EAC/AA Function Definition and User CatalogueEAC/AA Function Definition and User Catalogue

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Authorised for Issue
(ELEXON) ….....

Table Of Contents

1 Introduction

1.1 Purpose

This document [EFUNDEF] describes the functions to be developed for the EAC/AA system.

The content of this function definition is produced in accordance with the Logical Design Process Description [LDESPD]. It is derived from the requirements described in the Estimation of Annual Consumption (EAC/AA) System [EACAAURS] and where appropriate, from the data interfaces described in Data Interfaces [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]. The TA2000 amendments are derived from the requirements described in the Pool Change Management Circulars 1040 and 1076.

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 EAC/AA system.

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

- EAC/AA Logical Data Design [ELDATA] 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.
- EAC/AA Conceptual Model [ECONMOD], containing Event Descriptions which will be cross-referred to the Function Definitions.

1.3 Structure of Document

This remainder of this document consists of the following sections:

- Section 2 contains the User Catalogue, which describes the on-line users in terms of job titles, activity descriptions and user roles. This is based on the User Roles described in [EACAAURS];
- Section 3 contains the Function Definitions, which describe units of processing which need to be controlled as a whole. I/O Structure diagrams are included to show the structure of inputs and outputs for each function;

- Section 4 contains Common Process descriptions and common I/O Structures for any processes that are common within the EAC/AA system;
- Appendix A provides an overview of the format of a Function Definition.

1.4 Amendment History

Issue	Details
0.900	Issued for internal review
0.990	Issued to Pool for review
0.991	Address Pool comments dated 20/11/96. Subjected to consistency review with other Logical Design products.
0.992	Issued to Pool for Acceptance review.
0.993	Address Pool Severity 1 comments (dated 10 December 1996) from Acceptance Review. Subject to internal review.
0.994	Issued to Pool for Acceptance.
1.000	Address Pool Severity 2 and 3 comments (dated 10 December 1996) from Acceptance Review.
1.100	Address Logica ORs 5.1.214 (CLAR056) 5.1.216 (CLAR059) 5.1.298 (CLAR065) 5.1.1816 (Defect 428)
1.200	Address Pool Severity 2 and 3 comments from Review of Issue 1.100.
2.000	New issue with no changes from 1.200. Issued to be consistent with software release R1.1
2.001	Draft new issue with no changes from 2.000. Issued to be consistent with software release R1.2
2.500	Incorporating Internal Review Comments. Draft issue for external review consistent with software release R1.2
2.901	Working version for R2 design. Will not be carried forward into v4.000.
2.905	Working version for R2 design. Will not be carried forward into v4.000.
2.990	Working version for R2 design. Will not be carried forward into v4.000.
3.000	Working version for R2 design. Will not be carried forward into v4.000.
4.000	Authorised version consistent with software release R1.3.
4.901	Draft for internal review. Merge of v3.000 and v4.000. Change bars show changes from v3.000.

Issue	Details
4.990	Issued to Pool for review. Merge of v3.000 and v4.000. Change bars show changes from v4.000.
5.000	Authorised Version. Merge of v3.000 and v4.000. Change bars show changes from v4.000.
5.001	Draft version incorporating the following ORs: OR2716
5.900	Draft for internal review incorporating TA2000 changes (SIR R391 / LCR105 & SIR R200 / LCR117). Change bars show changes from v5.000. Also incorporates OR 2800 - change to section 3.15.2.
5.990	Issued to Pool for review
5.991	Incorporating Pool review comments.
6.000	Authorised version.
6.001	Draft version incorporating the following ORs: OR2869 (LCR138) OR2947
6.990	Issued to Pool for review.
7.000	Authorised version.
7.990	Incorporating LCR 160/3 (SIR 2296): Reasonableness Checks for Annualised Advances.
8.000	Authorised version.
8.001	Change to Office 2000
8.002	Changes relating to ELEXON superseding the Electricity Pool
8.990	Updated document references Version for ELEXON review
8.991	Incorporating ELEXON review comments
9.000	Authorised version.
9.001	Incorporating LCR218 - BETTA
9.002	Incorporating LCR223 EAC/AA Calculator Issues
9.990	Updated the Copyright Notice Version for ELEXON review
9.991	Applied ELEXON review comments.
10.000	Made Definitive
11.000	Updated document references
11.001	Updated for Nov. 04 release Incorporating CP1052: UNIX Upgrade 5.1A – 5.1B
11.002	Incorporated additional feedback. Issued to ELEXON for review.
12.000	Made Definitive
12.900	Draft for internal review for Nov. 05 release Incorporating CP1081 : Manual Initiation of DMA Calculation

Issue	Details
12.901	Updated after STAG workshop.
12.990	Version for ELEXON review.
12.991	Applied ELEXON review comments.
12.992	Applied further ELEXON review comments.
12.993	Applied further ELEXON review comments.
12.994	Incorporating SVA Variation 001
13.000	Made Definitive
13.001	OR3568: updates to cross references to URS
13.002	Address comments from internal review.
13.990	Feb 08 Release draft version: no changes from v13.002
13.991	Incorporating ELEXON review comments
14.000	Made Definitive
14.901	Updated CP1311 Changes
14.990	Applied internal review comments. Version for ELEXON review.
14.991	Incorporating ELEXON review comments
14.992	Incorporating the changes after the defect fix for D0227 file load
14.993	Incorporating further ELEXON review comments
14.994	After further comments from ELEXON
15.000	Definitive version
15.001	P305 Updated for November 2015 Release Changes Incorporated
15.2	Incorporated the ELEXON review comments

1.5 Summary of Changes

Changes as indicated in the amendment history.

1.6 Changes Forecast

Agreed Change Requests will be incorporated.

1.7 References

Mnemonic	Information	Details
[DIS]	Title: Reference No: Issue No: Author: Date:	SVA Data Catalogue Volume 1: Data interfaces LUK.404.EC.22604.4.4 31.0 ELEXON 5 November 2009
[EACAAURS]	Title: Reference No: Issue No: Author: Date:	URS-Estimation of Annual Consumption (EAC/AA System) LUK.404.EC.22604.4.3 10.0 ELEXON 25 February 2010
[ITTR2]	Title: Reference No: Issue No: Author: Date:	Invitation to Tender-Release 2 of Pool Software LUK.404.EC.22604.11.3 1.0 ELEXON 25 February 1998
[RESPR2]	Title: Reference No: Issue No: Author: Date:	Response to ITT for Release 2 LUK.404.EC.22604.11.3 1.100 LogicaCMG 5 March 1998
[ECONMOD]	Title: Reference No: Issue No: Author: Date:	EAC/AA Conceptual Process Model 703PZT 14.000 ELEXON 25 February 2010
[EFUNDEF]	Title: Reference No: Issue No: Author: Date:	EAC/AA Function Definition and User Catalogue 701PZT 15.000 ELEXON 25 February 2010
[ELDATA]	Title: Reference No: Issue No: Author: Date:	EAC/AA Logical Data Design 700PZT 13.000 ELEXON 25 February 2010
[LDESPD]	Title: Reference No: Issue No: Author: Date:	Logical Design Process Description LUK.404.EC.22604.2.2.2.1 1.000 LogicaCMG 15 October 1996

1.8 Abbreviations

AA	Annualised Advance
EAC	Estimation of Annual Consumption
ISRA	Initial Settlement and Reconciliation Agency
BETTA	British Electricity Transmission and Trading Arrangement
SVAA	Supplier Volume Allocation Agency (formerly known as ISRA)

1.9 Intellectual Property Rights and Copyright

2 User Catalogue

The following job title has been identified for users of the EAC/AA system.

Job Title	Job Activities Description
Data Collector	Administrator of EAC/AA system for one or more Suppliers. The activities of this job cover the operation of the EAC/AA system. This includes the following: • monitoring and support of the operation of the system; • monitoring and support of the operation of the interfaces; • system monitoring for performance and capacity; • checking the electronic collection of profile data; • initiating EAC/AA Calculation runs; • initiating Deemed Meter Advance Calculation runs; • performing Ad Hoc Deemed Meter Reading Calculations; • managing audit, security and control; • managing backup, recovery and archive.

The following User Roles have been identified for users of the EAC/AA system, and are shown with the corresponding job title and activities for each User Role.

User Role	Job Title	Activities
EAC/AA System Operator	Data Collector	• checking the electronic collection of daily profile data; • initiating EAC/AA system runs (Manual Mode only).
EAC/AA System Manager	Data Collector	• creation and deletion of users and assigning of users to User Roles; • system monitoring for performance and capacity; • managing audit, security and control; • managing backup, recovery and archive.
EAC/AA System Auditor	Pool Auditor	The activities of this job include the following: • examining database data; • examining exception and run logs; • examining audit trails; • initiating the DMA Audit

User Role	Job Title	Activities
		Report and examining the report, which gives details of Ad Hoc Deemed Meter Reading Calculations.
EAC/AA Operations Supervisor	Data Collector	• monitoring and support of the operation of the system; • monitoring and support of the operation of the interfaces; • initiating Ad Hoc Deemed Meter Reading Calculations; • initiating the DMA Audit Report and examining the report, which gives details of Ad Hoc Deemed Meter Reading Calculations;

3 Functions

3.1 E0001 - Estimate Annual Consumption (Manual Mode)

3.1.1 Function Type

Batch Update User initiated

3.1.2 Function Description

This function allows the EAC/AA System Operator or Operations Supervisor to trigger the calculation of Annualised Advances (AAs) and Estimated Annual Consumptions (EACs) for a data file of Meter Advances.

This function is only applicable if EAC/AA has been installed with System Mode set to Manual. The user selects a data file from a list of those not yet processed presented by the system. The system will then produce an output file of AAs and EACs.

3.1.3 Processing Description

Reference: EPD 1.2 - Calculate Annualised Advance and EAC

The Processing is entirely described in Common Process EC004.

3.1.4 Error Handling

The Error Handling is entirely described in Common Process EC004.

3.1.5 Common Processing

EC001 - Restrict Access

EC004 - Estimate Annual Consumption

3.1.6 Volumes

Average 1/day

3.1.7 Events

EAC/AA Request (Manual)

3.1.8 Event Frequency

1

3.1.9 Enquiries

None

3.1.10 Enquiry Frequency

n/a

3.1.11 Requirements Catalogue Ref.

1.1, 1.2, 1.4, 1.5, 3.2, 4.2, 4.4, 5.1, 6.12, 7.1

3.1.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.1.13 I/O Structures

See Common Process EC004.

3.2 E0002 - Determine Deemed Meter Advance (Manual)

3.2.1 Function Type

Batch Update User initiated

3.2.2 Function Description

This function allows the EAC/AA System Operator or Operations Supervisor to trigger the calculation of Deemed Meter Advances for a data file of Metering Systems.

This function is only applicable if EAC/AA has been installed with System Mode set to Manual. The user selects a data file from a list of those not yet processed presented by the system. The system will then produce an output file of Deemed Meter Advances.

3.2.3 Processing Description

Reference : EPD 1.4 - Calculate Deemed Meter Advance

The Processing is entirely described in Common Process EC005.

3.2.4 Error Handling

The Error Handling is entirely described in Common Process EC005.

3.2.5 Common Processing

EC001 - Restrict Access

EC005 - Determine Deemed Meter Advance

3.2.6 Volumes

Ad hoc (up to 1/day)

3.2.7 Events

Request for Deemed Meter Advance (Manual)

3.2.8 Event Frequency

1

3.2.9 Enquiries

None

3.2.10 Enquiry Frequency

n/a

3.2.11 Requirements Catalogue Ref.

2.1, 3.2, 4.3, 4.4, 5.1

3.2.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.2.13 I/O Structures

See Common Process EC005.

3.3 E0003 - Load Daily Profiles (Manual)

3.3.1 Function Type

Batch Update User initiated

3.3.2 Function Description

This function allows the EAC/AA System Operator or Operations Supervisor to load a file of Daily Profile Coefficients received from the ISRA system for a particular Settlement Day.

This function is only applicable if EAC/AA has been installed with System Mode set to Manual. The user selects a data file from a list of those not yet processed presented by the system. The list of data files is presented to the user in Settlement Date order. Alternatively, the user requests that all data files presented be processed, regardless of the originating ISR Agent. The system will then produce a report detailing the Settlement Date and the number of Daily Profile Coefficients loaded for each data file processed.

The system will not allow Daily Profile Coefficients to be loaded initially other than in Settlement Date order, as described in requirement 6.5.

The system rejects files containing DPCs for Scottish GSP Groups for Settlement Dates before the BETTA Start Date unless the files are from the Scottish ISR Agent. The system rejects files containing DPCs for Settlement Dates on or after the BETTA Start Date if the files are from the Scottish ISR Agent.

In the case of data being reloaded for a Settlement Day, the system will also report upon the number of Annualised Advances calculated using the previous data, as described in requirement 6.12.

3.3.3 Processing Description

Reference : EPD 1.1 - Receive Daily Profiles

The Processing is entirely described in Common Process EC006.

3.3.4 Error Handling

The Error Handling is entirely described in Common Process EC006.

3.3.5 Common Processing

EC001 - Restrict Access

EC006 - Load Daily Profiles

3.3.6 Volumes

1/day, plus occasional reloads of data.

3.3.7 Events

Daily Profile Coefficients Received (Manual)

3.3.8 Event Frequency

1

3.3.9 Enquiries

None

3.3.10 Enquiry Frequency

n/a

3.3.11 Requirements Catalogue Ref.

3.1, 4.1, 4.7, 6.12, 6.5

3.3.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.3.13 I/O Structures

See Common Processing EC006.

3.4 E0004 - Specify Smoothing Parameter

3.4.1 Function Type

On-line Update User initiated

3.4.2 Function Description

This function allows the EAC/AA Operations Supervisor to browse and maintain values of the Smoothing Parameter.

A list of existing Smoothing Parameter values and their Effective From Settlement Dates is displayed (this list is not shown in the I/O structure, and should not be confused with the "Smoothing Parameter Browsed" branch of the I/O structure). The user either selects one of them to amend, delete or browse, or enters a new one.

3.4.3 Processing Description

Reference: 1.5 Maintain Smoothing Parameter

This process will allow the Data Collector to maintain the Smoothing Parameter used in function E0001. The Smoothing Parameter value is recorded, together with an Effective Date, the system will not allow values to be updated or created if Daily Profile Coefficients have been loaded for the Effective From Date. The Smoothing Parameter value must be a positive number.

