2]$, then round down to the previous half-hour.
7. Otherwise, round down to the previous half-hour.

After each spot time has been rounded, check whether any of the intervals ending at that time now has a duration of zero. If so, advance the end time for that interval to the next Settlement Period boundary.

If the Start and End Times are in Local time, then Clock Time Change will be read to determine if a clock change occurs on the Settlement Day. If there is a backwards clock change, any rounded Start or End Times which coincide with repeated hour(s) are interpreted as applying to the first occurrence of the hour. If there is a forwards clock change, any rounded Start or End Times which occur during the missing hour will be assumed to apply to the point immediately after the missing hour, e.g. if there is a forwards clock change at 2AM, to 3AM, then

any Start Time or End Time that occurs at 2AM or 2:30AM will be set to 3:00AM.

At this point, the Start and End Times for every Interval will be associated with a Date. If rounding has led to the time crossing midnight then it will be associated with Date D + 1, otherwise it will be associated with Date D. (Here, 'D' denotes the date of the Settlement Day). Any times set to 2400 will now be set to 0000 on day D+1. (Note: 0000-2400 is used to represent a time which is continuously on).

2.55.1.1.3 Convert GMT Intervals to Local time

Any rounded Tele-switch and Clock Intervals in GMT time will be converted to local time before determining their associated Time Pattern State.

Clock Time Change will be read to determine if a clock change occurs on the Settlement Day, and to determine the nature of the most recent clock change prior to the Settlement Day. These two pieces of information will be used to compile a list of Settlement Periods and their corresponding Start Times/Dates in GMT and Local time. The table will be extended into the next day if necessary, using the same local time labels for days D - 1 and D + 1 as were used for day D.

e.g. (with backwards clock change at 0130 local time)

Period:	1	2	3	4	5	...	49	50	1
GMT start:	2300	2330	0000	0030	0100	...	2300	2330	0000
(GMT date):	(D-1)	(D-1)	(D)	(D)	(D)	...	(D)	(D)	(D+1)
local start:	0000	0030	0100	0030a	0100a	...	2300	2330	0000
(local date):	(D)	(D)	(D)	(D)	(D)	...	(D)	(D)	(D+1)

Table 3: GMT and Local time matrix – For backwards clock change

e.g. (with forwards clock change at 0030 local time)

Period:	1	2	3	...	45	46	1	2	3
GMT start:	0000	0030	0100	...	2200	2230	2300	2330	0000
(GMT date):	(D)	(D)	(D)	...	(D)	(D)	(D)	(D)	(D+1)
local start:	0000	0130	0200	...	2300	2330	0000	0130	0200
(local date):	(D)	(D)	(D)	...	(D)	(D)	(D+1)	(D+1)	(D+1)

Table 4: GMT and Local time matrix – For forwards clock change

The Start and End Times/Dates for all Intervals in GMT Time will be mapped to Local Time by finding the pair of GMT Times/Dates in the list, and then identifying the corresponding pair of Local Times/Dates.

E.g. if a GMT Interval with a Start Time of 2230, Start Date of D, End Time of 2300 and End Date of D is converted to Local Time on a Settlement Day with a forwards clock change at 0030, then its Start Time will become 2330, Start Date D, End Time 0000 and End Date D + 1.

Set Period Register On States to On.

The Period Register On State Indicators for all Settlement Periods corresponding to the processed Intervals will now be set to On.

Note that if rounding and/or conversion from GMT to Local time has caused the Interval to cross the Settlement Day boundary, that is if either of the Start and End Local Dates are set to anything other than 'D', then the Interval will be wrapped back into the Settlement Day. This is done by ignoring the Date components.

E.g. consider a GMT Interval of 2200-2400 on a Settlement Day with a forwards clock change at 0030 Local time. When the Interval is converted to Local time, it will have a Start Time of 2300, Start Date of D, End Time of 0200 and End Date of D + 1. The processing has caused the Interval to cross the Settlement Day boundary, so it will be wrapped back into the Settlement Day. The result is that Settlement Periods 45, 46, 1 and 2 will have Period Register On States set to On.

An additional check is then made for the erroneous condition where there are no Settlement registers recording consumption for an unrestricted SSC, as follows:

- For each SSC relating to a Tele-switch Group, if all Measurement Requirements has their Switched Load Indicator set then the SSC is restricted, otherwise the SSC is unrestricted;
- If the SSC is unrestricted, check the Tele-switch TPRs to which the SSC relates cover every Settlement Period during the Settlement Day, i.e. the union of Period Register On States for Tele-switch TPRs associated with an unrestricted SSC must be switched on in every Settlement Period during the Settlement Day;
- If the validation fails, an exception warning report is produced.

2.55.1.2 Evaluate Regression Equations

The following processing is to be performed for each GSP Group for the settlement day selected.

Retrieve the Time of Sunset and Noon Effective Temperature from Daily Profile Parameters and Day Type, Scottish Day Type and Season Id from Settlement Day. Convert the time of sunset to the sunset variable i.e. minutes after 1800 GMT, which may be negative.

Based on the date and Season Id, retrieve the correct set(s) of regression equations from the Profile Regression Equation set for each Profile Class.

For England and Wales GSP Groups, select Regression Coefficients (a) whose Day Type matches the Day Type selected from Settlement Day, and (b) whose Scottish Regression Flag set to "No".

For Scottish GSP Groups, select Regression Coefficients (a) whose Day Type matches the Scottish Day Type selected from Settlement Day and, (b) whose Scottish Regression Flag is set to "Yes" (if the Settlement Date is greater than or equal to the BETTA Start Date, but less than or equal to the BETTA Regression

Coefficients End Date), or whose Scottish Regression Flag is set to “No” (in all other cases).

Where Scottish Regression Coefficients (i.e. those with Scottish Regression Flag set to “Yes”) are used in a DPP run, an entry will be created in the exception log to indicate this.

There will be one set of forty-eight regression equations for each Profile Class, plus one or more shorter sets for Switched Load Profile Classes.

The regression equation is of the form:

$$\text{Consumption} = \alpha_0 + \alpha_1(D_{\text{Mon}}) + \alpha_2(D_{\text{Wed}}) + \alpha_3(D_{\text{Thur}}) + \alpha_4(D_{\text{Fri}}) + \alpha_5(\text{NET}_d) + \alpha_6(S_d) + \alpha_7(S_d)^2$$

Where

α_0 to α_7 are regression coefficients defined for each Profile Class, Profile and Settlement Period for the current Season and Day Type (both of which are defined by the settlement day). Note: The regression coefficients also vary over time, so the set required are those effective on the current date for the settlement day selected. It is assumed that the α s are set to values appropriate for the units in which the physical quantities are measured.

The use of a regression coefficient in the equation (i.e. the distinction between the α s) is defined by its regression coefficient type.

$D_{\text{Mon}} = 1$ if Monday, otherwise 0

$D_{\text{Wed}} = 1$ if Wednesday, otherwise 0

$D_{\text{Thur}} = 1$ if Thursday, otherwise 0

$D_{\text{Fri}} = 1$ if Friday, otherwise 0

NET_d = Noon Effective Temperature for settlement day

S_d = Sunset Time variable (as calculated above)

Evaluate each regression equation for each profile and settlement period using the Day of the Week, sunset variable and noon effective temperature. Divide through to convert to Profile.

$$\text{Profile Coefficient} = \frac{\text{Evaluated Regression Equation}}{\text{Group Average Annual Consumption} \times 2000}$$

Where the Group Average Annual Consumption for each profile is retrieved from GSP Group Average EAC. (Note that these group averages are provided by the Profile Administrator as an average for all customers in the Profile Class) The factor of 2000 converts kW to MWh.

If the Profile Coefficient generated has a negative value then it will be set to zero.

If there is a clock change on the day, the system will manipulate those profiles with length 48 periods to the appropriate length:

For additional periods (e.g. 25 hour day), use linear interpolation. The equation for this is:

$$pc(n+i) = pc(n-1) + [pc(n+m+1)-pc(n-1)] * (i+1) / (m+2)$$

for $0 \leq i \leq m$.

where the missing periods to be filled in are numbered from n to (n+m).

As an example, if the clocks go back an hour at 2 a.m., the above formula would be used with $n=5$ and $m=1$ to derive values for the 5th and 6th Settlement Periods in the day.

If the clock change is late in the day and/or of sufficient magnitude that $pc(n+m+1)$ is undefined (i.e. $(n+m+1) > 50$) then the equation is modified to use linear extrapolation rather than interpolation:

$$pc(n+i) = pc(n-1) + [pc(n-1)-pc(n-2)]*(i+1)$$

For missing periods (e.g. a 23 hour day), assume the profile coefficients for the remaining hours are unaltered. i.e. the missing hour is removed and the profile coefficients for the remaining periods are the same as for a 24 hour day. As an example, if the clocks go forward at 2am, periods 5 and 6 have zero coefficient values and all other periods remain unchanged.

2.55.1.3 Combine Base and Switched Load Profiles

This process creates a set of Combined Period Profile Coefficients for the settlement day for each combination of:

- GSP Group;
- Valid combination of Standard Settlement Configuration and Profile Class, for a Switched Load Profile Class.

For each combination, a set of Average Fractions of Yearly Consumption (AFYCs) is required. If AFYCs are not available for a particular combination, it is omitted from the profiling run.

The algorithm is as follows:

- i. Identify the Valid Measurement Requirement Profile Classes which record the Switched Load. For each Valid Measurement Requirement Profile Class, retrieve the values of Period Time Pattern State Q_{ij} (0 for off, or 1 for on) for each Settlement Period.

Identify the “on” and “off” periods and combine to form the Original Time Pattern Set for each Valid Settlement Configuration Profile Class, for the Settlement Day. A Settlement Period is considered to be “on” if one or more Period Time Pattern States retrieved is on; an “off” period is when none of the Period Time Patterns States retrieved is “on”.

Test each Original Time Pattern Set in turn to determine if they contain:

- a. no “on” periods;
- b. a single “on” period;
- c. more than 47 “on” periods;
- d. no “off” periods on a short day.

If an Original Time Pattern Set contains one of the above mentioned conditions then an Adapted Time Pattern Set is produced according to the

rules set out below, and is used in place of the Original Time Pattern Set until the fraction H_{pt} has been calculated. Once the fraction H_{pt} has been calculated, the Adapted Time Pattern Set is discarded and the Original Time Pattern Set is used for all subsequent processes.

The Adapted Time Pattern Set is compiled according to the following rules:

- If scenario a is evident, settlement periods 0 and 1 are altered to be “on”;
- If scenario b is evident, the number of “on” periods should be increased to 2 by altering the next consecutive settlement period to be “on”. If the original “on” period is the last period in the settlement day, then the previous settlement period should be altered to be “on”;
- If scenario c is evident, all settlement periods subsequent to the 47th switched period should be altered to be “off”;
- If scenario d is evident, settlement period 46 is altered to be “off”.

Identify the longest continuous block of “off” periods in the Settlement Date. In the case where the Settlement Day both begins and ends with “off” periods, this should be regarded as a single block for this purpose.

Label the “on” periods in sequence, numbered from 1 upwards. The numbering usually starts from the first “on” period immediately following the block of “off” periods identified above. If this block consists of separate periods at the start and end of the Settlement Day, start the numbering with the first “on” period of the Settlement Day. This will provide the total number of Settlement Periods in which any of the switched load registers is on.

If there is no ‘off’ period in the Settlement Day (i.e. switched load is on throughout the day), start the numbering with the first period of the Settlement Day.

If there is more than one continuous block of “off” periods with the same longest duration, identify the longest continuous block of “on” periods in the Settlement Day and start the numbering with the first period of this block.

If there is more than one continuous block of “on” periods with the same longest duration, identify the last such block occurring during the Settlement Day and start the numbering with the first period of this block.

- ii. Count the number of “on” periods to obtain the duration (i.e. the total for all Switched Load Valid Measurement Requirement Profile Classes), and retrieve the set of Basic Period Profile Coefficients for the profile with the same duration. If the Profile Class does not have a profile with the correct duration, then issue a warning message, and do not process this Standard Settlement Configuration further.
- iii. Calculate a Switched Load Profile for the regime by moving Profile Coefficients determined in (ii) into the low register “on” periods, in the sequence order determined in (i):

i.e. move first coefficient value to first “on” period, second to second “on” period as numbered in (i). Note that the Switched Load Profile is equal to zero in all “off” periods.

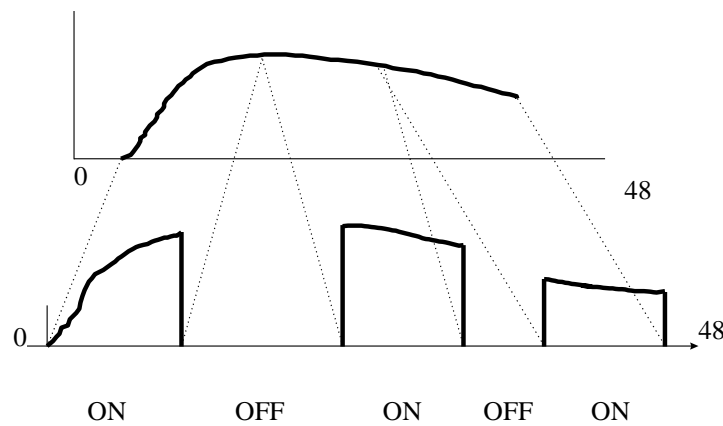


Figure 1: Combining Base and Switched load profiles

The total duration of the ON periods is equal to the total duration of the profile.

