Electricity Authority Registry

Functional Specification

Version 22.41

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Version control

Note: Historical version control resides in appendix 10

Version	Release Date	Section	Description
22.41		Appendix 9 section 4	ER-1360 EIEP5A added to list of files uploaded to Authority Data Warehouse
		AC-020	ER-1326 clarification note added to AC020Distributor13
		MM-010 MM-020 MM-030	CR-1278 Code Review Program 5
		NP-080	CR 1279 LE Planned Outage Visibility
		PR-250, PR-270, PR-280, PR-290, PR-300, PR-310	CR-1283 Trader Default report header rows

Registry functional specification

Introduction

The registry is a national database that contains information on every point of connection on the national grid from which electricity is supplied. These points of connection are referred to as installation control points (ICPs). Each ICP has a unique identifier (an ICP Identifier). The registry is the electricity industry's *database of record* of all ICPs.

Through the use of ICPs, the registry helps manage both the customer switching and reconciliation processes. Part 11 of the Electricity Industry Participation Code 2010 (the Code) provides for the management of information held by the registry and outlines the process for switching customers between Traders.

Background

The first registry was implemented in April 1999 and was further enhanced in 2002. The original requirement for that registry was to provide a low-cost system to enable end-use customers to switch energy Traders and was concerned with the recording of basic responsibility, Status and Profile information about an ICP.

The enhancement in 2002 expanded the amount of information recorded about an ICP to include an Address, metering installation details and Distributor pricing. It also made the registry the database of record by requiring that the registry be used as the primary mechanism for processing switches – the switching of the customer trading at an ICP from one Trader to another.

The enhancement in 2013 expanded the information about an ICP yet again to include additional metering installation information which is maintained by Metering Equipment Providers (MEP), a new role, in the Registry.

This document

This document describes the business functional requirements of the registry. This document should be read in conjunction with the associated registry Operational Requirements.

It is important to note that the registry system currently exists and, while considerable effort has been made to restrict the document to business requirements, some existing design concepts have had to be included where they have become fundamental to users' operations.

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1. System Structure

1.1 Concepts

1.1.1 The registry is a repository of all ICP information.

1.1.2 The main processes and purposes of the registry are:

(a) the maintenance and validation of ICP information, both current and historical, via online and batch functions;

(b) a notification facility that advises all affected participants of changes made to ICP information;

(c) a delivery mechanism for the switching protocols and EIEP files;

(d) the provision of ICP lookup facilities to authorised participants, both online and in batch (file) mode;

(e) the provision of reconciliation reporting;

(f) the provision of compliance reporting; and

(g) the management of discrepancies between participant back-office systems and the registry.

1.1.3 The Code defines which participant is responsible for providing information about specific ICP attributes, and the timeframes within which the information must be provided. The management of the timeframes is a passive process by the provision of 'after the fact' compliance reports.

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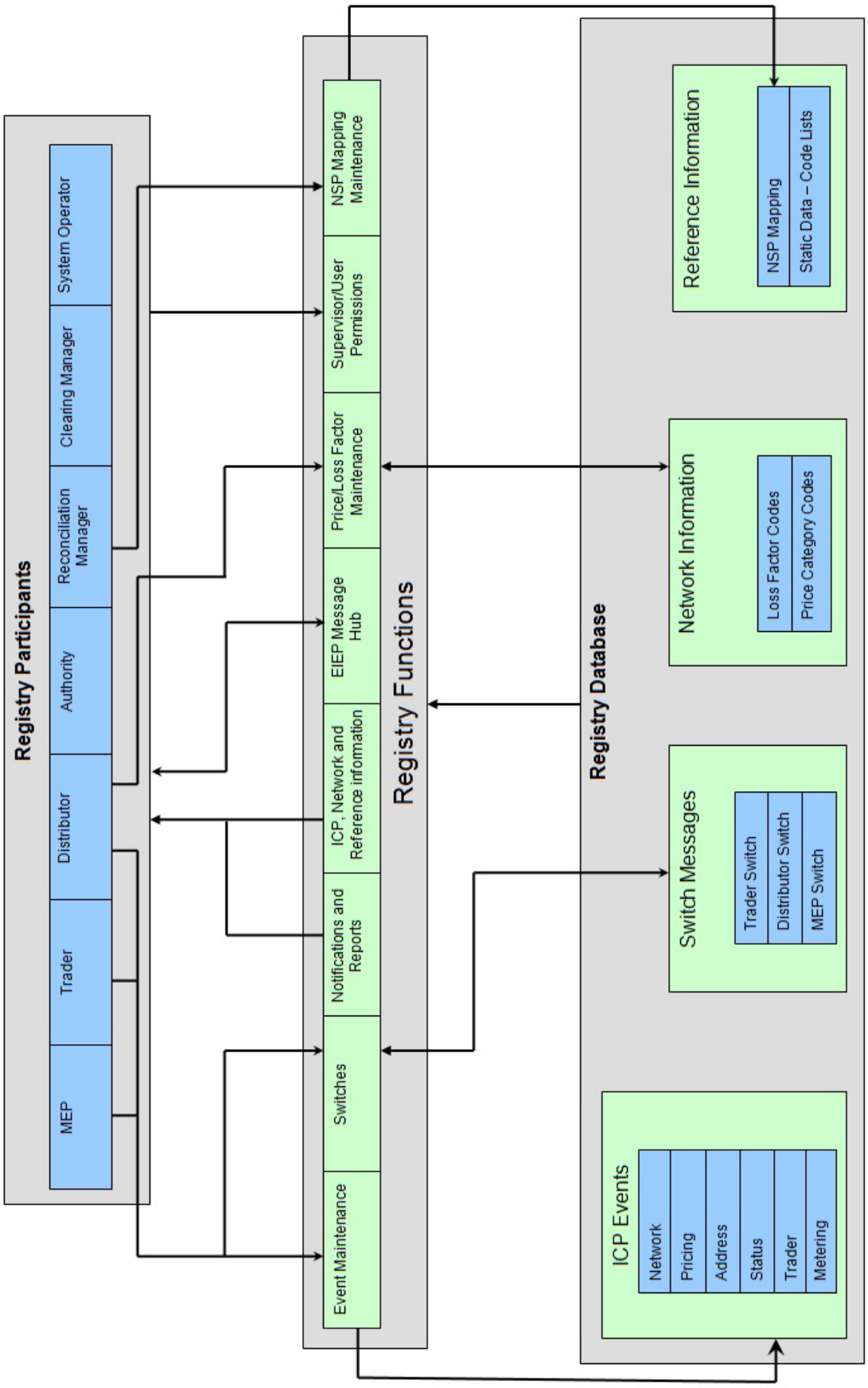
Figure 1: Diagram: Registry participants and its major functions



1.2 Terminology

1.2.1 Due to terminology changes over time, the following terms are equivalent and interchangeable in this document:

(a) Daily Unmetered kWh = Unmetered Load Capacity;

(b) Distributor = Network = line company;

(c) Trader = a retailer, direct purchaser, or generator who buys electricity from or sells electricity directly to the clearing manager, or who enters into an arrangement with a retailer, direct purchaser, or generator to buy or sell contracts (or parts of contracts) for electricity;

(d) Electricity Authority = Board = Authority;

(e) Metering Equipment Provider = MEP = Meter Owner;

(f) Proposed Trader = first Trader;

(g) Reconciliation Type = connection type;

(h) replacement = update; and

(i) reversal = cancellation.

(j) Trader Switch in progress = Trader Switch is in Progress. The ICP is within a process which may result in a change of Trader responsibility (e.g. NT to CS cycle, NW to AW cycle).

(k) MEP Switch in progress =. The ICP is within a process which may result in a change of MEP responsibility. This is indicated by, for any particular Event Date, a mismatch between the Proposed MEP attribute (that is not null) on the applicable Trader event and either the responsible MEP on the applicable Metering event or where there are no Metering events.

(l) Trader Default = a situation which arises if a Trader fails to meet a call for security, or fails to meet their settlement obligations (both of which are events of default). The Authority notifies the Registry when a Trader enters this state after which a Trader may not gain ICP responsibility through switching or Initial Assignment.

(m) Numeric decimal = in this document a numeric decimal describes the number of integers appearing before and after the decimal point. For example, numeric 6.2 must be interpreted as length 8 with a maximum value of 999999.99.

1.2.2 And the following acronyms have the following meanings:

(a) Code = Electricity Industry Participation Code 2010;

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(b) GXP = grid exit point;

(c) GIP = grid injection point;

(d) NSP = network supply point; and

(e) POC = point of connection.

1.3 Code references

1.3.1 The clauses of the Code referenced in this document are contained in Part 10 and Part 11 of the Code.

1.3.2 A copy of the Code can be downloaded from https://www.ea.govt.nz/code-and-compliance/the-code/.

1.3.3 If there are any conflicts between this document and the Code, the Code takes precedence.

1.4 Attributes of an ICP

1.4.1 The main function of the registry is to be the database of record for ICP information. An ICP has a number of possible attributes, which may change over time. The Code requires that information about certain ICP attributes be provided and updated by the relevant Distributor, Trader or MEP, within specified time limits.

1.4.2 There are different types of ICPs and each has different attributes. The full set of possible attributes for ICPs is listed in the tables below.

1.4.3 ICP Attributes

Attribute	Format	Description
ICP Identifier	Char 15	Each ICP has a unique identifier of the form: yyyyyyyyyyxxccc where: yyyyyyyyyy is a 10-digit numerical sequence provided by the Distributor; xx is two alphabetic characters assigned by the Authority to the Distributor and ensures the resulting ICP Identifier is unique within the registry; and ccc is a three-digit checksum.

		The algorithm for calculating the checksum is detailed in Appendix 1.

1.4.4 Address Attributes

Attribute	Format	Description
Physical Address Unit	Char 20	Address unit
Physical Address Property Name	Char 75	Address property name
Physical Address Number	Char 25	Address number / RAPID number
Physical Address Street	Char 30	Address street
Physical Address Suburb	Char 30	Address suburb
Physical Address Town	Char 30	Address town
Physical Address Region	Char 20	Address region
Physical Address Post Code	Numeric 4	Address post code
GPS_Easting	Numeric 7.3	The easting location. Optional but required if GPS_Northing is provided. Maximum GPS Easting that may be supplied is 9999999.999. New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections).
GPS_Northing	Numeric 7.3	The northing location. Optional but required if GPS_Easting is provided. Maximum GPS Northing that may be supplied is 9999999.999. New Zealand Transverse Mercator 2000 () coordinates, as defined in Land Information New Zealand's LINZS25002

Attribute	Format	Description
		standard (Standard for New Zealand Geodetic Datum 2000 Projections).

(a) The inclusion of the ICP Address of an ICP in the registry is the responsibility of the Distributor. The industry has developed guidelines to ensure the consistent population of addresses. These guidelines are contained in Appendix 2.

(b) The minimum information required for a valid ICP Address is:

(i) Property Name or Street;

(ii) Town or Suburb; and

(iii) Region.

1.4.5 Network Attributes

Attribute	Format	Description
Network Participant Identifier	Char 4	A four-character code indicating the Distributor/Network owner responsible for a connection point. This value does not change on a day-to-day basis but may change over time, for example if Network providers merge. Network Participant Identifiers are assigned by the Authority.
POC	Char 7	A seven-character code that indicates the POC to which the ICP is connected. This information rarely changes but can do so if GXP boundaries change. POCs are assigned by the Reconciliation Manager as part of the NSP identifier and maintained in the NSP mapping table.
Reconciliation Type	Char 2	A two-character code that indicates how the ICP consumption is reconciled. Values can be one of: GN grid connected network; EN embedded network; SB embedded network residual load; LE embedded network gateway; or SI shared unmetered load.

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Attribute	Format	Description
		Note: LE and SI Reconciliation Types are Distributor-only ICPs. Further information on Distributor-only ICPs can be found in section 1.5.
Dedicated NSP	Char 1	If an ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from that particular NSP, or the ICP is a point of connection between a network and an embedded network, the ICP must be designated as "dedicated". A single character is used to indicate whether the ICP is dedicated. The character must be: Y—yes (the ICP is dedicated); or N—no (the ICP is not dedicated). This is the default character. The Reconciliation Manager uses the Dedicated NSP status as a priority order when moving volumes between NSP's to achieve balance.
Installation Type	Char 1	A single-character code that can take one of the following three possible values: L—load; G—generation; or B—both.
Proposed Trader	Char 4	A four-character code (Participant Identifier) that identifies a valid Trader. During the pre-commissioning phase a Distributor can choose to record who they believe will be the initial Trader trading at an ICP. Notifications of all changes made to that ICP in the pre-commissioning phase are then required to be sent to that Trader. However, the actual initial Trader can be different from the one proposed.
Unmetered Load Details – Distributor	Char 50	A general-purpose alphanumeric value used by the Distributor to record the type

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Attribute	Format	Description
		of unmetered load and its capacity and to notify the Trader.
Shared ICP List	List	A list maintained by Distributors. For ICPs across which unmetered load is shared (Shared Unmetered ICPs see section 1.5), the list will contain the ICP identifiers of each ICP separated by a space. For Standard ICPs with a relationship to Shared Unmetered ICPs (across which unmetered load is shared), this will contain the ICP Identifier of the Shared Unmetered ICP.
Generation Capacity	Numeric 6.2	Generation nameplate capacity in kW. Only required where the Installation Type is 'B' or 'G'. Maximum Generation Capacity that may be supplied is 999999.99.
Fuel Type	Char 15	A valid Fuel Type. Only required where the Installation Type is 'B' or 'G'. A list of valid Fuel Types is stored in the Registry reference tables. See SD-020.
Initial Electrically Connected Date	Date	Date the ICP was first electrically connected. Optional. The Code requires that distributors populate ICPs that have an initial electrically connected date of 29 August 2013 or later however the Registry does not enforce any validation. *Note to distributors*: This date should be >= Event Date of the *Ready* status as a Trader cannot insert an initial assignment prior to the *Ready* Event Date, however, the Registry will not validate it to be so.
Direct Billed Status	Char 11	Indicates who, out of the Distributor or Trader, directly bills the customer for the lines charges. Valid values are: 'Retailer', 'Distributor', 'Neither', 'Both', 'TBA' and NULL. Optional.
Direct Billed Details	Char 60	Contains other information relating to direct billing arrangements such as

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Attribute	Format	Description
		commencement or cessation dates. Optional. Free text.

(a) The NSP Identifier is a composite code made up of the Network Participant Identifier and the POC. All valid NSP identifier combinations are maintained by the Reconciliation Manager in the registry. Distributors can only use the NSP identifiers where they are recorded as being the owner in the NSP mapping table.

(b) The NSP Identifier is assigned in the following format: bbbqqqz nnnn. Where bbbqqqz is the POC and nnnn is the Network Participant Identifier.

1.4.6 Pricing Attributes

Attribute	Format	Description
Distributor Price Category Code	Char 50	A general-purpose alphanumeric code for identifying the line charges (there can be multiple charge categories associated with an ICP) to be applied by the Distributor to the Trader trading at an ICP. Each Distributor has their own set of price categories which they maintain in the registry, and against which the value of the attribute is validated.
Distributor Loss Category Code	Char 7	A general-purpose alphanumeric code that identifies the algorithm used to calculate line losses for the ICP. Each Distributor has its own set of loss categories which it must maintain in the registry, and against which the value of the attribute is validated.
Distributor Installation Details	Char 30	A general-purpose alphanumeric value.
Chargeable Capacity	Numeric 7.2	A numeric value (decimal with two decimal places) that is used to facilitate the communication of additional line charging information between Distributors and Traders. Maximum Chargeable capacity that may be supplied is 9999999.99

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1.4.7 Trader Attributes

Attribute	Format	Description
Trader Participant Identifier	Char 4	Identifies the Trader responsible for supplying electricity to the ICP. This value can only be changed if another Trader accepts responsibility for the ICP. NB: The Trader ceases to be responsible for obligations in Part 11 when another Trader accepts responsibility for the ICP or the ICP is decommissioned in accordance with clause 20 of schedule 11.1. Trader Participant Identifiers are assigned by the Authority.
Profile	Char 25	A list of three-character codes that identify the profile type(s) that has been assigned to the ICP, space separated. There can be multiple Profiles associated with an ICP. Profiles are used in the reconciliation process to allocate energy consumption. Traders can only use Profile codes approved for their individual use and only during a specific period. Profile codes are approved by the Authority.
Proposed MEP	Char 4	A four character Participant Identifier code indicating the participant proposed by the Trader to be the MEP.
UNM Flag	Char 1	An indicator that an ICP has some unmetered load.

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Attribute	Format	Description
Daily Unmetered kWh	Char 6	If an ICP is unmetered (ie the metering UNM Flag is 'Y'), and the load is profiled through an engineering profile in accordance with profile class 2.1, the code 'ENG' must be assigned to the ICP to indicate that the load is profiled using an engineering profile. There is no checking that there is an associated engineering profile in the Profile attribute. If the load is not profiled through an engineering profile, the daily average unmetered load in kWh at the ICP must be provided (this is a decimal number up to 3 decimal places).
Unmetered Load Details – Trader	Char 50	A general-purpose alphanumeric value used by the Trader to record supporting information about the type and capacity of unmetered load.
Submission Type HHR	Char 1	An indicator (Y/N) that half-hourly submission information will be provided by the Trader to the Reconciliation Manager for the ICP. Can only be set to Y if: a) there is a metering component of type HHR at the ICP applicable at the Event Date; or b) Where there is no applicable metering event; or c) The ICP contains a profile code that is classified as half hourly (commences with the letter "H") except if the sole half hourly code is "HHR" or "HSL"
Submission Type NHH	Char 1	An indicator (Y/N) that non-half-hourly submission information will be provided by the Trader to the Reconciliation Manager for the ICP.

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Attribute	Format	Description
		Must be set to Y if Submission Type HHR = N.
ANZSIC	Char 7	A valid code from a list of Australian and New Zealand Standard Industrial Classification codes stored in the registry reference tables with an additional code “000000” to indicate a residential consumer. See SD-020. Not applicable to ICPs with SB Reconciliation Types.

1.4.8 Metering Attributes

(a) There are 4 levels of metering information: Metering Summary, Metering Installation Information, Metering Component Information and Channel Information.

(b) N.B. If the site is totally unmetered then no metering information will be recorded for the ICP within the Metering event. Information about unmetered load is maintained in the Trader event only.

1.4.9 **Level 1 – Metering Summary Attributes**

(a) This top level provides a snapshot of some of the metering attributes detailed in the lower levels of metering information as well as the Metering Equipment Provider Identifier of the participant responsible for maintaining this information in the Registry. These are:

Attribute	Format	Description
MEP Participant Identifier	Char 4	This code identifies the Metering Equipment Provider who maintains this ICPs metering installation information in the Registry. Metering Equipment Provider Participant Identifiers are assigned by Authority. NB: In practice, Distributors and Traders can be Metering Equipment Providers, and not necessarily for ICPs they currently own (i.e. Distributor or Trader Participant Identifiers may not match the Metering Equipment Provider Participant Identifier for an ICP). In the case of a dual role, i.e. where the Distributor or Trader is responsible for the ICP in the Registry and is also the Metering Equipment Provider, there are additional processing requirements with respect to notifications (see section 0 on Notifications).
Highest Metering Category	Numeric 1	The highest code of any of the Metering Installation Categories recorded at lower levels of this event. The Metering Installation Category is a numerical code indicating the type of voltage, current, measuring transformers and maximum permitted error of a metering component.

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Attribute	Format	Description
		The highest category of any of the metering installation certification reports of the ICP is recorded here. The code can be 1 to 5 however a “9” will be assigned where there are no ‘installed’* metering components of type = meter. A “9” indicates that all meters have been removed however it is possible that other types of components remain at the ICP. Derived by the system from the greatest value of any of the Highest Metering Category codes recorded in the Level 2 information of this ICP.
HHR Flag	Char 1	An indicator (Y/N) of the presence of a Metering Installation Type of HHR on any of the metering installations of the ICP. Derived by the system.
NHH Flag	Char 1	An indicator (Y/N) of the presence of a Metering Installation Type of NHH on any of the metering installations of the ICP. Derived by the system.
PP Flag	Char 1	An indicator (Y/N) of the presence of a pre-pay metering device component (Meter Type = PP) within any of the metering installations of the ICP. Derived by the system.
AMI Flag	Char 1	An indicator (Y/N) of the presence of an advanced infrastructure metering device component (AMI Flag = Y) within any of the metering installations of the ICP. Derived by the system.
Meter Channel Count	Numeric 3	A numerical value representing the total number of channels, across all the metering components that have a type = M (meter), where their Settlement Indicators are set to ‘Y’ and where the meter has not been removed, at an ICP. Derived by the system.
Meter Multiplier Flag	Char 1	An indicator (Y/N) of the presence of a Compensation Factor not equal to 1 for at least one of the metering components that

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Attribute	Format	Description
		have a Metering Component Type = M (meter) at an ICP. Derived by the system.

(b) It is possible to have more than one type of metering (NHH, HHR, PP) installed (although an ICP can be unmetered) at an ICP. At least one must be recorded against an ICP.

*N.B. Where information is derived from lower levels, components with a Removal Date are ignored (assumed to be missing).

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1.4.10 Level 2 – Metering Installation Information Attributes

(a) An ICP may have multiple sites where metering is located. Each site is identified by a unique Metering Installation Number.

Attribute	Format	Description
Metering Installation Number	Numeric 3	A user-input number that is unique to that ICP identifier that identifies the metering installation. (Sequential number 1,2 etc)
Highest Metering Category	Numeric 1	Derived by the system from level 3 information and is the highest Metering Installation Category of the installation at the ICP. 1 to 5 and 9. 9 is assigned where there are no installed* metering components of type = meter within the installation.
Metering Installation Location Code	Char 50	A 6 character code from the list of codes (can be 1 to 6 characters) within the Registry that identifies the location of the metering installation and optionally, concatenated with the New Zealand Transverse Mercator 2000 (NZTM2000) GPS co-ordinates of the metering installation. The format of the GPS co-ordinates is: &NZTM:E<easting location>:N<northing location> Easting and Northing locations both have a format of Numeric 7.3 where leading and trailing zeros are not mandatory ie can be missing. Example:SQ&NZTM:E1234567.123:N54321.95. Where the GPS co-ordinates are provided, both the easting and northing co-ordinates are mandatory. A colon is used as the field delimiter within the GPS co-ordinates descriptor and there must be no spaces or commas. Where no GPS co-ordinates are provided only the location code must be present e.g. SQ.

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Attribute	Format	Description
ATH Participant Identifier	Char 4	The Participant Identifier of the Approved Test House that certified the metering installation.
Metering Installation Type	Char 3	The certification type of the metering installation, which may be either half hour ('HHR') non -half hour ('NHH') or none ('NON') whichever is identified within the metering installation certification report. Must be 'NON' where the number of components = 0.
Metering Installation Certification Type	Char 1	Type of certification - Interim ('I) or Full ('F). Note: Interim certification can only be used for an event date prior to 01 April 2016 unless the metering update is for the removal of all metering components of all interim certified metering installations of an ICP.
Metering Installation Certification Date	DD/MM/YYYY	The effective certification date identified within the metering installation certification report.
Metering Installation Certification Expiry Date	DD/MM/YYYY	The metering installation certification expiry date, identified within the metering installation certification report, or the date that metering installation certification was cancelled.
Control Device Certification Flag	Char 1	A confirmation indicator Y/N on whether the control device used in the metering installation is included in the metering installation certification report.
Certification Variations	Char 1	'X' - An exemption under the Act for the metering installation applies; or 'A' - The alternate measuring transformer certification process is used; or 'N' – None.

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Attribute	Format	Description
Certification Variations Expiry Date	DD/MM/YYYY	The earliest expiry date of any of the certification variations.
Certification Number	Character 25	The certification number assigned to a metering installation's certification.
Maximum Interrogation Cycle	Numeric 3	The maximum interrogation cycle of the metering installation included in the metering installation certification report, in days.
Lease Price Code	Char 6	If the Metering Equipment Provider considers it relevant, an identifier that may be used to indicate the price that would apply to a lease for the use of the metering installation.

*N.B. Where information is derived from lower levels, components with a Removal Date are ignored (assumed to be missing).

1.4.11 Level 3 - Metering Component Information Attributes

(a) At each installation or site within an ICP, information on each metering component located there is recorded in the registry and each is identified by the component's own physical serial number or one assigned by the MEP that makes it unique within the ICP.

Attribute	Format	Description
Metering Component Serial Number	Char 25	A number that is unique to that ICP identifier, to identify the metering component.
Metering Component Type	Char 1	An identifier used to identify the type of metering component selected from the list of codes within the registry. (M-meter, C-CT, V-VT, D-Data Storage Device, L-Control Device).
Meter Type	Char 3	An identifier (HHR/NHH/PP – for meters only) of the type of meter.
AMI Flag	Char 1	An indicator (Y/N) that the component contains an advanced infrastructure metering device.
Metering Installation Category	Char 1	The metering category for the metering installation included in the metering installation certification report. (1 to 5).
Compensation Factor	Numeric 6.3	Compensation factor for the metering component. Where the Metering Components Type is M (meter) the value must be greater than zero. Maximum Compensation Factor that may be supplied is 999999.999
Owner	Char 6	A free text field to identify the owner of a metering component which may be a Participant Identifier if the owner is a participant. If the Owner is a participant then their valid 4 character Participant Identifier is recorded otherwise a value greater than 4 characters is required.

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Attribute	Format	Description
Removal Date	DD/MM/YYYY	The date when a metering component was removed.

1.4.12 Level – 4 Metering Channel Information Attributes

(a) The registry holds details of all channels of each metering component of an ICP. Each channel is assigned a sequential number by the MEP that makes it unique within the component.