3.4.4 Error Handling

The system will not allow values to be updated or created if Daily Profile Coefficients have been loaded for the Effective From Date (i.e. retrospective changes not permitted).

The system will only allow values to be deleted if Daily Profile Coefficients have not yet been loaded for the Effective From Date, or if they have been archived for the Effective To Date.

3.4.5 Common Processing

EC001 - Restrict Access

EC003 - Update On-line Audit Log

3.4.6 Volumes

Ad hoc (occasional)

3.4.7 Events

Smoothing Parameter Deleted

Smoothing Parameter Entered

Smoothing Parameter Updated

3.4.8 Event Frequency

The sum of the frequencies of the three events and the enquiry is one.

3.4.9 Enquiries

Smoothing Parameter Browsed

3.4.10 Enquiry Frequency

The sum of the frequencies of the three events and the enquiry is one.

3.4.11 Requirements Catalogue Ref.

1.3, 4.6

3.4.12 User Roles

EAC/AA Operations Supervisor

3.4.13 I/O Structures

Specify Smoothing Parameter

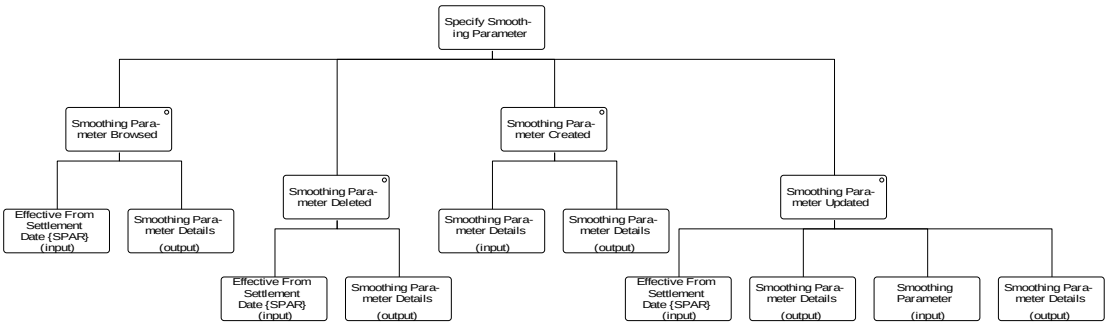


Figure 1 - Specify Smoothing Parameter (I/O Structure)

I/O Structure Element	Data Items
Effective From Settlement Date{SPAR}	Effective From Settlement Date{SPAR}
Smoothing Parameter	Smoothing Parameter
Smoothing Parameter Details	Effective From Settlement Date{SPAR} Smoothing Parameter

3.5 E0005 - Archive Daily Profile Coefficients

3.5.1 Function Type

Batch Update User initiated

3.5.2 Function Description

This function allows the EAC/AA System Manager to remove Daily Profile Coefficients from the system to a secure storage medium once they are no longer required. The value of the Smoothing Parameter in effect for each Settlement Day will also be recorded.

The user will specify the Settlement Day date up to which data is to be archived. The system will then archive all data for Settlement Days up to and including that date.

3.5.3 Processing Description

None

3.5.4 Error Handling

The system will issue a warning if the end of the date range requested is not at least twenty-four months prior to the latest Settlement Date for which Daily Profile Coefficients have been loaded.

3.5.5 Common Processing

EC001 - Restrict Access

3.5.6 Volumes

Regular (Weekly or Monthly)

3.5.7 Events

Daily Profile Coeffs. & Smoothing Parameters Archive

3.5.8 Event Frequency

1

3.5.9 Enquiries

None

3.5.10 Enquiry Frequency

n/a

3.5.11 Requirements Catalogue Ref.

5.3

3.5.12 User Roles

EAC/AA System Manager

3.5.13 I/O Structures

Archive Daily Profile Coefficients

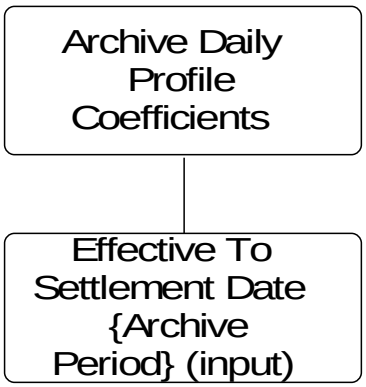


Figure 2 - Archive Daily Profile Coefficients (I/O Structure)

I/O Structure Element	Data Items
Effective To Settlement Date{Archive Period}	Effective To Settlement Date{Archive Period}

3.6 E0006 - Report on Profile Coefficients

3.6.1 Function Type

On-line Enquiry User initiated

3.6.2 Function Description

This function allows the EAC/AA System Auditor, System Operator or Operations Supervisor to perform ad hoc reports on Daily Profile Coefficients.

The system will allow queries to be performed by Standard Settlement Configuration and/or Profile Class and/or GSP Group and/or Settlement Date. There will be an option to view results on-line or as a printed report.

The details are presented in Settlement Date descending order, this is to satisfy the requirement 6.6.

No I/O structure is provided for this function, because it is an ad hoc query.

3.6.3 Processing Description

None

3.6.4 Error Handling

None

3.6.5 Common Processing

EC001 - Restrict Access

3.6.6 Volumes

Occasional

3.6.7 Events

None

3.6.8 Event Frequency

n/a

3.6.9 Enquiries

Ad Hoc Enquiry on Profile Coefficients

3.6.10 Enquiry Frequency

1

3.6.11 Requirements Catalogue Ref.

3.3

3.6.12 User Roles

EAC/AA System Auditor.

EAC/AA System Operator

EAC/AA Operations Supervisor.

3.6.13 I/O Structures

None

3.7 E0007 - Identify Input Files Used in Calculation

3.7.1 Function Type

On-line Enquiry User initiated

3.7.2 Function Description

This function allows the EAC/AA System Operator or Operations Supervisor to identify which files of Daily Profile Coefficient data were used in calculating an EAC/AA or Deemed Meter Advance.

The user will input the Effective From Settlement Date and Effective To Settlement Date of the Meter Advance Period, and the calendar date and time at which the calculation took place. The system will then display details of all the Daily Profile Coefficient files which would have been used in performing the calculation. The system will highlight any files which are not the latest loaded for that Settlement Day.

3.7.3 Processing Description

None

3.7.4 Error Handling

None

3.7.5 Common Processing

EC001 - Restrict Access

3.7.6 Volumes

Occasional

3.7.7 Events

None

3.7.8 Event Frequency

n/a

3.7.9 Enquiries

Enquiry on Data Used in Calculation.

3.7.10 Enquiry Frequency

1

3.7.11 Requirements Catalogue Ref.

5.8

3.7.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.7.13 I/O Structures

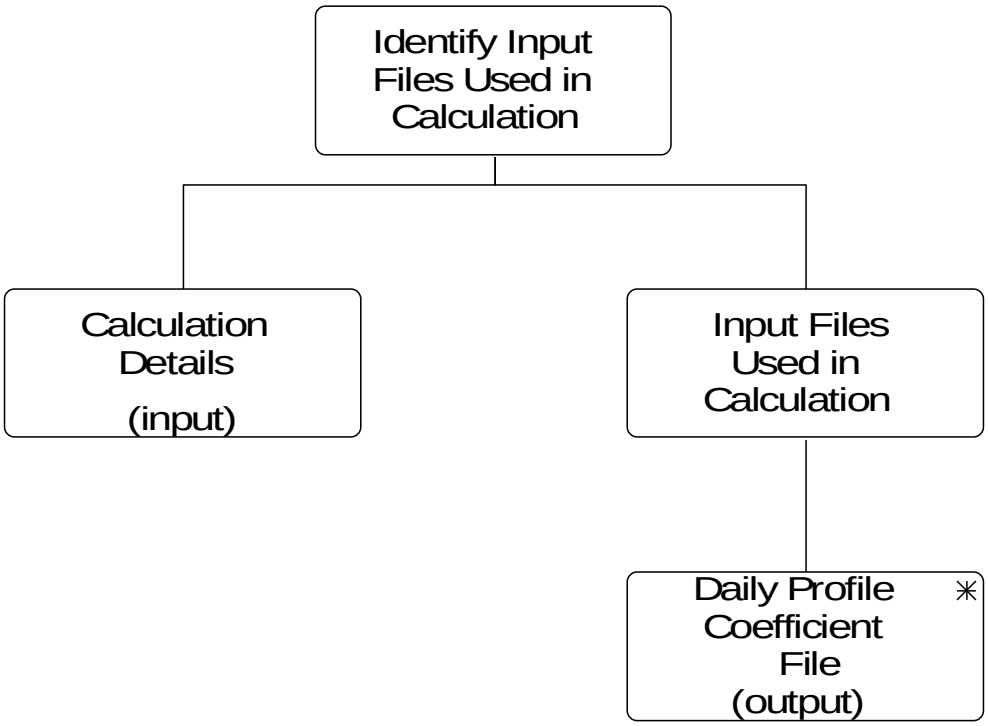


Figure 3 - Identify Input Files Used in Calculation (I/O Structure)

I/O Structure Element	Data Items
Calculation Details	Date and Time of Calculation Effective From Settlement Date{MAC} Effective To Settlement Date{MAC}
Daily Profile Coefficient File	Data Collector Id ISR Agent Id Profile Production Run Number Settlement Date

3.8 E0008 - Report on Archived Data

3.8.1 Function Type

Batch Enquiry User initiated

3.8.2 Function Description

This function allows the EAC/AA System Manager to produce a report showing the values of data used in EAC/AA calculations for a Settlement Day for which the data has been archived from the system.

The user will specify the Settlement Day for which the report is to be produced (and, if appropriate, load the removable medium on which the data is stored). The system will then produce a report showing the values of the Daily Profile Coefficients and Smoothing Parameters for that Settlement Day.

3.8.3 Processing Description

None

3.8.4 Error Handling

None

3.8.5 Common Processing

EC001 - Restrict Access

3.8.6 Volumes

Occasional (as determined by System Manager).

3.8.7 Events

None

3.8.8 Event Frequency

n/a

3.8.9 Enquiries

Enquiry on Archived Data

3.8.10 Enquiry Frequency

1

3.8.11 Requirements Catalogue Ref.

5.3

3.8.12 User Roles

EAC/AA System Manager

3.8.13 I/O Structures

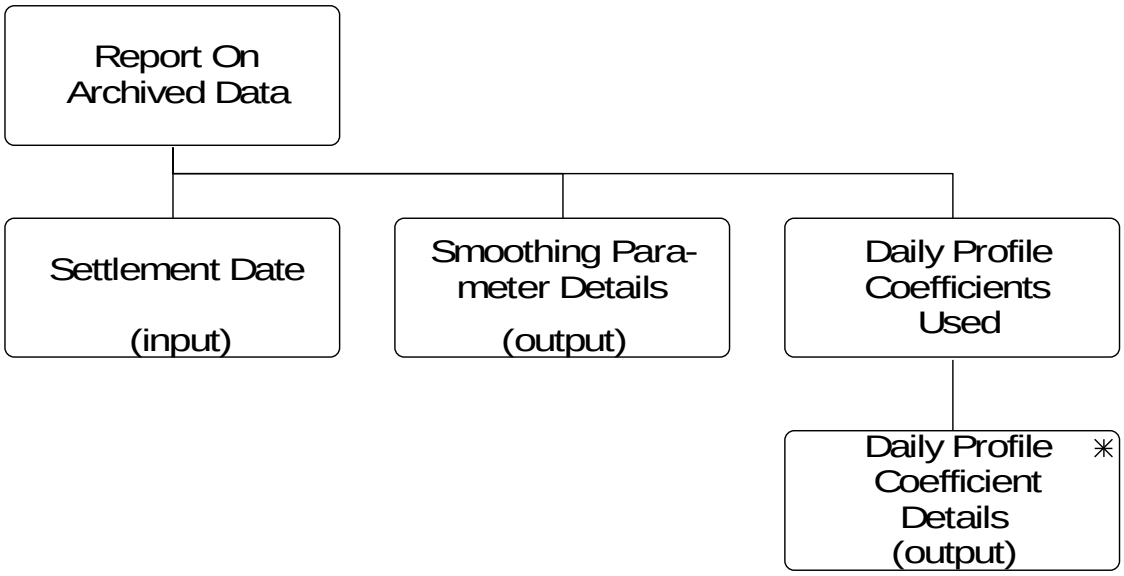


Figure 4 Report On Archive Data

I/O Structure Element	Data Items
Daily Profile Coefficient Details	Settlement Date Profile Production Run Number Profile Class Id Standard Settlement Configuration Desc Time Pattern Regime Id GSP Group Id
Settlement Date	Settlement Date
Smoothing Parameter Details	Effective From Settlement Date {SPAR} Smoothing Parameter

3.9 E0009 - Browse Smoothing Parameter

3.9.1 Function Type

On-line Enquiry User initiated

3.9.2 Function Description

This function allows the EAC/AA Systems Operator or Operations Supervisor to browse values of the Smoothing Parameter.

The system displays a list of Smoothing Parameter values and their Effective From Settlement Dates.

3.9.3 Processing Description

n/a

3.9.4 Error Handling

n/a

3.9.5 Common Processing

EC001 - Restrict Access

3.9.6 Volumes

Ad hoc (occasional)

3.9.7 Events

n/a

3.9.8 Event Frequency

n/a

3.9.9 Enquiries

Enquiry on Smoothing Parameter

3.9.10 Enquiry Frequency

1

3.9.11 Requirements Catalogue Ref.

4.6

3.9.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.9.13 I/O Structures

See Smoothing Parameter Browsed branch of I/O Structure 3.4.13 Specify Smoothing Parameter.

3.10 E0010 - Specify Standard Settlement Configuration

3.10.1 Function Type

On-line Update User initiated

3.10.2 Function Description

This function allows the EAC/AA Operations Supervisor to specify the Standard Settlement Configuration for which the Data Collector is to load Daily Profile Coefficient data.

A list of existing Standard Settlement Configurations is displayed. The user either selects one of the ids to be deleted or marked as "to be used". The user may enter a new Standard Settlement Configuration id and Standard Settlement Configuration description and select whether it is to be used.