- iv. Retrieve the set of Basic Period Profile Coefficients for the Base Load (i.e. the profile with the same duration as the Settlement Day itself).
- v. Calculate the fraction H_{pt} of the low register consumption for the regime that can be regarded as Base Load. This fraction is defined as the sum of the Base Load Profile Coefficients in the on periods in the Settlement Day, divided by the sum of the Base Load Profile Coefficients in the off periods in the Settlement Day.
- vi. Produce Low Register and Normal Register Profile Coefficients for the regime by combining the Switched Load profile (calculated in iii), and the Base Load profile (calculated in iv), as follows:

In ON Periods from the Original Time Pattern Set:

$$\text{Low Register Profile Coefficient} = \text{Base Load Profile} * \text{Base}$$

$$\text{Fraction} + \text{Switched Load Profile} * \text{Switched Fraction}$$

$$\text{Normal Register Profile Coefficient} = 0$$

In OFF Periods from the Original Time Pattern Set:

$$\text{Low Register Profile Coefficient} = 0$$

$$\text{Normal Register Profile Coefficient} = \text{Base Load Profile} * \text{Base Fraction}$$

where the Base Fraction is the fraction of consumption for the regime that is attributable to Base Load, and the Switched Fraction is the fraction attributable to Switched Load. These fractions can be determined in terms of the Average Fractions of Yearly Consumption $AFYC_{pt}$ as follows:

$$\text{Base Fraction} = (1 + H_{pt}) \times \sum_{\text{normal timeslots}} AFYC_{pt}$$

$$\text{Switched Fraction} = \left(\sum_{\text{low timeslots}} AFYC_{pt} \right) - H_{pt} \times \sum_{\text{normal timeslots}} AFYC_{pt}$$

where the normal timeslots are all those occurrences of Valid Measurement Requirement Profile Class which do not have the Switched Load Indicator set; low timeslots are those which do have the switched load indicator set. The derivation of these equations is shown in the function definition (for information purposes).

If either the Low or Normal Register Profile Coefficient generated has a negative value then it will be set to zero.

2.55.1.4 Chunk Profiles

This process creates a set of Period Profile Class Coefficients for each combination of:

- i. GSP Group;
- ii. Settlement Day; and
- iii. Valid Measurement Requirement Profile Class.

For each combination, a set of Average Fractions of Yearly Consumption (AFYCs) is required. If AFYCs are not available for a particular combination, it is omitted from the profiling run.

The algorithm is as follows:

- i. Retrieve the Profile Coefficients for the Settlement Day and Profile Class. If the Profile Class has the Switched Load Profile Class Indicator set, the appropriate coefficients are Normal Register Profile Coefficient or the Low Register Profile Coefficient, depending upon whether the Switched Load Indicator is set for the Valid Measurement Requirement Profile Class (the Low Register Profile Coefficient is used when the Switched Load Indicator is set). Otherwise, they are the Basic Period Profile Coefficients for the single Profile assigned to the Profile Class.
- ii. Retrieve the occurrences of entity Period Time Pattern State, and the associated values of the Period Register On State Indicator, for the Valid Measurement Requirement Profile Class.
- iii. For each Settlement Period, calculate the Period Profile Class Coefficients as follows:

$$PPCC_{ptj} = PC_{ptj} * Q_{ij} / AFYC_{pt}$$

where PC_{ptj} are the coefficients determined in (i); Q_{ij} are the Period Register On State Indicators retrieved in (ii); and $AFYC_{pt}$ is the Average

Fraction of Yearly Consumption for the Valid Measurement Requirement Profile Class.

Following the calculation of the Period Profile Class Coefficients, the daily totals by GSP Group, Profile Class and Measurement Requirements are summed and stored in Daily Profile Coefficient.

The profile reports are produced by initiating function I0025B Produce Profile Reports.

The Daily Profile Coefficient files for the Data Collectors are extracted by initiating function I0008B Automatic Daily Profile Coefficient File Extraction.

IC002 Batch Audit is invoked.

IC009 Report Exception is invoked if required.

2.55.2 **Event Input Data**

Settlement Date

GSP Group Id

Tele-switch Data Date

2.55.3 **Function Cross References**

I0016 Calculate Daily Profiles

ECD provided in Appendix B

2.55.4 **Event Frequency**

Low Volume

2.56 **Regression Equation Set File Available**

2.56.1 **Event Description**

A file is loaded which contains a number of Profile Regression Equation Sets. Each Profile Regression Equation Set is identified by the Id of its Profile and Profile Class, the Effective From Settlement Date of its Profile Set and its Day Type and Season Id. Each Profile Regression Equation Set consists of a number of Period Regression Equations identified by their Settlement Period Id. Each Period Regression Equation consists of a number of Regression Coefficients each of which has a Regression Coefficient Type. The file also contains associated GSP Group Average Annual Consumptions which are identified by the Id of their Profile Class, Profile, GSP Group and the Effective From Settlement Date of their Profile Set. The Scottish Regression Flag for the Regression Coefficients records created is set to indicate that they are not Scottish coefficients.

Any Profile Sets and associated data previously loaded by the function “Load Regression Equations” and effective from the same or a later Settlement Date than the set being loaded are physically deleted. Any GSP Group Average Annual Consumption values (however loaded) and effective from the same or a later Settlement Date than the set being loaded are physically deleted.

None of the file contents will be loaded if:

1. Any of the GSP Groups do not exist on the system.

2. The Profile Class is not defined on the system.
3. The Profile is not defined on the system or is not linked to the correct Profile Class or the effective date of the Profile Set falls outside the effective date of the Profile.
4. A Period Regression Equation does not include data for every Settlement Period (48 if the Switched Load Profile Class Indicator is false, else the number of Profile Settlement Periods defined for the Profile).
5. Regression Coefficients are not included for every Regression Coefficient Type.
6. Regression Coefficient Types or Day Types do not exist.

If the File Creation Timestamp of the file is not later or equal to the File Creation Timestamp of the last successfully loaded (if any) file of this type then a warning will be issued but the file will still be loaded.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date {PSET}. If this date has had a Final Initial Settlement run then the load must be performed by an authorised user.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked to record all errors during the attempted load.

2.56.2 Event Input Data

File Creation Timestamp

2.56.3 Function Cross References

I0019 Load Regression Equations

2.56.4 Event Frequency

Once a year

2.57 Scottish Regression Equation Set File Available³

2.57.1 Event Description

A file is loaded which contains a number of Profile Regression Equation Sets. Each Profile Regression Equation Set is identified by the Id of its Profile and Profile Class, the Effective From Settlement Date of its Profile Set and its Day Type and Season Id. Each Profile Regression Equation Set consists of a number of Period Regression Equations identified by their Settlement Period Id. Each Period Regression Equation consists of a number of Regression Coefficients each of which has a Regression Coefficient Type. The file also contains associated GSP Group Average Annual Consumption Values which are identified by the Id of their Profile Class, Profile, GSP Group and the Effective From Settlement Date of

³ This functionality is disabled as a result of LCR235.

their Profile Set. The Scottish Regression Flag for the Regression Coefficients records created is set to indicate that they are Scottish coefficients.

Any Regression Equation data previously loaded by the function “Load Scottish Regression Equations” and effective from the same or a later Settlement Date than the set being loaded are physically deleted.

None of the file contents will be loaded if:

1. Any of the GSP Groups do not exist on the system.
2. Any of the GSP Groups are non-Scottish.
3. The Profile Class is not defined on the system.
4. The Profile is not defined on the system or is not linked to the correct Profile Class or the effective date of the Profile Set falls outside the effective date of the Profile.
5. A Period Regression Equation does not include data for every Settlement Period (48 if the Switched Load Profile Class Indicator is false, else the number of Profile Settlement Periods defined for the Profile.
6. Regression Coefficients are not included for every Regression Coefficient Type.
7. Regression Coefficient Types or Day Types or Scottish Day Types do not exist.

If the File Creation Timestamp of the file is not later or equal to the File Creation Timestamp of the last successfully loaded (if any) file of this type then a warning will be issued but the file will still be loaded.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date {PSET}. If this date has had a Final Initial Settlement run then the load must be performed by an authorised user.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked to record all errors during the attempted load.

2.57.2 Event Input Data

File Creation Timestamp

2.57.3 Function Cross References

I0019B Load Scottish Regression Equations.

2.57.4 Event Frequency

Once a year

2.58 Restore ISRA Data

2.58.1 Event Description

Data previously archived from the system is restored to a state such that data can be browsed and reports produced.

Settlement Day data is archived after a defined time (see I0015 for details). All the data for a Settlement Day will be able to be restored from archive so that the data can be browsed, and reports can be produced.

Settlement Day data can be supplied from archive for any Settlement Day up to seven years later, in both printed and electronic form.

The data will not be restored into the Production database, but into a copy of the database.

If the user specifies a Settlement Date as input then only Settlement Day based flat files specific to the chosen date are restored. Data for the largest Settlement Date based logical entities are also restored selectively on the basis of Settlement Date. (detailed choice of entities will be taken in Physical Design in the light of their physical implementation) along with a complete set of the other data and files in the archive. If no Settlement Date is specified then the entire contents of the archive are restored.

If a Settlement Date is specified and no data for the Settlement Day(s) exist on the archive then the restore fails.

Flat files will be restored to the file location they occupied prior to being archived. By default this location will have been defined by the system parameter 'Flat File Toplevel Directory'. However, this may have been superseded by an 'ISRA Flat File root' directory if one was specified in the database table "idb_flat_file_roots" for the Settlement Dates being restored.

2.58.2 Event Input Data

Settlement Date

2.58.3 Function Cross References

I0037 Restore Archived Data

2.58.4 Event Frequency

Low Volume

2.59 Season Specified

2.59.1 Event Description

The Season associated with a range of Settlement Days is specified.

The Season cannot be specified if the Settlement Day has been subject to a Final Initial Settlement Run.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Audit Report is invoked to check the earliest Settlement Day has not had a FinalInitial Settlement Run. If it has then the change must be authorised.

2.59.2 Event Input Data

Season Id
 Settlement Date Range Start
 Settlement Date Range End

2.59.3 Function Cross References

I0003 Define Calendar

2.59.4 Event Frequency

Low Volume

2.60 Set of Average Consumption Fractions Deleted**2.60.1 Event Description**

The set of Average Fraction of Yearly Consumption (AFYC_{pt}) for a given combination of Valid Settlement Configuration Profile Class and GSP Group are physically deleted.

If the deletion results in a Non-Half Hourly BM Unit Allocation for the corresponding GSP Group and VSCPC not having AFYC coverage for all the settlement days it is effective, then a warning will be issued.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the Effective From Settlement Date {AFOYCS}. If this date has had a Final Initial Settlement Run then the deletion must be authorised.

2.60.2 Event Input Data

GSP Group Id
 Profile Class Id
 Standard Settlement Configuration Id
 Effective From Settlement Date {AFOYCS}

2.60.3 Function Cross References

I0033 Define Average Fraction of Yearly Consumption

2.60.4 Event Frequency

Low Volume

2.61 Set of Average Consumption Fractions Entered**2.61.1 Event Description**

The Average Fraction of Yearly Consumption (AFYC_{pt}) for each Measurement Requirement associated with the Settlement Configuration for a given combination of Valid Settlement Configuration Profile Class and GSP Group are entered. The fractions specified for a set of Measurement Requirements associated with a Standard Settlement Configuration must sum to one. An Effective Date will be specified for each set of data.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the Effective From Settlement Date {AFOYCS}. If this date has had a Final Initial Settlement Run then the creation of the new set must be authorised.

2.61.2 Event Input Data

GSP Group Id

Profile Class Id

Standard Settlement Configuration Id

Effective From Settlement Date {AFOYCS}

Effective To Settlement Date {AFOYCS}

Time Pattern Regime Id

Average Fraction of Yearly Consumption

2.61.3 Function Cross References

I0033 Define Average Fraction of Yearly Consumption

2.61.4 Event Frequency

Low Volume

2.62 Set of Average Consumption Fractions Updated

2.62.1 Event Description

The set of Average Fraction of Yearly Consumption (AFYC_{pt}) for a given combination of Valid Settlement Configuration Profile Class (VSCPC) and GSP Group are amended. The fractions specified for a set of Measurement Requirements associated with a Standard Settlement Configuration must sum to one.

If an update to the Effective to Settlement Date results in a Non-Half Hourly BM Unit Allocation for the corresponding GSP Group and VSCPC not having AFYC coverage for all the settlement days it is effective, then a warning will be issued.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the Effective From Settlement Date {AFOYCS}. If this date has had a Final Initial Settlement Run then the change must be authorised.

2.62.2 Event Input Data

GSP Group Id

Profile Class Id

Standard Settlement Configuration Id

Effective From Settlement Date {AFOYCS}

Effective To Settlement Date {AFOYCS}

Time Pattern Regime Id

Average Fraction of Yearly Consumption

2.62.3 **Function Cross References**

I0033 Define Average Fraction of Yearly Consumption

2.62.4 **Event Frequency**

Low Volume

2.63 **Settlement Calendar Data Loaded**

2.63.1 **Event Description**

A file of Settlement Calendar data prepared by the Market Domain Data Agent is read.

The incoming data will be validated to ensure the following:

- Physical integrity of the file using the file checksum.
- Settlement Calendar data to be loaded must be the same or a later version than that in the system. This is done by checking File Creation Timestamp.

If this validation is not successful, the data file is rejected. The file management database is updated to show that the load has failed, and a message written to a log to indicate the load has failed. An exception report is generated, and the sender and the ISR Agent are notified.

If validation is successful, the file is loaded into the database. For each Settlement details contained in the file, the logical entity Settlement is checked to determine if it already exists. If a corresponding Settlement exists on the system, the Settlement details in the file are processed, and any valid updates applied to the database. Otherwise, a new Settlement will be created on the database, subject to validation. Details of all updates to existing Settlements will be reported as warnings in the exception report. Totals for the number of records created and updated will also be written to the exception report.

For each Settlement details contained in the data file, the following processing is performed:

- Updates to existing Settlements will not be permitted if there has been a corresponding SSR Run, or if SSA Data has been loaded for the Settlement.
- Only the Payment Date and Planned SSR Run Date may be updated for existing Settlements.
- Planned SSR Run Date must be less than or equal to the Payment Date.
- Where the Planned SSR Run Date is not specified in the file, it will be defaulted to the Payment Date.
- Payment Date must be within the Payment Date range specified for the file.

If any of the validation described above fails, a corresponding warning message will be written to the exception report, and the data for that Settlement not loaded. However, the loading of other valid Settlement data from the file will be allowed to continue.

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.63.2 **Event Input Data**

File Creation Timestamp

2.63.3 **Function Cross References**

I0044 - Load Settlement Calendar Data

2.63.4 **Event Frequency**

Low Volume - expected annually

2.64 **Settlement Deleted**

2.64.1 **Event Description**

A Settlement i.e. a planned Settlement Run is physically deleted from the system. A Settlement can only be deleted if the associated SSR Run has not taken place and if SSA data has not been loaded for the Settlement Date.

IC001 Update On-line Audit Log is invoked.

2.64.2 **Event Input Data**

Settlement Date

Settlement Code

2.64.3 **Function Cross References**

I0030 Define Settlement Calendar

2.64.4 **Event Frequency**

Low Volume

2.65 **Settlement Entered**

2.65.1 **Event Description**

Details of a set of planned Settlement runs for a Settlement Date are entered.