Attribute	Format	Description
Channel number	Numeric 2	A unique number within the metering component that identifies each data channel within the metering component e.g. 1, 2 etc. User-defined not system assigned.
Number of Dials	Numeric 2	The number of dials or digits that relate to the data channel. (Between 4 and 12). Dials recording fractions of a unit are excluded.
Register content code	Char 6	A code that identifies the type of information being recorded by the channel e.g. winter, triple saver peak etc. Selected from a list in the registry. Register content codes are provided in SD-020.
Period of availability	Numeric 2	Minimum service hours per day that supply is available for. (<=24).
Unit of Measurement	Char 6	An identifier for the units recorded in a channel e.g. kVA. Selected from a list in the registry.
Energy Flow Direction	Char 1	An identifier of whether the channel records the import (injection from the ICP into the Network) (“I”), or the export (extraction from the Network to the ICP) (“X”).
Accumulator Type	Char 1	An identifier for either absolute (“A”) or cumulative (“C”) recording with the channel,
Settlement Indicator	Char 1	An indicator (Y/N) selected in accordance with the Code.

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Attribute	Format	Description
Event Reading	Numeric 12	A read of a meter or data storage device. Optional, but mandatory if a Removal Date is present in the associated (parent) component level information.

1.4.13 Status Attributes

Attribute	Format	Description
ICP Status	Char 3	This code has two roles. First it shows the stage the ICP has reached, such as *new or ready* during the pre-commissioning phase and *decommissioned* if the ICP is no longer used. Second, once the ICP is commissioned and a Trader has accepted responsibility for the ICP, the Status indicates whether the ICP is *active* or *inactive*, ie consuming energy or not. (Only those ICPs that are active during a reconciliation period are included in the reconciliation process.) The Status of an ICP can therefore be: 999—new; 888—distributor; 000—ready; 001—inactive; 002—active; or 003—decommissioned.
Status Reason		A two-character numeric code, required when the Status is inactive or decommissioned, which indicates the reason why the ICP has been given the Status. The current reasons associated with a decommissioned Status are: 01—setup in error; 02—installation dismantled; and 03—ICP amalgamation. The current reasons associated with an inactive Status are: 04—electrically disconnected vacant property; 05—reconciled elsewhere;

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Attribute	Format	Description
		06— electrically disconnected ready for decommissioning; 07— electrically disconnected remotely by AMI meter; 08— electrically disconnected at pole fuse; 09— electrically disconnected due to meter disconnected; 10— electrically disconnected at meter box fuse; and 11— electrically disconnected at meter box switch; 12 – New connection in progress. The above list of codes may change, but only very infrequently.

1.4.14 Derived Information

In addition to the above stored attributes of an ICP, the Registry can display information derived from a combination of stored attributes or from switch transactions

Attribute	Format	Description
C&I TOU	Char 1	An indicator (Y/N) signifying the presence of a metering component that is a commercial and industrial time of use meter, in any of the metering installations of the ICP. This is indicated where a metering component has: a. an AMI flag = 'N'; and b. a Metering Component Type = 'M' or 'D'; and c. at least one register of that metering component has a Registry Content Code starting with the number '7' and no other register of that metering

Attribute	Format	Description
		component has a Register Content Code starting with an alpha character.
AMI non comm.	Char 1	An indicator (Y/N) signifying the presence of a metering component that is a non-communicating AMI meter which is being treated as a NHH meter, within any of the metering installations on the ICP. This is indicated where a metering component has: a. a Meter Type = 'NHH'; and b. an AMI flag = 'N'; and c. a Metering Component Type = 'M' or 'D'; and at least one register of that metering component has a Registry Content Code starting with an alpha character and no other register of that metering component has a Registry Content Code starting with the number '7'
AMI comm.	Char 1	An indicator (Y/N) signifying the presence of a metering component that is a communicating AMI meter within any of the metering installations on the ICP where a metering component has: a. An AMI Flag = "Y" at the summary level
Serial Numbers	Char 100	Concatenation of all Metering Component Serial Numbers with all their associated Register Content Codes where applicable. All values are comma separated.
Trader switch	Char 50	Description of the state of a Trader switch in progress that identifies the stage of the switch e.g. "from RETA to RETB, Switch Withdrawal Request (NW)".

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Attribute	Format	Description
MEP switch	Char 50	Description of the state of an MEP switch in progress that identifies the stage of the switch e.g. “META to METB, MEP accepted nomination, awaiting Meter Asset data”.

1.5 Types of ICP

1.5.1 The Code describes two types of ICP:

(a) Standard ICPs – the majority of ICPs. These follow the standard lifecycle whereby a Distributor assigns an ICP Identifier to an ICP, a Trader accepts responsibility for the ICP, an MEP loads the metering information and the ICP is then able to be switched. The ICP information is managed by Distributors, Traders and MEPs; and

(b) Distributor-only ICPs – these ICPs are not assigned to Traders. Information about Distributor-only ICPs is provided and updated solely by the Distributor. These ICPs are used for two purposes:

(i) to record information about the point of connection between an embedded network or local network and its parent network (maintained by the parent network Distributor); and

(ii) to record information about an ICP across which unmetered load is shared, such as a sewerage pump or under-veranda lighting. (This ICP records all ICPs across which the unmetered load is shared.)

1.5.2 The type of ICP is dictated by the Reconciliation Type. ICPs created with Reconciliation Types of LE and SI are Distributor-only ICPs. The remaining Reconciliation Types are assigned to Standard ICPs only.

1.5.3 The following information is required to be provided in respect of each type of ICP:

Standard ICPs

- ICP Identifier and all possible attributes.

  N.B. Refer to the individual formats for the attributes.

Distributor-only – embedded network metering installation ICPs

- ICP identifier;
- ICP Address Event attributes;
- Network Participant Identifier;
- POC;
- Reconciliation Type Code;
- Dedicated NSP;
- Installation Type;
- Distributor Loss Category code; and
- Status.

Distributor-only – shared unmetered ICPs

- ICP Identifier;
- ICP Address Event attributes;
- Network Participant Identifier;
- POC;
- Reconciliation Type Code;
- Dedicated NSP;
- Installation Type;
- Unmetered Load Details – Distributor if applicable (and unless the unmetered load is distributed unmetered load);
- Shared ICP List;
- Distributor Loss Category code; and
- Status.

1.6 Events

1.6.1 Events are the primary mechanism for handling changes to attributes.

1.6.2 In the first version of the registry, released in 1999, there was only one type of ICP and it only had seven attributes: date; Trader; data administrator; Profile type; Status; Status Reason; and NSP code. Whenever an attribute was changed, a new record was created with a new date. The new value of the

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attribute was inserted and the values of the other attributes were copied unchanged into the new record from the one preceding it. In effect, each ICP was represented by a straightforward time-series. When the enhanced system was introduced in 2002 and new attributes were added, it was decided that it would not be practical to use the above approach; instead, the ICP attributes were partitioned into separate groups and the concept of events was introduced. In addition to its attributes, each event has an Event Date and a User Reference.

1.6.3 The Event Date defines the date from which the attribute values of the event should apply. There is no end date. The state defined by the attribute values of an event for an ICP continues until a new event of the same type supersedes it. By convention, all events are deemed to occur at 0:00:00 on the day of the Event Date and to end at 23:59:59 on the day before the Event Date of the next event of the same type.

1.6.4 The User Reference is a general-purpose alphanumeric value available for recording any extra information the user deems appropriate.

1.6.5 NB: The use of events is central to the current registry system. Information about ICPs is structured as events, and events are the user interface construct through which data is entered into the system and through which it is maintained.

1.7 Event types

1.7.1 It should be noted that not all ICPs will have a full complement of events of each of the possible types shown below. For example, Distributor-only ICPs will lack Trader and Metering events.

1.7.2 Each event type groups ICP attributes as described earlier in section 1.4 Attributes of an ICP. In addition to their specific attributes, each event also has the general Event Date and User Reference values.

Attribute	Format	Description
Event Date	DD/MM/YYYY	The Event Date defines the date from which the attribute values of the event applies.
User Reference	Char 32	A general-purpose alphanumeric value available for recording any extra information the user deems appropriate

(a) Event type – Network

This event type groups together the attributes relating to network connection details and the network owner (Distributor).

(b) Event type – Pricing

This event type groups together the attributes relating to Distributor line charges and loss factors.

(c) Event type – Address

Refer to the attribute section for details on the minimum requirements of a valid Address.

(d) Event type –Trader

This event type groups together the attributes used for reconciliation and for identifying the current Trader.

(e) Event type – Metering

This event type groups together the attributes relating to the physical meters at the ICP site and for identifying the Metering Equipment Provider.

(f) Event type – Status

This event type groups together the attributes relating to the pre-commissioning stage and electrically connected Status of the ICP (see ICP Status lifecycle)

1.8 Event type responsibilities

(a) Only Distributors may create, update and reverse Network, Pricing, Address and Status events (decommissioning only).

(g) Only Traders may create, update and reverse Trader events.

(h) Distributors and Traders jointly manage the Status event. Distributors are responsible for the Status in the pre-commissioning stage and when decommissioning the ICP. Traders are responsible for maintaining the electrically connected Status of the ICP – inactive and active.

(i) Metering Equipment Providers (MEPS) are solely responsible for maintaining the Metering events and are able to receive notifications of the changes to metering information and Trader switches.

1.9 Event processing

1.9.1 The following business rules govern the processing of all events.

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(a) Events must be made explicit to users at the user interface.

(b) Users must be able to deal simultaneously with all the different types of event for an ICP for which they are responsible, and each event must be allowed to have a different Event Date unless otherwise stated.

(c) Only the participant responsible for the creation of an event may update or reverse it.

(d) Whenever a new value of an attribute is assigned, a new event must be created to incorporate the change.

(e) There must be no automatic inheritance of attribute values. Whenever the value of an attribute needs to change, a value must be provided for every mandatory attribute of the associated event.

(f) Event Dates must not be in the future. The legal range for an Event Date is between 1 April 1999 and today's date. An event may be inserted anywhere in this range.

(g) If an event of a given type is inserted for an Event Date for which another event already exists, the new event must replace the existing one.

(h) There can only be one 'active' event for one Event Date of a particular event type. This means that if one event is updated, and therefore replaced, it is the new event that contains the currently applicable information. The information in the old event is no longer current.

(i) When an existing event is reversed, it must only be logically deleted, not physically removed. It must be indicated as reversed.

(j) Replaced and reversed events must be retained for history and audit trail purposes.

(k) The insertion of a new event can be 'undone' to revert to a prior event by reversing it. However, once an event is replaced or reversed it cannot be re-activated in any way. A new event must be created.

(l) A complete event history must be recoverable for each ICP, including reversed and replaced events.

(m) When a new event is created, the following information must be recorded for audit purposes:

  (i) the user ID of the person creating the event;

  (ii) the date and time the event was created;

  (iii) the method of creation, ie online or file; and

  (iv) the filename if the method was 'file'.

(n) When an existing event is reversed, the following information must be recorded for audit purposes:

  (i) the user ID of the person reversing the event;

  (ii) the date and time of reversal;

  (iii) the method of reversal, ie online or file; and

  (iv) the filename if the method was 'file'.

(o) When an existing event is replaced, the following information must be recorded for audit purposes:

  (i) the user ID of the person replacing the event;

  (ii) the date and time of the replacement;

  (iii) the identity of the replacement event;

  (iv) the method of replacement, ie online or file; and

  (v) the filename if the method was 'file'.

(p) A user may only insert, update or reverse events during their company's period of responsibility. For example, if an ICP is switched to a Trader on date d1 and lost to another Trader on date d2, the Trader may make changes only on or after d1 and before d2.

(q) There are three possible responsibility relationships for an ICP: Distributor; Trader; and Metering Equipment Provider. Responsibility changes occur on the date of the event, in which the value of the corresponding attribute changes, i.e. Network Participant Identifier, Trader Participant Identifier or MEP Participant Identifier.

(r) An event that would invalidate other prior events must not be inserted. For example, an ICP Status change to *inactive* may not be inserted before the initial accepting of responsibility for an ICP by a Trader. Also, Reconciliation Types cannot be changed when that change would alter the type of ICP.

(s) An event may not be reversed if that reversal would invalidate a later event.

(t) Events must be processed in the order in which they arrive.

(u) Every insertion, change and reversal of an event must be acknowledged to the responsible participant.

(v) Every participant affected by the insertion, change or reversal of an event must be notified of the fact.

(w) System is to prevent the insertion of duplicate events.

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1.9.2 The processing of events can be thought of in terms of queues. When a new event is created it is placed in the queue for its type at a position determined by its Event Date. If there is already an event in the queue with the same Event Date then the new event is put in front of the existing one. Events are never physically removed from the queue, only logically deleted. The current event is the first non-reversed/non-replaced event in a queue. The current event defines the attribute values of the given event type which presently apply for the associated ICP. The complete current state of an ICP is defined by the current events from each of its associated event queues. A queue may be empty, particularly during the pre-commissioning phase when events of some event types have yet to happen.

1.10 Acknowledgements

1.10.1 The Code requires that the registry provide confirmation to a participant when the registry receives updated information about an ICP within four hours of input of the change (clause 11.21).

1.10.2 For transactions entered online, although an online message of a successful update is sufficient as a confirmation, current automation of back-office systems by clients requires that all acknowledgements must also be provided in a batch file at the end of each day.

1.10.3 For batch updates sent in a file, acknowledgements of each update must be provided in a file immediately the process has been completed. If the system rejects a change received in the file, it must indicate the reason as part of the acknowledgement.

1.10.4 In both cases, users must be able to see online whether their changes have been confirmed (acknowledged). The details shown must include:

(a) date and time stamp;

(b) participant (sent to); and

(c) file name.

1.11 Notifications

1.11.1 The Code requires that, whenever information about an ICP changes, the registry must send notifications of the change to all affected parties on the same day that the information is received (clause 11.29).

1.11.2 Since one or more of the participants may be the subject of a change to an ICP, both current (old) and/or new participants may need to be notified of the change. This means that the evaluation of which participants should receive

notifications can be quite complex and results can differ depending on the order in which the processing is done.

1.11.3 In general, the "affected parties" requiring notifications as at an event date are:

(a) the responsible Trader, and

(b) if there is a Trader switch in progress (whether new or a withdrawal), the other Trader, and

(c) the responsible MEP, and

(d) if there is an MEP switch in progress, the Proposed MEP, and

(e) the responsible Distributor, and

(f) if the ICP is in the pre-commissioning phase, the Proposed Trader, and

(g) for metering events, the Approved Test House (ATH) for each metering installation, and

(h) for metering events, the Metering Equipment Owner (MEO) of each metering component where the MEO has a participant identifier.

1.11.4 All "affected parties" need to be informed:

(a) when their period of responsibility commences and ceases; and

(b) of changes (inserts, replacements and reversals) to information about an ICP during their period of responsibility or during the period they are a party to a switch (Trader or MEP).

1.11.5 Users must be able to see online whether notifications have been sent about an event change. The details shown must include:

(a) date and time stamp;

(b) participant (sent to); and

(c) file name.

Filtering-up of historical changes

1.11.6 An historical change is one that occurs before a current ICP event. When an historical change occurs, notifications must be generated for all participants that were responsible for the ICP from the Event Date of the new event up to BUT NOT INCLUDING the Event Date of the next event (of the same event type) or up to today's date, whichever is the earliest.

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1.11.7 For example, if a Metering event is inserted with an Event Date of 01/03/2004 before a later Metering event on 01/05/2004 then all Traders, Distributors and Metering Equipment Providers who were responsible for the ICP during the period 01/03/2004 to 30/4/2004 must be notified of the change.

1.11.8 The same filter-up logic must be applied to all insertions, updates and deletions and, in the case of updates, the replaced (old) event must be fully processed before the new event is inserted.

Notification parameters

1.11.9 The Code (clauses 11.29 and 22(d) of Schedule 11.3) defines what notifications are required (mandatory) when there are changes to events or when messages are required to be transmitted to multiple parties, and, to whom they are sent as follows:

Event type or notice	Distributor	Trader	Metering Equipment Provider	Approved Test House	Metering Equipment Owner
Address	Mandatory	Mandatory	Optional	N/A	N/A
ICP Status	Mandatory	Mandatory	Mandatory	N/A	N/A
Network	Mandatory	Mandatory	Optional	N/A	N/A
Metering	Mandatory	Mandatory	Mandatory	Optional	Optional
Pricing	Mandatory	Optional	Optional	N/A	N/A
Trader	Optional	Mandatory	Mandatory	N/A	N/A
Switch[1]	Mandatory	Mandatory	Mandatory	N/A	N/A
CS	Mandatory	Mandatory	Mandatory	N/A	N/A
RR	Optional	Mandatory	Optional	N/A	N/A
MN	Mandatory	Mandatory	Mandatory	N/A	N/A
AW	Not applicable	Mandatory	Mandatory	N/A	N/A

1.11.10 Where mandatory is shown, the associated 'affected party' must be sent an appropriate notification. Where optional is shown, the participant must be able to choose whether to receive notifications of events of that type or not.

1.11.11 It should be noted that participants may have more than one role (see table 1.14.18 for permitted role combinations), in which case they must be able to

[1] The event referred to here is the completion of a customer switch from one Trader to another Trader. The system must be able to distinguish between this Trader event and its other occurrences.

indicate what notifications they receive in each role. Duplicate notifications must not be sent to participants with dual roles on a single ICP.

1.12 Switching protocols

Trader switching

1.12.1 Traders use the switching protocol whenever a consumer chooses to change the participant supplying them with electricity. It consists of a sequence of messages sent between Traders. The registry co-ordinates switches.

1.12.2 Traders must provide information about a switch to the registry, not directly to the other Trader. It is the responsibility of the registry to pass that information to the other Trader and to keep track of the progress of the switch as it passes through each stage. The registry must acknowledge each message received, store it against the ICP and, once a switch has been successfully completed, it must update the ICP by generating the appropriate events, and send the proper notifications. A Trader event must always be generated to indicate that the Trader responsible for the ICP has changed, but there may also be a Metering event and/or a Status event if the attributes of those event types have been changed as part of the switch.

1.12.3 There is an additional requirement for Distributors and Metering Equipment Providers to also receive CS and RR switch messages.

1.12.4 The Trader switching messages are:

Code	Name	Purpose
NT	Notification of transfer	Initiate switch.
AN	Acknowledgement of notice	Accept/decline switch. NB: If declined, this is just a warning message. It does not reverse the switch.
TN*	Completed Switch Transfer notice non-half-hour	Complete switch for non-half-hour metering or unmetered ICPs.
TT*	Transfer notice half-hour	Complete switch for half-hour metering.
NW	Notice of withdrawal request	Request withdrawal of a switch.
AW	Acknowledgement of withdrawal request	Accept or decline withdrawal request.
NC*	Request switch read change	Request of a switch read change and supply the revised meter readings or permanent estimates.

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Code	Name	Purpose
AC	Acknowledge switch read change	Accept or decline switch read change.
CS	Complete Switch	Complete switch for all meter types
RR	Replacement Reading	Replacement readings provided for a completed switch.

*Discontinued. History is still available to view and report on.

Sequence	Message	Sender	Receiver
1. ICP Trader switch	NT	Gaining Trader	Losing Trader
	AN (optional)	Losing Trader	Gaining Trader
	CS	Gaining Trader for switch type of HH, otherwise Losing Trader	Other Trader
2. Withdrawal of switch	NW	Either gaining or losing Trader	Other Trader
	AW	Receiver of previous NW	Sender of the previous NW
3. Change switch read	RR	Gaining Trader	Losing Trader
	AC	Receiver of previous RR	Sender of the previous RR

1.12.5 Once an NT has been sent, either Traders may elect to withdraw the switch at any time (ie cancel the switch), until the expiry of 2 calendar months after the Event Date of the switch (clause 17 of Schedule 11.3). When a switch is withdrawn after the switch is completed, the registry must reverse the Trader event and any other events that it generated, together with any events that the losing Trader had inserted, and which now lie within the gaining Trader's period of responsibility.

MEP switching

1.12.6 Switching from the current MEP to a new MEP goes through 3 distinct stages:

(a). Proposal – this is when a Trader enters an MEPs participant code in the Proposed MEP attribute of a Trader event (10.22(1)(a)(i) of the Code).

(b). Acceptance of an arrangement – this is once an MEP sends an MN acceptance notice to the Registry. This is the acceptance of the contractual arrangement referred to in 10.22(1)(a)(ii) of the Code.

(c). Assumption of responsibility – this is once the MEP who has accepted the arrangement for an ICP "assumes" responsibility (ie. becomes responsible) for the metering installation by inputting their Metering event information into the Registry (10.21(1), 10.23, 11.18B(2)(a) and 11.18B(2)(b) of the Code).

1.12.7 Traders are responsible for notifying the registry of the responsible MEP for an ICP. This is initiated in the registry by the Trader setting the Proposed MEP attribute in the Trader event of an ICP for which they are the responsible Trader.

1.12.8 As part of the normal event change process, a notification is generated to affected parties, including the Proposed MEP. The notification will appear in participant's overnight (standard) notification file. The Switch Status attribute identifies that an MEP switch is in progress by being set to either an 'M' or 'B'. An 'M' indicates that an MEP switch is in progress. A 'B' indicates that both a Trader Switch and an MEP switch are in progress.

1.12.9 The MEP has then 10 business days in which to accept the proposal by sending an MN notice to the registry. The MN notice will be delivered by the registry to the Trader (both Traders where a Trader switch is in progress), the Distributor and to the old MEP. There is no time limit for the delivery of an MN decline as this is optional in the Code.

1.12.10 If the MN notice is for a declinature or where an MEP does not respond with any MN notice, the old MEP retains responsibility. The Trader can then propose another MEP, at any time except when there is a Trader switch in progress, by setting the Proposed MEP attribute again which triggers a new MEP switch cycle.

1.12.11 If the MN notice is for an acceptance, the registry will permit the new MEP to add Metering events for this ICP for an Event Date on or after the Event Date of the Trader event that initiated this MEP switch, or in the case of the first MEP assignment for a new ICP, on or after the Event Date of the earliest Status event change to the 'Ready' state of the ICP.

1.12.12 The MEPs period of responsibility commences from the Event Date of the first Metering event input by an MEP until another MEP inputs metering event information, or until the present day.

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1.12.13 MEP switching is only permitted for Event Dates on or after the commencement of the period of responsibility of the current MEP or where there is no MEP assigned. An MEP switch may only be inserted historically upon approval from the Authority (refer process MM-040).

1.12.14 An MEP may perform an historical MEP switch provided approval has been received from the Authority. Once approved the switch process is executed by the Registry Manager as it is not considered a business as usual occurrence. It is used only to correct the result of a breach of the Code where an MEP for an ICP has been unable to provide metering information to the Registry.

Switching parameters

1.12.15 Traders must be able to choose the time intervals and the grouping method for the receipt of switching messages. They must be able to elect to receive switch files at specific times during the day, eg 0800, 1100, 1500 and 1800 hours, or choose to have their files delivered as soon as the registry has processed them.

1.12.16 The system must gather all switch messages of the same type into separate files and also provide users with the option of further splitting those files by Trader. For example, all the NT messages relating to ICPs lost to Trader A would be in one file, and all NT messages relating to ICPs lost to Trader B would be in another file

1.12.17 It is sufficient for Distributors and Metering Equipment Providers to receive their MN, CS and RR switching messages daily in one file overnight.

Switching file naming standard

1.12.18 Filenames should have the form: <File dentifier>CCYYMMDDHHMMSSxxx.txt format where:

Component	Description
<File Identifier>	A code identifying the file type (usually the same as the file type in the file header) and therefore the format, eg NT
CCYYMMDD	Century, year, month and day the file was created, eg 20040722
HHMMSS	Time of file creation (24-hour clock), eg 192436
xxx	An optional number added if required to make the filename unique.
	Filenames must be unique hence the timestamp in the filename. If still not unique the xxx part is used. N.B. No spaces must be included in the filename.

Points to note:

- Filenames must be unique hence the timestamp in the filename. If still not unique the xxx part is used.
- No spaces must be included in the filename.
- See Appendix 4 for details on how the Registry processes files.
- Files input by participants are not validated to conform to the above file naming standard.

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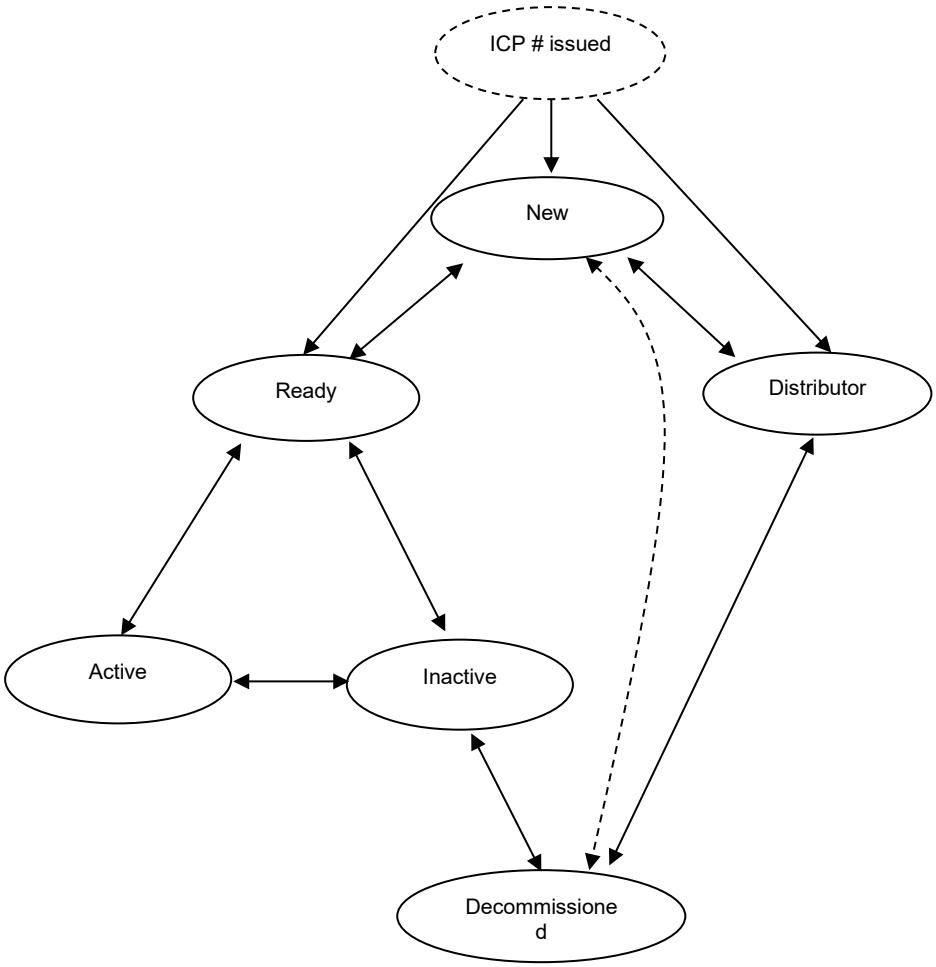
1.13 ICP Status lifecycle

1.13.1 The lifecycle of an ICP is managed by updating the Status attribute of the ICP, which is part of the Status event type. There is a different lifecycle for the two types of ICPs (Distributor-only and Standard ICPs).