3.10.3 Processing Description

n/a

3.10.4 Error Handling

n/a

3.10.5 Common Processing

EC001 - Restrict Access

3.10.6 Volumes

Ad hoc (occasional).

3.10.7 Events

Standard Settlement Configuration Deleted

Standard Settlement Configuration Entered

Standard Settlement Configuration Updated

3.10.8 Event Frequency

1

3.10.9 Enquiries

n/a

3.10.10 Enquiry Frequency

n/a

3.10.11 Requirements Catalogue Ref.

4.5

3.10.12 User Roles

EAC/AA Operations Supervisor

3.10.13 I/O Structures

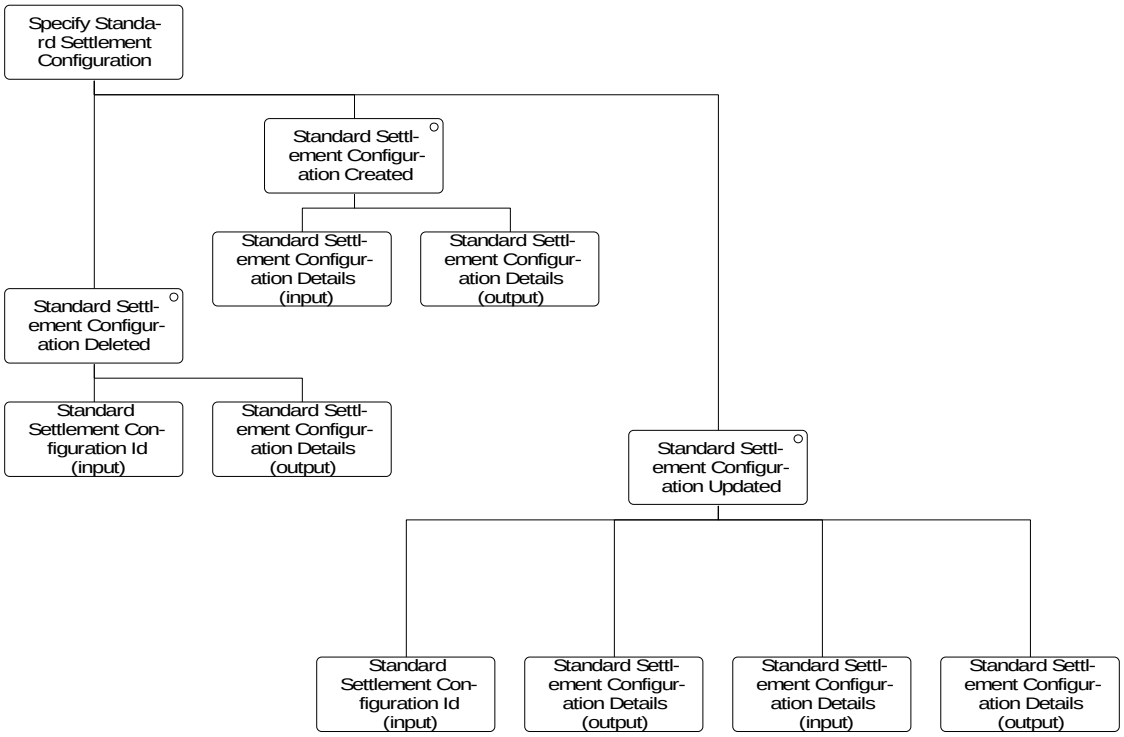


Figure 5 - Specify Standard Settlement Configuration (I/O Structure)

I/O Structure Element	Data Items
Standard Settlement Configuration Details	Standard Settlement Configuration Id Standard Settlement Configuration Description Load Associated DPC
Standard Settlement Configuration Id	Standard Settlement Configuration Id

3.11 E0011 - Load Standard Settlement Configuration

3.11.1 Function Type

Batch	Update	System initiated

3.11.2 Function Description

This function loads the Pool Market Domain data file containing the Standard Settlement Configurations received from the Market Domain Data Agent. The presence of the data file is automatically detected. The Standard Settlement Configuration id and the Standard Settlement Configuration descriptions are extracted from the file.

This function also loads the Average Fraction of Yearly Consumption received from the Market Domain Data Agent. The Effective From Settlement Date {AFYC}, Effective To Settlement Date {AFYC}, GSP Group Id, Standard Settlement Configuration Id, Profile Class Id, Time Pattern Regime Id and Average Fraction of Yearly Consumption are extracted from the file.

3.11.3 Processing Description

Data files are automatically detected and the Standard Settlement Configuration and Average Fraction of Yearly Consumption data loaded.

The existing Standard Settlement Configurations are not changed by this process. The Standard Settlement Configurations are loaded and marked as being Standard Settlement Configurations for which Daily Profile Coefficients should be loaded.

When new Average Fraction of Yearly Consumption data is received, it is loaded and any existing data with the same GSP Group Id, Standard Settlement Configuration Id, Profile Class Id and Time Pattern Regime is deleted, unless the new data has an earlier Effective From Settlement Date {AFYC} than the existing data, in which case the new data is ignored.

3.11.4 Error Handling

This function does not change details of existing Standard Settlement Configurations. An error is reported if the load processes attempts to alter details of existing Standard Settlement Configurations, no errors are reported however, if the data file contains identical Standard Settlement Configurations to those already present on the database.

3.11.5 Common Processing

None.

3.11.6 Volumes

Occasional (at most 1/month).

3.11.7 Events

Standard Settlement Configuration Received.

3.11.8 Event Frequency

1

3.11.9 Enquiries

n/a

3.11.10 Enquiry Frequency

n/a

3.11.11 Requirements Catalogue Ref.

4.5

3.11.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.11.13 I/O Structures

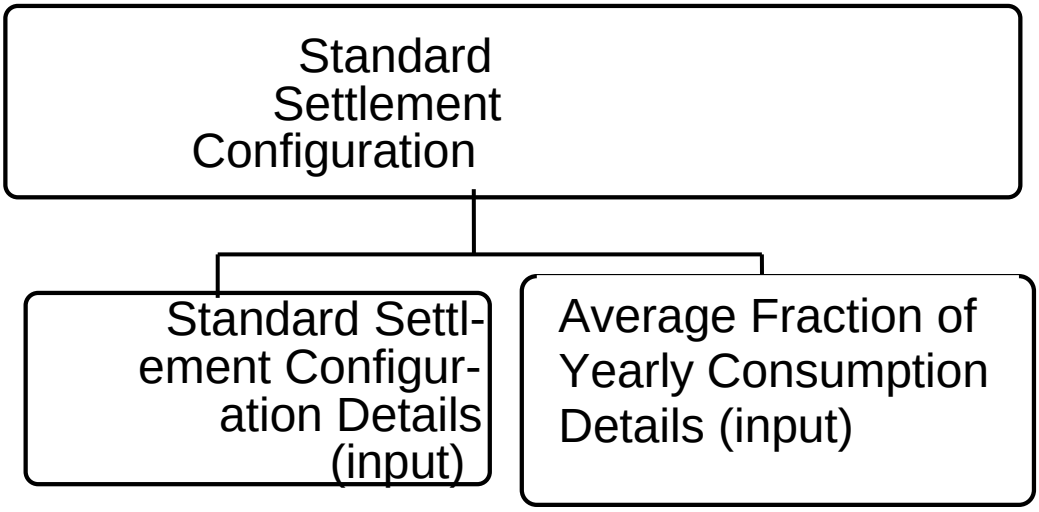


Figure 6 - Standard Settlement Configuration (I/O Structure)

I/O Structure Element	Data Items
Standard Settlement Configuration Details	Standard Settlement Configuration Id Standard Settlement Configuration Description
Average Fraction of Yearly Consumption Details	GSP Group Id Profile Class Id Standard Settlement Configuration Id Time Pattern Regime Id Effective From Settlement Date {AFYC} Effective To Settlement Date {AFYC} Average Fraction of Yearly Consumption

3.12 E0012 - Estimate Annual Consumption (Automatic)

3.12.1 Function Type

Batch Update System initiated

3.12.2 Function Description

This function calculates Annualised Advances (AAs) and Estimated Annual Consumptions (EACs) for a data file of Meter Advances.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, the file is processed automatically and the system will then produce an output file of AAs and EACs.

3.12.3 Processing Description

Reference: EPD 1.2 - Calculate Annualised Advance and EAC

The Processing is entirely described in Common Process EC004.

3.12.4 Error Handling

The Error Handling is entirely described in Common Process EC004.

3.12.5 Common Processing

EC004 - Estimate Annual Consumption

3.12.6 Volumes

Average 1/day

3.12.7 Events

EAC/AA Request (Automatic)

3.12.8 Event Frequency

1

3.12.9 Enquiries

None

3.12.10 Enquiry Frequency

n/a

3.12.11 Requirements Catalogue Ref.

1.1, 1.2, 1.4, 1.5, 3.2, 4.2, 4.4, 5.1, 6.12, 7.1

3.12.12 User Roles

not applicable

3.12.13 I/O Structures

See Common Processing EC004.

3.13 E0013 - Determine Deemed Meter Advance (Automatic)

3.13.1 Function Type

Batch Update System initiated

3.13.2 Function Description

This function calculates Deemed Meter Advances for a data file of Metering Systems.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, the file is processed automatically and the system will then produce an output file of Deemed Meter Advances.

3.13.3 Processing Description

Reference : EPD 1.4 - Calculate Deemed Meter Advance

The Processing is entirely described in Common Process EC005.

3.13.4 Error Handling

The Error Handling is entirely described in Common Process EC005.

3.13.5 Common Processing

EC005 - Determine Deemed Meter Advance

3.13.6 Volumes

Ad hoc (up to 1/day)

3.13.7 Events

Request for Deemed Meter Advance (Automatic)

3.13.8 Event Frequency

1

3.13.9 Enquiries

None

3.13.10 Enquiry Frequency

n/a

3.13.11 Requirements Catalogue Ref.

2.1, 3.2, 4.3, 4.4, 5.1

3.13.12 User Roles

not applicable

3.13.13 I/O Structures

See Common Processing EC005.

3.14 E0014 - Load Daily Profiles (Automatic)

3.14.1 Function Type

Batch Update System initiated

3.14.2 Function Description

This function loads a file of Daily Profile Coefficients received from the ISRA system for a particular Settlement Day.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, and the load processing is initiated by the system.

The system will then produce a report detailing the Settlement Date and the number of Daily Profile Coefficients loaded.

The system will not allow Daily Profile Coefficients received from a given ISR Agent to be loaded initially other than in Settlement Date order, as described in requirement 6.5. If a data file arrives containing Daily Profile Coefficients for a Settlement Date and there is no data in the database for the previous Settlement Date and same originating ISR Agent, then the system will not load that file, but retain it in an unloaded state. Each time a new Daily Profile Coefficient data file arrives, the system will attempt to load that file and also any files which arrived earlier and have not been loaded, sorting the files in Settlement Date order for each originating ISR Agent.

The system rejects files containing DPCs for Scottish GSP Groups for Settlement Dates before the BETTA Start Date unless the files are from the Scottish ISR Agent. The system rejects files containing DPCs for Settlement Dates on or after the BETTA Start Date if the files are from the Scottish ISR Agent.

In the case of data being reloaded for a Settlement Day, the system will also report upon the number of Annualised Advances calculated using the previous data, as described in requirement 6.12.

3.14.3 Processing Description

Reference : EPD 1.1 - Receive Daily Profiles

The Processing is entirely described in Common Process EC006.

3.14.4 Error Handling

The Error Handling is entirely described in Common Process EC006.

3.14.5 Common Processing

EC006 - Load Daily Profiles

3.14.6 Volumes

1/day, plus occasional reloads of data.

3.14.7 Events

Daily Profile Coefficients Received (Automatic)

3.14.8 Event Frequency

1

3.14.9 Enquiries

None

3.14.10 Enquiry Frequency

n/a

3.14.11 Requirements Catalogue Ref.

3.1, 4.1, 4.7, 6.12, 6.5

3.14.12 User Roles

not applicable

3.14.13 I/O Structures

See Common Processing EC006.

3.15 E0015 - View Reports

3.15.1 Function Type

On-Line Enquiry User initiated

3.15.2 Function Description

This function is invoked by the EAC/AA user to view files produced from batch processing. The files that may be viewed are the control reports and exception reports produced from the following functions:

- Estimate Annual Consumption
- Determine Deemed Meter Advance
- Load Daily Profiles
- Load Standard Settlement Configuration

(The Load Standard Settlement Configuration function produces only an exception report; the other three produce both a control report and an exception report.)

Also the report produced by the function:

- Report on Ad Hoc Deemed Meter Reading Calculations

may be viewed.

The user selects the type of file required from a pick list and then chooses the file to report on from a pick list of files of that type.

3.15.3 Processing Description

Records matching the selection criteria are displayed.

3.15.4 Error Handling

None

3.15.5 Common Processing

None.

3.15.6 Volumes

An indeterminate number of files will be reported on an ad hoc basis.

3.15.7 Events

None

3.15.8 Event Frequency

N/A

3.15.9 Enquiries

View Reports

3.15.10 Enquiry Frequency

1

3.15.11 Requirements Catalogue Ref.

The requirement for a function to view reports (SIR R391 / LCR105) is stated in the ITT for TA2000 EAC/AA.

3.2, 3.3, 3.4, 4.5

3.15.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

EAC/AA System Manager

EAC/AA System Auditor

3.15.13 I/O Structures

An I/O structure has not been created as it is inappropriate for this function.

3.16 E0016 - Determine Ad Hoc Deemed Meter Reading

3.16.1 Function Type

On-Line Update User initiated

3.16.2 Function Description

This function allows the EAC/AA Operations Supervisor to calculate deemed meter readings for a Metering System from data input by the user.

The user enters the Metering System Id, Standard Settlement Configuration Id, GSP Group Id, two meter reading dates, and the date for which the deemed meter reading is required. For each Profile Class to which the Metering System has been assigned between these dates, the user enters the Profile Class Id and Effective From Date. For each register for which a deemed meter reading is required, the user enters the Time Pattern Regime, the register id (optional), the number of register digits, two meter readings (taken on the two meter reading dates), and if the second reading is less than the first reading, the user may specify that the negative advance reason is due to a meter rollover.