IC001 Update On-line Audit Log is invoked.

2.65.2 **Event Input Data**

Settlement Date

Payment Date

Planned SSR Run Date

Settlement Code

2.65.3 **Function Cross References**

I0030 Define Settlement Calendar

2.65.4 Event Frequency

Low Volume

2.66 Settlement Price Data Available

2.66.1 Event Description

A file of Settlement Price data for a Settlement Day becomes available from the existing settlements system.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- The file is rejected if the settlement date is on or after the date that NETA becomes effective.
- Any Settlement Price 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.

Each file is validated and loaded separately in file creation order. If the data is successfully validated, the logical entity SSA Settlement Run is checked to see if it already exists. If it does exist (i.e. GSP Group Take data for the same SSA Settlement Run has already been loaded separately - see GSP Group Take Available Section), the SSA Settlement Run Type ("II" – Initial Interim Settlement Run added to list of valid Settlement Run Types after P253 implementation) and CDCS Extract Number are checked to match the SSA Settlement Run Type and CDCS Extract Number in the data file. If the logical entity SSA Settlement Run does not exist, it is created to contain the SSA Settlement Run Details. The logical entity Settlement Period Prices is then created with the Pool Selling Price, Transmission Loss Multiplier and Transmission Losses Reconciliation Multiplier for each Settlement Period. The file management database is updated to indicate the load is successful, and a message is written to a log to indicate the load is successful.

If no errors are found, the data is loaded into the database.

If validation is not successful, the file management database is updated to show the load has failed, and a message is written to a log to indicate the load has failed. An exception report is generated, and the SSA and ISR Agent notified.

If the load is successful, the Period GSP Group Purchases and Daily GSP Group Purchases loaded separately with the GSP Group Take are validated such that:-

$$PD_{gj} = \text{PeriodGSPGroupPurchases}_{gj} - \left[\text{GSPGroupTake}_{gj} \times \text{PSP}_j \times (1 + \text{TLM}_j) \times (1 + \text{LRM}_j) \right]$$

$$DD_g = \text{DailyGSPGroupPurchases}_g - \sum_j (\text{PeriodGSPGroupPurchases}_{gj})$$

where PSP is the Pool Selling Price, TLM is the Transmission Loss Multiplier and LRM is the Transmission Losses Reconciliation Multiplier. *PD*, and *DD* are the

period and daily discrepancies. See SSR Run Event Section for description on subscripts used.

If the value of *DD* or any of the *PD* values are not zero, a warning is put in the exception report for the data load. If the absolute values of any of the discrepancies are greater than a threshold, then the warning is upgraded to an error and the data is marked as invalid. There are two separate thresholds, one for daily purchases, and one for period purchases; these are held as system configuration parameters.

The above check is only performed for GSP Group Take that have been previously loaded. (See GSP Group Take Available Section) If validation is performed, the logical entity SSA Settlement GSP Group is updated to indicate if all the Period GSP Group Purchases for the GSP Group are valid (i.e. any discrepancies are less than the thresholds).

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.66.2 **Event Input Data**

File Creation Timestamp

SSA Settlement Date

SSA Settlement Run Type Id

SSA Settlement Run Number

2.66.3 **Function Cross References**

I0020B - Load Settlement Price Data

2.66.4 **Event Frequency**

Once per Settlement date and code.

2.67 **Settlement Updated**

2.67.1 **Event Description**

Details of a Settlement are updated. Details can only be amended if the associated SSR Run has not yet taken place and if SSA data has not been loaded for the Settlement Date. The Planned SSR Run Date and the Payment Date can be updated.

IC001 Update On-line Audit Log is invoked.

2.67.2 **Event Input Data**

Settlement Date

Settlement Code

Payment Date

Planned SSR Run Date

2.67.3 Function Cross References

I0030 Define Settlement Calendar

2.67.4 Event Frequency

Low Volume

2.68 SPM Data Available

2.68.1 Event Description

A file of aggregated annual consumption data becomes available from a non-Half-Hourly Data Aggregator.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- 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 existing and correct GSP Group(s).
- The data for Scottish GSP Group(s) will not be loaded for the settlement days prior to BETTA Start Date.
- 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, and the file contains data for a Settlement Code for which data updates are not allowed, an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then an appointment is created for the Data Aggregator and an association created with the Data Aggregator for each Supplier in the file on the Settlement Date / GSP Group, together with a Supplier in GSP Group association for each Supplier if one does not already exist. The details of each new association are logged in the Data Load Standing Data Update report. The logic behind the creation of the Data Aggregator Appointments and Supplier associations is detailed in case 3 of the 'Standing Data Update Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.
- 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, and the file contains data for a Settlement Code for which data updates are not allowed, then an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then any unexpected Suppliers in the file will have an association created with the Data Aggregator on the Settlement Date / GSP Group, together with a Supplier in GSP Group association for each Supplier if one does not already exist. The details of each new association are logged in the Data Load Standing Data Update report. The logic behind the creation of the associations is detailed in case 2 of the 'Standing Data Update

Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.

- 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. If not, and the file contains data for a Settlement Code for which data updates are not allowed, then an error exception entry will be written and the file rejected. If not, and the file contains data for a Settlement Code for which data updates are allowed, then any missing Suppliers in the file will have their association with the Data Aggregator on the Settlement Date / GSP Group removed. The details of each association which is removed are logged in the Data Load Standing Data Update report. The logic behind the removal of the associations is detailed in case 1 of the 'Standing Data Update Logic' section below. Whether a Settlement Code is permitted to have data updates made is signified by the Standing Data Update Indicator.
- The data is for valid combinations of Profile Class and measurement requirements that are effective on the Settlement Date of the file.
- The data is for existing Line Loss Factor classes which are effective on the Settlement Date of the file Line Loss Factor Classes are further validated that the relevant Line Loss Factors are defined. If the class is not effective or any Line Loss Factor data is missing, an exception report entry is generated. However, the SPM data file will not be rejected because of this i.e. the data is loaded.
- That for files containing data for Settlement Days from the start of the NETA, each Supplier in the file has a Default BM Unit for Supplier in GSP Group defined for the Supplier and GSP Group combination. If no Default BM Unit for Supplier in GSP Group is defined, an exception report entry is generated. However, the SPM data file will not be rejected because of this i.e. the data is loaded.
- If an SSR Run has been done for the Settlement Date and Settlement Code of the file. If so a warning exception report entry is generated. However, the SPM data file will not be rejected because of this i.e. the data is loaded.

Each file is validated and loaded separately. If the file passes the validation, the master logical entity Supplier Data Aggregation is first created per Supplier, Data Aggregator and GSP Group combination. For each occurrence of Supplier Data Aggregation, the detail logical entity Supplier Purchase Matrix is created per Settlement Class (The logical entity Settlement Class is also created if it does not already exist). This contains details of Supplier consumption - EACs, AAs and Unmetered totals. The file management database is updated to indicate the load is successful, and a message is written to a log to indicate the load is successful.

If no errors are found, the data is loaded into the database.

If validation (except for missing Line Loss Factor data / non effective Line Loss Factor Class) is not successful, the file management database is updated to show the load has failed, and a message is written to a log to indicate the load has failed. An exception report is generated indicating all validation errors and warnings.

Standing Data Update Logic

In case 1 below, 'association' refers to an instance of the entity Data Aggregator in GSP Group.

In cases 2 and 3 below, association refers to an instance of the entity Data Aggregator in GSP Group and/or the entity Supplier in GSP Group.

In each case, before any standing data updates are made, the load process will ensure that there is no SSR Run in progress or waiting to start which is using data that will be altered by the standing data update. If there is a run in progress or waiting to start then the file load will wait until this has finished before updating standing data.

Case 1. Data Missing for a Supplier

Suppliers in the file will have their association with the Data Aggregator on the Settlement Date / GSP Group removed. The logic for doing this depends upon the Settlement Date D to which the file relates and the Effective From Settlement Date (EFSD) X_1 and the Effective To Settlement Date (ETSD) X_2 of the existing association:

If $X_1 < D < X_2$, the existing association is closed off (i.e. ETSD = $D-1$), and a new association is created spanning the period from $D+1$ to X_2 .

If $X_1 = D < X_2$ (i.e. the existing association starts on the Settlement Date in question), the existing occurrence is deleted, and a new association is created spanning the period from $D+1$ to X_2 .

If $X_1 < D = X_2$ (i.e. the existing association ends on the Settlement Day in question), the existing association is closed off (i.e. ETSD = $D-1$), but no new association is created.

If $X_1 = D = X_2$ (i.e. a one-day association), the existing association is removed, and no new associations are created.

Note that the above processing will not remove the parent Supplier in GSP Group entity for a Supplier, even if it's left without any Data Aggregator associations for any Settlement Date and GSP Group.

Case 2. Data for an Additional Supplier

Suppliers in the file will have an association with the Data Aggregator on the Settlement Date / GSP Group created for the Settlement Date D to which the file relates. The Supplier will also be appointed to the GSP Group (i.e. have an instance of the entity Supplier in GSP Group created) for the Settlement Date / GSP Group to which the file relates if it is not already appointed.

If there is an association ending on day $D-1$, but not one starting on day $D+1$, the one ending on day $D-1$ is updated to end on Day D .

If there is an association ending on day $D-1$, and another starting on day $D+1$, the second association is removed, but its ETSD is transferred to the first association.

If there is an association starting on day $D+1$, but not one ending on day $D-1$, the one starting on day $D+1$ is replaced with one starting on day D .

If there isn't an association ending on day $D-1$ or starting on day D , a one-day association is created for day D .

Case 3. Unexpected Data Aggregator File Received

The logic for this is the same as for case 2 i.e. associations are created between the Data Aggregator and each Supplier in the file for the Settlement Date / GSP Group to which the file relates. Each Supplier will also be appointed to the GSP Group (i.e. have an instance of the entity Supplier in GSP Group created) for the Settlement Date / GSP Group to which the file relates if it is not already appointed.

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

IC010 Report Data Load Standing Data Update.

2.68.2 Event Input Data

Data Aggregator Id

Data Aggregation Run Number

GSP Group Id

Settlement Date

Settlement Code

2.68.3 Function Cross References

I0022B - Load Supplier Purchase Matrix Data

2.68.4 Event Frequency

Once per non-half hourly Data Aggregator per settlement date and code.

2.69 SSR Run Event

2.69.1 Event Description

The SSR Run Event processing occurs as a number of consecutive stages:

- Validate Run Data
- Profile SPM Data
- Aggregate Profiled Data
- Adjust for Line Losses
- Aggregate HH Data
- Calculate and Apply GSP Group Correction
- Calculate Unadjusted Supplier Deemed Take
- Adjust for Non-Pooled Generation Spill

In the text below the definition of the subscripts used is as follows:

- a : Aggregator

- j : Settlement Period
- g : GSP Group
- i : BM Unit
- l : Line Loss Factor Class
- m : Standard Settlement Configuration
- n : Consumption Class
- p : Profile Class
- s : Supplier
- t : Time Pattern Regime

The processing is described for one GSP Group but is repeated for all GSP Groups associated with the run. An exception report will be produced as part of the run detailing warning conditions (if any) about the run.

Validate Run Data

This process will check that the necessary data has been collected for the Settlement Run to be initiated, i.e. that the appropriate occurrences of the following entities exist and are valid as set out below:

Entity	Instance(s) Required / Validation Checks	Action if Instance Required is missing
Settlement	Instance matching the Settlement Date and Code entered by the user.	The user must select a Settlement Run that has been defined as part of the definition of the Settlement Calendar.
SSA Settlement Run GSP Group Take Settlement Period Prices	SSA Settlement Run with SSA Settlement Date matching the Settlement Date entered by the user. The data for the highest SSA Settlement Run Number for the Settlement Date is validated to ensure that GSP Group Takes have been received for all GSP Groups selected for the run and that the Period GSP Group Purchases are consistent with the Settlement Period Prices (done at file load time and indicated by the Period Purchases Valid attribute of SSA Settlement GSP Group)	The SSA Settlement Run chosen must be consistent. If some of the files required are missing or have failed validation then an error is displayed and the user is prompted to select an SSA Settlement Run meeting the validation criteria.
Supplier Data Aggregation Supplier Purchase Matrix (i.e. non-half hourly data)	Instance for all Data Aggregators with Data Aggregation Type of NHH who are assigned to Suppliers operating in the GSP Groups selected for the run. Where multiple files have been received from a Data Aggregator for a GSP Group and Settlement, the data from the file with the highest Aggregation Run Number is selected. For Final Dispute Settlements, files from Data Aggregators are only included in the Settlement if there is a matching instance of the Final Dispute Expected Data	The user will be prompted to enter the Data Aggregation data to use as a default for all missing NHH Data Aggregation files. A substitute file must be selected for each missing file which must be from the same Data Aggregator. Default file processing is described in more detail below.