Figure 2: ICP lifecycle



Standard ICP business rules

1.13.2 Standard ICP business rules are listed below:

(a) In order for an ICP to be created, the Event Date, ICP Identifier, Network Participant Identifier and Address attributes must have values.

(b) The ICP Identifier must be unique.

(c) Once assigned, the Event Date, Network Participant Identifier and Address attributes cannot be cleared but can be updated.

(d) When an ICP is created with the minimum attributes, it must be given the Status *new* by the system.

(e) The ICP can be created in the *ready* state, without first being in the *new* state, provided there is sufficient information available and the Reconciliation Type is not LE or SI.

(f) Once an ICP is created, the system must allow Distributors and Traders to update information about the ICP in the registry.

(g) An ICP created in error can be decommissioned by the Distributor who created it but only if it has the Status *new*. The Distributor must give a reason for the decommissioning.

(h) When the electrical installation associated with an ICP is ready for connecting to the electricity supply, a Distributor has identified the Trader that has taken responsibility for the ICP, and the ICP has a single Distributor Price Category Code, the system must change the Status of the ICP to *ready*. In the registry, this means that values have been added for the Network Participant Identifier, POC, Reconciliation Type (not LE or SI), Installation Type, Dedicated NSP, Proposed Trader), Distributor Price Category Code and Distributor Loss Category Code.

(i) An ICP can move from *ready* back to *new*, on the removal of any required fields or reversal of the event that made the ICP *ready*.

(j) If an ICP has the Status of *new* or *ready* for 24 calendar months or more, the Distributor must ask the Trader who intends to trade at the ICP whether the ICP should continue to have that Status, and the Distributor must decommission the ICP if the Trader advises the ICP should not continue to have that Status.

(k) If a Distributor has created an ICP in error, the ICP cannot be deleted. The ICP Status must be set to *decommissioned.* The ICP must be in the *new* status before it is changed to the decommissioned Status.

(l) A Trader can only accept responsibility for ICPs that are in the *ready* state. From this point on, a Trader can designate the Status of the ICP

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as *active* or *inactive* according to whether the ICP is electrically connected (ie whether electricity can flow at the ICP).

(m) Having accepted responsibility for an ICP through an initial assignment, a Trader must provide the registry with the reconciliation, metering, Status, and other information required by clause 9 of Schedule 11.1 of the Code.

(n) If a Trader's acceptance of responsibility for an ICP that was gained through initial assignment is reversed, the Status of the ICP must be reset to *ready*.

(o) Once a Trader has accepted responsibility for an ICP, the Status cannot be set to *new* or *ready*.

(p) A Distributor can only decommission an ICP assigned to a Trader if the Trader has set the Status to inactive with a Status Reason of electrically disconnected ready for decommissioning ('06'). Decommissioning indicates that that the ICP is permanently removed from future switching and Trader events. Decommissioning occurs when electrical installations associated with the ICP are removed, there is a change in the allocation of electrical loads between ICP with the effect of making the ICP obsolete, or, in the case of a Distributor-only ICP for an embedded network, the embedded network no longer exists.

(q) Once created on the registry, an ICP identifier for an ICP cannot be changed.

Standard ICP Status transitions

1.13.3 The table below details the allowable ICP Status transitions for a Standard ICP.

Transition	Comments
New	Status set by system when the Distributor provides the ICP Identifier, Network Participant Identifier and Address attributes.
Ready	Status set by system when the Distributor provides the ICP Identifier, Network Participant Identifier, Address, POC, Distributor Price Category Code, Reconciliation Type Code (not LE or SI), Installation Type, Dedicated NSP, Proposed Trader (if known) and Distributor Loss Category Code.
New **to** ready	Status set by system when the Distributor adds a POC, Distributor Price Category Code, Reconciliation Type code (not LE or SI), Installation Type, Dedicated NSP, Proposed Trader (if known) and Distributor Loss Category Codes.

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Transition	Comments
Ready **to** new	Status set by system when the Distributor removes the POC, Distributor Price Category Code, Reconciliation Type code, metering Installation Type, Dedicated NSP, Proposed Trader (if known) or Distributor Loss Category Code from the ICP, or reverses the event that set the Status from *new* to *ready.*
Ready **to** active	Status set by Trader taking responsibility for the ICP at initial assignment when reconciliation is required for the ICP.
Ready **to** inactive	Status set by the Trader taking responsibility for the ICP at initial assignment when reconciliation is not yet required for the ICP.
Active | inactive **to** ready	Status set by system when the initial Trader reverses the initial assignment.
Inactive **to** active	Status set by Trader when reconciliation is required for the ICP.
Active **to** inactive	Status set by the Trader when reconciliation is no longer required for the ICP.
Inactive **to** decommissioned	Status set by the Distributor when the ICP has been disconnected from the network. Disallowed unless the Trader updated the Status Reason to electrically disconnected ready for decommissioning ('06') or if there is a switch in progress for the ICP.
Decommissioned **to** inactive	Status reversed by the Distributor to correct a decommissioning error.
New **to** decommissioned	Status set by the Distributor during the pre-commissioning phase if the ICP was created in error.
Decommissioned **to** new	Status reversed by the Distributor during the pre-commissioning phase to correct a previous error.

Distributor-only ICP business rules

1.13.4 Distributor-only ICP business rule are listed below:

(a) In order for an ICP to be created, the Event Date, ICP Identifier, Network Participant Identifier and Address attributes must have values.

(b) The ICP Identifier must be unique.

(c) Once assigned, the Event Date, Network Participant Identifier and Address attributes cannot be cleared but can be updated.

(d) When an ICP is created with the minimum attributes, it must be given the Status *new* by the system.

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(e) The ICP can be created in the *distributor* state, without first being in the *new* state, provided there is sufficient information available and the Reconciliation Type is LE or SI.

(f) Once an ICP is created, the system must allow Distributors to update information about the ICP in the registry.

(g) The Distributor who creates the ICP can decommission the ICP if the ICP was created in error. The Distributor must give a reason for the decommissioning.

(h) When information has been added in respect of the Network Participant Identifier, POC, Reconciliation Type, Installation Type, Dedicated NSP and Distributor Loss Category Code, the system must change the Status of the ICP to *distributor*.

(i) An ICP can move from *distributor* back to *new* Status, on the removal of any required fields or reversal of the event that made the ICP Distributor-only.

(j) If the Distributor has created the ICP in error it cannot be deleted. The ICP Status must be set to *decommissioned*.

Distributor-only ICP Status transitions

1.13.5 The table below details the allowable Status transitions for a Distributor-only ICP.

Transition	Comments
New	Status set by system when the Distributor provides the ICP Identifier, Network Participant Identifier and Address
Distributor	Status set by system when the Distributor provides the ICP Identifier, Network Participant Identifier, Address, POC, Reconciliation Type code (LE or SI), Installation Type, Dedicated NSP, and Distributor Loss Category Code.
New **to** distributor	Status set by system when the Distributor adds a POC, Reconciliation Type code (LE or SI), Installation Type, Dedicated NSP and Distributor Loss Category Code.
Distributor **to** new	Status set by system when the Distributor removes the POC, Reconciliation Type code, Installation Type, Dedicated NSP or Distributor Loss Category Code from the ICP, or reverses the event that set the Status from *new* to *distributor.*

Transition	Comments
Distributor **to** decommissioned	Status set by the Distributor when the ICP has been disconnected from the network
Decommissioned **to** distributor	Status reversed by the Distributor to correct a decommissioning error
New **to** decommissioned	Status set by the Distributor during the pre-commissioning phase if the ICP was created in error
Decommissioned **to** new	Status reversed by the Distributor during the pre-commissioning phase to correct a previous error

1.14 Participants and registry roles

1.14.1 A number of participants require access to the registry to meet their Code obligations. The Authority

(a) manages the process by which participants are registered

(b) allocates identifiers to Participants and non-participant registry users

(c) allocates access to the registry in accordance with the registry access policy available at http://www.ea.govt.nz/dmsdocument/16031

1.14.2 The different roles and the individual registry responsibilities and requirements of each role are listed below.

Participant registry user role configuration

1.14.3 Each Participant registry user role can be assigned for a period defined by a start date and an end date (or blank indicating an open-ended period).

1.14.4 A Participant may perform the same role for different, non overlapping periods.

1.14.5 It is not possible for a Participant to perform both Distributor and Trader roles with the same participant identifier, even if the role periods do not overlap. A Participant however may perform an MEP role in conjunction with either a Trader or Distributor role.

1.14.6 The start date for a role cannot be changed once a Participant has responsibility for ICPs.

1.14.7 The end date may only be set to a future date, or to null (open ended)

Non-participant registry user role configuration

1.14.8 Each non-participant registry user can be assigned for a period defined by a start date and an end date (or blank indicating an open-ended period).

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1.14.9 A non-participant registry user can:

(a) carry out searches using the search criteria to locate ICP identifiers

(b) view ICPs and order reports where the ICP identifiers is known.

1.14.10 The start date for a non-participant registry user role cannot be changed

1.14.11 The end date may only be set to a future date, or to null (open ended)

Third Party Provider user role configuration

1.14.12 Each non-participant registry user can be assigned for a period defined by a start date and an end date (or blank indicating an open-ended period).

1.14.13 A Third Party Provider participant registry user can:

(a) Access the EIEP transfer hub using SFTP

(b) Interact (via the SFTP EIEP transfer hub) with Participants currently or historically fulfilling the Trader role.

(c) Interact (via the SFTP EIEP transfer hub) with Participants fulfilling the Distributor or Meter Equipment Provider roles, if authorised by the Authority.

(d) Access the Registry browser, web services functions and the standard SFTP interfaces, if authorised by the Authority.

Participant Audit Agent user role configuration

1.14.14 A Participant Audit Agent can be appointed by a participant as an agent to manage and interrogate Audit Compliance obligations on their behalf.

1.14.15 A Participant Audit Agent registry user can:

(a) Access the Registry Browser and web service functions

(b) Run Audit Compliance reporting against the participant(s) to which they have been appointed, for the roles performed by the participant which are subject to compliance; that is Trader, Distributor or MEP

(c) Interact via the standard sFTP interface

Trader Default start date

1.14.16 On direction from the Authority, a Trader may be placed in a Trader Default situation by setting of a Trader Default start date.

1.14.17 A Trader Default start date may be changed.

1.14.18 If a Trader Default start date is removed, all ICP Tender Blocks and Trader tenders for those blocks (if created) are removed.

1.14.19 Between active dates a Participant can:

- Maintain ICP data according to the role
- Gain an ICP via a switch if they are
    - fulfilling a Trader role on the switch Transfer date, and
    - are not in a Trader Default situation

1.14.20 The following role combinations are permitted

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	Network	Retailer	Neither (read only)	MEP	ATH	RM	Clearing Manager	System Operator	Complaint Commission	Admin	Authority	Third Party Provider	Metering Equipment Owner	Participant Audit Agent
Network	n/a	N	N	Y	Y	N	N	N	N	N	N	N	Y	N
Retailer	N	n/a	N	Y	Y	N	N	N	N	N	N	N	Y	N
Neither (read only)	N	N	n/a	N	N	N	N	N	N	N	N	N	N	N
MEP	Y	Y	N	n/a	Y	N	N	N	N	N	N	N	Y	N
ATH	Y	Y	N	Y	n/a	N	N	N	N	N	N	N	Y	N
RM	N	N	N	N	N	n/a	N	N	N	N	N	N	N	N
Clearing Manager	N	N	N	N	N	N	n/a	N	N	N	N	N	N	N
System Operator	N	N	N	N	N	N	N	n/a	N	N	N	N	N	N
Complaint Commission	N	N	N	N	N	N	N	N	n/a	N	N	N	N	N
Admin	N	N	N	N	N	N	N	N	N	n/a	N	N	N	N
Authority	N	N	N	N	N	N	N	N	N	N	n/a	N	N	N
Third Party Provider	N	N	N	N	N	N	N	N	N	N	N	n/a	N	N
Metering Equipment Owner	Y	Y	N	Y	Y	N	N	N	N	N	N	N	n/a	N
Participant Audit Agent	N	N	N	N	N	N	N	N	N	N	N	N	N	n/a

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Distributors

1.14.21 Distributors are responsible for creating ICP Identifiers for new ICPs and putting information about the ICP in the registry, managing the pre-commissioning process, decommissioning ICPs, and updating information about the ICPs' Network, Address and Distributor pricing. Distributors use the registry to keep track of the Traders using their network in order to bill them correctly. They need to be able to:

(a) create ICP Identifiers for new ICPs;

(b) update network connection information;

(c) update Distributor pricing information;

(d) update Address information;

(e) check metering installation details;

(f) check reconciliation information (current Trader);

(g) check unmetered load information;

(h) check Status information;

(i) locate an ICP using an address search;

(j) record when an ICP has been decommissioned;

(k) check their acknowledgements from the registry confirming whether information they provided to the registry was processed successfully or not;

(l) extract details of all ICPs currently recorded as being owned by the Distributor;

(m) extract details of all ICPs that were owned by the Distributor during a period which were also owned by a specific Trader. The information is required to calculate line charges payable by Traders (he calculation is performed outside the registry);

(n) view and extract a history of changes, including audit details, made to specific ICPs during a period;

(o) extract details of all metering installation information on their network;

(p) check notifications of changes to ICP information made by Traders;

(q) check notifications of switches indicating a change of Trader;

(r) receive CS and RR switch transaction notifications;

(s) check if they have breached any information requirements specified in Part 11 of the Code;

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(t) check for any meter certification dates that are due to expire with the next 2 months;

(u) view and download the latest NSP mapping table details;

(v) maintain, download and view their pricing and loss categories; and

(w) manage the logons, access restrictions and passwords of their own users of the registry.

Traders

1.14.22 Traders are responsible for the maintenance of Trader and Status information. Traders use the registry to keep track of the ICP for which they have accepted responsibility and to process switches. Traders need to be able to:

(a) locate an ICP using an address search facility;

(b) update unmetered load details;

(c) update reconciliation information (Profiles);

(d) update Status information;

(e) check metering installation information;

(f) check network connection information;

(g) check Distributor pricing information;

(h) check Address information;

(i) check their acknowledgements from the registry confirming information they provided to the registry was processed successfully or not;

(j) extract details of all ICPs that they are recorded as having accepted responsibility for;

(k) extract details of all ICPs that they were responsible for during a period;

(l) extract details of all metering installation information at ICPs where they are the Trader;

(m) receive monthly reports used for reconciliation purposes – ICP days report, HHR ICP list and loss factors report;

(n) view and extract a history of changes, including audit details, made to specific ICPs over a period;

(o) check notifications of changes to ICP information made by Distributors relating to ICPs they are recorded as having accepted responsibility for;

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(p) send and receive switch requests, acknowledgements, transfer notices, withdrawal requests, withdrawal acknowledgements, switch read requests and switch read acknowledgements;

(q) check when switching events are due to be sent to the registry for switches that are yet to be completed;

(r) check if they have breached any information requirements specified in Part 11 of the Code;

(s) check for any meter certification dates that are due to expire with the next 2 months;

(t) view and download the latest NSP mapping table details;

(u) view and download pricing and loss categories per Distributor; and

(v) manage the logons, access restrictions and passwords of their own users of the registry.

(w) Check for proposed MEP switches that have not been responded to with an MN message.

Metering Equipment Providers

1.14.23 Metering Equipment Providers are responsible for maintaining an ICP's metering installation information from the Event Date of their first population of metering event data until the Event Date of the next MEPs first population of their metering event data, if there is one. MEPs need to be able to:

(a) locate an ICP using an address search facility;

(b) check and maintain metering installation details online and by file;

(c) check Trader information;

(d) check unmetered load details;

(e) check Status information;

(f) check network connection information;

(g) check Distributor pricing information;

(h) check Address information;

(i) extract details of all ICPs that they are currently recorded as being the responsible MEP;

(j) extract details of all metering installation information at ICPs where they are the responsible MEP;

(k) check for any meter certification dates that are due to expire within the next 2 months;

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(l) check if there have been any breaches, by their company, of any metering maintenance time limits as specified by Part 11 of the Code;

(m) check if there have been any breaches, by their company, of any notice delivery time limits as specified by Part 11 of the Code;

(n) view and extract a history of changes, including audit details, made to specific ICPs during a period;

(o) check notifications of changes to ICP information made by Distributors and Traders to ICPs where they are the responsible MEP;

(p) receive notifications of loss of MEP responsibility;

(q) submit MEP responsibility notices via the registry when a Trader proposes that they take responsibility for an ICP;

(r) receive CS and RR switch transaction notifications; and

(s) manage the logons, access restrictions and passwords of their own users of the registry.

(t) Check for proposed MEP switches that have not been responded to with an MN message.

Electricity Authority

1.14.24 The Authority requires access to ICP information to check the accuracy of the information and participants' compliance with the Code. It needs to be able to:

(a) locate an ICP using an address search facility;

(b) check metering installation details;

(c) check unmetered load details;

(d) check Trader information (Trader and Profile information);

(e) check Status information;

(f) check network connection information;

(g) check Distributor pricing information;

(h) check Address information;

(i) check if there have been any breaches of any switching or event maintenance timeframes set out in the Code. The event maintenance compliance report is required to be delivered to the Authority by 1600 hours on the first business day of each calendar month;

(j) extract details of all ICPs currently recorded as being owned by or the responsibility of a particular participant;

(k) extract details of all ICPs that were owned by or the responsibility of a participant during a period;

(l) view and extract a history of changes made to specific ICPs over any given period;

(m) view and download the latest NSP mapping table details;

(n) check for any meter certification dates that are due to expire with the next 2 months;

(o) view and download pricing and loss categories per Distributor; and

(p) manage the logons, access restrictions and passwords of its own users of the registry.

Reconciliation Manager

1.14.25 It is the responsibility of the Reconciliation Manager to obtain information from the registry for use in the reconciliation process and to maintain and publish the NSP mapping table used in the registry. It is each Distributor's responsibility to notify the Reconciliation Manager of changes to its NSPs and associated information such as balancing areas.

1.14.26 Clause 30(2) of Schedule 11.1 of the Code requires the publication of an updated schedule of all NSP identifiers and any supporting information within 1 business day of any change being notified to the Reconciliation Manager.

1.14.27 The Reconciliation Manager therefore needs to be able to:

(a) receive monthly reports – ICP days report, HHR ICP list, loss factors report and the latest NSP mapping table details;

(b) have a facility to receive and update NSP information provided under Part 11 of the Code;

(c) have an online viewing and download facility of the NSP mapping table information to be provided by the registry for all registry users;

(d) check if it has breached any requirements specified in Part 15 of the Code; and

(e) view and download pricing and loss categories per Distributor.

Clearing manager, system operator, and Reconciliation Manager

1.14.28 If requested by the clearing manager, system operator, or Reconciliation Manager, the registry is required to deliver an active NSPs report to the by

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1600 hours on the first business day the calendar month following the calendar month in which the request was made.

1.14.29 The system operator may request a report setting out every switch made, the effect of which is that a Trader has commenced trading at an NSP or a Trader has ceased trading at an NSP.

Registry Manager

1.14.30 The registry manager is required to maintain the static tables that are part of the registry system, such as the profiles of Traders, Distributors, and Metering Equipment Providers.

1.15 User interfaces

1.15.1 The registry is an internet-based system with two main user interfaces to the system: an online interface for single updates; and a batch interface for multiple updates and reports. The functionality of both interfaces is identical unless otherwise stated.

1.15.2 There is a new interface mechanism being introduced to provide access to ICP information via Web Services however the functionality is limited (see section 1.18.

Current online interface

1.15.3 The current online interface is via a standard web browser or, if preferred by the participant, by means of a proprietary web client application available from the present registry supplier.

Current batch interface

1.15.4 Currently, the batch interface consists of CSV formatted files, and for Audit Compliance reporting xlsx formatted files, sent to and from the registry via SFTP. The registry maintains SFTP directories for every participant from which it receives input files and to which it delivers output files. It is up to the user to access these files and transfer them to their own systems.

The Authority maintains its own data warehouse and may request the Registry to transfer a copy of the output file to their data warehouse. Any transfers to the Authority Data Warehouse are in addition to delivery to the Registry SFTP server. See Appendix 9 for the specification of the source of the files to be transferred; and their destinations to the different storage options within the Authority's data warehouse.

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1.15.5 The files currently sent to the registry by users are:

(a) ICP event maintenance files;

(b) report requests; and

(c) switching protocol messages.

1.15.6 The files currently received by users from the registry are:

(a) acknowledgements of event updates (as a result of the processing of ICP event maintenance files and online updates);

(b) notifications of updates;

(c) switching protocol messages; and

(d) reports.

File naming convention

1.15.7 There is a file naming convention employed by users sending report and maintenance requests to the registry when using the batch interface. The registry uses a file naming convention when delivering files to users. These conventions are used by users' automation systems to identify the types of information the files contain and the processing date/time. Any new file naming convention must ensure files have unique names and are delivered to the correct party.

Batch file headers

1.15.8 Currently, the first record in every file sent to and received from the registry is a comma separated 'header' record which identifies the type of information the file contains plus such information as the number of detail records, the sender, the date/time sent and reference information. Note that xlsx formatted output files will contain a header per sheet.

1.15.9 Any Data Input and Data Output formats detailed in this document are for each detail row of a CSV formatted (batch) file and where each attribute is comma separated, unless output is specified as xlsx format. The online input forms will contain the same business attributes and apply the same validation however the user interface is different and more user friendly.

1.15.10 Refer to Appendix 4 for batch file Header specification.

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Batch selection criteria

1.15.11 The current process used to provide selection criteria for report requests is to list the selection criteria immediately after the 'header' in the report request file using a specified format.

Back-office systems

1.15.12 It should be noted that currently all the back-office automation systems used by participants have been developed around the above architecture, conventions and file structures. There are no direct system-to-system interfaces at present other than the Web Services facility (see 1.18).

Errors

1.15.13 When errors are reported to users by the system, the information provided is either sufficiently detailed for users to be able to identify and rectify the problem easily (online) or an error code is provided (batch). All error codes, error descriptions are published and kept up to date.

1.16 Security

1.16.1 Access to the registry is restricted to Authority-approved parties. The approval process is co-ordinated by the Authority and communicated to the registry, Reconciliation Manager and Clearing Manager. Participants are assigned a unique Participant Identifier that is communicated to those market operation service providers for inclusion in their systems.

1.16.2 Participants are required to specify their intended roles as part of the approval process. The roles that are of interest to the registry are the roles of Trader, Distributor and Metering Equipment Provider. A participant's role dictates what registry functions are to be made available to the participant. It is possible for one participant to have more than one role. The combinations supported using one Participant Identifier should be:

Primary role	Distributor	Trader	Metering Equipment Provider
Distributor	Y	N	Y
Trader	N	Y	Y
Metering Equipment Provider	N	N	Y

1.16.3 Participants with the Trader role must specify the profiles they will be using. Participants with the Distributor role must specify the unique two-character code that they will use when creating new ICP Identifiers.

1.16.4 Participants are also required to specify the user interfaces they will be using which will need to be set up by the Registry Manager. For the browser, access to the registry is managed by a supervisor designated by the participant. There must only be one supervisor logon set up for a participant and it cannot be a web services only logon.

1.16.5 The passwords of the initial participant supervisor and to the private SFTP folders; as well as the SFTP User Id are sent directly by the Registry Manager to the participant supervisor in an encrypted form. The initial participant supervisor password will be a one-time-use password.

1.16.6 The participant supervisor on behalf of their own organisation is required to:

(a) assign new logons with an initial one-time-use password and record an associated email address;

(b) identify new or existing logons for accessing the Registry via Web services only. Logons identified as web services only cannot be used to access the browser, cannot act as agents and their passwords do not expire;

(c) assign access rights to logons. Access rights permit users access to one or more of the following functions:

(i) read-only (online functions);

(ii) submit ICP event information;

(iii) submit particular switching messages; and

(iv) submit particular reports;

(d) reset the passwords of locked-out logons;

(e) disable and re-enable logons; and

(f) assign an agent to act on the participant's behalf

1.16.7 Other security features are:

(a) The registry can identify individual participant logon identities and log the identity against updates made online.

(b) A participant may nominate another party to act on its behalf (an agent). The system must be able to identify the participant an agent is acting for when evaluating whether that agent is allowed to perform an update.

(c) A single logon supports the role of agent, and the participant’s role.

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(d) A single logon allows a participant to perform more than one role, ie if a participant is both a Distributor and a Metering Equipment Provider then they able to input/maintain a single ICP at which they have both roles or just one of those roles.