The system calculates the deemed meter readings requested and displays the results to the user. The system stores the data input by the user in the Ad Hoc Deemed Meter Reading Calculation, Ad Hoc Deemed Meter Reading Calculation Profile Class and Ad Hoc Deemed Meter Reading Calculation Time Pattern Regime entities. The system calculates a unique transaction number for the calculation and stores that together with the date and time of the calculation along with the id of the user who requested the calculation in the Ad Hoc Deemed Meter Reading Calculation entity. It stores the calculated deemed meter readings in the Ad Hoc Deemed Meter Reading Calculation Time Pattern Regime entity, along with the Annualised Advances and Deemed Meter Advances which are interim results of the calculation. Warnings and errors (which might mean that it was not possible to calculate any values) are also stored in the Ad Hoc Deemed Meter Reading Calculation Time Pattern Regime entity.

3.16.3 Processing Description

This process handles requests to calculate a deemed meter reading.

The Metering System Id must be numeric, with the 13^{th} digit being the check digit as calculated using the industry standard algorithm.

The first meter reading date D_1 must be before the second meter reading date D_2. The deemed meter reading date D_3 must not be equal to either D_1 or D_2. The deemed meter reading date must be in the past and there will be a warning if it is less than 14 days before the current date. The meter readings must be integers between 0 and $(10^n -1)$ where n is the number of register digits.

If the second meter reading is less than the first meter reading, the user may specify that the negative advance reason is due to a meter rollover.

The Time Pattern Regimes entered must belong to the Standard Settlement Configuration.

The "period of calculation" is defined as the period running from the earliest of the three dates D_1 D_2 D_3 to the day before the latest of the three dates. For each Settlement Day in this period, a Daily Profile Coefficient must exist for each register i.e. it must exist for the combination of Settlement Day, Standard Settlement Configuration Id, GSP Group Id, Profile Class Id effective on that day and Time Pattern Regime.

If the period of calculation is greater than or equal to 730 days, a warning is displayed, and the user has the option to continue or to amend the data.

The process for calculating a deemed meter reading for each register for which the user has requested a calculation is as follows.

The first meter reading M_1 is subtracted from the second meter reading M_2 to give a Meter Advance:

$$\text{Meter Advance} = M_2 - M_1$$

except for the special case where the meter advance is negative and the reason for why it is negative is "Rollover", then:

$$\text{Meter Advance} = 10^n + M_2 - M_1$$

The Meter Advance will be used, along with the Daily Profile Coefficients for all Settlement Days in the period from D_1 to D_2, to calculate the Annualised Advance for each register.

For each register, the GSP Group Id, Profile Class Id, Standard Settlement Configuration Id and Time Pattern Regime Id effective for each Settlement Day between D_1 and D_2 are determined (i.e. with reference to the effective dates of the Profile Class Id).

For each Settlement Day (**d**) in the meter advance period, the appropriate Daily Profile Coefficients PC_{gptd} are retrieved from the Daily Profile Coefficient entity.

The Daily Profile Coefficients retrieved depend on:

- the Measurement Requirement for the Settlement Register during the period from D_1 to D_2, where Measurement Requirement is a valid combination of Standard Settlement Configuration Id and Time Pattern Regime Id (represented by the subscript **t**);
- the GSP Group Id defined for the Metering System (represented by the subscript **g**);
- the Profile Class Id effective for the Metering System on the Settlement Day in question (represented by the subscript **p**).

The fraction of the yearly consumption covered by the advance is calculated as:

$$\text{Fraction of Yearly Consumption } (FYC_m) = \sum_{d=D_1}^{(D_2-1)} DPC_{gptd}$$

If the Fraction of Yearly Consumption is non-zero, a new Annualised Advance is calculated as:

Annualised Advance = Meter Advance / Fraction of Yearly Consumption

N.B. a meter advance may be negative, in which case the Annualised Advance will also be negative.

If the Fraction of Yearly Consumption is zero, then the Annualised Advance is set to zero, whether the Meter Advance is zero or non-zero.

The Annualised Advance is then compared to the appropriate Annualised Advance Tolerance Values for the Metering System's GSP Group and Profile Class. If more than one Profile Class was specified by the user, the comparison is repeated for each one. If it falls outside, this is a warning (see section 3.16.4).

The next step is to calculate a Deemed Meter Advance from the Annualised Advance. The Deemed Meter Advance Period depends on where D_3 falls relative to D_1 and D_2.

If D_3 is before D_1, the period runs from D_3 to (D_1-1). If D_3 is between D_1 and D_2, the period runs from D_1 to (D_3-1). If D_3 is after D_2, the period runs from D_2 to (D_3-1).

For each Settlement Day in the Deemed Meter Advance Period, the appropriate Daily Profile Coefficients PC_{gptd} are retrieved from the Daily Profile Coefficient entity.

A Deemed Meter Advance is calculated as follows:

$$\text{Deemed Meter Advance} = AA * \sum DPC_{gptd}$$

The calculated Deemed Meter Advance is rounded to the nearest integer value.

The final step of the calculation is to convert the Deemed Meter Advance A to the required deemed meter reading. If D_3 is before D_1, the deemed meter reading is (M_1-A) . If D_3 is between D_1 and D_2, the deemed meter reading is (M_1+A). If D_3 is after D_2, the deemed meter reading is (M_2+A).

In all three cases, the calculated deemed meter reading must be checked and adjusted if necessary, allowing for rollover, to ensure that it falls in the range (0-10^n) which can be displayed on the register: if the deemed meter reading is less than 0, it should be adjusted by adding 10^n until it is greater than or equal to 0; If the deemed meter reading is greater than or equal to 10^n, it should be adjusted by subtracting 10^n until it is less than 10^n.

3.16.4 Error Handling

Errors and warnings are displayed to the user and also written to the Ad Hoc Deemed Meter Reading Calculation Time Pattern Regime entity.

3.16.5 Common Processing

None.

3.16.6 Volumes

Ad hoc

3.16.7 Events

Request for Ad Hoc Deemed Meter Reading Calculation

3.16.8 Event Frequency

1

3.16.9 Enquiries

None

3.16.10 Enquiry Frequency

n/a

3.16.11 Requirements Catalogue Ref.

2.2, 2.3, 2.4, 2.5, 4.9, 5.1, 5.9, 6.13

3.16.12 User Roles

EAC/AA Operations Supervisor

3.16.13 I/O Structures

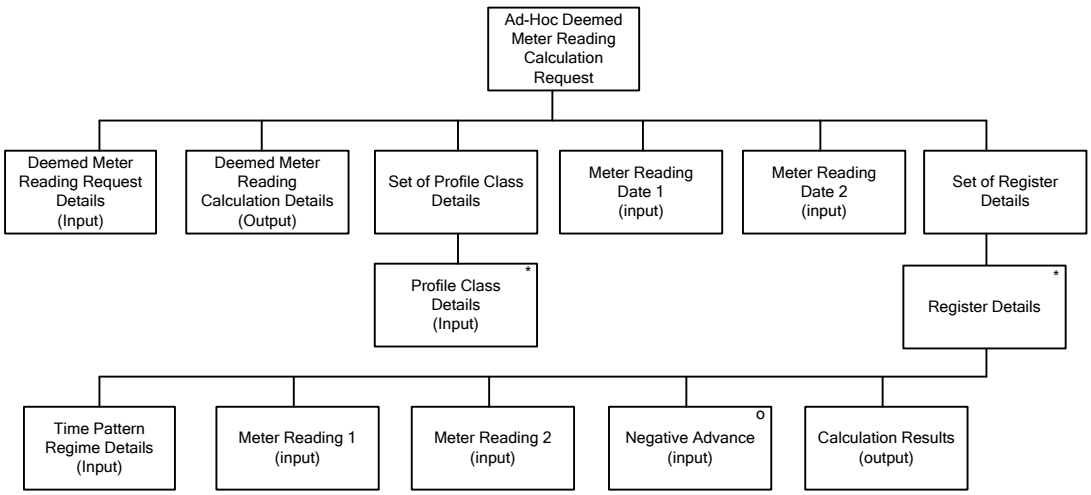


Figure 13 - Deemed Meter Advance Request (I/O Structure)

I/O Structure Element	Data Items
Deemed Meter Reading Request Details	Metering System Id

	Standard Settlement Configuration Id GSP Group Id Deemed Meter Reading Date
Deemed Meter Reading Calculation Details	Calculation Date and Time Transaction Number User Id
Profile Class Details	Effective From Settlement Date {MSPC} Profile Class Id
Meter Reading Date 1	Meter Reading Date
Meter Reading Date 2	Meter Reading Date
Time Pattern Regime Details	Entry Number Time Pattern Regime Id Register Digits Register Id
Meter Reading 1	Meter Reading
Meter Reading 2	Meter Reading
Negative Advance	Negative Advance Rollover
Calculation Results	Deemed Meter Reading Annualised Advance Deemed Meter Advance Calculation Failure Reason

3.17 E0017 - Report on Ad Hoc Deemed Meter Reading Calculations

3.17.1 Function Type

On-line Enquiry User initiated

3.17.2 Function Description

This function allows the EAC/AA System Auditor or Operations Supervisor to perform reports on the results of Ad Hoc Deemed Meter Reading Calculations (function E0016).

The system will allow queries to be performed by specifying a Metering System Id and/or a GSP Group Id and/or a Standard Settlement Configuration Id and/or a User Id and/or a range of Calculation Dates and/or a range of

Deemed Meter Reading Dates and/or a range of Transaction Numbers. As a minimum, either a Metering System Id or a Calculation Date or a Transaction Number must be entered.

There will be an option to view results on-line or as a printed report. The report will contain all the data used by the user as inputs to the calculation, and the results of the calculation.

No I/O structure is provided for this function, because it is an ad hoc query.

3.17.3 Processing Description

None

3.17.4 Error Handling

None

3.17.5 Common Processing

None

3.17.6 Volumes

Occasional

3.17.7 Events

None

3.17.8 Event Frequency

n/a

3.17.9 Enquiries

Enquiry on Results of Ad Hoc Deemed Meter Reading Calculation

3.17.10 Enquiry Frequency

1

3.17.11 Requirements Catalogue Ref.

3.4

3.17.12 User Roles

EAC/AA System Auditor.

EAC/AA Operations Supervisor.

3.17.13 I/O Structures

None

3.18 E0019 - Browse GSP Group Profile Class Default EAC details

3.18.1 Function Type

On-line Enquiry User initiated

3.18.2 Function Description

This function allows the EAC/AA Systems Operator or Operations Supervisor to browse values of the GSP Group Profile Class Default EAC.

The system displays a list of GSP Group Profile Class Default EAC values and their GSP Group Ids, Profile Class Ids and Effective From Settlement Dates.

3.18.3 Processing Description

n/a

3.18.4 Error Handling

n/a

3.18.5 Common Processing

EC001 - Restrict Access

3.18.6 Volumes

Ad hoc (occasional)

3.18.7 Events

n/a

3.18.8 Event Frequency

n/a

3.18.9 Enquiries

Enquiry on GSP Group Profile Class Default EAC

3.18.10 Enquiry Frequency

1

3.18.11 Requirements Catalogue Ref.

CP1311

3.18.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.18.13 I/O Structures

See GSP Group Profile Class Default EAC details Browsed branch of I/O Structure 3.18.13 Specify GSP Group Profile Class Default EAC details.

3.19 E0020 - Load Demand Control Events (Manual)

3.19.1 Function Type

Online Enquiry User Initiated

3.19.2 Function Description

This function allows the EAC/AA System Operator or Operations Supervisor to load a file of Demand Control Event from LDSO.

This function is only applicable if EAC/AA has been installed with System Mode set to Manual. The user selects a data file from a list of those not yet processed presented by the system. The list of data files is presented to the user in received date order.

The system will not allow Demand Control Event to be loaded initially other than in Received Date order.

3.19.3 Processing Description

Reference : EPD 1.5 - Receive Demand Control Event.

The Processing is entirely described in Common Process EC007.

3.19.4 Error Handling

The Error Handling is entirely described in Common Process EC007.

3.19.5 Common Processing

EC001 - Restrict Access

EC007 - Load Demand Control Event

3.19.6 Volumes

Occasionally

3.19.7 Events

Demand Control Event Received (Manual)

3.19.8 Event Frequency

1

3.19.9 Enquiries

None

3.19.10 Enquiry Frequency

n/a

3.19.11 Requirements Catalogue Ref.

NA

3.19.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.19.13 I/O Structures

See Common Processing EC007.

3.20 E0021 - Load Demand Control Events (Automatic)

3.20.1 Function Type

Batch Update System initiated

3.20.2 Function Description

This function loads the data file of Demand Control Event from LDSO.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, the file is processed automatically and the system will load the data into EAC/AA database.

3.20.3 Processing Description

Reference: EPD 1.5 - Receive Demand Control Event

The Processing is entirely described in Common Process EC007.

3.20.4 Error Handling

The Error Handling is entirely described in Common Process EC007.

3.20.5 Common Processing

EC007 - Load Demand Control Event

3.20.6 Volumes

Occasionally

3.20.7 Events

Demand Control Event Received (Automatic)

3.20.8 Event Frequency

1

3.20.9 Enquiries

None

3.20.10 Enquiry Frequency

n/a

3.20.11 Requirements Catalogue Ref.

NA

3.20.12 User Roles

not applicable

3.20.13 I/O Structures

See Common Processing EC007.

3.21 E00212 - Load Estimated HH Demand DisconnectionDemand Disconnection Volumes (Manual)

3.21.1 Function Type

On-Line Enquiry User initiated

3.21.2 Function Description

This function loads a file of Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes are received from the SVAA and HHDC for a particular Settlement Day.

This function is only applicable if EAC/AA has been installed with System Mode set to AutomaticManual. The user selects a data file from a list of those not yet processed presented by the system. The list of data files is presented to the user in received date order.The presence of the data file is automatically detected, and the load processing is initiated by the system.

The system will then produce a report detailing the Settlement Date and the number of Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes loaded.

While Loadingloading the function checks for the any previous Demand Control events present for the same Demand Control Event Identifier, if present, it raises duplication error and rejects the flow.

If there is any duplication present in the Metering System Identifier for a Demand Control Event it raises duplication error and rejects the flow.

3.21.3 Processing Description

Reference : EPD 1.6 - Receive Estimated HH Demand Disconnection Volumes.

The Processing is entirely described in Common Process EC008.

3.21.4 Error Handling

The Error Handling is entirely described in Common Process EC008.