Entity	Instance(s) Required / Validation Checks	Action if Instance Required is missing
	Aggregation entity. For Data Aggregators with no such matching instance, the files that were used in the Final Reconciliation Settlement are used again in the Final Dispute Settlement i.e. automatically defaulted.	
	Check whether any instances exist for a NHH Data Aggregator who is not assigned to any of the Suppliers operating in the GSP Groups selected for the run.	If unexpected Data Aggregator files found, User prompted whether to continue SSR Run. If continue, a warning message will be given indicating that the associated data will not be used in the run.
	For each loaded NHH Data Aggregation file selected for the run, validate that there are instances for all Suppliers with appointments to the corresponding Data Aggregator for the GSP Group and Settlement Date.	If there is missing Supplier data, an error message is displayed and the SSR Run aborted.
	For each loaded NHH Data Aggregation file selected for the run, validate that there are no instances for Suppliers who do not have an appointment to the NHH Data Aggregator for the GSP Group and Settlement Date.	If there is unexpected Supplier data, an error message is displayed and the SSR Run aborted.
	For each loaded NHH Data Aggregation file selected for the run, validate that there are no instances for Distributors with unknown LLFCs.	A warning message is displayed and a default LLF of 1.0 is used.
	For each loaded SPM file, validate that there are no invalid Distributors/GSP Group relationships.	A warning message is displayed.
Supplier Data Aggregation Aggregated Supplier DA Consumption (i.e. half hourly data)	Instance for all Data Aggregators with Aggregation Type of HH assigned to Suppliers operating in the GSP Groups selected for the run. Where multiple files have been received from a Data Aggregator for a GSP Group and Settlement the data from the file with the highest Aggregation Run Number is selected. or Final Dispute Settlements, files from Data Aggregators are only included in the Settlement if there is a matching instance of the Final Dispute Expected Data Aggregation entity. For Data Aggregators with no such matching instance, the files that were used in the Final Reconciliation Settlement are used again in the Final Dispute Settlement i.e. automatically defaulted.	The user will be prompted to enter the Data Aggregation data to use as a default for all missing HH Data Aggregation files. The user can choose another a substitute file from the same Data Aggregator or (by not filling in substitute details) exclude the Data Aggregator from the run. Default file processing is described in more detail below.
	Check whether any instances exist for a HH Data Aggregator who is not assigned to any of the Suppliers operating in the	If unexpected HH Data Aggregator files found, User prompted whether to continue SSR Run. If continue, a

Entity	Instance(s) Required / Validation Checks	Action if Instance Required is missing
	GSP Groups selected for the run.	warning message will be given indicating that the associated data will not be used in the run.
	For each loaded HH Data Aggregation file selected for the run, validate that there are instances for all Suppliers with appointments to the corresponding Data Aggregator for the GSP Group and Settlement Date.	If there is missing Supplier data, an error message is displayed and the SSR Run aborted.
	For each loaded HH Data Aggregation file selected for the run, validate that there are no instances for Suppliers who do not have an appointment to the HH Data Aggregator for the GSP Group and Settlement Date.	If there is unexpected Supplier data, an error message is displayed and the SSR Run aborted.
Profile Production Run	Instance for all GSP Groups selected for the run for the Settlement Date.	The run cannot proceed without Profile Production Run data.

Table 5: Settlement Run Entities

If any of the files for which substitutes can be used are missing then these are displayed to the user to allow the substitutes to be specified. If none are missing then the SSA Settlement Run to be used is displayed as confirmation to the user. At this point the user can cancel the initiation of the run. The substitutes chosen must be files held online by the system.

Default Data Aggregation files selected for an SSR Run will not be required to contain data for all Suppliers with appointments to the corresponding Data Aggregator for the GSP Group and Settlement. However, an exception warning record will be entered for each appointed Supplier with no associated aggregation data. Similarly, an exception warning record will be written for each set of Supplier data in the default file with no corresponding appointment to the Data Aggregator, GSP Group and Settlement.

After valid substitutes are specified (if necessary) and the user choosing to proceed the run is initialised. Data is inserted into entities SSR Run, SSR Run GSP Group, Supplier Data Aggregation used in SSR Run to record the inputs used.

Additionally Settlement Period LLF used in SSR Run is populated with a copy of all Settlement Period Line Loss Factors and their associated LLF File Ids for the Settlement Date associated with Line Loss Factor Classes effective on the Settlement Date. GSP Group Correction Scaling Factors used in SSR Run is populated with the set of GSP Group Correction Scaling Factors effective on the Settlement Date.

An exception is generated for every file where a substitute is specified or where an expected HH Data Aggregator's data have not been included.

2.69.1.1 Profile SPM Data

This process applies the profiles to the data read from Supplier Purchase Matrix to produce half hourly consumption estimates for each Supplier and Settlement Class. The half hourly estimates are summed by Data Aggregator and written to Profiled SPM.

For each Supplier, calculate the estimated Suppliers' Profiled Consumption (SPC) and the corresponding MSID Count (SPCMC) for each half hour for each Supplier and Settlement Class:

- Suppliers' Profiled Consumption based on EACs' and the corresponding MSID Count:

$$SPC_{[Total\ EAC]_{sljtpm}} = \sum_a (SPM_{[Total\ EAC]_{saptlm}} \times PPCC_{ptj})$$

$$SPCMC_{[Total\ EAC]_{sljtpm}} = \sum_a (SPMcount_{[Total\ EAC]_{saptlm}})$$

- Suppliers' Profiled Consumption based on AAs and the corresponding MSID Count:

$$SPC_{[Total\ AA]_{sljtpm}} = \sum_a (SPM_{[Total\ AA]_{saptlm}} \times PPCC_{ptj})$$

$$SPCMC_{[Total\ AA]_{sljtpm}} = \sum_a (SPMcount_{[Total\ AA]_{saptlm}})$$

- Suppliers' Profiled Consumption for unmetered supplies and the corresponding MSID Count:

$$SPC_{[Total\ Unmetered]_{sljtpm}} = \sum_a (SPM_{[Total\ Unmetered]_{saptlm}} \times PPCC_{ptj})$$

$$SPCMC_{[Total\ Unmetered]_{sljtpm}} = \sum_a (SPMcount_{[Total\ Unmetered]_{saptlm}})$$

where PPCC refers to the Period Profile Class Coefficient for the Profile Class, Standard Settlement Configuration Time Pattern Regime and Settlement Period. If no Period Profile Class Coefficient is found then an exception is recorded and the cell is discarded. If no Period Profile Class Coefficients are found for the Supplier's entire consumption data in a GSP Group then an exception is recorded and the run is terminated.

Insert the calculated values into Profiled SPM.

2.69.1.2 Aggregate Profiled Data

Two sets of aggregations are performed: for each Supplier and for each BM Unit.

Firstly, aggregate the Consumptions (C) and the MSID Counts (CMC) from the profiled SPM data into values for the following Consumption Component Classes for each Supplier and Line Loss Factor Class.

Note that the Consumptions are summed over Time Pattern Regime but the MSID Counts are not. (If the MSID Counts were summed over Time Pattern Regime then the aggregated quantities would represent Register Counts not MSID Counts).

- For Consumption Class (n) = ‘Profiled HH import based on EACs:

$$C_{nsj} = \sum_{lmp} SPC[Total EAC]_{slmjpt}$$

$$CMC_{nsj} = \sum_{lmp} SPCMC[Total EAC]_{slmj}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Import”

- For Consumption Class (n) = ‘Profiled HH export based on EACs:

$$C_{nsj} = \sum_{lmp} SPC[Total EAC]_{slmjpt}$$

$$CMC_{nsj} = \sum_{lmp} SPCMC[Total EAC]_{slmj}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Export”

- For Consumption Class (n) = ‘Profiled HH import based on AAs:

$$C_{nsj} = \sum_{lmp} SPC[Total AA]_{slmjpt}$$

$$CMC_{nsj} = \sum_{lmp} SPCMC[Total AA]_{slmj}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Import”

- For Consumption Class (n) = ‘Profiled HH export based on AAs:

$$C_{nsj} = \sum_{lmp} SPC[Total AA]_{slmjpt}$$

$$CMC_{nsj} = \sum_{lmp} SPCMC[Total AA]_{slmj}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Export”

- For Consumption Class (n) = ‘Profiled HH consumption for unmetered supplies:

$$C_{nsj} = \sum_{lmp} SPC[Total Unmetered]_{slmjpt}$$

$$CMC_{nsj} = \sum_{lmp} SPCMC[Total Unmetered]_{slmj}$$

Insert the calculated values into Aggregated Supplier Period Consumption.

Secondly, aggregate the Consumptions (C) from the profiled SPM data into values for the following Consumption Component Classes for each BM Unit and Line Loss Factor Class. The appropriate BM Unit to aggregate the profiled SPM data into is derived from the BM Unit for Supplier in GSP Group entity and the Non-Half Hourly BM Unit Allocation entity. Where the Valid Profile Class Settlement Configuration from the profiled SPM data for each Supplier in the GSP Group has

a BM Unit allocated for the Settlement Day, then this BM Unit is used. If there is no BM Unit allocated then the Default BM Unit for the Supplier in GSP Group is used. If the Valid Profile Class Settlement Configuration from the profiled SPM data for a Supplier in the GSP Group does not have a BM Unit allocated for the Settlement Day and the Supplier in GSP Group does not have a Default BM Unit defined, a warning message is logged in the Exception Report and those energy values are excluded from the SSR Run.

- For Consumption Class (n) = ‘Profiled HH import based on EACs:

$$C_{nij} = \sum_{lmpt} SPC[TotalEAC]_{ilmjpt}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Import”

- For Consumption Class (n) = ‘Profiled HH export based on EACs:

$$C_{nij} = \sum_{lmpt} SPC[TotalEAC]_{ilmjpt}$$

where the SSC sum (m) is over only those SSCs with SSC Type set to “Export”

- For Consumption Class (n) = ‘Profiled HH import based on AAs:

$$C_{nij} = \sum_{lmpt} SPC[TotalAA]_{ilmjpt}$$

where the SSC sum is over only those SSCs with SSC Type set to “Import”

- For Consumption Class (n) = ‘Profiled HH export based on AAs:

$$C_{nij} = \sum_{lmpt} SPC[TotalAA]_{ilmjpt}$$

where the SSC sum is over only those SSCs with SSC Type set to “Export”

- For Consumption Class (n) = ‘Profiled HH consumption for unmetered supplies:

$$C_{nij} = \sum_{lmpt} SPC[TotalUnmetered]_{ilmjpt}$$

Insert the calculated values into Aggregated BM Unit Period Consumption.

2.69.1.3 Adjust for Line Losses

This process applies the class line losses to the profiled consumption estimates calculated by Aggregate Profiled Data.

Firstly, this is summed by Supplier to create values for five line loss consumption classes (C):

- For consumption class (n) = ‘Line losses due to profiled HH import based on EACs’:

$$C_{nsj} = \sum_l \left((LLF_{slj} - 1) \times \sum_{mpt} (SPC[TotalEAC]_{slmjpt}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Import”

- For consumption class (n) = ‘Line losses due to profiled HH export based on EACs’:

$$C_{nsj} = \sum_l \left((LLF_{slj} - 1) \times \sum_{mpt} (SPC_{[TotalEAC]_{slmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Export”

- For consumption class (n) = ‘Line losses due to profiled HH import based on AAs’:

$$C_{nsj} = \sum_l \left((LLF_{slj} - 1) \times \sum_{mpt} (SPC_{[TotalAA]_{slmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Import”

- For consumption class (n) = ‘Line losses due to profiled HH export based on AAs’:

$$C_{nsj} = \sum_l \left((LLF_{slj} - 1) \times \sum_{mpt} (SPC_{[TotalAA]_{slmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Export”

- For consumption class (n) = ‘Line losses due to profiled HH consumption for unmetered supplies’:

$$C_{nsj} = \sum_l \left((LLF_{slj} - 1) \times \sum_{mpt} (SPC_{[TotalUnmetered]_{slmjpt}}) \right)$$

Insert the calculated values into Aggregated Supplier Period Consumption.

Secondly, this is summed by BM Unit to create values for five line loss consumption classes (C). The appropriate BM Unit is derived from the BM Unit for Supplier in GSP Group entity and the Non-Half Hourly BM Unit Allocation entity. Where the Valid Profile Class Settlement Configuration from the profiled SPM data for each Supplier in the GSP Group has a BM Unit allocated for the Settlement Day, then this BM Unit is used. If there is no BM Unit allocated then the Default BM Unit for the Supplier in GSP Group is used. If the Valid Profile Class Settlement Configuration from the profiled SPM data for a Supplier in the GSP Group does not have a BM Unit allocated for the Settlement Day and the Supplier in GSP Group does not have a Default BM Unit defined, a warning message is logged in the Exception Report and those energy values are excluded from the SSR Run.

- For consumption class (n) = ‘Line losses due to profiled HH import based on EACs’:

$$C_{nij} = \sum_l \left((LLF_{ilj} - 1) \times \sum_{mpt} (SPC_{[TotalEAC]_{ilmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Import”

- For consumption class (n) = ‘Line losses due to profiled HH export based on EACs’:

$$C_{nij} = \sum_l \left((LLF_{ij} - 1) \times \sum_{mpt} (SPC_{[TotalEAC]_{ilmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Export”

- For consumption class (n) = ‘Line losses due to profiled HH import based on AAs’:

$$C_{nij} = \sum_l \left((LLF_{ij} - 1) \times \sum_{mpt} (SPC_{[TotalAA]_{ilmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Import”

- For consumption class (n) = ‘Line losses due to profiled HH export based on AAs’:

$$C_{nij} = \sum_l \left((LLF_{ij} - 1) \times \sum_{mpt} (SPC_{[TotalAA]_{ilmjpt}}) \right)$$

where the SSC sum is over only those SSCs with SSC Type set to “Export”

- For consumption class (n) = ‘Line losses due to profiled HH consumption for unmetered supplies’:

$$C_{nij} = \sum_l \left((LLF_{ij} - 1) \times \sum_{mpt} (SPC_{[TotalUnmetered]_{ilmjpt}}) \right)$$

In the processing of the above equations, Line Loss Factors (LLF) are read from Settlement Period Line Loss Factor based on the Line Loss Factor Class of the Profiled SPM data. If any values are missing then an exception is generated and the LLF is defaulted to 1. If the Line Loss Factor exists but the associated Line Loss Factor Class is not effective on the Settlement Date then a default LLF of 1.0 is used and an exception is generated.

Insert the calculated values into Aggregated BM Unit Period Consumption.

2.69.1.4 Aggregate HH Data

Firstly, aggregate the Consumptions (C) and MSID Counts (CMC) from the HH data received by Data Aggregator into values for the Consumption Component Class, Settlement Period and Supplier.

$$C_{nsj} = \sum_a ASDAPC_{nsja}$$

$$CMC_{nsj} = \sum_a ASDAPCcount_{nsja}$$

Insert into Aggregated Supplier Period Consumption.

Secondly, aggregate the HH data received by Data Aggregator into values for the Consumption Component Class, Settlement Period and BM Unit. Where the BM Unit is not specified in the HH data, the Default BM Unit for the appropriate Supplier in the GSP Group will be used. If the BM Unit is not specified in the HH data and the Supplier in GSP Group does not have a Default BM Unit defined, a warning message is logged in the Exception Report and those energy values are excluded from the SSR Run.

If the specified BM Unit is invalid then a warning is logged in the Exception Report and the Default BM Unit is used. If the specified BM Unit is invalid and the Supplier in GSP Group does not have a Default BM Unit defined, a warning message is logged in the Exception Report and those energy values are excluded from the SSR Run. This does not cause the SSR Run to fail. The BM Unit can be invalid in three ways:

- BM Unit not defined on SVAA system
- BM Unit not valid on Settlement Date
- BM Unit not valid for GSP Group and Supplier

$$C_{nij} = \sum_a ASDAPC_{nija}$$

Where ASDAPC refers to the instances of Aggregation Supplier DA Period Consumption.