(e) The system locks-out users after three consecutive invalid attempts. An alert is sent to the Registry Manager for further investigation when a user has 5 lockouts within 4 hours.

(f) Locked out users and users that have forgotten their password can request that the system sends a new one-time-use password to their previously stored email address.

(g) Users must accept the terms in the Authority's Registry Access Policy before they can use the Registry from a web browser. Acceptance is required one time per user Id.. For web services only logons, their supervisors must accept them on their behalf.

(h) Users must change their passwords after a set number of days*

(i) Users with a password status of Reset cannot access the Registry via web services.

* Except for web services only logons

1.17 EIEP Exchange

1.17.1 The EIEP Transfer is a central secure delivery mechanism for all EIEP formats using SFTP encrypted transfer. Access is available through the online and batch interfaces (SFTP only), and is restricted to approved participant organisations. Authentication relies upon participants' existing Registry access credentials.

1.17.2 The following sub-processes are related to the EIEP Exchange.

Sub-Process	Description
EI-010 EIEP Transfer Settings	Supervisor configuration of optional EIEP delivery and acknowledgement parameters.
EI-020 Upload and Download	Online send and receipt of EIEP files.
EI-030 EIEP Transfer Files	EIEP file delivery from a sender's SFTP outbox to a recipient's inbox
EI-040 Maintain EIEP Transfer Permissions	Participants agree to share EIEP information they send or receive with the Authority.

EI-050 Maintain EIEP Transfer Restrictions	Maintenance of an optional set of participants with restrictions to send and/or receive EIEP files associated with an EIEP File Type Code
QU-040 View Registry Audit Data	Search and view details of EIEP transfer receipts, deliveries, acknowledgements and notifications.
SD-050 Maintain email group	Supervisor configuration of email contact addresses.
PR-190 Produce EIEP statistics	Monthly statistics representing the number and volumes of files sent and received by the EIEP transfer hub

1.18 Web Services

1.18.1 Access to address search, ICP event history and ICP details enquiries are provided via Web Services. The facility provides Traders with a more efficient way for their Customer Service Representatives to access the Registry.

1.18.2 Access to notifications is provided for Traders, Distributors and MEPs. The facility allows these participants to obtain their ICP notifications in batches from the Registry.

1.18.3 Access to ICP planned service interruption notification (NP-080). The facility allows a participant with ICP responsibilities; that is a Trader, Distributor or MEP, to poll the Registry and receive a response containing ICP planned service interruption information

1.19 Trader default process

1.19.1 The objective of the Trader default process in the Registry is to facilitate the transfer of Trader responsibility for ICPs from a Trader in a Trader Default situation to a non-defaulting Trader. The transfer of responsibility may be performed using:

(a) The standard customer switching process; or

(b) The trader default process.

Trader default communications

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Traders must provide an email contact address list for the Trader Default email group. The email addresses are used for the delivery of important information and documentation pertaining to a Trader Default situation including

(a) Tender documentation
(b) Tariff warnings for supplied trader bids
(c) Error alerts for supplied trader bids
(d) Notification when the ICP allocation process has completed
(e) Notification where a traders ICP allocation has been adjusted

The Trader Default email group is maintained using Maintain Email Groups (SD-050).

Terminology used in the Trader default process

1.19.2 The Trader default process uses the following terminology:

(a) **Tender Block**: is a set of a defaulting Trader's ICPs that are grouped together according to shared characteristics at NSPs, to be bid for by non-defaulting Traders.

(b) **Tender Round(s)**: a period in which non-defaulting Traders may submit bids for volumes of ICPs from Tender Blocks. At the end of each Tender Round, all bids are stored for use in the Allocation process. No ICPs are allocated to a bidder at the end of any Tender Round. Subsequent Tender Rounds are only to elicit additional bids for unsubscribed or undersubscribed Tender Blocks.

(c) **Mandatory Assignment**: the process by which ICPs are assigned by the Authority during an event of trader default. These ICPs are assigned in accordance with the Mandatory Assignment rules within the Allocation Process**.**

(d) **Mandatory Assignment Block**: a set of a defaulting Trader's ICPs that are grouped together according to shared characteristics for assignment by the Authority during an event of trader default.

(e) **Allocation Process**: a single process performed after the final Tender Round that identifies specific ICPs to be allocated to non-defaulting Traders. The process involves:

(i) selecting (allocate) individual ICPs to satisfy each non-defaulting Trader's bid. Bids from the earliest Tender Round and lowest tariff will be allocated first. ICPs are allocated randomly by sorting them on the ICP checksum; then

(ii) performing mandatory assignment (allocation) of ICPs of under-subscribed Tender Blocks remaining after all bids have been processes. The mandatory assignment process allocates any remaining ICPs to non-defaulting Traders in proportion to the Trader's market share at the NSP.

This process does not switch (transfer responsibility) for these allocated ICPs. Switching is performed by the Registry in a separate operation after the results of the allocation process have been reviewed by all non-defaulting Traders.

(f) **Allocation Identifier**: Identifier that indicates whether the ICP has been allocated from a Tender Round or via mandatory assignment.

(g) **Unpublished Tender Round**: A Tender Round for which Tender Blocks have been created, but tender documentation has not yet been sent to Traders.

Tender process

1.19.3 The Registry Manager, on instruction from the Authority, delivers tender information to Traders. This information includes instructions from the Authority and tender documents that detail the Tender Blocks available to bid for. Tender information is delivered to non-defaulting Traders via the EIEP transfer hub.
NOTE: TD-040 delivers Tender Bid Documentation to participants in a comma separated file. If opened using the Excel spreadsheet application any cells containing integer values longer than 11 characters will automatically convert to scientific notation. To return these cells to text:

- select the affected cell
- right click and select "Format Cells…"
- Select either number with zero decimal places, or custom of type 0

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This behaviour is not exhibited where a file is opened in text editors or cloud based spreadsheet applications.

1.19.4 In the tender process there may be a number of Tender Rounds (initially set to 2). Each Tender Round has an open and close time which is notified to Traders. Open and close times are notified to the Registry Manager by the Authority. The open time can only be changed on instruction from the Authority and if no bids have been received. The close time can be changed prior to the initial close time, but only on instruction from the Authority.

1.19.5 Traders may submit bids against individual Tender Blocks in each Tender Round. Trader's bids are for a volume of ICPs not for specific ICPs.

1.19.6 The Tender Blocks in each subsequent Tender Round include:

- The remaining volumes of ICPs from Tender Blocks that received insufficient bids in previous Tender Rounds. These volumes will be adjusted for cases where the ICPs have switched away from the Defaulting Trader, or are currently in the process of being switched away, or where the ICPs status is no longer Active or Inactive.
- ICPs that were not included in prior Tender Rounds but now qualify for allocation.

N.B. Volumes already bid on in previous Tender Rounds are not included in subsequent Tender Blocks.

Allocation process (including Mandatory Assignment)

1.19.7 The allocation process will only be run once, once the final Tender Round has closed.

1.19.8 On notice from the Authority and prior to the allocation process commencing, non-defaulting Traders should provide a list of ICP characteristics, at NSP level, that the non-defaulting Trader cannot accept. See TD-020. If this list is provided, it will feed into the mandatory assignment process to ensure that a Trader is assigned ICPs that the Trader can accept (based on the characteristics of the ICPs). Please note that TD-020 only covers the ICP characteristics that the Authority considers is acceptable not to be assigned to a Trader during an event of trader default.

1.19.9 On completion of the allocation process and on instruction from the Authority, the Registry Manager will provide non-defaulting Traders with the results of the ICP allocation from tender round(s) and any ICPs that have been allocated through the mandatory assignment process. Non-defaulting Traders will be

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given the opportunity to review the results and advise the Authority on whether the ICPs assigned through mandatory assignment may pose a serious threat to the non-defaulting Trader's financial viability.

1.19.10 Any non-defaulting Traders who consider that the transfer of ICPs through mandatory assignment may pose a serious threat to the non-defaulting Trader's financial viability will enter into discussions with the Authority. As a result, those ICPs may be re-assigned. However, this will be determined on a case-by-case basis.

1.19.11 If ICPs are re-assigned by the Authority, the Authority will contact the non-defaulting Trader(s) to which the ICPs have been assigned.

1.19.12 Switching of allocated ICPs. On instruction from the Authority, the Registry Manager will initiate the automatic switch process to change responsibility of the ICPs to the allocated Traders (Authority assigned and successful bidders from the tenders) provided the status of the ICP is still Active or Inactive (excluding 'Inactive ready for decommissioning') and the Trader responsibility still resides with the defaulting Trader.

N.B. The standard switching process will not be inhibited during this period and customer switching of the defaulting Trader's ICPs may continue. However, the Registry will prevent customer switching to the defaulting Trader and withdrawals that would result in the defaulting Trader regaining an ICP.

1.20 Email groups

Email groups are email distribution lists used by the Registry, Registry Manager or the Authority for communicating with participants.
Each email group contains a list of email contact addresses per participant. An email group is used either by:

- A Registry function that requires information to be sent from the Registry to a number of contacts of a participant, via email. The current Registry functions that require email notifications to be sent are:
    - EIEP delivery acknowledgements and confirmations,
    - various Trader Default process notifications, and
    - metering alerts
- The Registry Manager or Authority to correspond with Participants. The current Registry functions that require email notifications are:
    - Lockout Alert – specifically for the Registry Manager to be notified when a User Id is repeatedly locked out in a defined time period

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- SFTP Transfer Failure – specifically for the Registry Manager to be notified when EIEP files cannot be transferred to the Authority's SFTP server; which is one of the storage options of the Authority's data warehouse.
- Upload Failure – specifically for the Registry Manager to be notified when batch or EIEP files cannot be uploaded to the Authority's cloud storage; which is one of the storage options of the Authority's data warehouse.

It is recommended that email groups are setup, as a minimum, for the email group named:

- EIEP – the default email group for notifications by email of the delivery of EIEP files to a participant's SFTP EIEP inbox or outbox.
- Trader Default – which is specifically for traders and is the email group for notifications of all email communications relating to Trader Defaults.
- Trader Default Network – which is specifically for distributors, and is the email group for notifications of all email communications relating to Trader Defaults
- Metering Alerts – the email group for email notifications of alerts relating to metering issues (see NP-060).
- Outages – the email group for notifications sent by the Registry help desk or the Authority advising of outages to Registry services.
- Saves Protection – the email group for notifications sent by the Registry help desk or the Authority providing information on the saves protection scheme.
- Lockout Alert – the email group for reporting instances of repeated lockouts.
- SFTP Transfer Failure – the email group for reporting EIEP file transfer failures to the Authority's SFTP server.
- Upload Failure - the email group for reporting batch and EEIP file upload failures to the Authority's cloud storage.

Traders and agents specifically use the **EIEP13** formats. Participant in this role who want to receive EIEP notifications of **EIEP13A/B/C** files to an address other than the default EIEP address should also set up the following groups:

- **EIEP13A** and **ICPCONS** – the default e-mail groups for notifications by e-mail message of the delivery of **EIEP13A** files to a participant's SFTP EIEP inbox or outbox.

- **EIEP13B** and **ICPSUMM** – the default e-mail groups for notifications by e-mail message of the delivery of **EIEP13B** files to a participant's SFTP EIEP inbox or outbox.

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- **EIEP13C** and **REQCONS** – the default e-mail groups for notifications by e-mail message of the delivery of **EIEP13C** files to a participant's SFTP EIEP inbox or outbox.

See SD-050 for further details.

1.21 Contact Group Register

Participants are often required to talk outside of the Registry to resolve issues. To help quickly identify the correct person with the background and tools to resolve an issue, the Registry provides a Participants Contact Group Register.

Contact groups are assigned to predefined categories agreed with the Authority and defined as static data. Each category has an access policy of either public or private. Public access means available to any Registry user. Private access means restricted to the Authority, the Registry Manager and the users of the participant to which the contact group belongs.

Supervisor users are responsible for the creation and maintenance of contact group details for their own participant company.

The Registry will initially provide the following contact group categories:

Contact Group Category	Description	Access Policy
Primary	Primary Contact for general information or inquiries	Public
Trader Switching	Contact for information concerning Trader ICP switching	Public
Distributor Switching	Contact for information concerning Distributor switching	Public
Field Services	Contact for information concerning field services	Public
Metering Queries	Contact for information concerning metering	Public
Trader Default	Contact for information concerning trader default situations	Private

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On direction from the Authority the Registry Manager may create additional categories.

For new participants, the Registry Manager will create the initial contact detail records for the Primary and Trader Default categories using the information provided on the Registry access application form. See SD-060 for further details.

1.22 Reports and Enquires Submission

Participants must be able to request reports from the registry. A single report request can be submitted by the one of following types of submissions:

a) Via the web browser, where the request is placed in the report processing queue. The request can be:
   i. Processed immediately, or at a future date and time.

   ii. Scheduled to recur automatically by the system using the report schedule instructions maintained by participants (see MP-030). These instructions describe the report parameters and the regularity when the report will be run.

b) Via SFTP, where the request is processed immediately.

Participants must be able to submit enquires related to ICP events and notifications via web services (see section 1.18), where the request is processed immediately

2. Process Maps

Figure 3: Process map – ICP event Distributor, Trader, and MEP maintenance

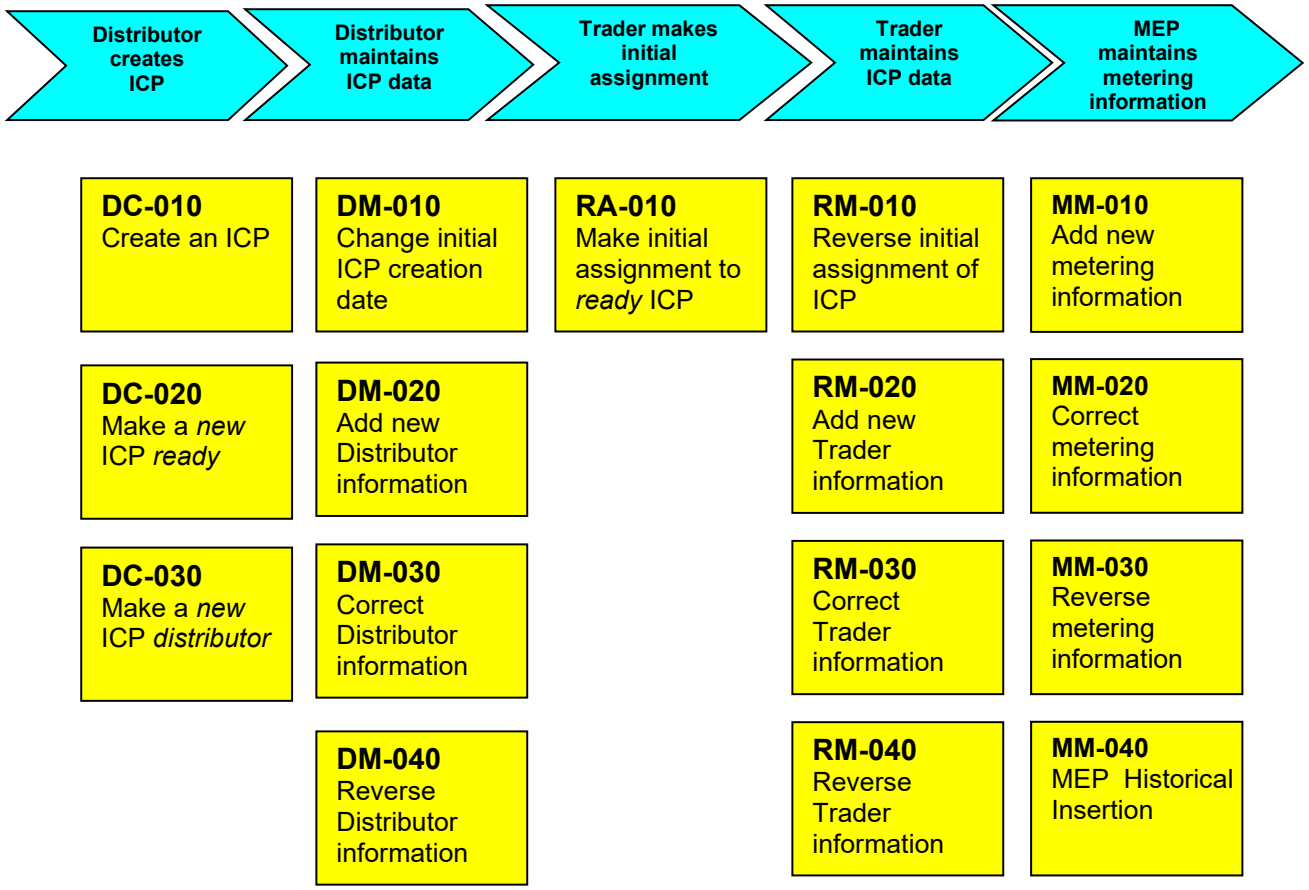

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Figure 4: Process map – switching (Trader and MEP)

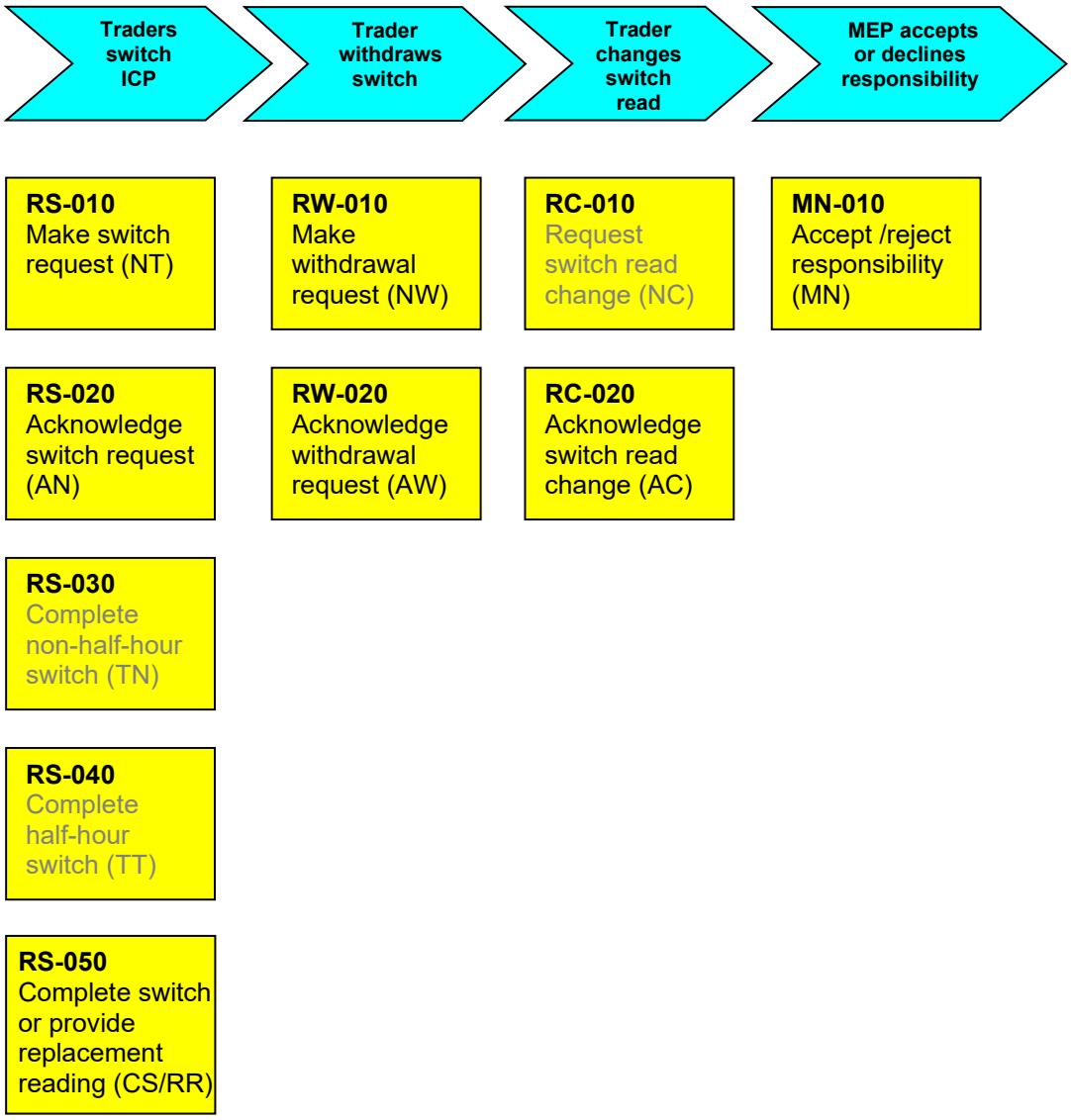
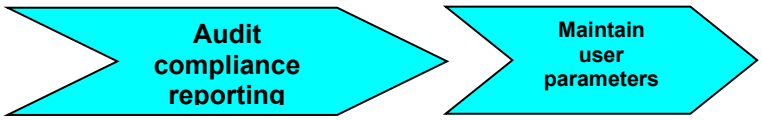


Figure 5: Process map – reporting, parameters, notifications and queries



AC-020
Produce Audit Compliance report

MP-010
Set switching message receipt times

MP-020
Set notify parameters

MP-030
Setup report schedules parameters

Figure 6: Process map – maintaining static data and access security

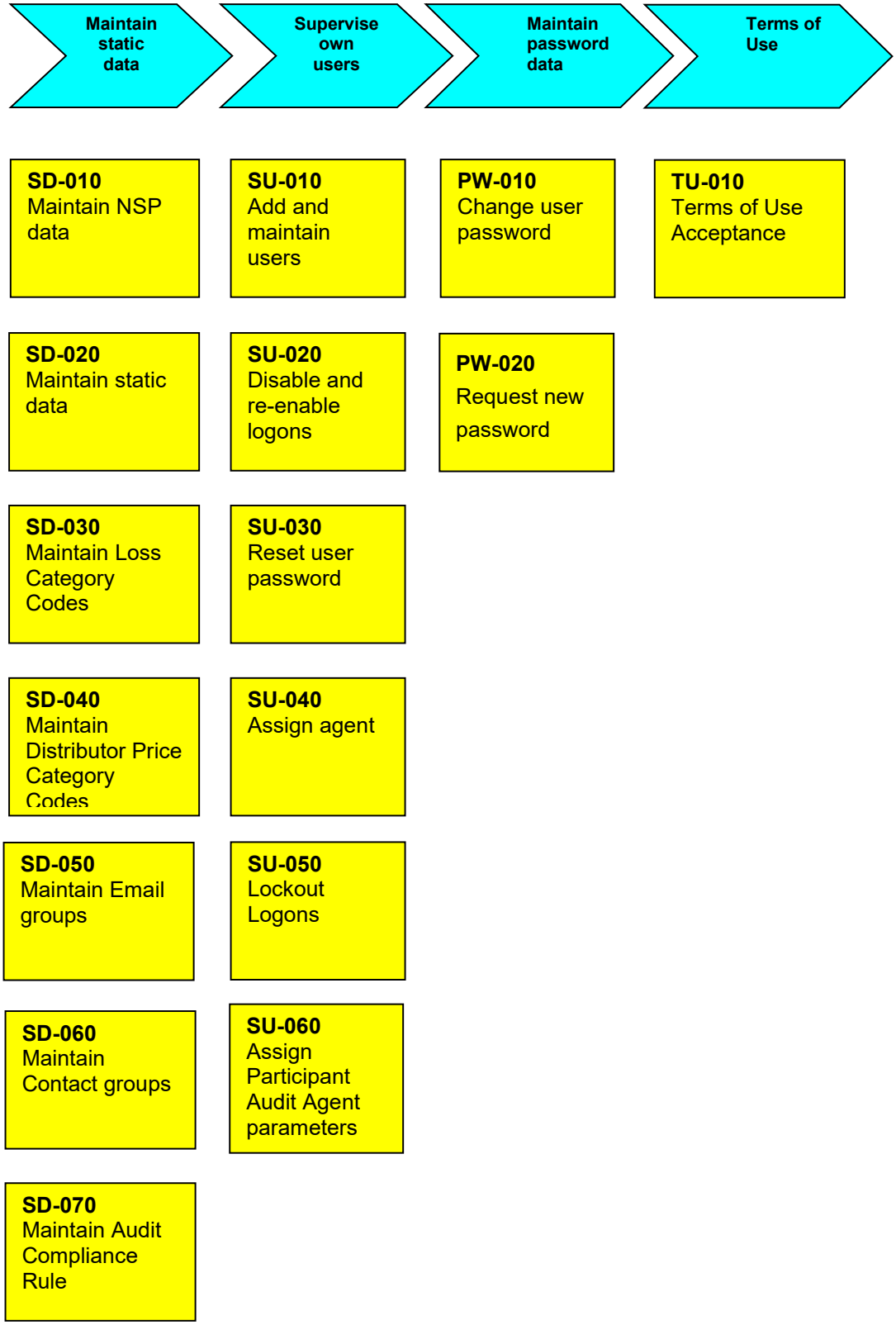


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Figure 7: Process map – publish information

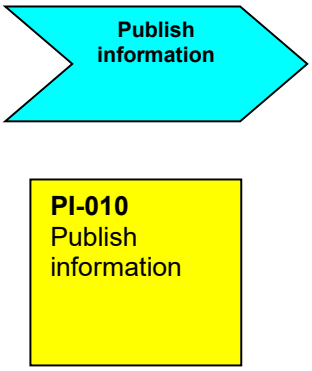

Figure 8: Process map – EIEP configuration, upload, download, transfer and report