3.21.5 Common Processing

EC001 - Restrict Access

EC008 - Load Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes

3.21.6 Volumes

Occasionally

3.21.7 Events

Demand Control Event Received (Manual)

3.21.8 Event Frequency

1

3.21.9 Enquiries

None

3.21.10 Enquiry Frequency

n/a

3.21.11 Requirements Catalogue Ref.

NA

3.21.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.21.13 I/O Structures

See Common Processing EC008.

3.22 E0023 - Load Estimated HH Demand Disconnection Volumes (Automatic)

3.22.1 Function Type

Batch Update System initiated

3.22.2 Function Description

This function loads a file of Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes received from SVAA.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, and the load processing is initiated by the system.

While loading the function checks for the any previous Demand Control events present for the same Demand Control Event Identifier, if present, it raises duplication error and rejects the flow.

If there is any duplication present in the Metering System Identifier for a Demand Control Event it raises duplication error and rejects the flow.

3.22.3 Processing Description

Reference: EPD 1.6 - Receive Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes

The Processing is entirely described in Common Process EC008.

3.22.4 Error Handling

The Error Handling is entirely described in Common Process EC008.

3.22.5 Common Processing

EC008 - Load Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes

3.22.6 Volumes

Occasionally

3.22.7 Events

Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes Received (Manual)

3.22.8 Event Frequency

1

3.22.9 Enquiries

None

3.22.10 Enquiry Frequency

n/a

3.22.11 Requirements Catalogue Ref.

NA

3.22.12 User Roles

not applicable

3.22.13 I/O Structures

See Common Processing EC008.

Processing Description

n/a

Error Handling

n/a

Common Processing

EC001 - Restrict Access

Volumes

Ad hoc (occasional)

Events

n/a

Event Frequency

Low Volume

Enquiries

n/a

Enquiry Frequency

n/a

Requirements Catalogue Ref.

User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.23 E00224 - Load Daily Profile Data Report (Manual)

3.23.1 Function Type

On-Line	Enquiry	User initiated

3.23.2 Function Description

This function loads a file of Daily Profile Data Report data received from the SVAA forSVAA for a particular Settlement Day.

This function is only applicable if EAC/AA has been installed with System Mode set to AutomaticManual. The user selects a data file from a list of those not yet processed presented by the system. The list of data files is presented to the user in received date orderThe presence of the data file is automatically detected, and the load processing is initiated by the system.

The system will then produce a report detailing the Settlement Date and the number of Daily Profile Data Report data loaded.

While Loadingloading the function checks for the combination of Settlement Date, GSP Group, Profile Production Date and Run Number as Unique Identifier, if present, it raises duplication error and rejects the flow.

3.23.3 Processing Description

Reference: EPD 1.7 - Receive Daily Profile Data Report.

The Processing is entirely described in Common Process EC009.

3.23.4 Error Handling

The Error Handling is entirely described in Common Process EC009.

3.23.5 Common Processing

EC001 - Restrict Access

EC009 - Load Daily Profile Data Report

3.23.6 Volumes

Occasionally

3.23.7 Events

Daily Profile Data Received (Manual)

3.23.8 Event Frequency

1

3.23.9 Enquiries

None

3.23.10 Enquiry Frequency

n/a

3.23.11 Requirements Catalogue Ref.

NA

3.23.12 User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

3.23.13 I/O Structures

See Common Processing EC009.

3.24 E0025 - Load Daily Profile Data Report (Automatic)

3.24.1 Function Type

Batch Update System initiated

3.24.2 Function Description

This function loads a file of Daily Profile Data Report received from SVAA.

This function is only applicable if EAC/AA has been installed with System Mode set to Automatic. The presence of the data file is automatically detected, and the load processing is initiated by the system.

While loading the function checks for the combination of Settlement Date, GSP Group, Profile Production Date and Run Number as Unique Identifier, if present, it raises duplication error and rejects the flow.

3.24.3 Processing Description

Reference: EPD 1.7 - Receive Daily Profile Data Report.

The Processing is entirely described in Common Process EC009.

3.24.4 Error Handling

The Error Handling is entirely described in Common Process EC009.

3.24.5 Common Processing

EC009 Load Daily Profile Data Report

3.24.6 Volumes

Occasionally

3.24.7 Events

Daily Profile Data Report Received (Automatic)

3.24.8 Event Frequency

1

3.24.9 Enquiries

None

3.24.10 Enquiry Frequency

n/a

3.24.11 Requirements Catalogue Ref.

NA

3.24.12 User Roles

not applicable

3.24.13 I/O Structures

See Common Processing EC009.

Processing Description

n/a

Error Handling

n/a

Common Processing

EC001 - Restrict Access

Volumes

Ad hoc (occasional)

Events

n/a

Event Frequency

Low Volume

Enquiries

n/a

Enquiry Frequency

n/a

Requirements Catalogue Ref.

User Roles

EAC/AA Operations Supervisor

EAC/AA System Operator

4 Common Processes

4.1 EC001 - Restrict Access

4.1.1 Processing Description

From the User id of the user attempting to access a function determine their user role. If this is a valid user role for the function allow access; otherwise do not allow access and log the attempted breach of access rights.

4.1.2 Error Handling

None.

4.1.3 Other Common Processing

No other common processes invoked.

4.1.4 Functions

E0001 Estimate Annual Consumption

E0002 Determine Deemed Meter Advance

E0003 Load Daily Profiles

E0004 Specify Smoothing Parameter

E0005 Archive Daily Profile Coefficients

E0006 Report on Profile Coefficients

E0007 Identify Input Files used in Calculation

E0008 Report on Archived Data

E0009 Browse Smoothing Parameter

E0010 Specify Standard Settlement Configuration

E0015 View Reports

E0016 Determine Ad Hoc Deemed Meter Reading

E0017 Report on Ad Hoc Deemed Meter Reading Calculations

E0019 Browse GSP Group Profile Class Default EAC

4.1.5 Requirements Catalogue Ref

6.8.

4.1.6 I/O Structures

Not applicable.

4.2 EC003 - Update On-line Audit Log

4.2.1 Processing Description

All data changes made on-line are logged using an audit entity (not shown on the LDM). Each on-line audit entity has the same attributes as the main entity (to hold the before image) and additional attributes to hold: the action (create, update, delete); the updating function; the id of the user making the change; and the timestamp (including date) of the change. On creation, there is no before image, but the newly created key is stored, together with the additional attributes listed above.

This process is automatically invoked whenever an on-line update function is used to change any system data.

4.2.2 Error Handling

None.

4.2.3 Other Common Processing

No other common processes invoked.

4.2.4 Functions

E0004 Specify Smoothing Parameter

4.2.5 Requirements Catalogue Ref

6.8.

4.2.6 I/O Structures

Not applicable.

4.3 EC004 - Estimate Annual Consumption

4.3.1 Processing Description

Reference: EPD 1.2 - Calculate Annualised Advance and EAC

This process calculates an Annualised Advance and EAC for each meter advance in a data file supplied by the Data Collector (except for Meter Advance Periods during which there is a change of Profile Class for the Metering System, in which case only an Annualised Advance is calculated). For each Metering System the Data Collector will provide the Effective From and Effective To Dates of the Meter Advance Period, together with details of the Standard Settlement Configuration, Profile Class and GSP Group effective at the start of the Meter Advance Period, and any changes to the Profile Class or GSP Group occurring at any point during the Meter Advance Period.

N.B. a change to the GSP Group or Profile Class to which a Metering System is allocated may occur during a Meter Advance Period, but a change to a Standard Settlement Configuration may add new Settlement Registers or delete existing ones and hence may only occur on the Effective From Date of the Meter Advance Period.

For each Settlement Register (represented by the subscript **m**) associated with the Metering System, the Data Collector will provide the Time Pattern Regime, the Meter Advance and the Previous EAC. N.B. for new Metering Systems (and new Settlement Registers, where there has been a change of Standard Settlement Configuration for an existing Metering System) the Previous EAC will be the 'initial' (or 'class average') EAC.

Meter Advances will be used, along with the Daily Profile Coefficients for all Settlement Days in the advance period, to calculate Annualised Advances for each Settlement Register.

The following processing is carried out for each meter advance for each Settlement Register for each Metering System:

The GSP Group Id, Profile Class Id, Standard Settlement Configuration Id and Time Pattern Regime Id effective for each Settlement Day between the Effective From Date and the Effective To Date (inclusive) of the Meter Advance Period are determined (i.e. with reference to the effective dates of the Metering System's GSP Group Id and Profile Class Id, as supplied by the Data Collector).

For each Settlement Day (**d**) in the meter advance period, the appropriate Daily Profile Coefficients PC_{gptd} are retrieved from the Daily Profile Coefficient entity.

The Daily Profile Coefficients retrieved depend on:

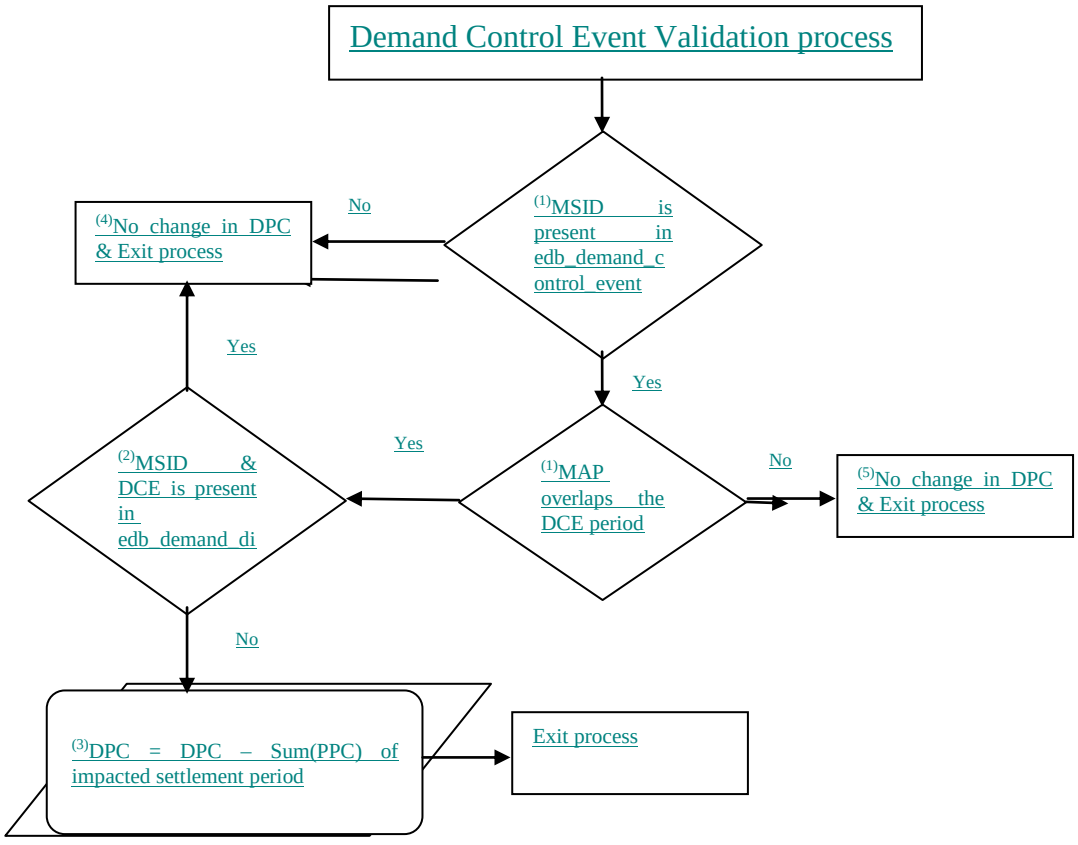
- the Measurement Requirement for the Settlement Register during the Meter Advance Period, where Measurement Requirement is a valid combination of Standard Settlement Configuration Id and Time Pattern Regime Id (represented by the subscript **t**);

- the GSP Group Id effective for the Metering System on the Settlement Day in question (represented by the subscript **g**);
- the Profile Class Id effective for the Metering System on the Settlement Day in question (represented by the subscript **p**).

Below validations will be carried out to check if the Metering System is impacted by a demand control event.

- Validate that the MSID is present in the table edb_demand_control_event and also validate that the respective demand control event period overlaps the Meter advance period.(1)
  - If so, the MSID and Demand control event id combination is present in the table edb_demand_dis_volume.(2)
    - If not, sum of Period Profile Coefficient for the settlement period impacted by the Demand control event is subtracted from the DPC value and the resultant value will be used in the calculation of FYC.(3)
    - If so, the DPC value without any further change will be used in the calculation of FYC.(4)
  - If not, the MSID is not impacted by any demand control event for the given meter advance period and the DPC value without any further change will be used in the calculation of FYC.(5)

Flowchart representing the above validation:



The fraction of the yearly consumption covered by the advance is calculated as:

$$\text{Fraction of Yearly Consumption}\,(FYC_m) = \sum_{d=s}^{f} PC_{gptd}$$

where s is the first Settlement Day in the meter advance period, and f is the last.

If the Fraction of Yearly Consumption is non-zero, a new Annualised Advance is calculated as:

Annualised Advance = Meter Advance / Fraction of Yearly Consumption

N.B. a meter advance may be negative, in which case the Annualised Advance will also be negative.

If the Fraction of Yearly Consumption is zero, then the Annualised Advance is set to zero, whether the Meter Advance is zero or non-zero.

The Annualised Advance is then compared to the appropriate Annualised Advance Tolerance Values for the Metering System's GSP Group(s) and Profile Class(es). See section 4.3.2.

The following additional processing is carried out for each meter advance only if the Metering System has not changed Profile Class during the Meter Advance Period:

v is set to the value of Smoothing Parameter (from entity Smoothing Parameter) that is effective on the Effective To Settlement Date {MAC}.

The new value of the EAC is calculated as follows:

b = FYC_m * v subject to the limits 0.0 <= b <= 1.0.

b is assumed to be zero if 0.0 >= b and 1 if b => 1.0.

EAC_m = b * AA_m + (1-b) * Previous EAC_m

The Annualised Advance and the EAC are output to the Data Collector. If the Metering System has changed Profile Class during the Meter Advance Period, a null EAC value is output as the value calculated by the system would not reflect the new Profile Class. Where no EAC is calculated due to changes to the Profile Class During the meter advance period, the value of Effective From Settlement Date {EAC} in the output is set to null, otherwise this date is set to the day after the Effective To Settlement Date {MAC}.