Insert into Aggregated BM Unit Period Consumption.

2.69.1.5 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.

Scaling Factors per Consumption Component Class n, referred to the formulas below as a weight W_n , define the degree to which a total for a Consumption Component Class total is to be corrected. This information is read from the GSP Group Correction Scaling Factor entity.

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

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

The consumption for Active Import Consumption Component Classes are added, and Active Export subtracted. This is because both import and export are represented by positive numbers.

Next, for each Settlement Period in the trading day, the GSP Group Correction Factor CF_j is calculated as follows:

$$GSP\ Group\ Correction\ Factor_j = 1 + \frac{GSP\ Group\ Take_j - \sum_n C_{nj}}{\sum_n C_{nj} \times W_n}$$

where C_{nj} is the unadjusted consumption for Consumption Component Class n, and W_n is the associated GSP Group Correction Scaling Factor. This is inserted into SSR Run GSP Group Period.

Then firstly, the GSP Correction Factor is applied by setting the appropriate field (either Corrected Supplier Consumption or Corrected Line Loss Component) of each row in the Aggregated Supplier Period Consumption entity as follows:

$$\text{Corrected Component}_{nsj} = C_{nsj} \times (1 + (CF_j - 1) \times W_n)$$

Secondly, the GSP Correction Factor is then applied by setting the appropriate field (either Corrected BM Unit Energy or Corrected BM Unit Line Losses Component) of each row in the Aggregated BM Unit Period Consumption entity as follows:

$$\text{Corrected Component}_{nij} = C_{nij} \times (1 + (CF_j - 1) \times W_n)$$

Where CF_j refers to the just calculated GSP Group Correction Factor.

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 all GSP Group Correction Scaling Factors are zero for Consumption Component Classes with non-zero consumption then GSP Group Correction cannot be completed. The run is stopped and an exception reported.

2.69.1.6 Calculate Unadjusted Supplier Deemed Take

For each Supplier and each Settlement Period in the Settlement Day being processed, calculate the Unadjusted Supplier Deemed Take from the contents of the Aggregated Supplier Period Consumption entity by summing Corrected Supplier Consumption and Corrected Line Loss Component for all Consumption Component Classes with Measurement Quantity Id equal to Active Import (i.e. demand from the grid) and subtracting the summation of the same attributes for all Active Export Consumption Component Classes (as this represents Non Pooled Generation and thus reduces a Supplier's take from the grid).

The Unadjusted Supplier Deemed Take per Supplier, Settlement Period and GSP Group is inserted into Period Supplier Purchase.

2.69.1.7 Adjust for Non-Pooled Generation Spill

This process is to prevent any Supplier recording a negative Supplier Deemed Take as a result of the total output from any Non-Pooled Generation which they may have registered exceeding their take, but is only performed for settlement dates before the start of the NETA.

If, in any given half hour, a Supplier has more metered output from Non-Pooled Generation than demand at the GSP Group, the surplus generation (spill) is credited to all other Suppliers in the GSP Group in proportion to the sum of their consumption components that have been adjusted by GSP Group Correction.

Thus, spill is credited in a manner consistent with how GSP Group Correction is applied. For each half hour:

- a) If one or more Suppliers have a negative Unadjusted Supplier Deemed Take and the settlement date is before the date on which spill processing is to be disabled:

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- The total NPG spill is calculated by summing all Unadjusted Supplier Deemed Takes that have a negative value. This is referred to as SPILL_j (note: SPILL_j is negative);
- For all negative Unadjusted Supplier Deemed Takes, the Period Supplier Deemed Take is set to zero;
- The sum of the negative deemed take across all non zero Unadjusted Supplier Deemed Takes is apportioned in proportion to the sum of the consumption components adjusted by GSP Group Correction. This is done by:

- For all positive Unadjusted Suppliers Deemed Takes, sum the Corrected Component Totals for each consumption component class which is GSP Group corrected to form a total for the Supplier and Settlement Period, known as SGT_{sj}:

$$SGT_{sj} = \sum_n (Corrected\ Component_{snj} \times W_n)$$

- In this summation, the consumption for Active Import Consumption Component Classes are added, and Active Export subtracted. This is because both import and export are represented by positive numbers.
- To prevent any supplier from acquiring a negative Supplier Deemed Take, the SGT for each supplier is capped at the level of that supplier's Unadjusted Supplier Deemed Take:⁴

$$SGT_{sj} = Min(SGT_{sj}, Unadjusted\ Supplier\ Deemed\ Take_{sj})$$

- A total of the SGT values, TGT_j is calculated:

$$TGT_j = \sum_s SGT_{sj}$$

- TGT represents the total adjustment that can be made to the Supplier Deemed Takes. If the spill is greater than this, it cannot be apportioned between the other suppliers' Supplier Deemed Takes without making one or more of them negative. Thus if $TGT_j < -SPILL_j$ the run should be stopped. An error message is generated to state that this condition has occurred.⁴

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- For all the positive Unadjusted Suppliers Deemed Take, the Period Supplier Deemed Take is set to the Unadjusted Supplier Deemed Take, plus a fraction of (the negative value) SPILL_j:

$$P.Supplier\ Deemed\ Take_{sj} = Unadjusted\ Supplier\ Deemed\ Take_{sj} + \left(SPILL_j \times \frac{SGT_{sj}}{TGT_j} \right)$$

b) If no Suppliers have a negative Unadjusted Supplier Deemed Take or if the settlement date is on or after the date on which spill processing is to be

⁴ LCR076 - NPG Spill Processing Change

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disabled, the Period Supplier Deemed Take for all Suppliers is set to their Unadjusted Supplier Deemed Take. The variables will be given the following values;

$$\text{Supplier Deemed Take}_j = \text{Unadjusted Supplier Deemed Take}_j$$

$$\text{SGT}_{sj} = 0$$

$$\text{SPILL}_j = 0$$

$$\text{TGT}_j = 0$$

In both cases, the value of Period Supplier Deemed Take and for case a) additionally the Supplier Period Weighted Consumption (SGT_{sj}) is written to Period Supplier Purchase. The Spill and TGT_j are recorded by updating the instance of SSR Run GSP Group Period.

2.69.1.8 Apply PSP, TLM and LRM to Deemed Take

The price variables provided by SSA (held in Settlement Period Prices) are applied to the Period Supplier Deemed Take per Supplier and Settlement Period to calculate the Period Supplier Purchase Total i.e the total per GSP Group per Supplier per half hour. The formula used is:

$$\begin{aligned} &\text{Supplier Purchase}_{gsj} \\ &= \text{Supplier Deemed Take}_{gsj} * (1 + \text{TLM}_j) * (1 + \text{LRM}_j) * \text{PSP}_j \end{aligned}$$

This is written to Period Supplier Purchase. However, for settlement dates on or after the NETA Start Date TLM, LRM and PSP will be set to zeros, so the Period Supplier Purchase will also equate to zero.

The Period Supplier Purchases are then summed over all Suppliers and all periods to give the Daily GSP Group Purchases Total. This is compared to the Daily GSP Group Purchases Total received from the SSA (held in SSA Settlement GSP Group). If there is a discrepancy then an exception report is raised.

SSR Run is updated to indicate the status of the run.

IC002 Batch Audit is invoked.

IC009 Report Exception is invoked to report exceptions.

2.69.2 Event Input Data

GSP group Id

Settlement Code

Settlement Date

SSR Run Type Id

SSA Settlement Date

SSA Settlement Run Number

Data Aggregator Run Number

Settlement Date

Settlement Code

2.69.3 **Function Cross Reference**

I0029 Run SSR

2.69.4 **Event Frequency**

Normally 5 times per day, max 25 times per day.

2.70 **Standard Sett Config Assigned To Profile Class**

2.70.1 **Event Description**

A Standard Settlement Configurations is assigned to a Profile Class.

An occurrence of Valid Settlement Configuration Profile Class will be created, and an occurrence of Valid Measurement Requirement Profile Class for each Measurement Requirement of the Standard Settlement Configuration. If the Profile Class has the Switched Load Profile Class Indicator set, the user will also be required to specify at least one Measurement Requirements which represent Switched Loads (i.e. have the Switched Load Indicator set).

If the Profile Class is not of switched Load type then there must be no Measurement Requirements specified as representing Switched Load.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to authorise any change to the set of Valid Settlement Configuration Profile Classes effective on a Settlement Day.

2.70.2 **Event Input Data**

Standard Settlement Configuration Id

Profile Class Id

Effective From Settlement Date {VSCPC}

Effective To Settlement Date {VSCPC}

Switched Load Indicator

2.70.3 **Function Cross References**

I0032 Specify Profile Class and Configuration Combination

2.70.4 **Event Frequency**

Low Volume

2.71 **Standard Sett Config Deassigned From Profile Class**

2.71.1 **Event Description**

A Standard Settlement Configuration is deassigned from a Profile Class.

The instance of Valid Settlement Configuration Profile Class is physically deleted along with all dependent occurrences of Non-Half Hourly BM Unit Allocation, Valid Measurement Requirement Profile Class, Average Fraction of Yearly Consumption and Average Fraction of Yearly Consumption Set.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to authorise any change to the set of Valid Settlement Configuration Profile Classes effective on a Settlement Day.

2.71.2 Event Input Data

Standard Settlement Configuration Id

Profile Class Id

2.71.3 Function Cross References

I0032 Specify Profile Class and Configuration Combination

2.71.4 Event Frequency

Low Volume

2.72 Standard Settlement Configuration Deleted

2.72.1 Event Description

Details of a Standard Settlement Configuration are logically deleted.

It cannot be deleted unless all associated data has been deleted as follows:

- i. Measurement Requirements (ie Standard Settlement Configuration unlinked from Time Pattern Regimes)
- ii. Valid Settlement Configuration Profile Classes
- iii. Tele-Switch Contact Intervals

IC001 Update On-line Audit Log is invoked.

2.72.2 Event Input Data

Standard Settlement Configuration Id

2.72.3 Function Cross References

I0031 Define Standard Settlement Configuration and Assign Time Patterns

2.72.4 Event Frequency

Low Volume

2.73 Standard Settlement Configuration Entered

2.73.1 Event Description

Details of a Standard Settlement Configuration are entered. For Standard Settlement Configuration Type, records have default value of 'Import'. For Tele-switched Standard Settlement Configurations, a Tele-switch Group and Tele-switch user id must also be entered.

IC001 Update On-line Audit Log is invoked.

2.73.2 Event Input Data

Standard Settlement Configuration Id

Standard Settlement Configuration Desc

Tele-switch Group Id (O)

Tele-switch User Id (O)

Standard Settlement Configuration Type

2.73.3 **Function Cross References**

I0031 Define Standard Settlement Configuration and Assign Time Patterns

2.73.4 **Event Frequency**

Low Volume

2.74 **Standard Settlement Configuration Updated**

2.74.1 **Event Description**

Details of a Standard Settlement Configuration are updated. SSC description and Type may be amended. When the SSC Type is modified, a message is displayed warning that the action may affect an SSR Run. The Tele-Switch User and Tele-Switch Group Id may be amended if there are no Tele-Switch Time Pattern Regimes associated (via a defined measurement requirement) with the same combination of Tele-Switch User Id and Tele-Switch Group Id.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report for the earliest Effective From Settlement Date {VSCPC} of the Valid Settlement Configuration Profile Class instances for this SSC. If this date has had a Final Initial Settlement then the change must be authorised.

2.74.2 **Event Input Data**

Standard Settlement Configuration Id

Standard Settlement Configuration Desc

Tele-switch Group Id (O)

Tele-switch User Id (O)

Standard Settlement Configuration Type

2.74.3 **Function Cross References**

I0031 Define Standard Settlement Configuration and Assign Time Patterns

2.74.4 **Event Frequency**

Low Volume

2.75 **Sunset Data Loaded**

2.75.1 **Event Description**

A file of sunset times is uploaded. The system will validate the file as it is loaded (see below). If the file is successfully validated, then Daily Profile Parameter data will be created if none exists for the Settlement Date and GSP Group combination or updated if it does. A message is written to the file log to indicate that the load

was successful. If the validation was not successful, the file management database is updated to show that the load has failed, and a message written to the file log to indicate the same.

If the load fails, the file will have been saved for audit purposes, so the file can be retrieved and a reload performed. If for any reason the sunset times data file contains sunset times for Settlement Dates which already exist in the system, these will be overwritten.

The file validation checks consists of:

- GSP Group exists

Any validation failures will result in an exception report. Other valid data in the file will be loaded.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Settlement Date in the file. If this or any subsequent date has had a Final Initial Settlement Run then the load will fail unless performed by an authorised user.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.75.2 Event Input Data

File Creation Timestamp

2.75.3 Function Cross References

I0021 Load Sunset Data

2.75.4 Event Frequency

Low Volume

2.76 Supplier Details Deleted

2.76.1 Event Description

A Supplier and/or its GSP Group associations are deleted. If a Supplier/GSP Group association is deleted, the set of related GSP Group/Data Aggregator associations are also deleted. All instances of BM Unit for Supplier in GSP Group associated with the supplier will also be deleted. The associations are physically deleted, the Supplier is logically deleted. A warning is displayed prior to the delete if the change will prevent any Supplier Data Aggregation data from being used.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date {SIGG} associated with the Supplier. The deletion of Supplier and / or its GSP Group links must be carried out by an authorised user if there has been a Final Initial Settlement Run for this date.

2.76.2 Event Input Data

Effective From Settlement Date {SIGG}

GSP Group Id

Supplier Id

2.76.3 Function Cross Reference

I0005 Specify Supplier In GSP group

2.76.4 Event Frequency

Low Volume

2.77 Supplier Details Entered**2.77.1 Event Description**

A Supplier and its details are entered into the system. The Supplier Id, Supplier Name and it's Pool Member Id. Also, the user may enter a Default BM Unit Id for each GSP Group.

On entry the Supplier Id must not already exist.

IC001 Update On-line Audit Log invoked.

2.77.2 Event Input Data

BM Unit Id

Default BM Unit Flag

Effective From Settlement Date {BMUIGG}

Effective To Settlement Date {BMUIGG}

GSP Group Id

Pool Member Id

Supplier Id

Supplier Name

2.77.3 Function Cross Reference

I0005 Specify Supplier In GSP group

2.77.4 Event Frequency

Low Volume

2.78 Supplier Details Updated**2.78.1 Event Description**

Details of a Supplier are updated. The user is permitted to amend the Supplier Name and Pool Member Id, but not any Default BM Units that are entered for GSP Groups.