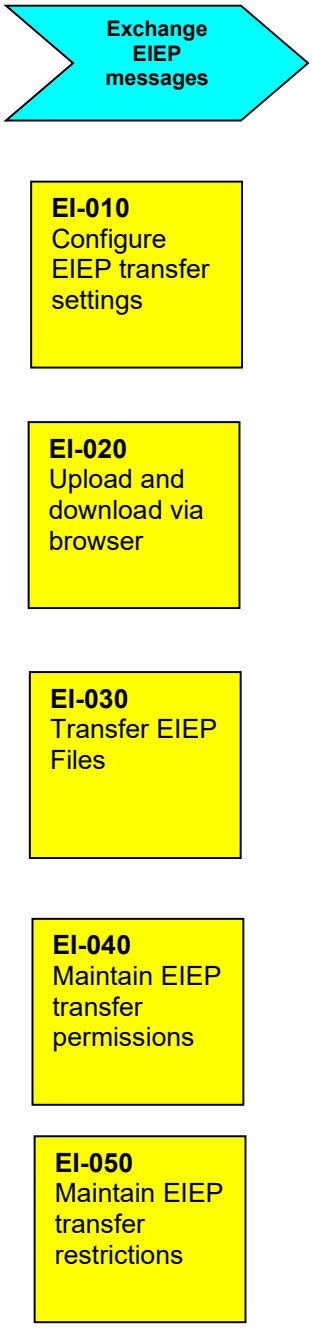

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Figure 9: Process map – Trader Default

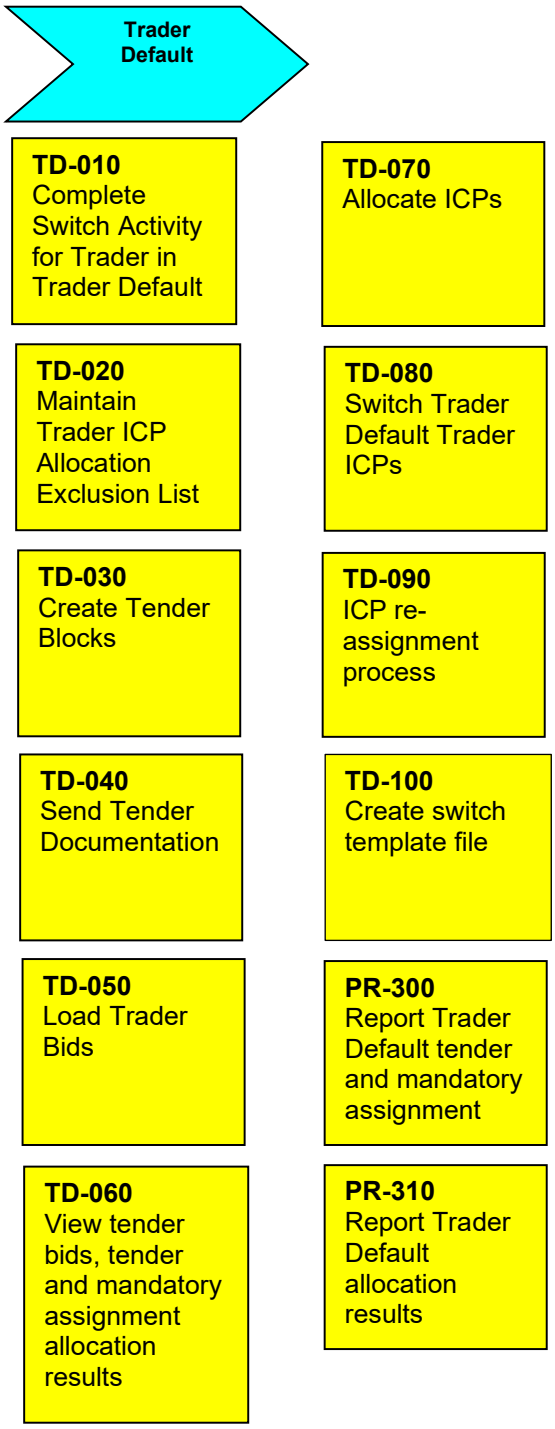
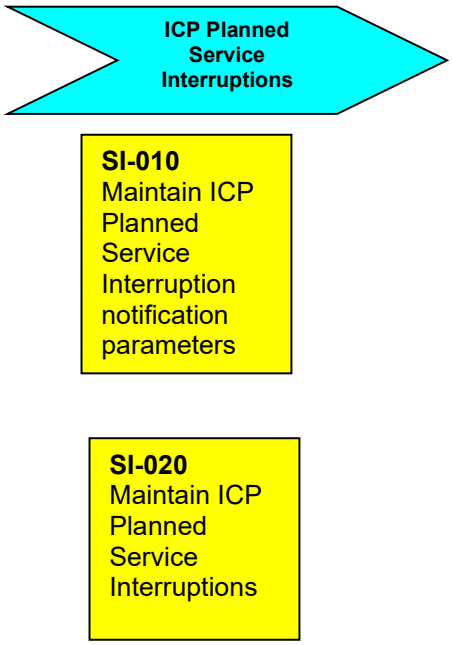


Figure 10: Process map – ICP Planned Service Interruption



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3. Sub-processes

3.1 ICP event maintenance – Distributor

Sub-process:	**DC-010 Create an ICP**
Process:	Distributor creates an ICP Identifier for an ICP and manages the Status of the ICP
Participants:	Distributors
Code references:	Clause 1(1) and clauses 11.2A to 11.8, and clauses 7(8), 7(9) and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	DC-020

Description:
A Distributor must create an ICP Identifier for certain points of connection and provide information about the ICP to the registry. Depending on how much and what information the Distributor enters, the system will either set the Status of the ICP to be *new* or *ready* or *distributor*.

Business requirements:

1. Only Distributors or their agents can create ICP Identifiers for ICPs.
2. The system must determine the correct Status and type to assign to the ICP from the information provided by the Distributor.
3. In order for the ICP to have the *new* Status, the Distributor must enter values for at least the ICP Identifier, Network Participant Identifier and Address attributes.
4. In order for a Standard ICP to be created on the system with *ready* Status, the Distributor must enter values for at least the ICP identifier, Network Participant Identifier, Address attributes, POC, Dedicated NSP, Installation Type, Reconciliation Type (not LE or SI), Distributor Price Category Code, Distributor Loss Category Code and Proposed Trader Participant Identifier. For Installation Types of 'B' or 'G' the Generation Capacity and Fuel Type is also required.
5. In order for a Distributor-only ICP to be created on the system with *distributor* Status, the Distributor must enter at least the ICP Identifier, Network Participant Identifier, Address attributes, POC, Dedicated NSP, Installation Type, Reconciliation Type (LE or SI) and Distributor Loss Category Codes.
6. Network Participant Identifiers must be valid for the Distributor by reference to the NSP mapping table.
7. Network Participant Identifier and POC combinations must be a valid NSP combination for the Distributor as the NSP owner.
8. A Network, Address and Status event must be generated and all of them must have the same Event Date, which will be deemed to be the creation date for the ICP.

9. Data inputs when a Pricing event is generated for an ICP with a *ready* or *distributor* Status, it must have an Event Date that is on or after the ICP creation date.
10. A Proposed Trader, if known, is an affected party for notification purposes.

Data inputs:			
Attributes input	**Format**	**Mandatory/ optional**	**Comments**
Record Type	Char 3	M	Must be “DET”
ICP Identifier	Char 15	M	
Network event:			
Network Event Date	DD/MM/YYYY	M	
Network User Reference	Char 32	O	
Network	Char 4	M	Valid Participant Identifier for Distributor.
POC	Char 7	O	Valid POC for Distributor.
Reconciliation Type	Char 2	O	Valid Reconciliation Type for Distributor and ICP type.
Dedicated NSP	Char 1	O	
Installation Type	Char 1	O	Valid type [L, G, or B].
Proposed Trader	Char 4	O	Valid Trader Participant Identifier.
Unmetered Load Details – Distributor	Char 50	O	
Shared ICP List	List	O	For ICPs across which unmetered load is shared (Shared Unmetered ICPs see section 1.5), the list will contain the ICP identifiers of each ICP separated by a space. For Standard ICPs with a relationship to Shared Unmetered ICPs (across which unmetered load is shared), this will contain the ICP Identifier of the Shared Unmetered ICP.
Generation Capacity	Numeric 6.2	M/O	Generation nameplate capacity in kW. Only required where the Installation Type is ‘B’ or ‘G’. Maximum Generation Capacity that may be supplied is 999999.99

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Fuel Type	Char 15	M/O	A valid Fuel Type. Only required where the Installation Type is 'B' or 'G'. A list of valid Fuel Types is stored in the Registry reference tables. See SD-020.
Initial Electrically Connected Date	DD/MM/YYYY	O	Date the ICP was first electrically connected. Optional. Cannot be a future date nor can it be prior to the creation date of the ICP. *Note to distributors*: It should be >= Event Date of the *Ready* status as a Trader cannot insert an initial assignment prior to the *Ready* Event Date, however, the Registry will not validate it to be so.
Direct Billed Status	Char 11	O	Indicates who, out of the Distributor or Trader, directly bills the customer for the lines charges. Valid values are: 'Retailer', 'Distributor', 'Neither', 'Both', 'TBA' and NULL.
Direct Billed Details	Char 60	O	Contains other information relating to direct billing arrangements such as commencement or cessation dates. Optional. Free text.
Reversal Indicator - Network Event	Char 1	O	Used only in DM-040, R or blank
Pricing event:			
Pricing Event Date	DD/MM/YYYY	M/O	Mandatory if any attribute in the event is input.
Pricing User Reference	Char 32	O	
Distributor Price Category Code	Char 50	O	
Distributor Loss Category Code	Char 7	O	
Distributor Installation Details	Char 30	O	
Chargeable Capacity	Numeric 7.2	O	Maximum Chargeable capacity that may be supplied is 9999999.99

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Reversal Indicator - Pricing Event	Char 1	O	Used only in DM-040. R or blank
Address event:			
Address Event Date	DD/MM/YYYY	M	
Address User Reference	Char 32	O	
Physical Address Unit	Char 20	O	
Physical Address Number/ RAPID Number	Char 25	O	
Physical Address Street	Char 30	M/O	Mandatory if Property Name not input.
Physical Address Suburb	Char 30	M/O	Mandatory if Town not input.
Physical Address Town	Char 30	M/O	Mandatory if Suburb not input.
Physical Address Post Code	Numeric 4	O	
Physical Address Region	Char 20	M	
Address Property Name	Char 75	M/O	Mandatory if Street not input.
GPS_Easting	Numeric 7.3	M/O	The easting location. Optional but required if GPS_Northing is provided Maximum value 9999999.999 New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections).
GPS_Northing	Numeric 7.3	M/O	The northing location. Optional but required if GPS_Easting is provided Maximum value 9999999.999 New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections).
Reversal Indicator - Address Event	Char 1	O	Used only in DM-040. R or blank.

Example:
HDR,RQNETMAINT,POCO,RGST,9/07/2007,23:57:59,1,update an ICP
DET,99999999999AB123,1/01/2009,NetworkUserRef,NETA,ABCD123,GN,N,B,RETA,UnmeteredDetail,,B,wind,1/01/2009,Both,OptionalField,,1/01/2009,PricingUserRef,Pcat1,Lcat1,InstallDet,1234567.12,,1/01/2009,AddressUserRef,Unit1,678,Perkins,Ohau,Tekapo,7797,Canterbury,White House,1234567.123,57.6,

Processing:

System

1. Validates the attributes and checks their dependencies. The minimum attributes required for the creation of an ICP with a Status of *new* are:
   - a valid ICP Identifier (refer section ICP Attributes); and
   - an Address; and
   - a Network Participant Identifier (part of the NSP identifier) with an associated Event Date.

   More attributes than those above may be supplied and the ICP will still be created with a Status of *new* but when **all** of the following attributes (together with their appropriate Event Dates) are provided, then the ICP will be created with a Status of *ready* or *distributor* (depending on the Reconciliation Type input):
   - POC;
   - Reconciliation Type;
   - Dedicated NSP
   - Installation Type;
   - Proposed Trader (not required for Distributor-only ICPs);
   - Distributor Price Category Code (not required for Distributor-only ICPs); and
   - Distributor Loss Category Code.
   - Generation Capacity (not required for Installation Type of L).
   - Fuel Type (not required for Installation Type of L)
2. Generates a Network event and an Address event using the attributes supplied.
3. If any pricing information is supplied, generates a Pricing event.
4. Generates a Status event with the appropriate Status and an Event Date that is the same as the Network event.
5. Completes the audit trail information for each event.
6. Generates notifications to the Distributor and the Proposed Trader (Standard ICPs only).
7. Generates acknowledgements to the Distributor for each event.

Data outputs:
With the minimum attributes, an ICP with a Network event, Address event, Status event and associated audit trail information. If more than the minimum attributes are provided, that include any from the Pricing event, then the ICP will be created with an additional Pricing event. Notifications. An acknowledgement for each event.

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Sub-process:	**DC-020 Make a new ICP ready**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.2A, 11.6, 11.7 and 11.8, and clauses 7 and 12 to 20 of schedule 11.1 of the Code
Dependencies:	

Description:

A Distributor progressively provides information about an existing Standard ICP in the *new* state to the registry until the system has sufficient information to change the Status to *ready*.

Business requirements:

1. Only Distributors or their agents must provide information required by clause 7 of schedule 11.1 of the Code in respect of ICPs.
2. At the pre-commissioning stage, the ICP Status must be a system-assigned attribute and must not be able to be set by a Distributor.
3. The combination of the values for the Network Participant Identifier and POC must be a valid combination in the NSP mapping table for the Distributor as the NSP owner.
4. In order for a Standard ICP to be created on the system with *ready* Status, the Distributor must enter at least information about the ICP Identifier, Address, Network Participant Identifier, POC, dedicated ICP, Installation Type, Reconciliation Type (not LE or SI), Distributor Price Category Code, Distributor Loss Category Code and Proposed Trader. For Installation Types of 'B' or 'G' the Generation Capacity and Fuel Type is also required.
5. The Pricing event generated must have an Event Date that is on or after the ICP creation date.
6. The Trader proposed as Proposed Trader must be classed as an affected party for notification purposes.

Data inputs:

Sufficient attributes (note that the Address event is assumed to be present):

- Network Participant Identifier, POC, Installation Type, Dedicated NSP, Reconciliation Type and Proposed Trader with an associated Event Date; and
- Distributor Price Category Code and Distributor Loss Category Code with an associated Event Date.
- Optional extra attributes:
- Chargeable Capacity;
- Distributor Installation Details; and

- Unmetered Load Details – Distributor.
- See sub-process DC-010 for minimum input details.

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Generates events of the appropriate types based on the attributes supplied.
3. Generates a Status event with a *ready* Status and an Event Date the same as that of the Network event.
4. Completes the audit trail information for each event.
5. Generates notifications to the Distributor and the Proposed Trader.
6. Generates an acknowledgement to the Distributor for each event.

Data outputs:

Network, Status and Pricing events and associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**DC-030 Make a new ICP distributor**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.6, 11.7 and 11.8, and clauses 7 and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	

Description:
A Distributor progressively provides information about an existing Distributor-only ICP in the *new* state to the registry until the system has sufficient information to change the Status to *distributor*.

Business requirements:

1. Only Distributors (or their agents) must provide information required by clause 7 of Schedule 11.1 of the Code in respect of ICPs.
2. At the pre-commissioning stage, the ICP Status must be a system-assigned attribute and must not be able to be set by a Distributor.
3. The combination of the values for the Network Participant Identifier and POC must be a valid combination in the NSP mapping table for the Distributor as the NSP owner.
4. In order for a Distributor-only ICP to be created on the system with distributor Status, the Distributor must enter at least information about the ICP Identifier, Address, Network Participant Identifier, POC, dedicated ICP, Installation Type, Reconciliation Type (LE or SI) and Distributor Loss Category attributes.
5. The Pricing event generated must have an Event Date that is on or after the ICP creation date.

Data inputs:

Sufficient attributes (note that the Address event is assumed to be present):

- Network Participant Identifier, POC, Installation Type, Dedicated NSP, and Reconciliation Type with an associated Event Date; and
- Distributor Loss Category Code with an associated Event Date.

Optional extra attributes:

- Chargeable Capacity;
- Distributor Installation Details;
- Unmetered Load Details – Distributor; and
- Shared ICP List.

See sub-process DC-010 for minimum input details.

Processing:
System 1. Validates all attributes and checks their dependencies. 2. Generates events of the appropriate types based on the attributes supplied. 3. Generates a Status event with a distributor Status and an Event Date the same as that of the Network event. 4. Completes the audit trail information for each event. 5. Generates notifications to the Distributor. 6. Generates an acknowledgement to the Distributor for each event.

Data outputs:
• Network, Status and Pricing events and associated audit trail information. • Notifications. • Acknowledgements.

Sub-process:	**DM-010 Change initial ICP creation date**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.6, 11.7 and 11.8, and clauses 7 and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	

Description:
The Distributor moves the ICP creation date to an earlier date.

Business requirements:
1. The ICP must be in the pre-commissioning stage, ie it must have either a new or ready or distributor Status. 2. The Distributor must have owned the ICP on creation date. 3. The new creation date must be before the current creation date.

Data inputs:			
Attributes input	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	Must be “DET”
ICP Identifier	Char 15	M	
Event Date	DD/MM/YYYY	M	
User Reference	Char 32	O	
Example: HDR,RQDATECHG,CTCT,RGST,01/12/2002,16:44:11,2,Correct Initial Date DET,9999999999AB123,01/01/2009,Change date user ref			

Processing:
System 1. Validates the new Event Date. 2. Checks that this Distributor is allowed to make this change. 3. Generates new ‘creation’ network, Address and Status events and a Pricing event, if present, using all the attributes from the ‘old’ events but with the earlier Event Date. 4. Completes the audit trail of all new and old events marking the ‘old’ events as *replaced*.

5. Determines the affected parties (Distributor and Proposed Trader) and generates the appropriate, requested notifications.
6. Generates acknowledgements to the Distributor for each event.

Data outputs:

- New network, Address, Status and possibly Pricing events with the associated audit trail information.
- Updated, old network, Address, Status and possibly Pricing events with the associated audit trail information.
- Notifications.
- Acknowledgements.

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Sub-process:	**DM-020 Add additional Distributor information**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.6, 11.7 and 11.9, and clauses 7 and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	

Description:
The Distributor adds one or more new events to an ICP. The event(s) may either represent a change to the current information stored for the ICP, eg a new Distributor Price Category Code, or may be information that should have been entered previously but was missed (historical insertion). The event is not for an existing Event Date.

Business requirements:

1. Distributors are solely responsible for the network, Address and Pricing information.
2. Distributors may add a Status event setting the Status to decommissioned but only if the ICP is in the new or distributor states or in the inactive state with the Status Reason set to electrically disconnected ready for decommissioning ('06').
3. There must be no inheritance of attribute values from prior events, and all mandatory attributes must be provided for any event that is inserted, as a minimum.
4. Distributors must only be allowed to insert events within their period of responsibility.
5. An event must not be inserted if that would invalidate other prior events, eg an ICP Status event with a Status of decommissioned may not be inserted after a Status event that set the Status to active. Also, Reconciliation Types that would change the type of ICP cannot be changed.
6. Events must not be able to be inserted for dates prior to the ICP creation date.
7. The Event Dates of different events inserted by the user at the same time must be allowed to be different.
8. It must be possible for Distributors to revert ready or distributor ICPs to new by inserting new events with blank (empty) values in any of the attributes required to make the ICPs' Status ready or distributor, eg by inserting a Pricing event with a blank Distributor Loss Category Code. (Note that this function must be able to be performed 'historically', i.e. prior to the latest Event Date.)
9. Once the ICP has been assigned to a Trader, no further notifications must be sent to any Proposed Trader of the ICP.

Data inputs:
One or more of: • Network information; • Pricing information; • Address information • Status information. Each attribute on an input line is comma separated. The minimum information input for each event is as follows:

Event data	**Format**	**Mandatory/ optional**	**Comments**
Record Type	Char 3	M	Must be “DET”
ICP Identifier	Char 15	M	
Network event:			
Network Event Date	DD/MM/YYYY	M/O	A blank date indicates that the event is not being input.
Network User Reference	Char 32	O	
Network Participant Identifier	Char 4	M	Valid participant identifier for Distributor.
POC	Char 7	M	Valid POC for Distributor.
Reconciliation Type	Char 2	M	Valid Reconciliation Type for Distributor and ICP type.
Dedicated NSP	Char 1	M	
Installation Type	Char 1	M	Valid type {L, G, B}.
Proposed Trader	Char 4	O	Valid Participant Identifier for Trader.
Unmetered Load Details - Distributor	Char 50	O	
Shared ICP List	List	O	
Generation Capacity	Numeric 6.2	M/O	Generation nameplate capacity in kW. Only required where the Installation Type is ‘B’ or ‘G’. Maximum Generation Capacity that may be supplied is 999999.99

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Event data	Format	Mandatory/ optional	Comments
Fuel Type	Char 15	M/O	A valid Fuel Type. Only required where the Installation Type is 'B' or 'G'. A list of valid Fuel Types is stored in the Registry reference tables. See SD-020.
Initial Electrically Connected Date	DD/MM/YYYY	O	Date the ICP was first electrically connected. Optional. Cannot be a future date nor can it be prior to the creation date of the ICP. *Note to distributors*: It should be >= Event Date of the *Ready* status as a Trader cannot insert an initial assignment prior to the *Ready* Event Date, however, the Registry will not validate it to be so.
Direct Billed Status	Char 11	O	Indicates who, out of the Distributor or Trader, directly bills the customer for the lines charges. Valid values are: 'Retailer', 'Distributor', 'Neither', 'Both', 'TBA' and NULL.
Direct Billed Details	Char 60	O	Contains other information relating to direct billing arrangements such as commencement or cessation dates. Optional. Free text.
Reversal Indicator - Network Event	Char 1	O	Valid for DM-040 only. R or blank
Pricing event:			
Pricing Event Date	DD/MM/YYYY	M/O	A blank date indicates that the event is not being input.
Pricing User Reference	Char 32	O	
Distributor Price Category code	Char 50	M	
Distributor Loss Category Code	Char 7	M	
Distributor Installation Details	Char 30	O	

Event data	Format	Mandatory/ optional	Comments
Chargeable Capacity	Numeric 7.2	O	Maximum Chargeable capacity that may be supplied is 9999999.99
Reversal Indicator - Pricing Event	Char 1	O	Valid for DM-040 only. R or blank

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Event data	Format	Mandatory/ optional	Comments
Address event:			
Address Event Date	DD/MM/YYYY	M/O	A blank date indicates that the event is not being input.
Address User Reference	Char 32	O	
Physical Address Unit	Char 20	O	
Physical Address Number/ RAPID number	Char 25	O	
Physical Address Street	Char 30	M/O	Mandatory if Property Name not input.
Physical Address Suburb	Char 30	M/O	Mandatory if Town not input.
Physical Address Town	Char 30	M/O	Mandatory if Suburb not input.
Physical Address Post Code	Numeric 4	O	
Physical Address Region	Char 20	M	
Address Property Name	Char 75	M/O	Mandatory if Street not input.
GPS_Easting	Numeric 7.3	M/O	The easting location. Optional but required if GPS_Northing is provided. Maximum value 9999999.999 New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections).
GPS_Northing	Numeric 7.3	M/O	The northing location. Optional but required if GPS_Easting is provided. Maximum value 9999999.999 New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections).

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Event data	Format	Mandatory/ optional	Comments
Reversal Indicator - Address Event	Char 1	O	Valid for DM-040 only. R or blank
Status event:			This event can only be input by a Distributor when an ICP is being decommissioned.
Event Date	DD/MM/YYYY	M	A blank date indicates that event is not being input.
User Reference	Char 32	O	
ICP Status	Char 3	M	Only decommissioned Status events allowed to be input by Distributors.
Status Reason	Numeric 2	M/O	Mandatory if ICP Status decommissioned. Valid Status Reason codes are 01, 02 or 03.
Reversal Indicator - Status Event	Char 1	O	Valid for DM-040 only. R or blank
Example HDR,RQNETMAINT,POCO,RGST,09/07/2007,23:57:59,1,add 3 events DET,99999999999AB123,1/01/2009,NetworkUserRef,NETA,ABCD123,GN,N,B,RETA,UnmeteredDetail,,B,wind,1/01/2009,Both,OptionalField,,1/01/2009,PricingUserRef,Pcat1,Lcat1,InstallDet,1234567.12,,1/01/2009,AddressUserRef,Unit1,678,Perkins,Ohau,Tekapo,7797,Canterbury,White House,1234567.123,57.6,,1/01/2009,StatusUSerRef,3,1,			

Processing:
System 1. Validates all attributes and checks their dependencies. 2. Checks that this Distributor is allowed to make this change. 3. Adds the events supplied by the Distributor. 4. Completes the audit trail information for each event added. 5. Determines the affected parties for each event inserted (Distributor, Proposed Trader if the ICP is in the pre-commissioned state, Trader if the ICP is in the commissioned state, other Trader if there is a Trader switch in progress (new or withdrawal), MEP if the ICP is in the commissioned state, Proposed MEP if there is an MEP switch in progress) and generates notifications for them, if the settings of their notification parameters indicate they require them. 6. Generates acknowledgements to the Distributor for each event.

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Data outputs:
• New Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information. • Notifications. • Acknowledgements.

Sub-process:	**DM-030 Correct Distributor information**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.2, 11.2A, 11.6, 11.7 and 11.8, and clauses 7 and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	

Description:
The Distributor corrects values of attributes entered incorrectly in one or more existing events recorded for an ICP.