The main exception condition which may occur when processing meter advances is as follows:

If Daily Profile Coefficients are not found for the combination of GSP Group, Profile Class, Standard Settlement Configuration and Time Pattern Regime effective on any Settlement Day within the meter advance period, then meter advances are not processed for any Settlement Registers of that metering system, and an exception is reported back to the Data Collector.

Where the calculated EAC is a negative value an attempt will be made to get the default EAC value for the specified GSP Group Id and Profile Class Id, and the Average Fraction of Yearly Consumption for the specified GSP Group Id, Profile Class Id, Standard Settlement Configuration Id and Time Pattern Regime Id. The calculated EAC will be replaced with the multiple of these two values and a warning will be raised to report this action. If no GSP Group Profile Class Default EAC record or Average Fraction of Yearly Consumption is found then an error will be raised back to the Data Collector.

4.3.2 Error Handling

The system will generate two exception reports.

The first exception report will contain details of any Metering Systems which could not be processed, including the reason for rejection, as described in 4.3.1. Two possible exceptions in the first exception report will be:

A/ Valid Daily Profile Coefficient could not be found for a given metering system. Distinguishing between where the Daily Profile Coefficients are not available for the Settlement Date, and where a valid Daily Profile Coefficient for a given GSP Group, Profile Class or other measurement requirements is not found.

B/ All the unprocessed metering systems with an advance period longer than 2 years will be reported on.

The second exception report will contain details of any calculated Annualised Advances which are outside the Annualised Advance high and low Tolerance Values for the GSP Group and Profile Class of the Metering System. Where a Metering System has changed GSP Group and/or Profile Class during the Meter Advance Period, the calculated Annualised Advance will be compared to all the Annualised Advance Tolerance Values for the relevant GSP Group(s) and Profile Class(es). A separate exception will be reported for each GSP Group/Profile Class Tolerance Values that the calculated Annualised Advance is outside. For each calculated Annualised Advance that is outside the Annualised Advance Tolerance Values, the exception report will detail the Metering System, Annualised Advance, Effective From Settlement Date {MAC}, Effective To Settlement Date {MAC}, Meter Advance, Profile Class, Standard Settlement Configuration, Time Pattern Regime and the appropriate high and low Annualised Advance Tolerance Values for the GSP Group and Profile Class. If no calculated Annualised Advances are outside the Annualised Advance Tolerance Values, the second exception report will be empty.

All exceptions are also included in the Control Report. The Control Report also includes additional details of certain calculation conditions which are not included in the exception file. Two such possible conditions will be:

C/ Zero Fraction of Yearly Consumption (FYC) and a non-zero Meter Advance.

D/ All the negative values of Meter Advances, EAC/AA and Daily Profile Coefficient will be reported on. For negative EACs, the values are replaced and the original value and replacement value are reported on.

For any non-fatal errors an error message will be raised in the Control Report file (and the exception report where appropriate) and the next Metering System in the data file will be processed. The whole data file will only be rejected if a fatal error is encountered.

4.3.3 Other Common Processing

No other common processes invoked.

4.3.4 Functions

E0001 - Estimate Annual Consumption (Manual)

E0012 - Estimate Annual Consumption (Automatic)

4.3.5 Requirements Catalogue Ref.

1.1, 1.2, 1.4, 1.5, 3.2, 4.2, 4.4, 5.1, 6.12, 7.1

4.3.6 I/O Structures

EAC/AA

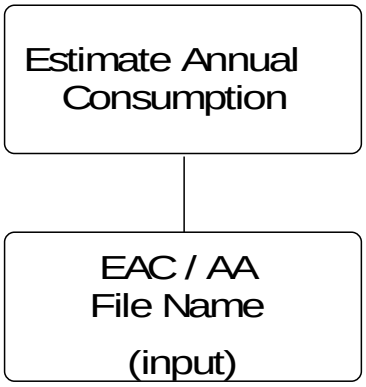


Figure 7 - Estimate Annual Consumption (I/O Structure)

I/O Structure Element	Data Items
EAC/AA File Name	EAC/AA File Name
EAC/AA Request	

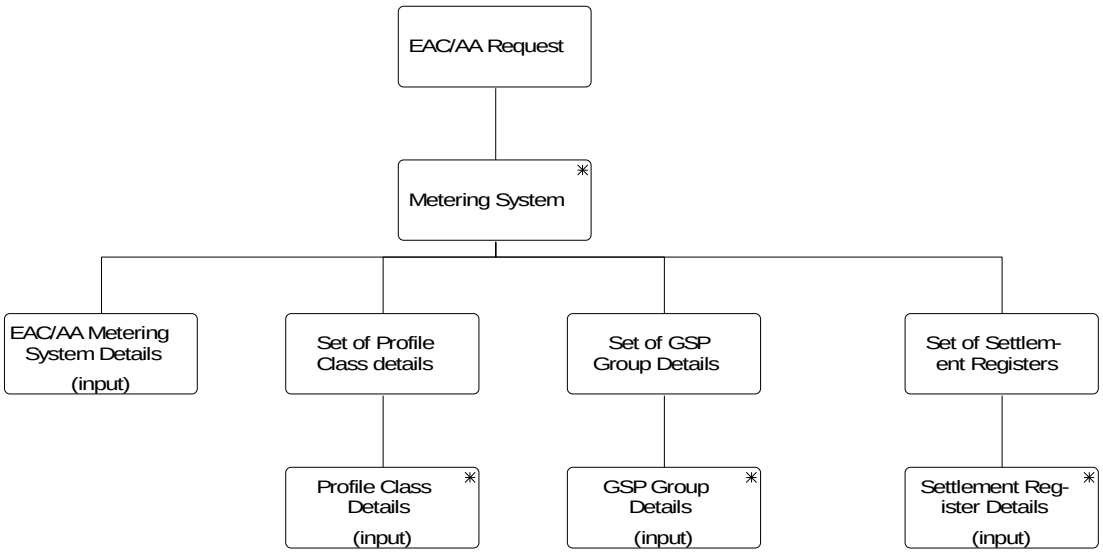


Figure 8 - EAC/AA Request (I/O Structure)

I/O Structure Element	Data Items
EAC/AA Metering System Details	Effective from Settlement Date {EAC} Effective From Settlement Date {MAC} Effective To Settlement Date {MAC} Metering System Id Standard Settlement Configuration Id
GSP Group Details	Effective From Settlement Date{MSGG} GSP Group Id
Profile Class Details	Effective From Settlement Date {MSPC} Profile Class Id
Settlement Register Details	Estimated Annual Consumption Meter Advance Time Pattern Regime Id

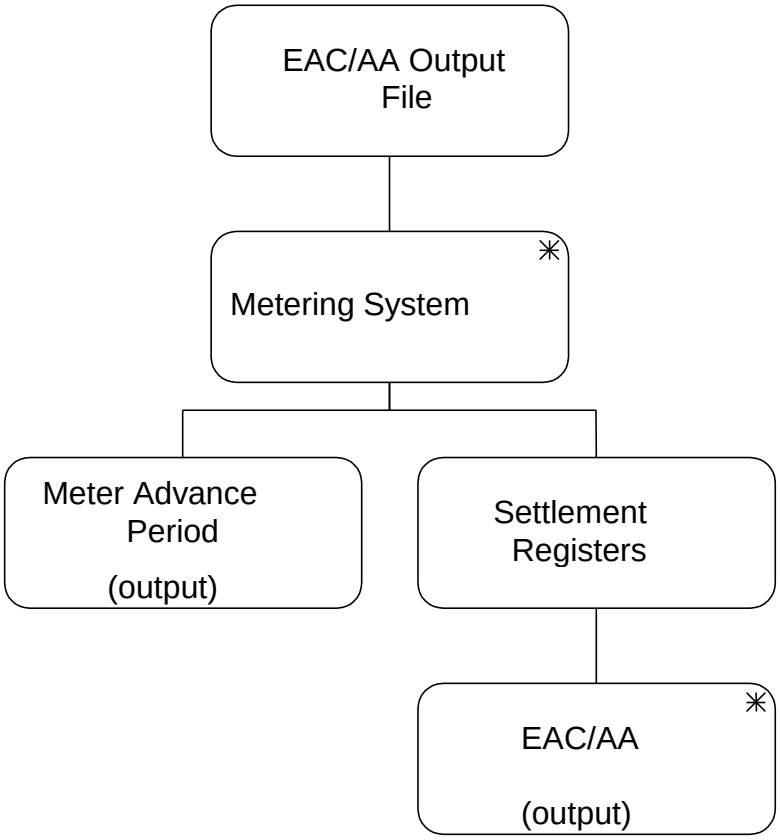


Figure 9 - EAC/AA (I/O Structure)

I/O Structure Element	Data Items
EAC/AA	Annualised Advance Estimated Annual Consumption Time Pattern Regime Id
Meter Advance Period	Metering System Id Effective To Settlement Date {MAC} Effective From Settlement Date {EAC} Effective From Settlement Date {MAC} Standard Settlement Configuration Id

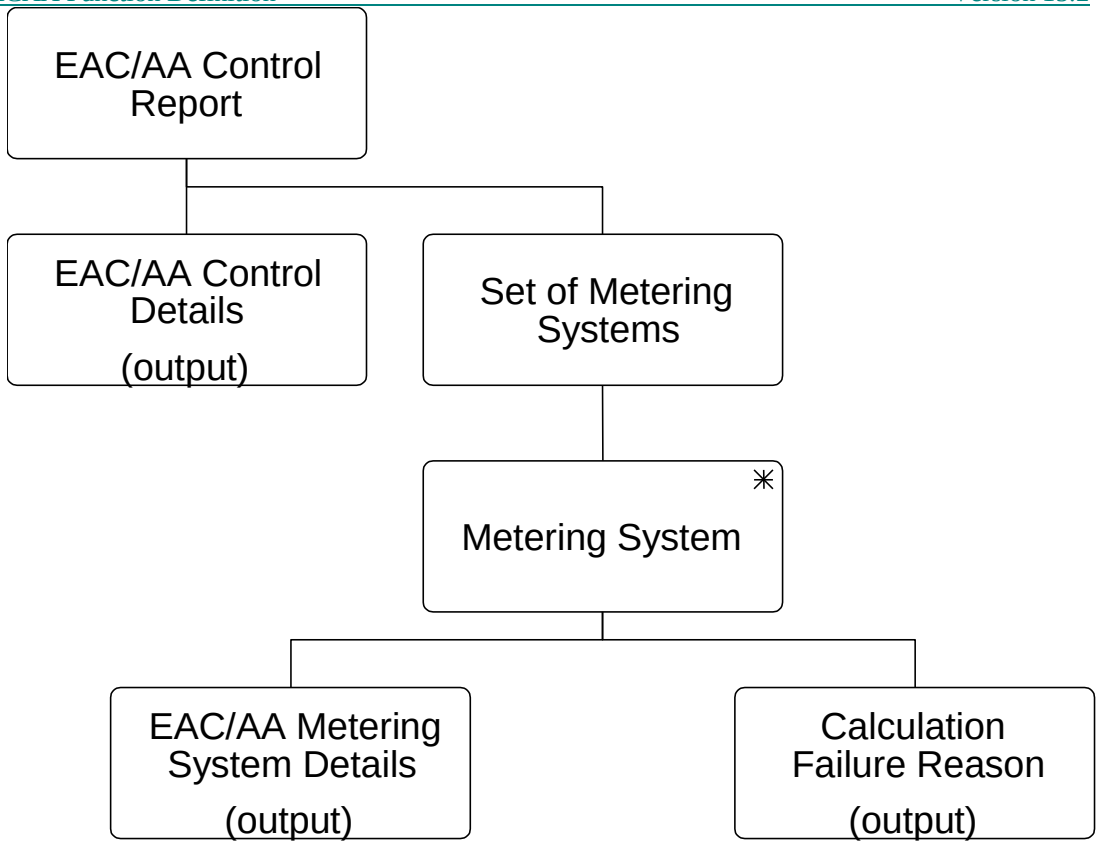


Figure 10 - EAC/AA Control Report (I/O Structure)

I/O Structure Element	Data Items
EAC/AA Control Details	No of Metering Systems Read
	No of Metering Systems processed successfully
	No of Metering Systems processed unsuccessfully
	File Name
	Output File Name
EAC/AA Metering System Details	Metering System Id
	Standard Settlement Configuration Id
	Effective From Settlement Date {MAC}
	Effective To Settlement Date {MAC}
	Effective From Settlement Date {EAC}
Calculation Failure Reason	Calculation Failure Reason Details

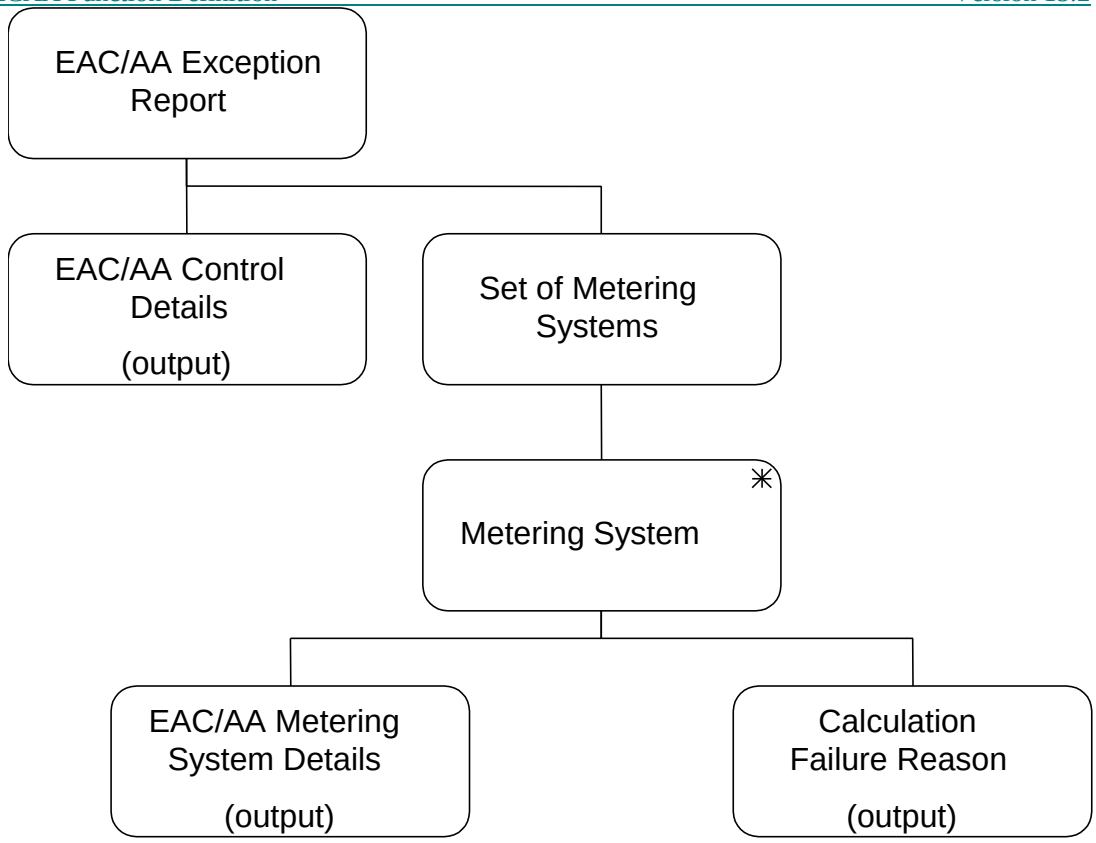


Figure 11 - EAC/AA Exception Report (I/O Structure)

I/O Structure Element	Data Items
EAC/AA Control Details	No of Metering Systems processed unsuccessfully
	File Name
	Output File Name
EAC/AA Metering System Details	Metering System Id
	Effective From Settlement Date {MAC}
	Effective To Settlement Date {MAC}
Calculation Failure Reason	Calculation Failure Reason Code
	Calculation Failure Reason Details

4.4 EC005 - Determine Deemed Meter Advance

4.4.1 Processing Description

Reference : EPD 1.4 - Calculate Deemed Meter Advance

This process handles requests to calculate a Deemed Meter Advance, when an actual changeover reading cannot be obtained or agreed on change of Supplier for a Metering System.