IC001 Update On-line Audit Log invoked.

2.78.2 Event Input Data

Pool Member Id

Supplier Id

Supplier Name

2.78.3 Function Cross Reference

I0005 Specify Supplier In GSP group

2.78.4 Event Frequency

Low Volume

2.79 Supplier Starts Trading in GSP group**2.79.1 Event Description**

A GSP Group association is entered for a Supplier. The user enters the GSP Group Id and the Effective From Settlement Date.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise the change if the Effective From Settlement Date {SIGG} is a date that has had a Final Initial Settlement Run.

2.79.2 Event Input Data

Effective From Settlement Date {SIGG}

GSP group Id

Supplier Id

2.79.3 Function Cross Reference

I0005 Specify Supplier In GSP group

2.79.4 Event Frequency

Low Volume

2.80 Supplier Finishes Trading in GSP group**2.80.1 Event Description**

A Supplier's association with a GSP Group is terminated. The user specifies the Effective To Settlement Date on which the Supplier finishes trading in the GSP Group.

The system checks that the Effective Settlement Date Range of the related Data Aggregator in GSP Group is still valid, and updates the Effective To Settlement Date {DAIGG} if the Effective From Settlement Date {DAIGG} falls within the Effective Settlement Date Range of the Supplier. If not then the Data Aggregator in GSP Group link is physically deleted. A confirmation message is displayed before any updates is performed. A warning is also displayed if the change will prevent any Supplier Data Aggregation data from being used.

IC001 Update On-line Audit Log invoked.

IC003 Authorise & Produce Standing Audit report is invoked to authorise any change to the set Suppliers effective on any date that has had a Final Initial Settlement Run.

2.80.2 Event Input Data

Effective To Settlement Date {SIGG}

Effective From Settlement Date {SIGG}

Supplier Id

GSP Group Id

2.80.3 Function Cross Reference

I0005 Specify Supplier In GSP group

2.80.4 Event Frequency

Low Volume

2.81 System Configuration Data updated

2.81.1 Event Description

Details of the System Configuration data are updated.

IC001 Update On-Line Audit Log invoked.

2.81.2 Event Input Data

Market Participant Id

Market Participant Role Code

Settlement Day Archive Days

2.81.3 Function Cross References

I0035 Maintain System Configuration Data

2.81.4 Event Frequency

Low Volume

2.82 Tele-switch Contact Interval Deleted

2.82.1 Event Description

A tele-switch contact interval is physically deleted

IC003 Authorise & Produce Standing Data Audit Report is invoked to validate whether the Settlement Date has had a Final Initial Settlement Run and if so, that the change is being performed by an authorised user.

IC001 Update On-line Audit Log is invoked.

2.82.2 Event Input Data

Tele-switch Group Id

Tele-switch User Id

Tele-switch Start Date & Time

Tele-switch Contact Code

2.82.3 **Function Cross References**

I0012 Enter Tele-switch Contact Intervals

2.82.4 **Event Frequency**

Low Volume

2.83 **Tele-switch Contact Interval Entered**

2.83.1 **Event Description**

A tele-switch contact interval is entered.

The Interval must be entered for a specific Contact and Tele-switch group id and user id and must not overlap any existing interval for the same Tele-switch Group id Tele-switch user id and Contact. The specified Tele-switch Group id and User Id must be a valid combination defined in the set of standard settlement configurations.

IC003 Authorise & Produce Standing Data Audit Report is invoked to validate whether the Settlement Date has had a Final Initial Settlement Run and if so, that the change is being performed by an authorised user.

IC001 Update On-line Audit Log is invoked.

2.83.2 **Event Input Data**

Tele-switch Group Id

Tele-switch User Id

Tele-switch Contact Code

Tele-switch End Date and Time

Tele-switch Start Date and Time

Tele-switch Contact State

2.83.3 **Function Cross References**

I0012 Enter Tele-switch Contact Intervals

2.83.4 **Event Frequency**

Low Volume

2.84 **Tele-switch Contact Interval Updated**

2.84.1 **Event Description**

A tele-switch Contact Interval is updated. Only the Tele-switch Contact End Time and the contact state can be changed

The Interval must not overlap any existing interval for the same Tele-switch Group and Contact.

IC003 Authorise & Produce Standing Data Audit Report is invoked to validate whether the Settlement Date has had a Final Initial Settlement Run and if so, that the change is being performed by an authorised user.

IC001 Update On-line Audit Log is invoked.

2.84.2 Event Input Data

Tele-switch Group Id

Tele-switch User Id

Tele-switch Contact Code

Tele-switch End date and Time

Tele-switch Contact State

2.84.3 Function Cross References

I0012 Enter Tele-switch Contact Intervals

2.84.4 Event Frequency

Low Volume

2.85 Tele-switch Register Rule Deleted

2.85.1 Event Description

A tele-switch register rule and associated tele-switch contact rules are physically deleted. At least one Tele-switch Register rule must exist at all times for a tele-switched Time Pattern Regime.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked.

2.85.2 Event Input Data

Tele-switch Time Pattern Regime Id

Tele-switch Register Rule Id

2.85.3 Function Cross References

I0040 Define Time Pattern Regimes

2.85.4 Event Frequency

Low Volume

2.86 Tele-switch Register Rule Entered

2.86.1 Event Description

A tele-switch register rule is entered. A register rule consists of set of associated contacts and the states (on or off) each must be in for the rule to be satisfied.

The Register Rule must be entered for a specific Time Pattern Regime.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked.

2.86.2 Event Input Data

Tele-switch User Id
Tele-switch Group Id
Tele-switch Time Pattern Regime Id
Tele-switch Register Rule Id
Tele-switch Contact Code
Tele-switch Contact Rule

2.86.3 Function Cross References

I0040 Define Time Pattern Regimes

2.86.4 Event Frequency

Low Volume

2.87 Tele-switch Register Rule Updated**2.87.1 Event Description**

A tele-switch Register Rule is updated. Only the associated Contacts and Contact States may be changed. An associated contact rule (contact and its state) may be deleted.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked.

2.87.2 Event Input Data

Tele-switch User Id
Tele-switch Group Id
Tele-switch Time Pattern Regime Id
Tele-switch Register Rule
Tele-switch Contact Code
Tele-switch Contact Rule

2.87.3 Function Cross References

I0040 Define Time Pattern Regimes

2.87.4 Event Frequency

Low Volume

2.88 Tele-switch Pool Market Domain Data Loaded**2.88.1 Event Description**

A file of Standard Settlement Configuration data prepared by the Market Domain Data Agent is read, and any which are not already defined on the system, or contain updates, are loaded.

Standard Settlement Configuration and Time Pattern Regime data is processed according to the following:

- Any amendment affecting a Settlement date for which a Final Initial Settlement Run has occurred must be authorised and, if successful, will generate a Standing Data Audit report. This excludes Effective To Settlement Date amendments to a date after the most recent Final Initial Settlement Run;
- Any data processing which will update an existing database entry will be recorded as a warning in an Exception report. This excludes AFYC Effective To Settlement Date amendments provided the date does not precede the most recent Final Initial Settlement Run and the update does not leave a Non-Half Hourly BM Unit Allocation for the corresponding GSP Group and VSCPC not having AFYC coverage for all the settlement days it is effective;
- Counts of the total number of records that are updated and inserted in each relevant database table will be recorded in an Exception report;
- The file contains details of all existing Standard Settlement Configuration Details and Time Pattern Regime Details defined on the system. A single warning will be issued if a Standard Settlement Configuration or Time Pattern Regime and associated data is completely missing. Otherwise, individual warnings will be produced for all missing associated data. These warning messages are reported in the Exception Report and will not prevent the file from loading.
- The processing of the file will continue in the event of file rejection due to a validation failure, with appropriate messages written to the Exception report. However, no changes will be applied to the ISRA system.

The following data will be specified for each Standard Settlement Configuration:

- i. Id and Description;
- ii. Tele-switch Group Id and Tele-switch User Id for Tele-switched configurations;
- iii. Time Pattern Regime Ids of the associated Measurement Requirements;
- iv. Profile Class Ids of the Profile Classes for which the Standard Settlement Configuration is valid and associated Effective From Date and optionally Effective To Date;
- v. Switched Load Indicators for each Measurement Requirement within each valid Profile Class;
- vi. One or more sets of Average Fraction of Yearly Consumption data for each GSP Group and valid Profile Class;
- vii. Standard Settlement Configuration Type (Import or Export).

The process will load details of any Standard Settlement Configurations which are not already defined on the system, or which contain permitted updates. It will validate that:

- i. The Profile Class Ids are already defined on the system;

- ii. The Average Fractions of Yearly Consumption within each valid combination of Standard Settlement Configuration, Profile Class, Effective From Date and GSP Group sum to one;
- iii. The Switched Load Indicator is set for one or more Measurement Requirement for each combination of a Standard Settlement Configuration with a Switched Load Profile Class;
- iv. The Switched Load Indicator is not set for any Measurement Requirement in any combination of a Standard Settlement Configuration with a non-Switched Load Profile Class;
- v. For a particular Standard Settlement Configuration, all Time Pattern Regimes are either local time or all GMT; A mix of local time and GMT time is not allowed;
- vi. If creating a Measurement Requirement for a Tele-switched configuration, the Tele-switch User Id and Group Id are the same for the Tele-switched Time Pattern Regime and Standard Settlement Configuration.
- vii. There must be at least one Average Fraction of Yearly Consumption Set for a Valid Settlement Configuration Profile Class. However, the set(s) need not necessarily cover every Settlement Date for which the VSCPC is effective.
- viii. The Average Fractions of Yearly Consumption within each valid combination of Standard Settlement Configuration and Profile Class and GSP Group do not overlap between identical combinations. Gaps between AFYC Sets related to a Valid Settlement Configuration Profile Class and its effective period are permitted.
- ix. The value for Standard Settlement Configuration Type must be present and be valid throughout, otherwise the file will not be loaded. Any instance of a value other than 'I' or 'E' for Standard Settlement Configuration Type is recorded in Exception Report Errors.

The following changes are permitted for a Standard Settlement Configuration which is already defined on the system, subject to the specified validation:

- i. A change to the Standard Settlement Configuration description;
- ii. A change to the Configuration's Tele-switch User and Group;
 - If the Standard Settlement Configuration is linked to any Time Pattern Regimes via associated Measurement Requirements, then all Time Pattern Regimes associated with the Standard Settlement Configuration must change their Tele-switch User Id and/or Group Id during file load.
- iii. A change to Standard Settlement Configuration Type;
- iv. New Measurement Requirements for the Standard Settlement Configuration;
 - Provided that the Time Pattern Regime is already defined on the system, or has been created during the file load;
 - Provided the Tele-switch User and Group Id are the same for the Tele-switched Time Pattern Regime and Standard Settlement

- Configuration, taking into account any updates to the Time Pattern Regime and/or Standard Settlement Configuration;
- Provided that all associated Time Pattern Regimes, taking into account any updates to the Time Pattern Regimes, are either all local time or all GMT; a mix of local time and GMT time is not allowed.
- v. New Valid Settlement Configuration Profile Classes and associated Valid Measurement Requirement Profile Classes;
- Provided that the Profile Class is already defined on the system;
 - Provided that the file contains a Valid Measurement Requirement Profile Class for each Time Pattern Regime associated with the Standard Settlement Configuration;
 - Provided that the file contains at least one valid set of Average Fractions of Yearly Consumption for every Valid Settlement Configuration Profile Class;
 - For Switched Load Profile Classes, one or more associated Valid Measurement Requirement Profile Classes has the Switched Load Indicator set;
 - For Non-switched Load Profile Classes, no associated Valid Measurement Requirement Profile Classes has the Switched Load Indicator set.
- vi. A change to the Effective To Date for one or more Valid Settlement Configuration Profile Classes;
- vii. A change to the Switched Load Indicator for one or more Valid Measurement Requirement Profile Classes;
- For Switched Load Profile Classes, one or more associated Valid Measurement Requirement Profile Classes has the Switched Load Indicator set;
 - For Non-switched Load Profile Classes, no associated Valid Measurement Requirement Profile Classes has the Switched Load Indicator set.
- viii. One or more new sets of Average Fraction of Yearly Consumption data;
- Provided that the Average Fraction of Yearly Consumption Set for a combination of Standard Settlement Configuration, Profile Class, Time Pattern Regime and GSP Group do not overlap other identical combinations. Date gaps between AFYC Sets related to a Valid Settlement Configuration Profile Class are permitted;
 - Provided that the Average Fractions of Yearly Consumption within each valid combination of Standard Settlement Configuration, Profile Class, GSP Group and Effective From Date sum to one.
- ix. A change to the Average Fraction of Yearly Consumption Set's Effective To Settlement Date;

- Provided the Average Fraction of Yearly Consumption Set for a combination of Standard Settlement Configuration, Profile Class, Time Pattern Regime and GSP Group do not overlap other identical combinations. Date gaps between AFYC Sets relating to a specific Valid Settlement Configuration Profile Class are permitted;
 - If an update to the Effective to Settlement Date results in a Non-Half Hourly BM Unit Allocation for the corresponding GSP Group and VSCPC not having AFYC coverage for all the settlement days it is effective, then a warning will be issued. This will not cause the load to fail.
- x. A change to the Average Fraction of Yearly Consumption value for one or more Average Fraction of Yearly Consumption details.
- Provided that the Average Fractions of Yearly Consumption within each valid combination of Standard Settlement Configuration, Profile Class, GSP Group and Effective From Date still sum to one.

The file will also contain the following data for each Time Pattern Regime:

- i. The Time Pattern Regime Id;
- ii. The Tele-switch/Clock Indicator, specifying whether the Time Pattern is tele-switched or timeswitched;
- iii. The GMT/Local Time Indicator specifying whether the Time Pattern Regime represents GMT time or local time;
- iv. If the TPR is tele-switched, the Tele-switch User Id, Group Id and a set of register contact switching rules which relate contacts to settlement registers;
- v. If the TPR is timeswitched, one or more Clock Intervals, each defined in terms of the Day of the Week, Start and End Day and Month, and Start and End Time.

Validation will ensure that at least one Tele-switch Register Contact Switching Rule exists for each Tele-switched Time Pattern Regime.