Business requirements:

1. Distributors are solely responsible for maintaining the network, Address and Pricing information.
2. Corrections may be made to both historical and current events.
3. More than one event can be corrected at the same time.
4. The Distributor may not correct the Status attribute of a Status event for an ICP, other than the Status Reason of a decommissioned Status event.
5. Distributors may only correct events that were input during their period of responsibility.
6. Whenever a new value of an attribute is assigned, even if it is a correction of an existing attribute, a new event must be created to show the correct situation. The original event is also marked as being replaced. The new event then becomes the only active event for that Event Date. The original replaced event must also identify the new event that replaced it.
7. An event must not be corrected if that would invalidate other prior events. Reconciliation Types that would change the type of ICP cannot be changed.
8. There must be no automatic inheritance of attribute values. Whenever the value of an attribute needs to change, a value must be provided, at least for every mandatory attribute of the associated event.
9. If more than one event is corrected at the same time, the Event Dates of each event may be different.
10. It must be possible for Distributors to revert ICPs with a Status of *ready* or *distributor* to a Status of *new* by blanking out required attributes on existing events, eg by updating a Pricing event with a blank loss category. (Note that this function must be able to be performed 'historically', ie prior to the latest Event Date.)
11. Once the ICP has been assigned to a Trader, no further notifications must be sent to any Trader proposing to trade at the ICP.

Data inputs:

One or more of:

- Network event;
- Pricing event;
- Address event; or
- Status event.

The corrected attributes must be provided by submitting ‘complete’ events, ie with all the other mandatory attributes for the event. See sub-process DM-020 for details of the mandatory attributes per event corrected.

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that this Distributor is allowed to make this change.
3. Replaces the incorrect events and inserts the corrected ones.
4. Completes the audit trail information for each inserted and each replaced event.
5. Evaluates who the affected parties are for each inserted and replaced event (Distributor, Proposed Trader if the ICP is in the pre-commissioned state, Trader if the ICP is in the commissioned state, other Trader if there is a Trader switch in progress (new or withdrawal), MEP if the ICP is in the commissioned state, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, if their notification parameters require it.
6. Generates acknowledgements to the Distributor for each event inserted and replaced.

Data outputs:

- New Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information.
- Updated old Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information.
- Notifications.
- Acknowledgements.

Sub-process:	**DM-040 Reverse Distributor information**
Process:	Distributor updates information about an ICP
Participants:	Distributors
Code references:	Clauses 11.2, 11.2A, 11.6, 11.7 and 11.8, and clauses 7 and 12 to 20 of Schedule 11.1 of the Code
Dependencies:	

Description:
The Distributor reverses one or more existing events that have been input in error.

Business requirements:

1. Distributors are solely responsible for maintaining the network, Address and Pricing information.
2. Both historical and current events may be reversed.
3. Distributors can only reverse a Status event that sets the Status to *decommissioned*.
4. Distributors can only reverse a Network event if the reversal does not change distributor responsibility
5. Distributors can only reverse events that are within their period of responsibility.
6. An event may not be reversed if that would invalidate a later event, e.g. a reversal of a Status event that set the Status to *inactive* that immediately precedes a decommissioning (i.e. Status event that set the Status to *decommissioned*) must be prevented.
7. A reversal must mark the reversed event as *reversed* in the audit information of the event.
8. If more than one event is being reversed, the Event Dates of each event may be different, i.e. multiple concurrent reversals for one ICP are allowed.

Data inputs:

Selection of one or more of the following events for reversal:

- Network event;
- Pricing event;
- Address event; or
- Status event.

Processing:
System

1. Validates that the Distributor is permitted to reverse the event(s) selected.
2. Reverses the event(s).
3. Generates a Status event if necessary to maintain the integrity and consistency of the ICP's information. For instance, if the ICP was initially created in the *ready* state and an event was reversed that would cause the ICP to revert to the *new* state, eg reversal of a Pricing event, then the system would need to generate a Status event to reflect this.
4. Completes the audit trail information for each event reversed.
5. Evaluates who the affected parties are for each event reversed (Distributor, Proposed Trader if the ICP is in the pre-commissioned state, Trader if the ICP is in the commissioned state, other Trader if there is a Trader switch in progress (new or withdrawal), MEP if the ICP is in the commissioned state, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, with reference to the notification parameters.
6. Generates acknowledgements to the Distributor for each event reversed.

Data outputs:

- Updated old Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information.
- Notifications.
- Acknowledgements.

3.2 ICP event maintenance – Trader

Sub-process:	**RA-010 Trader becomes responsible for an ICP – Initial Assignment**
Process:	Trader becomes responsible for an ICP
Participants:	Traders
Code references:	Clauses 11.6, 11.7(2), 11.18 and 9 to 20 of Schedule 11.1 of the Code
Dependencies:	RM-030

Description:
A Trader becomes responsible for an ICP for the first time by providing Trader and Status Event information for an ICP, so that the Trader is recorded in the registry as being responsible for the ICP.

Business requirements:

1. A Trader can accept responsibility for an ICP only if the ICP is in the *ready* state.
2. In order to accept responsibility for an ICP, a Trader must provide the information about an ICP which includes the Proposed MEP and reconciliation information (in the Trader event) and the electrically connected status (in the Status event). Each event must have the same Event Date.
3. The Event Date on which the Trader accepts responsibility must be on or after the Event Date of the latest *ready* Status event.
4. A Trader can only accept responsibility for an ICP to itself.
5. A Trader can only accept responsibility if they are not in a Trader Default situation
6. The initial process set out above can only be used the first time a Trader accepts responsibility for an ICP. All subsequent changes to the Trader who is responsible for an ICP must be performed via a switch.
7. The Trader may update the initial assignment events. On update all initial assignment validations are re-applied as well as the business rules that apply when Trader information is corrected (see RM-030).
8. On initial assignment there will be no metering records therefore a valid (not null) Proposed MEP will cause the MEP switch in progress status to be set on.

Refer to Appendix 8 for guidance on the MEP participant identifiers of MNON and MREM. These should not be notified to the registry as a MEP participant identifier by traders

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Data inputs:

At least the mandatory attributes of all the three Trader events:

- Trader event;
- Status event.

The mandatory attributes are:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	Must be "DET"
ICP Identifier	Char 15	M	
Trader event:			
Event Date	DD/MM/YYYY	M/O	Mandatory for an initial assignment. If this value is missing (null) then no Trader event information is processed (even if provided).
User Reference	Char 32	O	
Trader	Char 4	M	Can only be input on the initial Trader acceptance of responsibility (initial assignment) and can be input only by the Trader accepting responsibility.
Profile	Char 25	M	There may be multiple Profiles at an ICP each separated by a space. All must be available to the Trader on the Event Date.
Submission type HHR	Char 1	M	Y/N. Can only be set to 'Y' if: a) There is a Metering type of HHR applicable at the Event Date; or b) There is no applicable metering event; or c) The ICP contains a Profile code that is classified as half hourly (commences with the letter "H") except if the sole half hourly code is "HHR" or "HSL".
Submission type NHH	Char 1	M	Y/N. Must be set to Y if Submission Type HHR = N.
ANZSIC	Char 7	M/O	A valid code from a list of Australian and New Zealand Standard Industrial Classification codes stored in the

			registry reference tables with an additional code “000000” to indicate a residential consumer. See SD-020. Optional only if ICP has a Reconciliation Type of ‘SB’.
Proposed MEP Participant Identifier	Char 4	M/O	Valid Participant Identifier. Can only be optional/missing on initial assignment and only if the ICP Status is inactive, or in general, it can be missing if the UNM Flag is “Y” and there is no metering information applicable at the event date.
UNM Flag	Char 1	M	Y/N.
Daily Unmetered kWh	Char 6	O	Mandatory if UNM Flag = Y. Value must be decimal (to three decimal places) or ‘ENG’ if the load is profiled through an engineering profile in accordance with profile class 2.1
Unmetered Load Details – Trader	Char 50	O	
Reversal Indicator - Trader event	Char 1	O	Used in RM-010 and RM-040 only. R – reverse or null - insert.
Status event:			
Event Date	DD/MM/YYYY	M/O	Mandatory for an initial assignment and must be the same as the Trader event’s Event Date. If this value is missing (null) then no Status Event information is processed (even if provided).
User Reference	Char 32	O	
ICP Status	Char 3	M	Active or inactive only (code only). Can only be set to active if there is a Proposed MEP at the Event Date or the UNM Flag is “Y” at the Event Date.
Status Reason	Numeric 2	M/O	Mandatory if ICP Status *inactive*. Valid Status Reason codes are 04 to 12.
Reversal Indicator - Status Event	Char 1	O	Used in RM-010 and RM-040 only. R – reverse or null - insert.
Example:			

HDR,RQRETMAINT,RETA,RGST,08/08/2007,09:19:15,1,initial assign
DET,9999999999AB123,01/01/2009,TraderUserRef,RETA,MXP,N,Y,1234567,META,Y,ENG,Unmtr
LoadDetail,,01/01/2009,StatusUserRef,01,06,

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks the Trader is not in a Trader Default situation
3. Creates the appropriate events with the attribute values input by the Trader.
4. Completes the audit trail information for each event created.
5. Determines who the affected parties are for each inserted event (Distributor, Trader and Proposed MEP) and generates notifications to them, with reference to their notification parameters.
6. Generates acknowledgements to the Trader for each event created.
7. If a valid Proposed MEP Identifier has been submitted, sets the ICPs MEP Switch in progress status on.

Data outputs:

- A Reconciliation Trader, Metering and Status event each with the associated audit trail information
- Notifications.
- Acknowledgements.
- MEP Switch in progress status.

Sub-process:	**RM-010 Trader cancels the initial assignment**
Process:	Trader reverses the initial assignment
Participants:	Traders
Code references:	Clauses 10.22(1)(a)(i), 11.6, 11.7, 11.8, 11.18 of the Code
Dependencies:	RA-010

Description:

A Trader reverses its initial acceptance of responsibility for an ICP.

Business requirements:

1. A Trader may only reverse its own initial assignment for an ICP.
2. The reversal may not occur if there are any non-reversed MEP input events for the ICP or any additional non-reversed events of other types (including Distributor input events) with Event Dates after the initial assignment.
3. The reversal may not occur if there is a switch in progress for the ICP.

Data inputs:

Selection of the initial assignment (or its Trader event) or the input of the matching Event Date of the Trader event with the Trader event's Reversal Indicator set to "R". See RA-010 for the format.

Processing:

System

1. Validates that the initial assignment can be reversed by the Trader.
2. Reverses the Trader and Status events of the initial assignment, if a match is found.
3. Completes the audit trail information for each of the reversed events.
4. Determines the affected parties for each reversed event (Distributor, Trader and Proposed MEP) and generates notifications to those that require them.
5. Generates acknowledgements to the Trader for each of the reversed events.
6. Determines if a valid Proposed MEP Identifier was submitted in the initial assignment and sets the ICPs MEP Switch in progress status off.

Data outputs:

Reversal of initial assignment events – Trader and Status events each with updated audit trail information.
Notifications.
Acknowledgements.
MEP Switch in progress status.

Sub-process:	**RM-020 Add new Trader information**
Process:	Trader updates information about an ICP
Participants:	Traders
Code references:	Clauses 11.6, 11.7, 11.14, 11.18, and clauses 9 to 20 of Schedule 11.1
Dependencies:	RA-010

Description:
The Trader adds one or more new events to an ICP. The event(s) may either represent a change to the information stored on the registry in respect of the ICP, e.g. a new MEP, or may be information that should have been entered previously but was missed. The event is not for an existing Event Date.

Business requirements:

1. Traders are solely responsible for updating Trader event information. They also share the responsibility of maintaining the Status event with the Distributor.
2. Traders may only insert new Status events with Status values of *active* or *inactive*
3. At a minimum, all mandatory attributes of an event must be provided; no attribute values may be inherited from prior events.
4. Traders may only insert events with Event Dates that are within their period of responsibility.
5. Traders may only insert events with their own Participant Identifier as the value of the Trader attribute.
6. Events cannot be inserted prior to the date on which the first Trader accepted responsibility for of the ICP.
7. Events cannot be inserted for Event Dates after the date of decommissioning.
8. An event must not be inserted if that would invalidate other prior events.
9. It must be possible to insert more than one event at the same time.
10. A Trader cannot insert a new Proposed MEP attribute (ie. change it) in a Trader event where the Event Date is in the period of responsibility of a different MEP that is not the current MEP. The period of responsibility for an MEP is the period on and between the Event Date of their first population of Metering Event data until the Event Date of the next MEPs first population of their Metering event data. However, where there is no 'next MEP' then an event with a new Proposed MEP is permitted provided this Trader event has the latest Event Date (there are no Trader events with later Event Dates). To clarify, a Trader cannot input a new Proposed MEP attribute (ie. change it to a different MEP code) in a new Trader event which is not the latest.
11. A Trader cannot submit a new Proposed MEP in a Trader event where its Event Date is on or before the latest Event Date of any Metering Event; unless approved by the Authority (refer to Sub-process MM-040).

12. A Trader cannot submit a new Proposed MEP in a Trader event when there is a Trader switch in progress.
13. If more than one event type is being inserted, the Event Dates of each event type may differ. It is possible to add information for just one event type ie. either the Trader event or the Status event.
14. If a new Proposed MEP Identifier has been submitted, the ICPs MEP Switch in progress status is set on. Where the ICP has current or impending ICP planned service interruptions, and the Proposed MEP has not previously been notified of the planned service interruption; the Registry must notify the Proposed MEP in accordance with their ICP planned service interruption parameters.

Refer to Appendix 8 for guidance on the MEP participant identifiers of MNON and MREM. These should not be notified to the registry as a MEP participant identifier by traders

Data inputs:

One or more of:

- Trader event; or
- Status event.

Each attribute on an input line is comma separated.

See sub-process RA-010 for the format.

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the Trader is allowed to make this change.
3. Adds the events supplied by the Trader.
4. Completes the audit trail information for each event added.
5. Determines the affected parties for each event inserted (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications for those who require them.
6. Generates acknowledgements to the Trader for each event added.
7. Determines whether a new Proposed MEP Identifier has been submitted and then the ICPs MEP Switch in progress status is set on.
8. Identifies if the ICP has current or impending ICP planned service interruption records and, where the Proposed MEP has not previously been notified of the planned service interruption, notifies the Proposed MEP in accordance with the Proposed MEP's planned service interruption notification parameters.

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Data outputs:
• New Trader event and/or Status event with the associated audit trail information. • Notifications. • Acknowledgements. • MEP Switch in progress status.

Sub-process:	**RM-030 Correct Trader information**
Process:	Trader updates information about an ICP
Participants:	Traders
Code references:	Clauses 10.22(1)(a)(i), 11.2, 11.2A, 11.6, 11.7, 11.14, 11.18, and 9 to 20 of Schedule 11.1 of the Code
Dependencies:	RA-010

Description:

The Trader corrects information entered incorrectly in respect of one or more existing events associated with an ICP.

Business requirements:

1. Traders are solely responsible for maintaining the Trader event and active or inactive status information.
2. Traders may only update Status events to have Status values of *active* or *inactive*.
3. It must be possible to correct more than one event type at the same time (Trader and Status). It is possible to correct information for just one event type ie. either the trader event or the Status event.
4. At least all mandatory attributes of an event must be provided. No attribute values should be automatically inherited from prior events.
5. Traders can only correct events that are within the period in which the Trader was responsible for the ICP.
6. It must be impossible for the Trader to change the Trader attribute of the Trader event to another Trader's Participant Identifier.
7. An event must not be corrected if that would invalidate other prior events.
8. A Trader cannot correct the Proposed MEP attribute (ie. change it) in a Trader event where the Event Date is in the period of responsibility of a different MEP. The period of responsibility for an MEP is the period on and between the Event Date of their first population of metering event data until the Event Date of the next MEPs first population of their metering event data. However where there is no 'next MEP' then a correction with a different Proposed MEP is permitted provided this Trader event has the latest event date. To clarify, a Trader cannot correct a Proposed MEP attribute (ie. change it's value) in a Trader event which is not the latest.
9. A Trader cannot correct a new Proposed MEP in a Trader event where its Event Date is on or before the latest Event Date of any Metering Event, or in the case of an initial assignment Trader event, where there are any Metering Events for the ICP.
10. A Trader cannot correct a Proposed MEP attribute (ie. change it) in a Trader event when there is a Trader switch in progress.

11. The incorrect event must be logically replaced by the correct event and the audit details of the incorrect event must be updated to identify the correct event.
12. If more than one event type is being corrected, the Event Dates of each event type may be different.
13. If a new Proposed MEP Identifier has been submitted, sets the ICPs MEP Switch in progress status on.

Data inputs:

One or more of:

- Trader event with new attribute value(s); or
- Status event with new attribute value(s).

See sub-process RA-010 for the format.

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the Trader is allowed to make this change.
3. Replaces the incorrect events - where there is a matching Event Date - and inserts the corrected ones.
4. Completes the audit trail information for each inserted and each replaced event (if any).
5. Evaluates who the affected parties are for each inserted and replaced event (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, if their notification parameters require it.
6. Generates acknowledgements to the Distributor for each event inserted and replaced.
7. Determines whether a new Proposed MEP Identifier has been submitted and then the ICPs MEP Switch in progress status is set on.

Data outputs:

- New Trader event and/or Status event with the associated audit trail information.
- Updated old Trader event and/or Status event each with their associated audit trail information updated correctly, of any replacement.
- Notifications.
- Acknowledgements.
- MEP Switch in progress status.

Sub-process:	**RM-040 Reverse Trader information**
Process:	Trader updates information about an ICP
Participants:	Traders
Code references:	Clauses 11.2, 11.2A, 11.6, 11.7, 11.18, and clauses 9 to 20 of Schedule 11.1
Dependencies:	RA-010

Description:

The Trader reverses one or more existing events that have been input in error.

Business requirements:

1. Traders are solely responsible for maintaining the Trader event and the *active* or *inactive* status information.
2. Traders may only reverse Status events that have Status values of a*ctive* or *inactive*.
3. Traders may only reverse events that happened within their period of responsibility.
4. An event must not be reversed if that would invalidate other prior events.
5. A Trader cannot reverse a Trader event that had a new Proposed MEP (at the time of the submission) which effectively commenced an MEP switch that resulted in an acceptance of responsibility notice being recorded in the system from the MEP (MN) and that resulted in Metering events being loaded by that new MEP. To clarify, provided there are no associated metering events then the Trader event that had a new Proposed MEP can be reversed even though a MN acceptance was submitted.
6. A reversal must mark the reversed event as *reversed* in the audit information pertaining to the event.
7. More than one event may be reversed at the same time.
8. Both historical and current events may be reversed.
9. If more than one event is being reversed, the Event Dates of each event may be different.
10. If the reversal cause a mismatch or removes an existing mismatch between the latest Proposed MEP and the responsible MEP on the applicable Metering event then the MEP switch in progress status needs to reflect the correct current state.

Data inputs:

Selection, or the matching Event Date input of an existing event but with a Reversal Indicator of the event set to ‘R, of one or more of:

- Trader event; or
- Status event.

See sub-process RA-010 for the format.

Processing:
System 1. Validates that the Trader is permitted to reverse the event(s). 2. Reverses the event(s) where a match is found on Event Date. 3. Completes the audit trail information for each event reversed. 4. Determines the affected parties for each event reversed (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications for those who require them. 5. Generates acknowledgements to the Trader for each event reversed. 6. Determines whether the result of the reversal requires the MEP Switch in progress status to change and sets it accordingly.

Data outputs:
• Reversed Trader event and/or Status event with the associated audit trail information updated accordingly. • Notifications. • Acknowledgements. • MEP Switch in progress status.

3.3 ICP event maintenance – MEP maintains Metering installation information

Sub-process:	**MM-010 Add new metering information**
Process:	MEP maintains metering information
Participants:	Metering Equipment Providers
Code references:	Clause 10.23, 11.18B(2)(a), 11.18B(2)(b), 11.15A, and Schedule 11.4.
Dependencies:	

Description:
The MEP, as indicated in the Trader event, inputs metering installation information for an Event Date on or after the event date of the Trader event that first nominated them as the Proposed MEP.

Business requirements:

1. A new Metering event can only be added to an ICP if the ICP has a Trader assigned.
2. The addition of metering information requires the completion of, at least, all the mandatory attributes in the Metering event for ALL installations, components and channels. No partial additions of particular installations, components or channels are permitted as no attribute values are automatically inherited from prior events. N.B. A submission for the same Event Date as an existing Metering event will overwrite all the existing metering information with the new metering information.
3. The Event Date of an insertion of metering information must be:
   - within the MEPs period of responsibility for that ICP, **or,**
   - on or after either
     a. in the case of the first MEP of a new ICP (i.e. there is no active metering event), the Event Date of the earliest contiguous Status event change to the Ready state of the ICP preceding initial assignment, otherwise
     b. the Event Date of the latest Trader event in which they were first nominated as the Proposed MEP[1] ,

   where
   - they have also sent an associated acceptance MEP Responsibility Notice (MN) to the Registry for this ICP since **and**
   - there are no Metering Events for a different MEP on or after the Event Date of their proposed Metering Event **and**
   - they are the latest Proposed MEP.

(The period of responsibility is the period on and between the Event Date of their first population of metering event data until the Event Date of the next MEPs first population of their metering event data).

[1]It is possible that the Trader has inserted subsequent Trader events with other attribute changes. The MEP should be permitted to insert metering information for Event Dates on or after the initial/first Trader event where they were nominated provided the latest Trader event still has their code as the Proposed MEP and all other conditions above are satisfied. For the Event Date of an historical insertion see MM-040 Missing MEP Historical Insertion.

4. Maintenance can be undertaken of Metering events of an ICP whilst a Trader switch or an MEP switch is in progress.
5. Maintenance can be undertaken of Metering events of an ICP whilst it is in a decommissioned state and the update if for removal of metering.
6. Where the update is a change of MEP responsibility, and the ICP has a planned service interruption; the Registry must remove the planned service interruption notification from the losing MEP.
7. Notifications must be generated to all affected parties as at the Event Date (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress).
8. An acknowledgement of the change is sent to the submitting MEP.
9. An event must not be corrected if that would invalidate other prior events.
10. Audit logs must be recorded for all inserts and changes to Metering events.
11. Arrival of metering records for the Proposed MEP on the latest Trader event switches the MEP switch in progress status off.

Data Inputs:

At least the mandatory attributes of the Metering event.

The mandatory attributes are:

Header Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'H' for header information for a new ICP
ICP	Char 15	M	Must be an existing ICP Identifier.
Metering Equipment Provider Identifier	Char 4	M	Must be the same as the Proposed Metering Equipment Provider at the Event Date as indicated in the Trader event of the ICP. Must also match the Participant Identifier of the submitter.
Event Date	DD/MM/YYYY	M	See Business Requirement 3 above.

Event data	Format	Mandatory/ optional	Comments
			If ICP is in a decommissioned state: - Must be on or after the status decommissioned event data.
User Reference	Char 32	O	Free text.
Number Of Installations	Numeric 2	M	There must be this many 'I' rows (interspersed with the associated 'M' and 'R' rows) following this row for this ICP in the submission. For reversals this number will be zero when only the Header row is required to be input. For all other submissions this value must be >= 1. N.B. When recording about metering component removals ie. the component will be missing, there is still a requirement to provide at least one 'I' row.
Reversal Indicator – Metering Event	Char 1	O	Only applies to reversals when this is set to 'R'. N.B. All lower level information will also be reversed and the metering information of the prior event will then apply.

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Installation Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'I' for installation information.
ICP	Char 15	M	Must be same as the ICP in the prior 'H' record
Metering Installation Number	Numeric 3	M	A user-defined number identifying the installation within the ICP. Must be unique within the ICP. Ideally a sequential number starting from 1.
Metering Installation Location Code	Char 50	M	A 6 character code (can be 1 to 6 characters) from the list of codes within the Registry that identifies the location of the metering installation and, optionally, concatenated with the New Zealand Transverse Mercator 2000 (NZTM2000) GPS co-ordinates of the metering installation. The format of the GPS co-ordinates is: &NZTM:E<easting location>:N<northing location> Easting and Northing locations both have a format of Numeric 7.3 where leading and trailing zeros are not mandatory ie can be missing. Example:SQ&NZTM:E1234567.123:N54321.95. Where the GPS co-ordinates are provided, both the easting and northing co-ordinates are mandatory. A colon is used as the field delimiter within the GPS co-ordinates descriptor and there must be no spaces or commas. Where no GPS co-ordinates are provided only the location code must be present e.g. SQ.
ATH Participant Identifier	Char 4	M/O	A valid Participant Identifier and that has a role of ATH. A participant must be valid as at the metering installation certification date. Mandatory if the Metering Installation Certification Type is 'F'.
Metering Installation Type	Char 3	M	'HHR' or 'NHH' or 'NON'. Must be 'NON' where the Number Of Components = 0.
Metering Installation Certification Type	Char 1	M	Interim ('I) or Full ('F). Note: Interim certification can only be used for an event date prior to 01 April 2016 unless the metering update is for the removal of all metering components of all interim certified metering installations of an ICP
Metering Installation Certification Date	DD/MM/YYYY	M/O	Mandatory if the Metering Installation Certification Type is 'F'. If entered cannot be greater than today.

Event data	Format	Mandatory/ optional	Comments
Metering Installation Certification Expiry Date	DD/MM/YYYY	M	
Control Device Certification Flag	Char 1	M	Y/N
Certification Variations	Char 1	M	'X' - An exemption under the Act for the metering installation applies; or 'A' - The alternate measuring transformer certification process is used; or 'N' – None.
Certification Variations Expiry Date	DD/MM/YYYY	M/O	Mandatory if Certification Variations is other than 'N'.
Certification Number	Character 25	M/O	Mandatory if the Metering Installation Certification Type is 'F'.
Maximum Interrogation Cycle	Numeric 3	M	In days. >= 0.
Lease Price Code	Char 6	O	Free text.
Number Of Components	Numeric 2	M	There must be this many 'M' rows (interspersed with the associated 'R' rows) following this row for this ICP in the submission. >=0. If 0 then Metering Installation Type = 'NON' and there will be no Channel rows ie. 'R' rows.