The Deemed Meter Advance will be calculated from the EAC, or the Annualised Advance if one has been calculated for the period.

The Data Collector provides a data file with the following details:-

- the Settlement Register (i.e. the Metering System Id, Standard Settlement Configuration Id and Time Pattern Regime Id) for which the Deemed Meter Advance is required
- the Standard Settlement Configuration, Profile Class and GSP Group effective for the Metering System at the start of the Deemed Meter Advance Period, plus any changes to Profile Class or GSP Group that took effect during the Deemed Meter Advance Period
- the Effective From and Effective To Dates of the Deemed Meter Advance period.
- the latest EAC or latest Annualised Advance for the Settlement Register.

The processing for calculating a Deemed Meter Advance for each Settlement Register is as follows.

For each Settlement Day in the Deemed Meter Advance period, the appropriate Daily Profile Coefficients PC_{gptd} are retrieved from the Daily Profile Coefficient entity. The Daily Profile Coefficients retrieved depend on:-

- the Measurement Requirement for the Settlement Register during the Meter Advance Period, where Measurement Requirement is a valid combination of Standard Settlement Configuration Id and Time Pattern Regime Id (represented by the subscript **t**)
- the GSP Group Id effective for the Metering System on the Settlement Day in question (represented by the subscript **g**)
- the Profile Class Id effective for the Metering System on the Settlement Day in question (represented by the subscript **p**).

A Deemed Meter Advance is calculated as follows:

$$\text{DeemedMeterAdvance} = \sum_{d=s}^{f} (PC_{gptd} \times EAC_{m})$$

where s is the first Settlement Day in the meter advance period, and f is the last. EAC_m is the EAC or Annualised Advance (as appropriate) supplied by the Data Collector.

The Deemed Meter Advances calculated are output to the Data Collector.

The main exception conditions which may occur when calculating Deemed Meter Advances are as follows:-

If Daily Profile Coefficients are not found for the combination of GSP Group, Profile Class, Standard Settlement Configuration and Time Pattern Regime effective on any Settlement Day within the meter advance period, the Deemed Meter Advance is not processed and an exception is reported back to the Data Collector.

4.4.2 Error Handling

For any non-fatal errors an error message will be raised in the Control Report file (and the exception report where appropriate) and the next Metering System in the data file will be processed. The whole data file will only be rejected if a fatal error is encountered.

The system will generate an error report containing details of any Metering Systems which could not be processed, including the reason for rejection, as described in 4.4.1.

4.4.3 Other Common Processing

No other common processes invoked.

4.4.4 Functions

E0002 - Determine Deemed Meter Advance (Manual)

E0013 - Determine Deemed Meter Advance (Automatic)

4.4.5 Requirements Catalogue Ref.

2.1, 3.2, 4.3, 4.4, 5.1

4.4.6 I/O Structures

Deemed Meter Advance

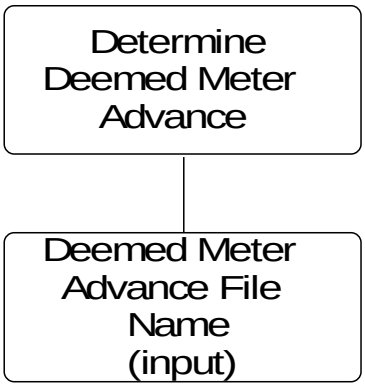


Figure 12 - Determine Deemed Meter Advance (I/O Structure)

I/O Structure Element	Data Items
Deemed Meter Advance File Name	Deemed Meter Advance File Name

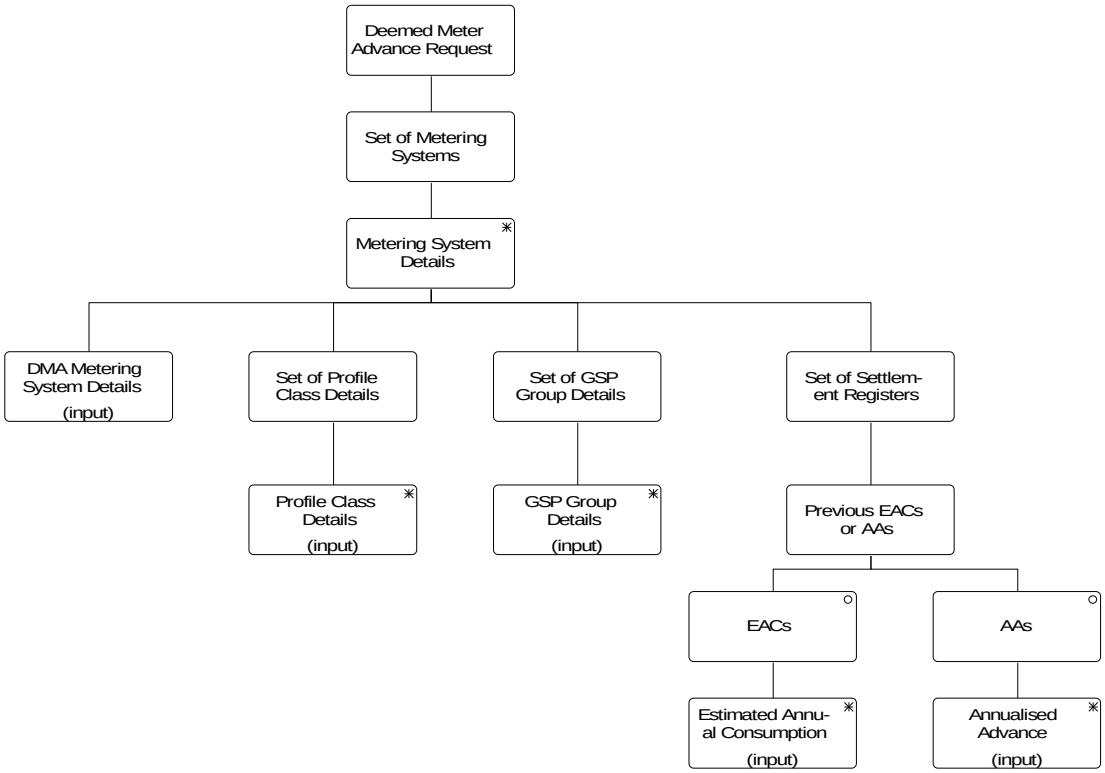


Figure 13 - Deemed Meter Advance Request (I/O Structure)

I/O Structure Element	Data Items
Annualised Advance	Annualised Advance Time Pattern Regime Id
DMA Metering System Details	Effective From Settlement Date{DMA} Effective To Settlement Date {DMA} Metering System Id Standard Settlement Configuration Id
Estimated Annual Consumption	Estimated Annual Consumption Time Pattern Regime Id
GSP Group Details	Effective From Settlement Date{MSGG} GSP Group Id
Profile Class Details	Effective From Settlement Date {MSPC} Profile Class Id

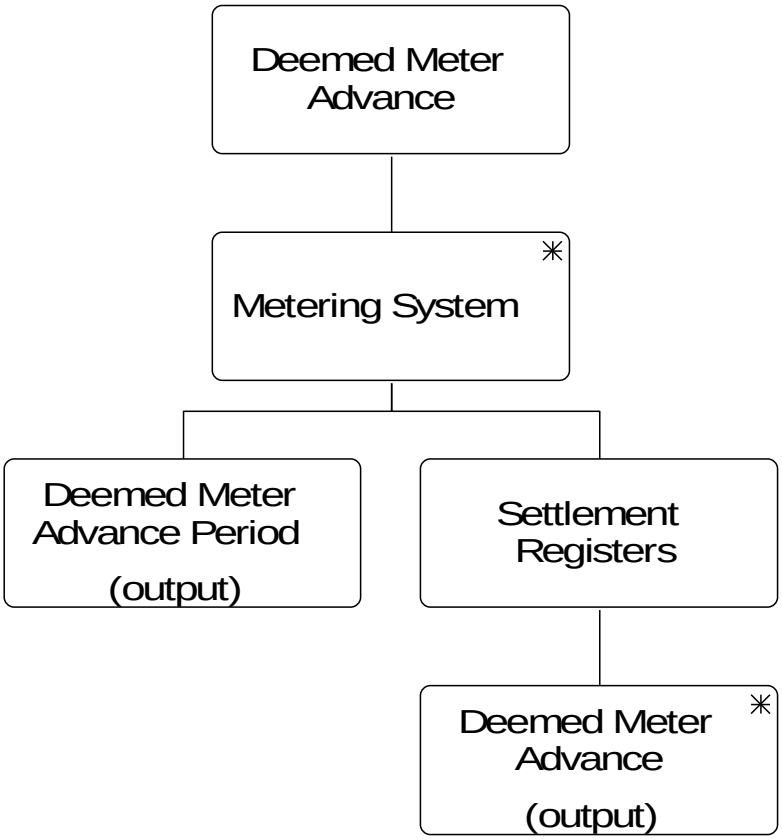


Figure 14 - Deemed Meter Advance (I/O Structure)

I/O Structure Element	Data Items
Deemed Meter Advance	Deemed Meter Advance Time Pattern Regime Id
Deemed Meter Advance Period	Effective From Settlement Date{DMA} Effective To Settlement Date {DMA} Metering System Id Standard Settlement Configuration Id

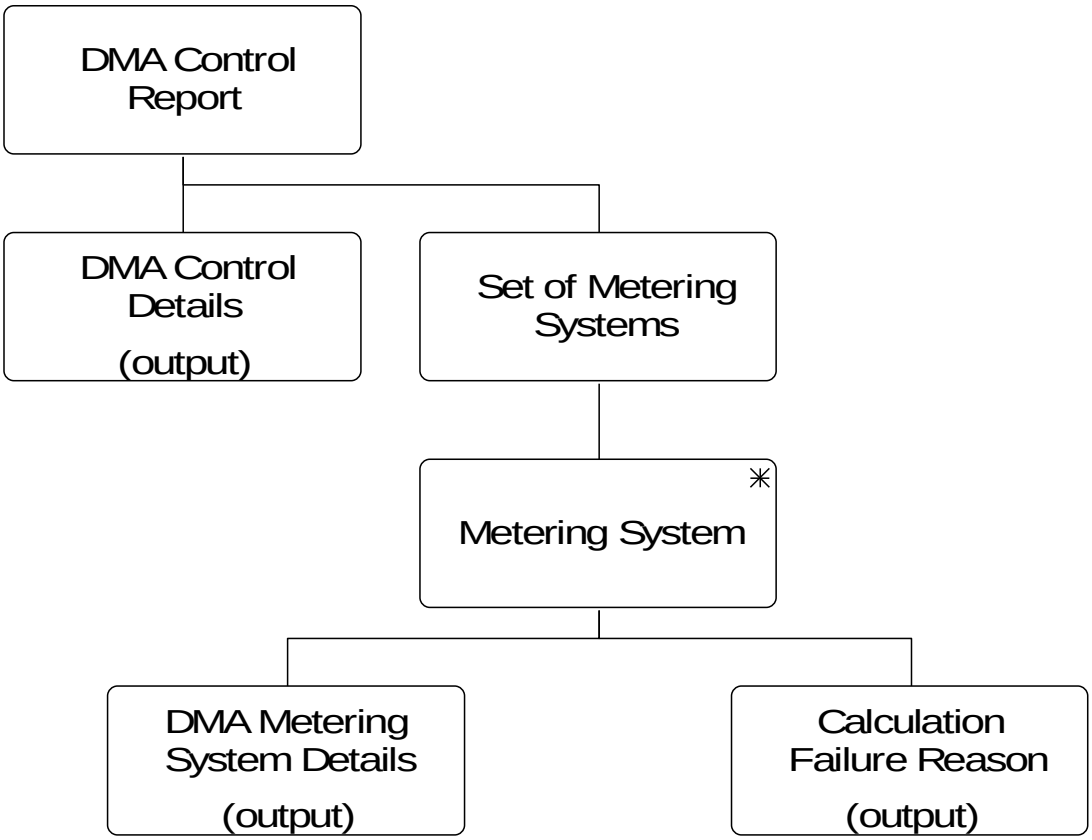


Figure 15 - DMA Control Report (I/O Structure)

I/O Structure Element	Data Items
DMA Control Details	No of Metering Systems Read
	No of Metering Systems processed successfully
	No of Metering Systems processed unsuccessfully
	File Name
	Output File Name
DMA Metering System Details	Metering System Id
	Standard Settlement Configuration Id
	Effective From Settlement Date {DMA}
	Effective To Settlement Date {DMA}
Calculation Failure Reason	Calculation Failure Reason Details

4.5 EC006 - Load Daily Profiles

4.5.1 Processing Description

Reference : EPD 1.1 - Receive Daily Profiles

This process will load a data file of Daily Profile Coefficients onto the system.