The following changes are permitted for a Time Pattern Regime which is already defined on the system, subject to the specified validation:

- i. A change to the GMT / Local Time indicator:
- ii. If the Time Pattern Regime is linked to a Standard Settlement Configuration via an associated Measurement Requirement, then all Time Pattern Regimes associated with the Standard Settlement Configuration must also change their GMT/Local Indicators during file load.
- iii. A change to the Tele-switch Group id and/or Tele-switch User Id:
- iv. Provided that the new Tele-switch User and Group is either an existing combination for a Standard Settlement Configuration or will be an existing combination after file load;

- v. If the Time Pattern Regime is linked to a Standard Settlement Configuration via an associated Measurement Requirement, then all Time Pattern Regimes associated with the Standard Settlement Configuration and the Standard Settlement Configuration must change their Tele-switch Group id and/or User Id during file load.
- vi. New Tele-switch register contact switching rules:
- vii. Provided there are no duplicate Register Rule Id and Tele-switch Contact Code combinations within the set of tele-switch register contact switching rules.
- viii. A change to the Tele-switch Contact Rule of an existing contact rule.
- ix. New set of Clock Intervals for Clock-switched Time Pattern Regime.

IC002 Batch Audit is invoked.

IC003 Authorise & Produce Standing Data Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.88.2 Event Input Data

File Creation Timestamp

2.88.3 Function Cross References

I0018 Load Tele-switch Pool Market Domain Data

2.88.4 Event Frequency

Low Volume

2.89 Tele-switch Switching Times Available

2.89.1 Event Description

A file of tele-switch switching times is uploaded.

The incoming data will be validated to ensure the following:

- Physical integrity of the file using the checksum.
- The data is from the tele-switch agent.
- The File Creation Timestamp of the file is later than the File Creation Timestamp of the last successfully loaded (if any) file of this type for the same Settlement Day.

If either of these conditions is not satisfied the data file is rejected. The file management database is updated to show that the load has failed and a message written to a log to indicate the load has failed. An exception report is generated for the ISR agent.

The file is processed and its contents loaded into the database. Any pre-existing contact intervals in the database for the same date are first deleted. Further validation is carried out as the data is loaded to ensure the following:

- Any tele-switch user or tele-switch group referenced in the dataset are already defined within a Standard Settlement Configuration.
- The file will be rejected if there are no tele-switch groups and tele-switch users defined.
- Any data relating to dates for which a Final Initial Settlement Run has already been performed will be rejected; the data in one file refers to one GMT day, but may affect two settlement dates. The data must be rejected if a Final Initial Settlement Run has been performed for either settlement date. It is the value of the GMT/local time indicator that determines whether switching times should be interpreted as GMT or local time. All other data will be entered into the database, overwriting existing data if it already exists.
- The file must contain data for every tele-switch group Id/ tele-switch user Id combination defined within Standard Settlement Configurations which are valid on one or more of the settlement day(s) to which the file relates. If it does not, the file is incomplete and must be rejected in full.
- For each unique Teleswitch Date, Teleswitch User, Teleswitch Group and Teleswitch Contact combination in a UTC file there is no duplication of Teleswitch Contact Interval Effective Times. If there is, the file will be rejected in full.
- Note: The file is allowed to contain data for tele-switch group id/ tele-switch user id combinations not defined within SSC (eg Scottish groups or those introduced for testing purposes). This data will be loaded with a warning but retained for possible future use.

A set of Tele-switch Contact intervals in the database is created for each Tele-switch contact found in the input data file. For all contacts found one interval is created starting at the start of the day using the start of day contact state and ending at the first switching time found for that contact (or end of day if none defined). Intervals are then created between each switching time using the applicable contact state. A final interval is created running from the last switching time found for the contact to the end of the day. Thus at the end of processing there are Tele-switch contact intervals spanning the whole day (one starting at the start of the day; one ending at the end of the day) for all contacts found in the input file.

If any data is rejected for either of these reasons an exception report is generated and an error message logged.

Following the completion of the data load, a message is written to the log to indicate that the file load was successful.

IC002 Batch Audit is invoked.

IC004 Check File Header is invoked.

IC007 Update File Log is invoked.

IC009 Report Exception is invoked.

2.89.2 Event Input Data**2.89.3 Function Cross References**

I0028B - Load Tele-switch Contact switching times.

2.89.4 Event Frequency

One per day

2.90 Time Pattern Assigned to Standard Sett Config**2.90.1 Event Description**

A Measurement Requirement is defined for a Standard Settlement Configuration by associating it with a Time Pattern Regime.

All Time Pattern Regimes assigned to a Standard Settlement Configuration must either all be local time or all must be GMT; a mixture of local time and GMT time is not allowed.

If assigning a Tele-switched Time Pattern Regime to a Standard Settlement Configuration, then the Tele-switch User Id and Group Id must be the same for the Tele-switch Time Pattern Regime and Standard Settlement Configuration.

If the Standard Settlement Configuration has been assigned to a Profile Class then Time Pattern Regimes cannot be assigned.

IC001 Update On-line Audit Log is invoked.

2.90.2 Event Input Data

Standard Settlement Configuration Id

Time Pattern Regime Id

2.90.3 Function Cross References

I0031 Define Standard Settlement Configuration and Assign Time Patterns

2.90.4 Event Frequency

Low Volume

2.91 Time Pattern Deassigned From Standard Sett Config**2.91.1 Event Description**

An association between Time Pattern Regime and Standard Settlement Configuration i.e. a Measurement Requirement is physically deleted.

If the Standard Settlement Configuration has been assigned to a Profile Class then Time Pattern Regimes cannot be deassigned.

IC001 Update On-line Audit Log is invoked.

2.91.2 Event Input Data

Standard Settlement Configuration Id

Time Pattern Regime Id

2.91.3 Function Cross References

I0031 Define Standard Settlement Configuration and Assign Time Patterns

2.91.4 Event Frequency

Low Volume

2.92 Time Pattern Regime Deleted**2.92.1 Event Description**

A Time Pattern Regime is logically deleted.

Time Pattern Regimes cannot be deleted if associated Measurement Requirements exist.

If any Clock Intervals or Tele-switch Intervals data exists associated with the Time Pattern Regime, the user will be warned and then the data physically deleted.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to for the earliest Settlement Date in the associated entities, Tele-switch Interval or Period Time Pattern State.

2.92.2 Event Input Data

Time Pattern Regime Id

2.92.3 Function Cross References

I0040 Define Time Pattern Regimes

2.92.4 Event Frequency

Low Volume

2.93 Time Pattern Regime Entered**2.93.1 Event Description**

A Time Pattern Regime is entered including a specification of whether the Time Pattern Regime is clock or tele-switched and whether the associated intervals are in local or GMT time.

IC001 Update On-line Audit Log is invoked.

2.93.2 Event Input Data

Time Pattern Regime Id

Tele-Switch/Clock Indicator

GMT / Local Time Indicator

Tele-Switch Group Id (optional)

Tele-Switch User Id (optional)

2.93.3 Function Cross References

I0040 Define Time Pattern Regimes

2.93.4 Event Frequency

Low Volume

2.94 Time Pattern Regime Updated**2.94.1 Event Description**

Details of an existing Time Pattern Regime are updated. GMT / Local Time Indicator, Tele-Switch Group Id, the Tele-Switch User Id and Tele-Switch Contact Register Rules can be amended. If a change is made to tele-switch group id and/or tele-switch user, the new combination must be an existing valid combination on Standard Settlement Configuration. Tele-switch Group and Tele-switch user Id cannot be changed if the Tele-switch Time Pattern Regime is linked to a Standard Settlement Configuration by a Measurement Requirement. GMT / Local Time indicator cannot be amended if the time pattern regime is linked to a Standard Settlement Configuration.

IC001 Update On-line Audit Log is invoked.

IC003 Authorise & Produce Standing Data Audit Report is invoked to check the earliest Effective From Settlement Date of any Valid Measurement Requirement Profile Class instances associated with the Time Pattern Regime.

2.94.2 Event Input Data

GMT/local time indicator

Time Pattern Regime Id

Tele-Switch Group Id

Tele-Switch User Id

2.94.3 Function Cross References

I0040 Define Time Pattern Regimes

2.94.4 Event Frequency

Low Volume

Deleted: 0

2.95 LLF/SSC Line Loss Factor Class Entered

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2.95.1 Event Description

A list of Line Loss Factor Classes are entered. This will consist of a Distributor Id, a Line Loss Factor Class Id, Standard Settlement Configuration Id and an Effective From Settlement Date.

2.95.2 Event Input Data

- Distributor Id
- Line Loss Factor Class Id
- Standard Settlement Configuration Id
- Effective From Settlement Date {LLFSSC}

2.95.3 Function Cross Reference

I0053 Load LLF/SSC Mapping Data.

2.95.4 Event Frequency

Low volume.

Deleted: 4

2.96 LLF/SSC Standard Settlement Configuration Entered

2.96.1 Event Description

Details of dummy Standard Settlement Configuration are entered with the respective Time Pattern Regime.

2.96.2 Event Input Data

Standard Settlement Configuration Id

Time Pattern Regime Id

Effective from Settlement Date {SSC}

Effective to Settlement Date {SSC}

2.96.3 Function Cross References

I0053 Load LLF/SSC Mapping Data.

2.96.4 Event Frequency

Low Volume.

2.97 LLF/SSC Standard Settlement Configuration Updated

2.97.1 Event Description

Details of a Standard Settlement Configuration are updated. The effective to date is updated with the effective from date of the dummy Standard Settlement Configuration Id and Time Pattern regime Id received.

2.97.2 Event Input Data

Standard Settlement Configuration Id

Time Pattern Regime Id

Effective from Settlement Date {SSC}

Effective to Settlement Date {SSC}

2.97.3 Function Cross References

I0053 Load LLF/SSC Mapping Data.

2.97.4 Event Frequency

Low Volume

2.98 LLF/SSC Clock Intervals Deleted**2.98.1 Event Description**

A Clock Interval associated with a Time Pattern Regime is physically deleted for the respective Time Pattern Regime Id and dummy Standard Settlement Configuration Ids received from the LLF/SSC Mapping Data File.

2.98.2 Event Input Data

Standard Settlement Configuration Id

Time Pattern Regime Id

Day of the Week Id

Start Day

Start Month

End Day

End Month

Start Time

End Time

2.98.3 Function Cross References

I0053 Load LLF/SSC Mapping Data.

2.98.4 Event Frequency

Low Volume

2.99 LLF/SSC Clock Interval Entered

2.99.1 Event Description

A Clock Interval is entered for a clock switched Time Pattern Regime. Clock Intervals are entered from the LLF/SSC Mapping Data File.

2.99.2 Event Input Data

Time Pattern Regime Id

Day of the Week Id

Start Day

Start Month

End Day

End Month

Start Time

End Time

2.99.3 Function Cross References

I0053 Load LLF/SSC Mapping Data.

2.99.4 Event Frequency

Low Volume

2.100 Demand Control Event Entered

2.100.1 Event Description

A list of MSIDs impacted by a demand control event is received.

IC001 Update On-line Audit Log is invoked.

2.100.2 Event Input Data

Demand Control Event ID

Start Date and Time

End Date and Time

MSID

2.100.3 Function Cross References

I0054 Load Demand Control Event

2.100.4 Event Frequency

Low Volume

2.101 DPM Data Available**2.101.1 Event Description**

A file of aggregated disconnection volume data becomes available from a non-Half-Hourly Data Aggregator.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- 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 existing and correct GSP Group(s).
- The data is for valid combinations of Profile Class and measurement requirements that are effective on the Settlement Date of the file.
- If an SSR Run has been done for the Settlement Date and Settlement Code of the file. If so a warning exception report entry is generated. However, the DPM data file will not be rejected because of this i.e. the data is loaded.

Each file is validated and loaded separately. If the file passes the validation, the master logical entity Supplier Data Aggregation is first created per Supplier, Data Aggregator and GSP Group combination. For each occurrence of Supplier Data Aggregation, the detail logical entity Disconnection Purchase Matrix is created per Settlement Class (The logical entity Settlement Class is also created if it does not already exist). This contains details of Supplier disconnection - EACs, AAs and Unmetered totals. The file management database is updated to indicate the load is successful, and a message is written to a log to indicate the load is successful.

If no errors are found, the data is loaded into the database.

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2.101.2 Event Input Data

Demand Disconnection Event Id

GSP Group Id

Start Date and Time

End Date and Time

2.101.3 Function Cross References

I0055 - Load Supplier Purchase Matrix Data

2.101.4 Event Frequency

Low Volume.

Deleted: 4

2.102 Aggregated Disconnection Half Hourly Data Available

2.102.1 Event Description

A Half-Hourly Data Aggregator makes a file of data available for a particular GSP Group, and demand disconnection event.

The incoming data will be validated to ensure:

- Physical integrity of the file using the file checksum.
- The data has the correct number of Settlement Periods.
- The data is for existing and correct GSP Group(s).

Each file is validated and loaded separately. If the data is successfully validated, the logical entity Supplier Data Aggregation is first created. This is the master entity created once per Supplier, Data Aggregator and GSP Group combination. For each occurrence of Supplier Data Aggregation, the logical detail entity Aggregated Supplier DA Period disconnection volume is then created. For Settlement Days from the start of the NETA, the entity is created for each BM Unit, each Consumption Component Class and each Settlement Period impacted by disconnection event. The entity contains details of aggregated HH metered disconnection volume or disconnection Line Loss. The Consumption Component Class determines what the Aggregated Supplier disconnection volume or Aggregated disconnection Line Loss represent.

In addition, the file management database is updated to indicate the load is successful, and a message is written to a log to indicate that the load is successful.

If no errors are found, the data is loaded into the database.

If validation is not successful, the file management database is updated to show the load has failed, and a message written to a log to indicate the load has failed. An exception report is generated indicating all validation errors and warnings.

2.102.2 Event Input Data

DCE Id

GSP Group

Start Date and Time

End Date and Time

2.102.3 Function Cross References

I0056 - Load Aggregated Disconnection Half Hourly Data

2.102.4 Event Frequency

Low Volume

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2.103 Demand Control Instructions Entered

2.103.1 Event Description

A list of MSIDs impacted by a demand control event is received as demand control instruction from BMRA.

IC001 Update On-line Audit Log is invoked.