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Meter/Component Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'M' for meter information
ICP	Char 15	M	Must be the same as the ICP in the prior 'I' record.
Metering Installation Number	Numeric 3	M	Must be the same as the Metering Installation Number in the prior 'I' record.
Metering Component Serial Number	Char 25	M	Identifier of meter. Validated by system to be unique within the ICP.
Metering Component Type	Char 1	M	M - Meter, C - CT, V - VT, D - Data Storage Device, L- Control Device
Meter Type	Char 3	M/O	HHR/NHH/PP. Mandatory where Metering Component Type = M. Can only be assigned as: - NHH if the Metering Installation Category is 1 or 2. - PP if the Metering Installation Category is 1. HHR can be assigned for any Metering Installation Category value.
AMI Flag	Char 1	M	Y/N
Metering Installation Category	Numeric 1	M/O	1 – 5. Mandatory where Metering Component Type = M. The metering category for the metering installation that the component is certified in.
Compensation Factor	Numeric 6.3	M	Maximum value is 999999.999. Where the Metering Components Type is M (meter) the value must be greater than zero.
Owner	Char 6	O	If the Owner is a participant then their valid 4 character Participant Identifier otherwise free text > 4 characters.
Removal Date	DD/MM/YYYY	O	If input must be the same as the Event Date. If ICP is in a decommissioned state: - Mandatory
Number of Channels	Numeric 3	M	Total number of channels on the component. There must be this many 'R' rows immediately following this row. >= 1 for Metering Component Types of M, D and L otherwise must be zero ie. no Channel information is permitted to be input.

Channel Row:

Event data	Format	Mandatory /optional	Comments
Record Type	Char 1	M	'R' for meter register/channel information
ICP	Char 15	M	Must be same as the ICP in the prior 'M' record

Event data	Format	Mandatory /optional	Comments
Metering Installation Number	Numeric 3	M	Must be same as the Metering Installation Number in the prior 'M' record.
Metering Component Serial Number	Char 25	M	Must be same as the Metering Component Serial Number in the prior 'M' record.
Channel Number	Numeric 2	M	Must be a unique number within the metering component assigned by the MEP.
Number of Dials	Numeric 2	M/O	Number of dials/digits (not recording fractions of a unit) on the meter's registers. Valid values are between 4 and 12. Mandatory where Metering Component Type = M.
Register Content Code	Char 6	M/O	Valid register content code from the static reference table stored in the registry. Mandatory where Metering Component Type = M or D.
Period of Availability	Numeric 2	M/O	<=24. Minimum service hours per day that supply is available for. Mandatory where Metering Component Type = M or D.
Unit of Measurement	Char 6	M/O	Valid register/channel unit code from the static reference table stored in the registry. Eg. kWh, kW, kVA, kVArh. Mandatory where Metering Component Type = M or D.
Energy Flow Direction	Char 1	M/O	Valid values are 'I' for injection and 'X' for exit. Mandatory where Metering Component Type = M or D.
Accumulator Type	Char 1	M/O	Valid values are 'C' for cumulative and 'A' for absolute. Mandatory where Metering Component Type = M or D.
Settlement Indicator	Char 1	M	An indicator (Y/N) selected in accordance with the Code.
Event Reading	Numeric 12	O	Must be less than what can be stored with the Number of Dials. Optional, but mandatory if a Removal Date is present in the associated (parent) component level information.

Example:

```
HDR,RQMEPMAINT,RETA,RGST,08/08/2012,09:19:15,4,MEP load
H,9999999999AB123,META,1/01/2012,Myref,1,
I,9999999999AB123,1,BA,ATH1,NHH,F,3/12/2000,3/12/2015,N,N,,123456B,180,,1
M,9999999999AB123,1,44455Cv,M,NHH,N,1,1,HOwner,,1
R,9999999999AB123,1,44455Cv,1,5,UN,24,kWh,X,C,Y,
```


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Processing:
System 1. Validates all attributes and checks their dependencies. 2. Summarises the metering information from the installation, meter/component and register/channel attributes submitted to derive the metering summary attributes of the new Metering event. 3. Summarises the Highest Metering Category on the installation level from the metering component level information – Metering Installation Category attribute - applicable for the installation. 4. Creates the appropriate events with the attribute values input by the MEP and derived by the system (Summary level information). 5. Completes the audit trail information for each Metering event created. 6. Determines who the affected parties are (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, with reference to their notification parameters. 7. Generates acknowledgements to the MEP for each event created. 8. Determines whether to switch off the MEP switch in progress status for the ICP by examining the submitting MEP against the Proposed MEP on the applicable Trader event.

Data Outputs:
Metering events with the associated audit trail information. Notifications. Acknowledgements. ICP MEP switch in progress status.

Sub-process:	**MM-020 Correct metering information**
Process:	MEP maintains metering information
Participants:	Metering Equipment Providers
Code references:	Clause 11.15A. Schedule 11.4
Dependencies:	

Description:

The MEP, as indicated in the Trader event, corrects metering installation information of attributes previously submitted.

Business requirements:

1. A correction to a Metering event can only be made to an ICP if the ICP has a Trader assigned.
2. The correction of metering information requires the completion of, at least, all the mandatory attributes in the Metering event for ALL installations, components and channels. No partial corrections of particular installations, components or channels are permitted as no attribute values are automatically inherited from prior events. N.B. A submission for the same Event Date as an existing Metering event will overwrite all the existing metering information with the new metering information.
3. The Event Date of an update of metering information must be within the MEPs period of responsibility for that ICP. (The period of responsibility is the period on and between the Event Date of their first population of metering event data until the Event Date of the next MEPs first population of their metering event data, if one exists) ie. only the MEP that input the event can change it.
4. Maintenance can be undertaken of Metering events of an ICP whilst a Trader switch or an MEP switch is in progress.
5. Correction can be undertaken of Metering events of an ICP whilst it is in a decommissioned state and the update is for removal of metering (update of metering removal date).
6. Notifications must be generated to all affected parties as at the Event Date. The affected parties are (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress).
7. An acknowledgement of the change is sent to the submitting MEP.
8. An event must not be corrected if that would invalidate other prior events.
9. Audit logs must be recorded for all inserts and changes to Metering events.

Data Inputs:

At least the mandatory attributes of the Metering event. See MM-010 for the format and mandatory attributes.

Processing:
System 1. Validates all attributes and checks their dependencies. 2. Summarises the metering information from the installation, meter/component and register/channel attributes submitted to derive the metering summary attributes of the changed Metering event. 3. Summarises the Highest Metering Category on the installation level from the metering component level information – Metering Installation Category attribute - applicable for the installation. 4. Creates the appropriate events with the attribute values input by the MEP and derived by the system (Summary level information). 5. Completes the audit trail information for each changed Metering event, inserted and replaced. 6. Determines who the affected parties are for each inserted and replaced event (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, with reference to their notification parameters. 7. Generates acknowledgements to the MEP for each event updated.

Data Outputs:
Metering events with the associated audit trail information – for the new and replaced events. Notifications. Acknowledgements.

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Sub-process:	**MM-030 Reverse metering information**
Process:	MEP maintains metering information
Participants:	Metering Equipment Providers
Code references:	Clause 11.15A, 11.18B(2)(a) and 11.18B(2)(b). Schedule 11.4
Dependencies:	

Description:
The MEP, as indicated in the Trader event, reverses ie. removes metering installation information previously submitted.

Business requirements:

1. A reversal of a Metering event can only be made to an ICP if the ICP has a Trader assigned.
2. The reversal of metering information requires the completion of only the Header row of the metering information submission described in MM-010. The reversal is indicated by an 'R' in the Reversal Indicator, if the submission is by file. All lower level information will also be reversed and the metering information of the prior event will then apply.
3. The Event Date of a reversal of metering information must be within the MEPs period of responsibility for that ICP and must match the entry recorded in the Metering event (match on Event Date) ie. only the MEP that input the event can reverse it. (The period of responsibility is the period on and between the Event Date of their first population of metering event data until the Event Date of the next MEPs first population of their metering event data, if one exists).
4. Maintenance can be undertaken of Metering events of an ICP whilst a Trader switch or an MEP switch is in progress.
5. Notifications must be generated to all affected parties as at the Event Date (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress).
6. An acknowledgement of the change is sent to the submitting MEP.
7. An event must not be corrected if that would invalidate other prior events.
8. Audit logs must be recorded for all reversals of Metering events.
9. Reversal of metering records may cause a mismatch between Proposed MEP on the latest Trader event and the responsible MEP in the latest Metering event requiring the setting of the MEP switch in progress status to on.

Data Inputs:
At least the mandatory attributes of the Metering event relating to reversals ie. only the Header row. See MM-010 for the format and mandatory attributes.
Example: HDR, RQMEPMAINT,RETA,RGST,08/08/2012,09:19:15,1,MEP load H,9999999999AB123,META,1/01/2012,Myref,0,R

Processing:
System 1. Validates all attributes and checks their dependencies. 2. Completes the audit trail information for each Metering event reversed. 3. Determines who the affected parties are for each reversed event (Distributor, Trader, other Trader if there is a Trader switch in progress (new or withdrawal), MEP, Proposed MEP if there is an MEP switch in progress) and generates notifications to them, with reference to their notification parameters. 4. Generates acknowledgements to the MEP for each event reversed. 5. Determines whether to set the MEP switch in progress status on for the ICP by examining the Proposed MEP on the applicable Trader event.

Data Outputs:
Metering event (updated with a reversal indicator) with the associated audit trail information. Notifications. Acknowledgements. ICP MEP switch in progress status.

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Sub-process:	**MM-040 Missing MEP Ownership Historical Insertion**
Process:	MEP Maintains Metering Information
Participants:	Trader, Metering Equipment Provider, Authority
Code References:	11.18A, Schedule 11.4 clauses 1 and 2
Dependencies:	RM-020 MN-010 MM-010

Description:

This sub-process requires approval from the Authority before being executed by the Registry Manager and is not a business-as-usual occurrence.

It is used only to correct the result of a breach of the Code when an MEP for an ICP has been unable to provide metering information to the Registry for the following reasons:

- a Trader failed to nominate the MEP before another MEP assumed responsibility; or
- the MEP switch process was not completed before another MEP assumed responsibility; or
- the Event Date of the Trader event that first nominated the MEP was later than the effective date that the MEP assumed responsibility.

The Trader and the associated MEP provide their information in separate files to the Registry Manager. The system then validates the information and generates all the appropriate events and associated acknowledgements, notifications and audit trails as described in sub-processes RM-020, MN-010 and MM-010.

N.B. This sub-process can only be used to insert an MEP Metering event historically for an Event Date before the Event Date of the Metering event provided by the next MEP.

Business requirements:

1. The MEP must obtain approval from the Trader and the Authority prior to the Registry Manage processing the Trader and MEP files.
2. The Registry Manager must not process the Trader and MEP files until it has received authorisation from the Authority to process the files.
3. The Registry Manager must inform the Trader and MEP of the outcome of the processing their files.
4. The Registry ensure that any insertion maintains the integrity of existing events and must ensure that an insertion does not:
   - overwrite any existing Metering event or MN transaction, or
   - change a Trader's period of responsibility, or
   - replace the Trader Event that commenced a completed MEP switch, or
   - interrupt any existing MEP's period of responsibility by inserting between two successive Metering events for the same MEP.
5. It must be possible for an insertion to be the initial Metering for an ICP

Data inputs:

MEP metering information file:

MM-010 format and validation rules, with the Event Date validation replaced by the following:			
Name	**Type**	**Mandatory /optional**	**Validation**
Event Date	DD/MM/YYYY	M	Event Date of the MEP. It must be on or between the ICPs Nomination Date in the Trader nomination file and prior to the Event Date of the ICPs next Metering event occurring after the Nomination Date. It must not match the Event Date of an existing Metering event of the ICP.
Trader nomination file:			
Name	**Type**	**Mandatory /optional**	**Validation**
Record Type	Char 3	M	Must be “DET”
ICP Number	Char 15	M	Existing ICP number. There must not be a current Trader switch in progress for the ICP. There must be an entry in the MEP metering information file for this ICP.
Trader Identifier	Char 4	M	Valid Trader Participant Identifier. It must be: • the Trader Participant Identifier of the Trader that submits the file, and • the Trader responsible for the ICP as at the Nomination Date.
Nomination Date	DD/MM/YYYY	M	Nomination Date of the MEP. It must be between the ICPs Event Date of another MEP’s final Metering event (the one immediately prior to it losing responsibility to another MEP) and before the Event Date of the Trader event that commenced an MEP switch which resulted in a change of MEP responsibility to the next MEP. N.B. The next MEP can be the same as the MEP being inserted.
Proposed MEP Identifier	Char 4	M	Valid MEP Participant Identifier. It must:

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			• be the MEP Participant Identifier of the MEP in the MEP metering information file for the same ICP, and • not be the same as the responsible MEP of the ICP on the Nomination Date.

Example:
HDR,MTRINSERT,RETA,RGST,15/05/2016,11:00:00,3
DET,9999999999AB123,RETA,12/04/2016,META
DET,9999999999AB345,RETA,13/04/2016,META
DET,9999999999AB678,RETA,16/04/2016,META

Note: The information in the Trader nomination and MEP metering information files do not need to be supplied in ICP identifier order, however, only one entry is permitted per ICP.

Processing:

System:

1) Validates the records in the Trader nomination file.
2) Ensures there is only one record for any ICP in the Trader nomination file.
3) Validates the MEP metering information file using the modified Event Date validation and the other validations from MM-010.
4) Ensures there is only one record for any ICP in the MEP metering information file.
5) Checks that each record in the Trader nomination file has a matching record for the same ICP in the MEP metering information file.
6) For each record in the Trader nomination file and its corresponding record in the MEP metering information file:
   a) If there is an existing Trader event for an ICP where its Event Date matches the Nomination Date, reverses the existing Trader event and creates a new Trader event on behalf of the Trader who submitted the Trader nomination file, nominating the Proposed MEP with:
      i) the Proposed MEP Identifier from the Trader nomination file, and
      ii) the User Reference of “MEP Historical Correction”, and
      iii) all the remaining fields taken from the reversed Trader event.
   b) If there is no existing Trader event for the ICP matching the Nomination Date, creates, on behalf of the Trader who submitted the Trader nomination file, a Trader event nominating the Proposed MEP with:
      i) Event Date = Nomination Date supplied in the Trader nomination file,
      ii) Proposed MEP Identifier = Proposed MEP supplied in the Trader nomination file,
      iii) the User Reference = “MEP Historical Correction”,
      iv) all the remaining fields taken from the Trader event applicable as at the Nomination Date

      and inserts the event.
   c) Creates an MN acceptance transaction on behalf of the Proposed MEP with:

i) the MEP Identifier = the Proposed MEP,
ii) the Transfer Date = the Nomination Date,
iii) the Responsibility Indicator = "A" (accepted),
iv) the Decline Advisory Code = null,
v) User Reference = "MEP Historical Correction"
and inserts the MN acceptance transaction.
N.B. If there is an existing MN acceptance transaction for the same Event Date, the system will allow multiple MNs to exist.

d) Inserts a Metering event on behalf of the MEP who submitted the MEP metering information file using the validated MEP metering information,

7. Generates the standard acknowledgements and notifications to affected participants, as per the existing notification rules, for all the events and MN transactions created.

N.B. Updates for large files (>1000 ICPs) may require process scheduling by mutual agreement between the Authority and the Registry Manager.

Registry Manager:

- Sends emails to the Trader and MEP to inform them that the MEP insertion processing has completed and to advise them of the results of the update. The email address used is the one specified for the delivery of MEP Historical Correction information.
- Sends emails to Participants affected by filtering-up changes of MEP responsibility occurring in the Traders periods of responsibility

Data outputs:

- New or reversed Trader events nominating the MEP
- New MN acceptance notifications
- New Metering events
- Audits for each created event
- Notifications
- Acknowledgements

Email examples:

N.B. Suggested wording only

Email 1: Notify nominating Trader and MEP of the results of the insert

Heading: *MEP Metering Insertion*

Message Text: *The processing of the supplied Metering Insertion file is complete and results are in the attached file. Please carefully review the result of the updates. If you have any questions or issues please contact the Registry Manager.*

Email 2: Notify affected participants that MEP responsibility has been changed during their period of responsibility

Heading: *Change in MEP responsibility due to historical Metering Insertion*

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Message Text: *Processing of a Metering Insertion file has completed, The attached list of ICPs had a Metering Event inserted which resulted in a change of MEP during your period of responsibility. Your overnight notification file will include the Metering event attributes that have been changed*

If you have any questions or issues please contact the Registry Manager.

3.4 Switching

Sub-process:	**RS-010 Make switch request (NT)**
Process:	Traders switch ICP
Participants:	Traders
Code references:	Clause 11.15 Clauses 1 to 16 and 22 of Schedule 11.3 and Schedule 11.5 of the Code.
Dependencies:	MP-020, PR-030

Description:

The gaining Trader initiates a switch by sending a switch request message (NT) to the registry. The registry then forwards the request on to the losing Trader. Depending on the gaining Trader's notification parameter settings, the system can send a snapshot PR-030 report, for every ICP being switched, showing the current state of each event type of the ICP.
Trader Default Situation
A Trader in a Trader Default situation may not make a Switch Request to the Registry to gain responsibility for an ICP

Business requirements:

1. Only the gaining Trader can send an NT to the registry.
2. The current Status of an ICP as defined by the most recent Status event must be either inactive or active and must have an associated Metering event or have solely unmetered load.
3. There must not already be a Trader switch in progress for the ICP.
4. The switch type can be either a MI (move in switch) or TR (standard Trader switch) or a HH
5. Assignment of the switch type in an NT must conform with the following rules:

   a) If the latest Metering event (summary level) has an AMI Flag of "Y":

      i. and if the Highest Metering Category is 1, 2 or 9, then the switch type must be MI or TR.

      ii. and if the Highest Metering Category is 3, 4 or 5, then the switch type must be HH.

   b) If the latest Metering event (summary level) has an AMI Flag of "N":

      i. and if the Highest Metering Category is 1, 2 or 9 then

      - if the Submission Type will not change* then the switch type must be MI or TR.

      ii. and if the Highest Metering Category is 3, 4 or 5, then the switch type must be HH.

   Any switch type may be submitted for all other combinations of no metering, AMI Flag, Submission Type change* and Highest Metering Category i.e. that is not covered by a) or b) above.

*Submission Type will/will not change refers to the assignment of this ICPs attributes - Submission Type HHR and Submission Type NHH - by the system, once this switch has completed (as per the processing logic in RS-050).

Submission Type will change when:

Current Submission Types	Post CS Submission Types
HHR = Y and NHH = N	(HHR = N and NHH = Y) or (HHR = Y and NHH = Y)
HHR = N and NHH = Y	(HHR = Y and NHH = N) or (HHR = Y and NHH = Y)
HHR = Y and NHH = Y	(HHR = Y and NHH = N) or (HHR = N and NHH = Y)

6. A Proposed Transfer Date must be provided if the switch type is MI or HH. The Proposed Transfer Date must be after the initial assignment and after any other completed switches which have not been withdrawn. The Proposed Transfer Date must be within the period that the gaining Trader has an active role of 'Trader'. Where the Proposed Transfer Date is not provided, the gaining Trader must be currently active in the role of 'Trader'.
7. The Address information provided on an NT must only be used by the losing Trader to confirm that the new Trader has identified the correct ICP. It must not be used to update the registry.
8. An audit trail and an acknowledgement must be generated for the NT.
9. The NT must be forwarded by the registry to the losing Trader in a file in the same format as input, and in accordance with their switch notify parameters.
10. If the ICP has current or impending ICP planned service interruption records and, the gaining trader has not previously been notified of the planned service interruption, the Registry must notify the gaining trader in accordance with the gaining Trader's ICP planned service interruption notification parameters.
11. An NT must not be corrected or reversed once it has been accepted by the registry; instead, it must be withdrawn.
12. Once the NT has been accepted, all online queries relating to the ICP in question must highlight that a Trader switch is in progress.
13. As part of the NT message delivery and in accordance with the notification parameter settings of the gaining Trader, the system may also provide, immediately (and only to) the gaining Trader, a file containing the events 'as at' the Proposed Switch Date (or today's date where the Proposed Transfer Date is missing) and any events that have changed since that date for each ICP. The format of this file is the snapshot version of PR-030 – Event Detail Report. The report can be requested to be provided in csv or xml format which is a parameter setting within the notify parameters process (MP-020). The name of this file will be the same as the NT message with a file extension of ".eda".

    A Trader who is in a Trader Default situation may not submit an NT to the Registry

Data inputs:			
Each attribute on an input line is comma separated. NT (notice of transfer) attributes are as follows:			
Name	**Type**	**Mandatory/ optional**	**Description**
Record type	Char 1	M	Must be “P”
ICP	Char 15	M	
Requesting Trader	Char 4	O	New Trader participant identifier. The Participant Identifier can be derived by the system.
Confirmation Address Unit	Char 20	O	
Confirmation Address Number/ RAPID number	Char 25	O	
Confirmation Address Street	Char 30	O	
Confirmation Address Suburb	Char 30	O	
Confirmation Address Town	Char 30	O	
Confirmation Post Code	Numeric 4	O	
Confirmation Address Region	Char 20	O	Address Region must be a valid Region as per Static Data table.
Confirmation Property Name	Char 75	O	
Proposed Transfer Date	DD/MM/YYYY	M/O	Mandatory if the Switch Type is MI or HH. The gaining Trader must be active in the role of ‘Trader’ on the Proposed Transfer Date or, if left blank, ‘as at’ todays date.
Switch Type	Char 2	M	Must be one of MI or TR or HH.
Proposed Profiles	Char 25	M	One or more Profiles separated by spaces. Each one must be valid for the requesting Trader on the Proposed Transfer Date.
Proposed ANZSIC	Char 7	O	Valid consumer’s ANZSIC code,
User Reference	Char 32	O	Free text.
Example: HDR,RQSWITCHNT,RETB,RGST,16/07/2007,15:36:20,1,			

P,9999999999AB123,RETB,Unit1,127,Peel Street,Ohau,Twizel,9971,,Canterbury,01/01/2009,MI,RPS MXP,A013100,NTSwitchUserRef

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the requesting Trader is allowed to input the NT.
3. Checks the Trader is not in a Trader Default situation
4. Rejects an NT with errors and returns it to the sender with the reason for the rejection.
5. Updates each ICP to indicate that a Trader switch is in progress.
6. Keeps a copy of the NT and completes the audit trail information for it.
7. Delivers the NT to the current Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
8. Identifies if the ICP has current or impending ICP planned service interruption records and, where the gaining trader has not previously been notified of the planned service interruption, notifies the gaining trader in accordance with the gaining Trader's ICP planned service interruption notification parameters.
9. Deliver a snapshot PR-030 file to the new Trader, in accordance with their notify parameter settings.
10. Generates an acknowledgement to the gaining Trader.

Data outputs:

- ICP updated to indicate that a Trader switch is in progress and the NT has been received.
- Stored copy of the switch request message and its associated audit trail information.
- NT to forward to the losing Trader.
- ICP planned service interruption to the gaining Trader
- Acknowledgement.

Sub-process:	**RS-020 Acknowledge switch request (AN)**
Process:	Traders switch ICP
Participants:	Traders
Code references:	Clause 11.15 of Part 11.Clauses 1 to 16 and 22 of Schedule 11.3 and Schedule 11.5 of the Code.
Dependencies:	

Description:

The losing Trader responds to a switch request by sending an acknowledgement notice (AN) to the registry. The registry then forwards the notice to the gaining Trader.

Business requirements:

1. Only the current Trader at an ICP being switched can send an AN message.
2. There must be a Trader switch in progress for the ICP and it must relate to the current Trader.
3. An AN must be sent for HH switch types but is optional for other switch types. A value must be entered for the Expected Transfer Date for switch types of MI and TR. A transfer date must be both later than the date the current Trader accepted responsibility for the ICP and any completed switches that have not been withdrawn. The Expected Transfer Date must be within the period that the gaining Trader has an active role of 'Trader'. Where the Expected Transfer Date is not provided, the gaining Trader must be currently active in the role of 'Trader'.
4. Industry approved acknowledgement codes must be used in the AN.
5. An audit trail and an acknowledgement must be generated for the AN.
6. The AN must be forwarded by the registry to the gaining Trader in a file and in accordance with its switch notify parameters.
7. Once accepted by the registry, an AN cannot be corrected or reversed.
8. An AN with an acknowledgement code indicating that the current Trader objects to the switch does not mean the switch process must be stopped. This can only be done by withdrawing the switch.

Data inputs:

Each attribute on an input line is comma separated.

AN (acknowledgement notice) attributes are:

Name	Type	Mandatory /optional	Description
Record type	Char 1	M	Must be "P"
ICP	Char 15	M	

Trader	Char 4	O	Current Trader Participant Identifier (losing). The Participant Identifier can be derived by the system.
Response Code	Char 2	M	As defined by the Authority. Current values are: AA – acknowledge and accept CO – contracted customer MP – metering is pre-paid MU – unmetered supply OC – occupied premises PD – premises electrically disconnected AD – advanced metering. TD – Trader Default. This code cannot be used by Traders.
Expected Transfer Date	DD/MM/YYYY	M/O	If the AN is in response to a switch type of MI and TR then the Expected Transfer Date is mandatory, or else optional.
User Reference	Char 32	O	Free text field.
Example: HDR,RQSWITCHAN,RETA,RGST,10/07/2007,16:45:01,1 P,9999999999AB123,RETA,AA,01/01/2009,ANUserReference			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the AN was sent by the current Trader at the ICP and that there is an immediately prior switch request (NT).
3. Rejects an AN with errors and returns it to the sender with the reason for the rejection.
4. Updates the progress of the switch for the ICP.
5. Keeps a copy of the AN.
6. Completes the audit trail information for the AN.
7. Delivers the AN to the gaining Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
8. Generates an acknowledgement to the current Trader.

Data outputs:
• ICP updated to indicate what stage the switch process has reached, ie AN received. • Stored copy of the acknowledgement notice and its associated audit trail information. • AN to forward to the gaining Trader. • Acknowledgement.