Data Files will be received from the ISR Agent a number of days in arrears of the Settlement Day to which they relate.

These files are normally loaded individually onto the system. In Automatic Mode, any number of files can be loaded one after the other. In Manual Mode the process will also support the loading of files for up to two years in one go. This is in order to allow for the Data Collector being appointed to Metering Systems in a new GSP Group.

Each data file will contain a set of Daily Profile Coefficients for one or more GSP Groups for a given Settlement Day. Each set will comprise a Daily Profile Coefficient for each valid combination of Standard Settlement Configuration, Time Pattern Regime and Profile Class.

Normally a single file will be loaded for each Settlement Day, however the process will also allow a data file of revised Daily Profile Coefficients to be loaded onto the system.

The process supports two types of Daily Profile Coefficient files:

- Files containing Daily Profile Coefficients for all GSP groups for which a Data Collector is responsible. Data contained in such a file will replace and invalidate any previous data for that Settlement Date. The number of AAs calculated using the previous set of Daily Profile Coefficients is reported. The number of Daily Profile Coefficients replaced is reported. Negative Daily Profile Coefficients loaded are also reported on.
- Files containing Daily Profile Coefficients for a single GSP group and Settlement Date. The data contained in such a file will not replace or invalidate any previous data stored against the GSP group and the Settlement date. If no data exists for the GSP Group and the Settlement date, the Daily Profile Coefficients are appended to the existing set for that Settlement Date, otherwise the data file is not processed and an exception is reported. The number of AAs calculated using the previous set of Daily Profile Coefficients is reported as zero.

In order to allow smaller Data Collectors the option of loading data for a restricted set of Standard Settlement Configurations, Daily Profile Coefficients will not be loaded for any Standard Settlement Configuration which is recorded on the database as having the Load Associated DPC flag set to false.

4.5.2 Error Handling

The system will produce a report detailing any errors encountered while loading Daily Profile Coefficients.

4.5.3 Other Common Processing

No other common processes invoked.

4.5.4 Functions

E0003 Load Daily Profiles (Manual)

E0014 Load Daily Profiles (Automatic)

4.5.5 Requirements Catalogue Ref.

3.1, 4.1, 4.7, 6.12, 6.5

4.5.6 I/O Structures

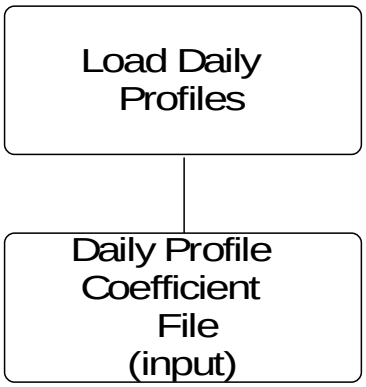


Figure 16 - Load Daily Profiles (I/O Structure)

I/O Structure Element	Data Items
Daily Profile Coefficient File	Daily Profile Coefficient File

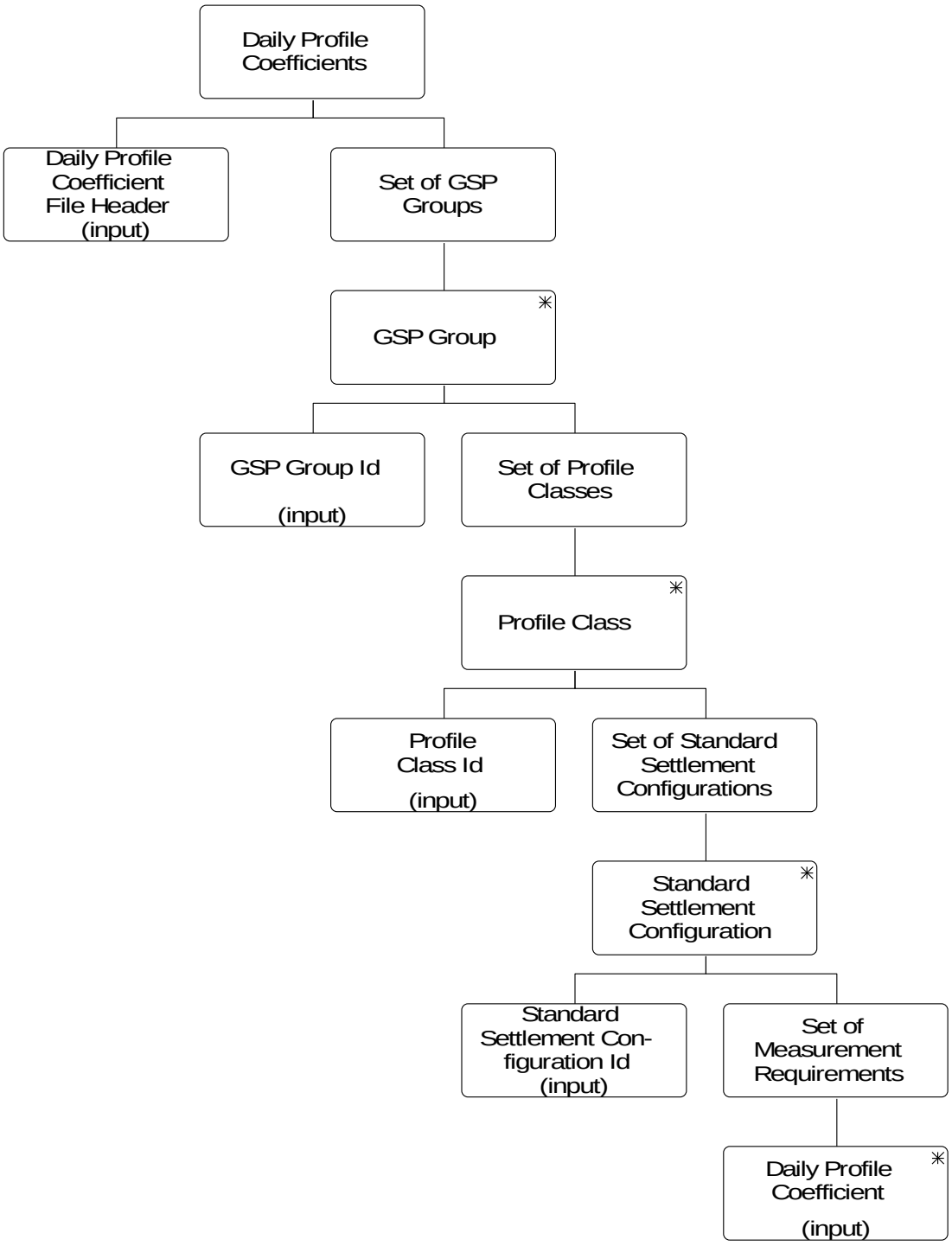


Figure 17 - Daily Profile Coefficients (I/O Structure)

I/O Structure Element	Data Items
Daily Profile Coefficient	Daily Profile Coefficient Time Pattern Regime Id
Daily Profile Coefficient File Header	Data Collector Id ISR Agent Id Profile Production Run Number Settlement Date
GSP Group Id	GSP Group Id
Profile Class Id	Profile Class Id
Standard Settlement Configuration Id	Standard Settlement Configuration Id

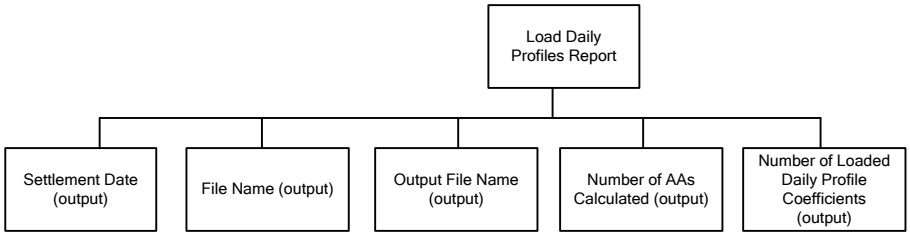


Figure 18 - Daily Profile Coefficients (I/O Structure)

I/O Structure Element	Data Items
Settlement Date	Settlement Date
File Name	File Name
Output File Name	Output File Name
Number of AAs Calculated	Number of AAs Calculated
Number of Loaded Daily Profile Coefficients	Number of Loaded Daily Profile Coefficients

4.6 EC007 - Load Demand Control Event

4.6.1 Processing Description

Reference : EPD 1.5 - Receive Demand Control Event

This process will load a data file of Demand Control Event onto the system.

Data Files will be received from the LDSO a number of days in the event of demand disconnection.

These files are normally loaded individually onto the system. Any number of files can be loaded one after the other.

Each data file will contain a set of Demand control events and the impacted MSIDs.

Below validations are carried in each file.

- If the DCE ID for a particular Distributor already exists in the EACAA database, the respective DCE ~~id won't be loaded~~ record stored in database will be replaced by the one received in the file.
- If a MSID presents in more than once in a DCE, then the DCE id won't be loaded.
- If the end date and time is earlier than the start date time, the DCE id won't be loaded.
- If no DCE id is found in the file, the file will be rejected.

4.6.2 Error Handling

The system will produce a report detailing any errors encountered while loading Demand Control Event.

4.6.3 Other Common Processing

No other common processes invoked.

4.6.4 Functions

E0020 Load Daily Profiles (Manual)

E0021 Load Daily Profiles (Automatic)

4.7 EC008 - Load Disconnected MSIDs and Estimated HH Demand Disconnection Volumes

4.7.1 Processing Description

Reference : EPD 1.6 - Receive Disconnected MSIDs and Estimated HH Demand Disconnection Volumes

This process will load a data file of Disconnected MSIDs and Estimated HH Demand Disconnection Volumes onto the system.

Data Files will be received from the SVAA.

These files are normally loaded individually onto the system. Any number of files can be loaded one after the other.

Each data file will contain a set of Demand control events and the voluntarily disconnected MSIDs.

Below validations are carried in each file.

- If the DCE id already exists in the EACAA database, the DCE id and MSID stored in database will be replaced by the one received in the file.
- If duplicate DCE id is found within the file, the file will be rejected.
- If a MSID presents in more than once in a DCE, then the DCE id won't be loaded.
- If the end date and time is earlier than the start date time, the DCE id won't be loaded.
- If no DCE id is found in the file, the file will be rejected.
- If a DCE id is not present in EDB_DEMAND_CONTROL_EVENT table, the DCE id will not be loaded.
- If a MSID is not present in EDB_DEMAND_CONTROL_EVENT table for the relevant DCE id, the DCE id will not be loaded.

4.7.2 Error Handling

The system will produce a report detailing any errors encountered while loading the Disconnected MSIDs and Estimated HH Demand Disconnection Volumes.

4.7.3 Other Common Processing

No other common processes invoked.

4.7.4 Functions

E0022 Load Daily Profiles (Manual)

E0023 Load Daily Profiles (Automatic)

4.8 EC009 - Load Daily Profile Data Report

4.8.1 Processing Description

Reference : EPD 1.7 - Receive Daily Profile Data

This process will load a data file of Daily Profile Data onto the system.

Data Files will be received from the SVAA.

These files are normally loaded individually onto the system. Any number of files can be loaded one after the other.

Each data file will contain a set of VMR record and the Period Profile Coefficient data.

Below validations are carried in each file.

- If the run number received in the Daily Profile Data file already exists in EAC/AA database, the file will be rejected.
- If the number of settlement period in a settlement day is more than the expected one (48 – Normal day, 46 – Short day, 50 – long day), the file will be rejected.
- If any duplicate TPR id is found in the file, then the file will be rejected.

4.8.2 Error Handling

The system will produce a report detailing any errors encountered while loading the Disconnected MSIDs and Estimated HH Demand Disconnection Volumes.

4.8.3 Other Common Processing

No other common processes invoked.

4.8.4 Functions

E0024 Load Daily Profiles (Manual)

E0025 Load Daily Profiles (Automatic)

Appendix AFormat of a Function Definition

A Function Definition comprises the components described below.

Function Id and Function Name

The paragraph heading for each function shows a unique identifier for the function and a descriptive name.

Function Type

A combination of the three following types of function:

- user-initiated/system-initiated;
- update/enquiry;
- on-line/batch.

Function Description

A description of the function, particularly the user interface aspects, including the circumstances in which it is invoked. For complex on-line functions with multiple windows, a windows navigation description will be included to show navigation between windows within a function.

Processing Description

A description of the processing required for the function, including any algorithms.

Error Handling

A description of error handling not already described within the Logical Data Model and Data Catalogue. It may cross-refer to error-handling described within the Processing Description.

Common Processing

A list of common processes used by the function.

Volumes

Estimated frequency of use of the function.

Events

A list of events which trigger the function.

Event Frequency

The frequency of an event for each occurrence of the function.

Enquiries

A list of enquiries implemented by the function.

Enquiry Frequency

For functions containing an enquiry this will describe the frequency of the enquiry or enquiry or enquiries.

Requirements Catalogue Ref.

The identifier of the Requirements Catalogue entry (or entries) which the function satisfies, either in full or in part.

User Roles

For user-initiated functions, a list of User Roles who will access the function.

I/O Structures

The I/O Structure diagrams which show the data items input to and output from a function. The data items are structured into Jackson-like diagrams showing a sequence, selection and iteration of grouping of data items. For on-line functions which will be implemented using the Graphical User Interface (GUI), the sequences may not be strictly enforced unless there is a valid reason for doing so, as the GUI style generally allows the user more freedom in the sequence of user interface interactions.

Top level iterations have been omitted from the I/O Structures. However, a single invocation of a function may be able to process many files or data records.

In on-line functions where items can be selected, eg standing data for update, deletion or viewing or files for loading, the use of a "pick list" on a screen is assumed from which the user can select the item in question. These, however, are not shown in the function's associated I/O Structures.

For functions which contain I/O Structures for files where the sequence of data is already determined, the I/O Structures are annotated with a note that the order of data items shown is to be preserved in the file.

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