2.103.2 Event Input Data

Demand Control Event ID

Start Date and Time

End Date and Time

MSID

2.103.3 Function Cross References

I0057 Load Demand Control Instructions

2.103.4 Event Frequency

Low Volume

3 Enquiry Descriptions

This section summarises the enquiries that can be performed on the ISRA system. They may be part of an update function or be the basis of an enquiry function.

The enquiry descriptions in this document do not contain the full details that may be included for an SSADM enquiry description as the equivalent information is provided in the Function Definition.

3.1 Ad Hoc Audit Report Requested

3.1.1 Enquiry Description

The operator requests an Ad hoc report

3.1.2 Function Cross References

I0038 Ad Hoc Audit Reporting

3.2 AFYC Recalculation Report Requested

3.2.1 Enquiry Description

An AFYC Recalculation report is requested by a user.

3.2.2 Function Cross References

I0045 Produce AFYC Recalculation Report

3.3 Audit Report Requested

3.3.1 Enquiry Description

The operator requests an audit report

3.3.2 Function Cross References

I0023 Produce Audit Reports

3.4 Browse Aggregators for GSP Groups

3.4.1 Enquiry Description

Browse the Data Aggregators associated with a specific GSP Group.

3.4.2 Function Cross References

I0002 Define GSP Group

I0002E Browse GSP Group

3.5 Browse Aggregators for Supplier

3.5.1 Enquiry Description

Browse the Data Aggregators associated with a specific Supplier.

3.5.2 Function Cross References

I0010E Browse Data Aggregator

I0010 Specify Aggregator for GSP Group

3.6 Browse Average Fractions of Yearly Consumption

3.6.1 Enquiry Description

Browse a set of valid Average Fractions of Yearly Consumption.

3.6.2 Function Cross References

I0033 Define Average Fractions of Yearly Consumption

I0033E Browse Average Fractions of Yearly Consumption

3.7 Browse BM Units For Supplier in GSP Group

3.7.1 Enquiry Description

Browse a set of valid BM Units for a Supplier in a GSP Group

3.7.2 Function Cross References

I0046 Define BM Units For Supplier In GSP Group

I0046E Browse BM Units For Supplier In GSP Group

3.8 Browse Calendar

3.8.1 Enquiry Description

Browse the seasons, day types and clock changes (e.g. for British Summer Time) for a range of Settlement Dates.

3.8.2 Function Cross References

I0003 Define Calendar

I0003E Browse Calendar

3.9 Browse Clock Intervals for Time Pattern Regime

3.9.1 Enquiry Description

Browse the Clock Intervals associated with a Clock Switched Time Pattern Regime.

3.9.2 Function Cross References

I0040 Define Time Pattern Regimes

3.10 Browse Data Aggregator

3.10.1 Enquiry Description

A list of valid Data Aggregators are displayed for the user to browse.

3.10.2 Function Cross Reference

I0010E Browse Data Aggregator

I0010 Specify Aggregator for GSP Group

3.11 Browse Data Collector

3.11.1 Enquiry Description

Browse the details of a Data Collector.

3.11.2 Function Cross References

I0009 Specify Data Collector for GSP Group

I0009E Browse GSP Groups for Data Collector

3.12 Browse Data Collectors associated with GSP Group

3.12.1 Enquiry Description

Browse the Data Collectors associated with a specific GSP Group.

3.12.2 Function Cross References

I0002 Define GSP Group

I0002E Browse GSP Group

3.13 Browse Final Dispute Expected Data Aggregation

3.13.1 Enquiry Description

Browse the Final Dispute Expected Data Aggregation for a specified Start and End Settlement Date range.

3.13.2 Function Cross References

I0051E Browse Final Dispute Expected Data Aggregation

3.14 Browse Distributors for GSP Group

3.14.1 Enquiry Description

Browse the Distributors associated with a specific GSP Group.

3.14.2 Function Cross References

I0002 Define GSP Group

I0002E Browse GSP Group

3.15 Browse GSP Group codes

3.15.1 Enquiry Description

Browse the GSP Groups

3.15.2 Function Cross References

I0002 Define GSP Group

I0002E Browse GSP Group

3.16 Browse GSP Correction Scaling Factor**3.16.1 Enquiry Description**

A list of existing Component Classes are displayed from which the user can browse a list of associated Scaling Factors and effective date ranges.

3.16.2 Function Cross Reference

I0004E Browse GSP Correction Scaling Factors

I0004 Define GSP Correction Scaling Factors

3.17 Browse GSP Groups associated with Date Aggregator**3.17.1 Enquiry Description**

Browse the list of GSP Groups and Effective Settlement Dates for a Data Aggregator.

3.17.2 Function Cross References

I0010 Specify Aggregator for GSP Group

I0010E Browse Data Aggregator

3.18 Browse GSP Groups associated with Data Collector**3.18.1 Enquiry Description**

Browse the GSP Groups associated with a Data Collector.

3.18.2 Function Cross References

I0009 Specify Data Collector for GSP Group

I0009E Browse GSP Groups for Data Collector

3.19 Browse GSP Groups associated with Distributor**3.19.1 Enquiry Description**

A list of valid Distributor Ids, Names and associated GSP Groups are displayed for the user to browse.

3.19.2 Function Cross Reference

I0006E Browse GSP groups associated with Distributor

I0006 Specify Distributor for GSP Group

3.20 Browse GSP Groups associated with Supplier**3.20.1 Enquiry Description**

A list of valid Supplier Ids, Names and Pool Member Ids and associated GSP Groups are displayed for the user to browse.

3.20.2 Function Cross Reference

I0005E Browse GSP groups associated with Supplier

I0005 Specify Supplier in GSP Group

3.21 Browse Line Loss Factor Classes**3.21.1 Enquiry Description**

A list of existing Line Loss Factor Class details is displayed for the user to browse.

3.21.2 Function Cross Reference

I0001E Browse Line Loss Factor Classes

I0001 Define Line Loss Factor Classes

3.22 Browse Non-Half Hourly BM Unit Allocation**3.22.1 Enquiry Description**

Browse the Valid Settlement Configuration Profile Classes that a BM Unit For Supplier in GSP Group is associated with.

3.22.2 Function Cross References

I0047E Browse Non-Half Hourly BM Unit AllocationBrowse Profile

3.22.3 Enquiry Description

Browse the Profile details e.g. the Profile description, the settlement date from which the profile becomes/became valid and (if it exists) the settlement date after which the profile ceases/ceased to be valid.

3.22.4 Function Cross References

I0007 Define Profile

I0007E Browse Profile Classes

3.23 Browse Profile Class**3.23.1 Enquiry Description**

Browse the Profile Class details e.g. the Profile Class description and whether or not it is a switched load profile.

3.23.2 Function Cross References

I0007 Define Profile

I0007E Browse Profile Classes

3.24 Browse Profile Class and Configuration Combination

3.24.1 Enquiry Description

Browse the Standard Settlement Configurations that a Profile Class is associated with.

3.24.2 Function Cross References

I0032 Specify Profile Class and Configuration Combinations

I0032E Browse Profile Class and Configuration Combinations

3.25 Browse Register Contact Switching Rules

3.25.1 Enquiry Description

Browse the register rules and associated contact rules for a tele-switched Time Pattern Regime.

3.25.2 Function Cross References

I0040 Define Time Pattern Regimes

3.26 Browse Settlements Calendar

3.26.1 Enquiry Description

Browse the Settlements Calendar to see the dates on which Settlement Runs are planned to take place.

3.26.2 Function Cross References

I0030 Define Settlement Calendar

I0030E Browse Settlement Calendar

3.27 Browse SSC & Measurement Requirements

3.27.1 Enquiry Description

Browse the details of a Standard Settlement Configuration and its Associated Measurement Requirements.

3.27.2 Function Cross References

I0031 Define Standard Settlement Configuration and Assign Time Patterns

3.28 Browse Supplier In GSP Group

3.28.1 Enquiry Description

Browse the Suppliers associated with a specific GSP Group.

3.28.2 Function Cross References

I0002 Define GSP Group

I0002E Browse GSP Group

3.29 Browse Tele-switch Contact Interval**3.29.1 Enquiry Description**

Retrospectively view the tele-switch contact switching times which caused a settlement register to be active or inactive.

3.29.2 Function Cross References

I0012 Enter Tele-switch Contact Interval

3.30 Browse Temperature**3.30.1 Enquiry Description**

Browse the Noon Effective Temperature for a chosen settlement date and GSP Group combination.

3.30.2 Function Cross References

I0011 Enter Temperature

3.31 Browse Time Pattern Regime Details**3.31.1 Enquiry Description**

Browse details of a Time Pattern Regime e.g. whether it is clock-switched or tele-switched, and if tele-switched the User Id, Group Id and Register Id.

3.31.2 Function Cross References

I0040 Define Time Pattern Regimes

3.32 Create Supplier Settlement Report Header**3.32.1 Enquiry Description**

A report header generated containing details of Profile Production, Data Aggregation and SSA Settlement Runs used to derive input data for an SSR Run. This is performed as part of the production of Supplier Settlement reports after an SSR Run.

3.32.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.33 Daily Profile Coefficient File Extraction**3.33.1 Enquiry Description**

Extract the Daily Profile Coefficients calculated in a Daily Profile Production Run into a separate file for each Data Collector.

3.33.2 Function Cross References

I0008B Automatic Daily Profile Coefficient File Extraction

3.34 Daily Profile Data Report**3.34.1 Enquiry Description**

For one specified GSP Group, or all GSP Groups, for a specified Settlement Day, report Basic Period Profile Coefficients, Combined Period Profile Coefficients and Period Profile Class Coefficients.

3.34.2 Function Cross References

I0025A Initiate Profile Reports

I0025B Produce Profile Reports

3.35 Deemed Take Report Requested**3.35.1 Enquiry Description**

A Deemed Take Report is requested either automatically following the completion of a Settlement Run or by a User.

3.35.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.36 DUoS Report Requested**3.36.1 Enquiry Description**

A DUoS Report is requested by a user or automatically following the completion of a Settlement Run.

3.36.2 Function Cross References

I0027A Initiate Produce SSR Reports

I0027B Produce SSR Reports

3.37 EAC Data Extract Requested**3.37.1 Enquiry Description**

The operator requests an extract of daily profile coefficient totals for a range of settlement days, for use in calculating annualised advances and EACs.

3.37.2 Function Cross References

I0039 Extract Selected EAC Data

3.38 GSP Group Consumption Totals Report Requested**3.38.1 Enquiry Description**

A GSP Group Consumption Totals Report is requested either by a user or automatically following completion of a Settlement Run.

3.38.2 Function Cross Reference

I0026B Produce Supplier Settlement Reports

3.39 HH Demand Report Requested**3.39.1 Enquiry Description**

An HH Demand report is requested either by a user or following completion of a Settlement Run.

3.39.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.40 List all Suppliers associated with an SSR Run**3.40.1 Enquiry Description**

A list of all Suppliers associated with an SSR Run is produced. This list is used when Supplier Settlement reports are generated for an SSR Run.

3.40.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.41 Request LLF Confirmation Report**3.41.1 Enquiry Description**

The Operator requests a Line Loss Factor Confirmation Report.

3.41.2 Function Cross References

I0050 Produce LLF Confirmation Report

3.42 Standard Settlement Configuration Report**3.42.1 Enquiry Description**

Report clock intervals or tele-switch intervals for each Valid Measurement Requirement Profile Class for a specified Settlement Day.

3.42.2 Function Cross References

I0025A Initiate Profile Reports

I0025B Produce Profile Reports

3.43 Standing Profile Data Report**3.43.1 Enquiry Description**

For one specified GSP Group, or all GSP Groups, for a specified Settlement Day, report Regression Coefficients for each Period Regression Equation for each Profile.

3.43.2 Function Cross References

I0025A Initiate Profile Reports

I0025B Produce Profile Reports

3.44 Supplier BM Unit Report Requested**3.44.1 Enquiry Description**

For Settlement Days from the start of the NETA, a Supplier BM Unit Report is requested either by a user or automatically following completion of a Settlement Run.

3.44.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.45 Supplier Purchase Matrix Report Requested**3.45.1 Enquiry Description**

A Supplier Purchase Matrix Report is requested either by a user or automatically following completion of a Settlement Run.

3.45.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.46 Supplier Purchases Report Requested**3.46.1 Enquiry Description**

A Supplier Purchases Report is requested either by a user or automatically following completion of a Settlement Run.

3.46.2 Function Cross References

I0026B Produce Supplier Settlement Reports

3.47 BM Unit Supplier Take Energy Volume Data Report Requested**3.47.1 Enquiry Description**

A BM Unit Supplier Take Energy Volume Data Report is requested by either a user or automatically following the completion of a Settlement Run.

3.47.2 Function Cross References

I0027A Initiate Produce SSR Reports

I0027B Produce SSR Reports

3.48 BM Unit SVA Gross Demand Report Requested**3.48.1 Enquiry Description**

A BM Unit SVA Gross Demand Report is requested by either a user or automatically following the completion of a Settlement Run.

3.48.2 Function Cross References

I0027A Initiate Produce SSR Reports

I0027B Produce SSR Reports

3.49 System Configuration Data browsed

3.49.1 Enquiry Description

Browse the system configuration data

3.49.2 Function Cross References

I0035 Maintain System Configuration Data

3.50 Tele-Switch Contact Interval Data Report**3.50.1 Enquiry Description**

Report Tele-switch Contact Intervals applicable to a profiling run. This is requested manually or produced automatically at the end of a profiling run.

3.50.2 Function Cross References

I0025B Produce Profile reports

3.51 TUoS Report Requested**3.51.1 Enquiry Description**

A TUoS Report is requested either by a user or automatically following completion of a Settlement Run.

3.51.2 Function Cross References

I0027A Initiate Produce SSR Reports

I0027B Produce SSR Reports

3.52 View Profile Production Runs**3.52.1 Enquiry Description**

Browse previous runs for a Settlement Day and GSP Group

3.52.2 Function Cross References

I0016 Calculate Daily Profiles

3.53 View SSR Run Status**3.53.1 Enquiry Description**

The user requests to view the status of SSR runs for a specified settlement date.

3.54 Standing Data Update Report For Suppliers Requested**3.54.1 Enquiry Description**

The operator requests a Standing Data Update Report For Suppliers.

3.54.2 Function Cross References**3.55 I0049 View Missing Data Aggregator Files****3.55.1 Enquiry Description**

Browse the missing data aggregator files and associated information for a specified Settlement Date/Run Date.

3.55.2 Function Cross References

I0052 Browse Missing Data Aggregator Files