Exceptions:

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Sub-process:	**RS-030 Complete non-half-hour switch (TN) - Discontinued**
Process:	Traders switch ICP
Participants:	Traders
Code references:	Clauses 1 to 16 and 22 of Schedule 11.3 of the Code
Dependencies:	

Description:

This message type will no longer be available post migration date but historical information will be available to view and report on. Replaced by new switch transaction (CS). See RS-050.

The losing Trader sends a transfer notification message (TN) to the registry in order to complete either a standard non-half-hour switch (S) or a standard non-half-hour move switch (SM). The registry then forwards the TN on to the gaining Trader. The TN provides the final premises, metering and meter reading information to the gaining Trader.

Business requirements:

1. Only the losing Trader can send a TN message.
2. All TN messages must be sent to the registry in a file; however, the system must also provide an online view of the basic TN information, ie not all the TN information must be displayed.
3. There must be a prior switch request or acknowledgement notice present for the ICP and it must relate to the switch.
4. The original switch request must have been for either a standard non-half-hour or standard non-half-hour move switch (S, SM).
5. The registry must keep a copy of the TN for a minimum of 3 months.
6. An audit trail and an acknowledgement must be generated for the TN.
7. The TN must be forwarded by the registry to the gaining Trader in a file in the same format and order as input, and in accordance with their switch notify parameters.
8. The TN must also be forwarded to the Distributor and Meter Owner (applicable at the actual switch transfer date).
9. Once accepted by the registry, a TN cannot be corrected or reversed. The withdrawal sub-process must be used instead.

Data inputs:
Each attribute on an input line is comma separated. TN (transfer notice) attributes are:

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be 'P' – premises.
ICP	Char 15	M	ICP Identifier.
Trader	Char 4	O	Current Trader Participant Identifier (losing). Derived by the system if left blank.
Actual Transfer Date	DD/MM/YYYY	M	
Relay Owner	Char 6	O	Owner of relays on premises.
Number Of Meters	Numeric 2	M	Number of meters at ICP.
User Reference	Char 32	O	Free text field carried to history and audits.
For each meter:			There must be exactly <number of meter> rows of 'M' record types for this ICP. They will be separated by intervening 'R' rows.
Record type	Char 1	M	'M' – meter.
ICP	Char 15	M	ICP Identifier.
Last Read Date	DD/MM/YYYY	M	Date meter was last physically read, eg 05/05/2002, or the last validated meter reading if permanent estimate supplied.
Primary Metering Contact Participant Identifier	Char 4	M	Must be a valid Meter Owner.
Meter Identifier	Char 15	M	Unique identifier of meter.
Meter Multiplier	Numeric 3.3	M	Multiplier (up to three decimal places) to transform readings to actual usage. Checked against the value of the Meter Multiplier Flag of the Metering event applicable on the Actual Transfer Date. If the Metering event Meter Multiplier Flag is 'Y' then at least one of the meter multipliers for this premise must have a value other than unity, ie not 1.

Name	Type	Mandatory/ optional	Description
Register Dials	Numeric 2	M	Number of dials/digits on the meter's registers. Valid values are between 4 and 12.
Meter Location Code	Char 3	M	Value must be one of those in the list of valid meter location codes held by the registry.
Average Daily Consumption	Numeric 6	M	Value indicates average kWh per day for last read period.
Key Held Indicator	Char 1	M	'Y'/'N'.
Number Of Registers	Numeric 2	M	Number of registers for this meter. The total number of registers for the premises (for this ICP) must be **greater** than or equal to Meter Register Count of the Metering event applicable on the Actual Transfer Date. This is a count of the number of non half-hour meter registers only. A register for this file is defined as one that returns cumulative non half-hour meter readings used by participants in the preparation of submission files.
Meter Reader Notes	Char 50	O	Free text. Optional.
For each register within the meter:			There must be exactly <number of register> rows after each 'M' row.
Record type	Char 1	M	'R' – register.
ICP	Char 15	M	ICP Identifier.
Meter Identifier	Char 15	M	Unique identifier of meter. Must be the same as in the preceding M record.
Register Number	Numeric 2	M	Sequential register number (identifier).
Register Content	Char 6	M	Valid register content code – see static data sub-process, eg D—daytime only, N—night-time only.
Period of Availability	Numeric 2	M/O	Minimum service hours of supply per day. Required if register has controlled or inclusive load (see register content codes – static data maintenance sub-process).
Register Units	Char 6	M	Valid register unit – see static data maintenance sub-process, eg kWh, kW, kVA, kVArh.

Name	Type	Mandatory/ optional	Description
Energy Flow Direction	Char 1	M	Valid values are 'L' for load and 'G' for generation.
Register Reading	Numeric 12	M	Reading value for this register on this date. Number of digits must not be greater than the number of dials.
Actual or Estimate	Char 1	M	Indicates whether the read was an actual or estimate. Valid values: (A)ctual, ie validated meter reading, or (E)stimate, ie permanent estimate.

Examples:
HDR,RQSWITCHTN,RETA,RGST,19/07/2007,14:48:34,3
P,9999999999AB123,RETA,01/01/2009,RETA,1,premises user ref
M,9999999999AB123,17/12/2008,,6677AB,,,,12.33,Y,1,MetrNotes
R,9999999999AB123,6677AB,12,,,,,,1234,A

A TN with 2 meters each with 2 registers:
HDR,RQSWITCHTN,CTCT,RGST,19/07/2007,14:48:34,5
P,12345678901AB123,GENE,18/07/2007,,1,100471481:001
M,12345678901AB123,15/07/2007,NGCM,501824,1.000,5, BA,554,N,3
R,12345678901AB123,501824,1,D,16,KWH,L,26699,A
R,12345678901AB123,501824,2,N,8,KWH,L,08444,A
M,12345678901AB123,15/07/2007,NGCM,501825,1.000,5, BA,374,N,3
R,12345678901AB123,501825,1,D,16,KWH,L,26699,A
R,12345678901AB123,501825,2,N,8,KWH,L,08444,A

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the TN is being sent by the losing Trader and that there is a switch in progress for the ICP.
3. Rejects a TN with errors and returns it to the sender with the reason for the rejection.
4. Keeps a partial copy of the TN comprising the Actual Transfer Date, number of meters and User Reference attributes and the Proposed Transfer Date from the original transfer request (NT).
5. Generates an audit trail for the partial TN.

6. Sends the complete TN to the gaining Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
7. Sends the complete TN to the affected Distributor and Meter Owner of the ICP. All TNs are batched together in one file and delivered overnight.
8. Generates a Reconciliation event for the ICP, in order to effect the change in Trader, setting the Event Date to be the Actual Transfer Date from the TN and taking the remaining reconciliation attributes from the information in the original switch request (NT).
9. Updates the ICP so that there is no longer a switch in progress.
10. Reverses any Trader events that may have been input by the losing Trader prior to the start of the switch process and that have Event Dates later than the Actual Transfer Date.
11. Completes audit trail information for each event inserted and reversed.
12. Generates an acknowledgement for the TN to the losing Trader.
13. Determines affected participants of each event insertion and reversal and generates notifications to them, with reference to their notification parameters. Both Traders are classed as affected participants.

Data outputs:
ICP updated to indicate the switch is no longer in progress.
Reconciliation event.
Possible reconciliation, metering and Status event reversals.
Partial copy of the TN and its associated audit trail information stored on registry for online query.
TN to forward to the gaining Trader, Distributor, and Meter Owner.
Notifications.
Acknowledgements.

Sub-process:	**RS-040 Complete half-hour switch (TT) – Discontinued**
Process:	Traders switch ICP
Participants:	Traders
Code references:	Clauses 1 to 16 and 22 of Schedule 11.3 of the Code
Dependencies:	

Description:

This message type will no longer be available post migration date but historical information will be available to view and report on. Replaced by new switch transaction (CS). See RS-050.

There will however be a change to this function required, to remove updates to Metering events using this message type (required for the transition period).

A TT message is sent to the registry by the gaining Trader to complete a half-hour (H), half-hour move (HM), non-half-hour to half-hour (NH) or half-hour to non-half-hour switch (HN). The TT provides only information about the losing Trader and the gaining Trader. No meter reading information or other final information is supplied to the old Trader.

Business requirements:

1. Only the gaining Trader can send the TT for a switch in progress for the ICP.
2. There must be a prior AN present for the ICP and it must relate to the switch in progress.
3. The switch type on the original NT must have been either half-hour (H), half-hour move (HM), non-half-hour to half-hour (NH) or half-hour to non-half-hour switch (HN).
4. The registry must keep a copy of the TT for a minimum of 3 months.
5. An audit trail and an acknowledgement must be generated for the TT.
6. The TT must be forwarded by the registry to the losing Trader in a file and in accordance with their switch notify parameters.
7. A TT cannot be corrected or reversed once accepted by the registry. The withdrawal sub-process must be used instead.

Data inputs:

Each attribute on an input line is comma separated.

TT (transfer notice) attributes are:

Name	Type	Mandatory/optional	Description
Record type	Char 1	M	Must be 'P' – premises.
ICP	Char 15	M	ICP Identifier.

Trader	Char 4	O	New requesting Trader Participant Identifier. If blank, will be derived by system.
Actual Transfer Date	DD/MM/YYYY	M	Actual date transfer will occur (switch Event Date).
Status Event Information:			Optional.
ICP Status	Char 3	O	Inactive (001) or Active (002). Required only if current ICP Status needs to change.
ICP Status Reason	Numeric 2	O/M	If ICP Status of *inactive* is entered then a valid inactive reason code is required (mandatory See static data tables for valid values
Metering event Information:			Optional input; however, if one of the following attributes is input then ALL other attributes are required to be input (ie are mandatory).
MEP Participant Identifier	Char 4	O/M	Valid MEP.
Metering Category	Numeric 1	O/M	0 to 6.
Meter Type HHR	Char 1	O/M	Y or N. At least one of the Meter Types must be Y.
Meter Type NHH	Char 1	O/M	Y or N. At least one of the Meter Types must be Y.
Meter Type UNM	Char 1	O/M	Y or N. At least one of the Meter Types must be Y.
Meter Type PP	Char 1	O/M	Y or N. At least one of the Meter Types must be Y.
Advanced Metering Infrastructure	Char 1	O/M	Y or N.
Daily Unmetered kWh	Char 6	O/M	Mandatory if one of the Meter Types is Unmetered or Meter Register Count is 0. Value must be decimal (to 3 decimal places) or 'ENG' if the load is profiled through an engineering profile in accordance with profile class 2.1.

Unmetered Load Details – Trader	Char 50	O/M	Optional.
Meter Register Count	Numeric 3	O/M	0 to 999. This is the number of half-hour meters that are used in the settlement process.
Meter Multiplier Flag	Char 1	O/M	N(o) if all meters at the ICP have a multiplier of 1 or the ICP is unmetered, otherwise Y(es).
Additional Trader event information:			Optional.
Profile	Char 25	O	One or more Profiles separated by spaces. Each one must be valid for the Trader on the Actual Transfer Date. If not provided then Profiles from the NT will be used.
User Reference	Char 32	O	Free text field. Optional.
Example: HDR,RQSWITCHTT,RETA,RGST,16/07/2007,13:14:00,1 P,9999999999AB123,RETA,01/01/2009,002,,MEPA,,N,Y,N,,,1.54,UnmtrLoadDetails,,,MXP RPS,TTUserRef			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the TT was sent by the gaining Trader and that there is a prior AN sent by the current Trader.
3. Rejects a TT with errors and returns it to the sender with the reason for the rejection.
4. Keeps a copy of the TT in the registry under the ICP.
5. Forwards the TT to the losing Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
6. Generates a Trader event for the ICP in order to effect the change in Trader. The Trader event's Event Date is set to the Actual Transfer Date of the TT and takes the Profiles either from the TT, if they are provided, or from the original switch request NT.
7. Constructs events of the appropriate event types from information contained in the TT. Depending on what information has been provided, this may result in the insertion of new Status events.
8. Updates the ICP so that there is no longer a switch in progress.

9. Reverses any Trader events that may have been input by the losing Trader prior to the start of the switch process and that have Event Dates later than Actual Transfer Date
10. Completes audit trail information for each event inserted and reversed as well as for the TT.
11. Generates an acknowledgement for the TT to the gaining Trader.
12. Determines the affected participants of the event insertions and reversals and generates notifications to them, in accordance with the requirements of their notification parameters. Both Traders are classed as affected participants.

Data outputs:

- ICP updated to indicate the switch is no longer in progress.
- Trader event.
- Possible Status events.
- Possible Trader, and/or Status event reversals.
- Copy of the TT and its associated audit trail information.
- TT to forward to the losing Trader.
- Notifications.
- Acknowledgements.

Sub-process:	**RS-050 Complete switch or replace switch reading (CS and RR)**
Process:	Traders switch ICP
Participants:	Traders
Code references:	Clause 11.15 of Part 11. Clauses 1 to 22 of Schedule 11.3 and Schedule 11.5 of the Code
Dependencies:	MP-020, PR-030

Description:

This message is used to send final information to complete a switch. For HH switch types (see RS-010) it is submitted by the gaining Trader to the Registry. For all other switch types it is sent by the losing Trader to the Registry. The Registry forwards the message to all interested parties and generates a new Trader event that records the new Trader.

The submitter is required to provide channel readings for all existing (non-removed) metering components with channels that have an accumulator type = 'C' and a settlement indicator of 'Y'. This applies to all metering component types.

This message type can also be used to change the readings in accordance with clauses 6 and 12 of Schedule 11.3. In this case it is only the gaining Trader that submits it to the registry where it is delivered to the losing Trader and only where it was the losing Trader that submitted the original CS. The original CS remains in the system. The 'correction' version of this format will have a message type of RR to distinguish it from the original CS.

As part of the CS message delivery and in accordance with the notify parameter settings of the new Trader, the system can also provide (only to) the new Trader an additional file at the same time as the CS is delivered, containing the latest applicable ICP event details, of every event type, for each ICP within the CS message. The format of this file is the snapshot version of PR-030 – Event Detail Report. The report can be requested to be provided in csv or xml format which is a parameter setting within the notify parameters process (MP-020).

User information: When switching an ICP that has only unmetered load (ie. UNM) and therefore no metering records, the CS message will contain only a Premises record type. Similarly, for ICPs with no existing metering components with channels that have an accumulator type of 'C' and a settlement indicator of 'Y', the CS message will contain only a Premises record type.

Transitional requirement: For back-dated switches, where the Actual Transfer Date is prior to the go-live date, all validation requiring checks to be made against the metering event information applicable at the Actual Transfer Date of an ICP is to be omitted. This applies to the CS and the RR. This relaxation functionality is only available if the CS or RR is submitted by file (SFTP). This relaxation functionality extends to RRs submitted against matching TNs i.e. only available via file.

<u>Trader Default Situation</u>

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A Trader may not submit a CS to the Registry where the result will be a gain in responsibility to a Trader in a Trader Default situation.

Business requirements:

1. For CS messages, where the switch type on the NT is HH, it is submitted by the gaining Trader to the Registry. For all other switch types it is sent by the losing Trader to the Registry.
2. For RR messages, it is submitted by the gaining Trader to the Registry but only where the original CS was submitted by the losing Trader or where there is a matching TN.
3. Traders can provide CS/RR information to the registry via a file or via a browser screen. Only the affected parties to the switch - Traders (gaining and losing), Distributor, the MEP and the Proposed MEP (if an MEP switch is in progress) can view the full CS/RR information via the browser. Other parties can view all the information except the channel readings.
4. For a CS message type, there must be an immediately prior switch request (NT) or acknowledgement notice (AN) present for the ICP and it must relate to the switch.
5. For a CS message type, the gaining Trader must be active in the role of 'Trader' 'as at' the Actual Transfer Date.
6. For a CS message type, the Actual Transfer Date must be greater than the ICP initial assignment date.
7. For a CS message, the gaining Trader must not be in a Trader Default situation.
8. An audit trail and an acknowledgement must be generated for the CS and RR.
9. The CS/RR information must be forwarded by the registry to the other Trader in a file in the same format and order as input, and, in accordance with their switch notify parameters.
10. The CS (but not the RR) must also be forwarded to the other (gaining or losing) Trader, Distributor the MEP and the Proposed MEP (if an MEP switch was in progress) of the ICP applicable at the Actual Transfer Date. "Where an 'affected party' has dual roles e.g. Trader and Proposed MEP, only one message is forwarded.
11. Once accepted by the registry, a CS cannot be reversed. The withdrawal sub-process must be used instead.
12. The CS can be corrected (in certain circumstances) by submitting an RR transaction but only by the gaining Trader party but only where the original CS was submitted by the losing Trader. The RR Actual Transfer Date must match the Actual Transfer Date of the original CS or TN. All the validation rules are re-applied based on the Metering and Trader applicable at the Actual Transfer Date.
13. Only the CS message changes the responsibility from the losing Trader to the gaining Trader and triggers the updating of Trader event information. The RR is purely for information purposes.

14. Depending on the notification parameters, a snapshot version of the Event Detail report PR-030 may be generated containing each ICP successfully switched via a CS message. The report is delivered to a new Trader at the same time as the CS is delivered. This is only required where it is the old Trader that inputs the CS message. The format of the report can be xml or csv. The format is set as a supervisor-defined parameter. This report will contain the events 'as at' the Switch Date and any events that have changed since that date for each ICP. The name of this file will be the same as the forwarded CS message with a file extension of ".eda".
15. For back-dated switches, where the Actual Transfer Date is prior to the go-live date, all validation requiring checks to be made against the metering event information applicable at the Actual Transfer Date of an ICP is to be omitted when the CS or RR is submitted via file.
16. There can be multiple RR messages sent for any completed switch (CS or TN) where the Actual Transfer Date on the RR matches the one on the completed switch.

    N.B.

    a) An RR cannot be sent for a completed switch that has been withdrawn or is in the process of being withdrawn.

    b) An RR cannot be sent for a completed switch where there is already an RR that has no associated (matching) AC i.e. an AC must always follow an RR.

    c) There is no checking whether the previous AC was a rejection or acceptance before a subsequent RR can be sent for a particular completed switch.

Data inputs:

- Each attribute on an input line is comma separated.
- CS/RR (completed switch/replacement reading notice) attributes are:
- N.B. For RR message types the 'I' and 'M' rows must not be provided.
- Sequence of input file: ICP Number, Metering Installation Identifier, Metering Component Serial Number, Channel Number.

Name	Type	Mandatory /optional	Description
Record Type	Char 1	M	Must be 'P' – premises
ICP	Char 15	M	ICP Identifier.
Trader	Char 4	O	Submitting Trader Participant Identifier. Derived by the system if left blank.
Actual Transfer Date	DD/MM/YYYY	M	The submitting Trader must be active in the role of 'Trader' on the Actual Transfer Date.
User Reference	Char 32	O	Free text field carried to history and audits.

For each Metering Installation that has channels requiring readings			Where the Actual Transfer Date is on or after the go-live date: there must be exactly the same number of installation rows as found in the Metering event applicable at the Actual Transfer Date for this ICP where the installation contains non-removed metering components with at least one Channel with an accumulator type = 'C' and settlement indicator = 'Y'. They will be separated by intervening 'M' and 'R' rows. For RR message types the 'I' row is not to be submitted.
Record Type	Char 1	M	'I' – installation.
ICP	Char 15	M	ICP Identifier.
Metering Installation Number	Numeric 3	M	A unique Metering Installation Identifier within the ICP. Where the Actual Transfer Date is on or after the go-live date, this must match the Metering Installation Identifier in the related Metering event applicable at the Actual Transfer Date.
Average Daily Consumption	Numeric 6	M	Value indicates average kWh per day for last read period.
Key Held Indicator	Char 1	M	'Y'/'N'.
			Where the Actual Transfer Date is on or after the go-live date, there here must be exactly the same number of 'M' rows following an 'I' row, as the number of existing (non-removed) metering components within the installation with at least one Channel with an accumulator type = 'C' and settlement indicator = 'Y'. Each 'M' row will be separated by intervening 'R' rows. For RR message types the 'M' row is not to be submitted.
Record type	Char 1	M	'M' – meter.
ICP	Char 15	M	ICP Identifier.
Metering Installation Number	Numeric 3	M	Metering Installation Identifier. Must be the same as in the preceding 'I' record.

Metering Component Serial Number	Char 25	M	Unique identifier of the metering component within the ICP. Where the Actual Transfer Date is on or after the go-live date, it must match the Metering Component Serial Number in the related Metering event applicable at the Actual Transfer Date.
Last Read Date	DD/MM/YYYY	M	Date the metering component was last physically read, e.g. 05/05/2002, or the last validated meter reading if a permanent estimate supplied.
Meter Reader Notes	Char 50	O	Free text. Optional.
			For CS message types, where the Actual Transfer Date is on or after the go-live date, there must be exactly the same number of 'R' rows, as the number of channels within the metering component of the previous 'M' row that have an accumulator type = 'C' and a settlement indicator = 'Y' applicable at the Actual Transfer Date. For RR message types, where the Actual Transfer Date is on or after the go-live date, there must be exactly the same number of 'R' rows, as there are channels recorded against the ICP and metering component in the ICP's Metering event, that have an accumulator type = 'C' and a settlement indicator = 'Y' applicable at the Actual Transfer Date.
Record type	Char 1	M	'R' – register/channel.
ICP	Char 15	M	ICP Identifier.
Metering Installation Number	Numeric 3	M	For the CS, must be the same as in the preceding 'I' record.
Metering Component Serial Number	Char 25	M	Unique Metering Component Serial Number for the ICP. For the CS, must be the same as in the preceding 'M' row.

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Channel Number	Numeric 2	M	A unique combination of Metering Installation Number/Metering Component/Serial Number/Channel Number for the ICP. Where the Actual Transfer Date is on or after the go-live date, the unique combination must identify a channel that has accumulator type = 'C' and a settlement indicator of 'Y' in the associated Metering event to which the reading applies.
Reading	Numeric 12	M	Reading value for this channel on this date. Where the Actual Transfer Date is on or after the go-live date: the number of digits must not be greater than the number of dials recorded for this channel in the associated Metering event.
Actual or Estimate	Char 1	M	Indicates whether the read was an actual or estimate. Valid values: (A)ctual, i.e. validated meter reading, or (E)stimate, i.e. permanent estimate or (D)efault i.e. Trader Default initiated. N.B. "D" cannot be used by Traders.

Examples:
A CS with 1 installation, with 1 meter but with 2 channels, the Last Read Date is the same as the Actual Transfer Date, so the Reading is Actual:
HDR,RQSWITCHCS,RETA,RGST,19/07/2016,14:48:34,5
P,9999999999AB123,RETA,18/07/2016,premises user ref
I,9999999999AB123,1,12,Y
M,9999999999AB123,1,6677AB,18/07/2016,MetrNotes
R,9999999999AB123,1,6677AB,1,1234,A
R,9999999999AB123,1,6677AB,2,7894,A

A CS with 2 installations, each with 1 meter but with 2 channels. The switch date is 3 days later than the Last Read Date so the Reading is an Estimate:
HDR,RQSWITCHCS,CTCT,RGST,19/07/2016,14:48:34,9
P,12345678901AB12,GENE,18/07/2016,2100471481:001
I,12345678901AB12,1,12,Y
M,12345678901AB12,1,501824,15/07/2016,Notes
R,12345678901AB12,1,501824,1,26699,E
R,12345678901AB12,1,501824,2,08444,E
I, 12345678901AB12,2,62,N
M,12345678901AB12,2,501825,15/07/2016,Notes
R,12345678901AB12,2,501825,1,26699,E
R,12345678901AB12,2,501825,2,8444,E

An RR with 1 installation, with 1 meter but with 2 channels:
HDR,RQSWITCHRR,RETA,RGST,19/07/2007,14:48:34,3

P,9999999999AB123,RETA,01/01/2009,premises user ref
R,9999999999AB123,1,6677AB,0,1284,A
R,9999999999AB123,1,23454789,1,9894,A

A CS for an ICP with only UNM of where there are no components with a channel with a settlement indicator of 'Y':
HDR,RQSWITCHCS,RETA,RGST,19/07/2007,14:48:34,3
P,9999999999AB123,RETA,01/01/2009,premises user ref

Processing:

System

1. Validates all attributes, using relevant information from the Metering and Trader events, and checks their dependencies.
2. Checks that the CS is being sent by the appropriate Trader.
3. Checks that the CS will not result in a Trader in a Trader Default situation gaining responsibility.
4. Checks that the CS Actual Transfer Date is greater than the ICP initial assignment date
5. Checks that the RR is being sent by the appropriate Trader.
6. There must be a Trader switch in progress for the ICP.
7. Rejects a CS/RR with errors and returns it to the sender with the reason for the rejection.
8. Keeps a copy of the CS/RR.
9. Generates an audit trail for the CS/RR.
10. Sends the CS/RR to the other Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
11. Sends the CS (not RR messages) to the affected Distributor and Metering Equipment Provider (unless the MEP has already been sent the CS in the dual role of Trader) of the ICP. All CS messages are batched together in one file and delivered overnight.
12. For CS message types only, generates a Trader event for the ICP, in order to effect the change in Trader, setting the Event Date to be the Actual Transfer Date from the CS and taking the remaining reconciliation attributes from the information in the original switch request (NT), if present, otherwise from the immediately prior Trader event, if present.
13. For CS message types only, when generating the Trader event from the attributes found in the original switch request (NT), sets the Trader event submission types based on the classification of the profile codes supplied in the NT message as follows:

    For the purpose of setting the submission types, profile codes beginning with the letter H are to be classified as half hourly profiles except for the code HSL (used for street lights).
    All other codes, including HSL, are to be classified as non half hourly profiles.
    Then

    a) for an NT message where all the profile code(s) are for half hourly profiles:

i. submission type NHH = “N”; and
ii. submission type HHR = “Y”.

b) for an NT message where all profile code(s) are for non half hourly profiles:
i. submission type NHH = “Y”; and
ii. submission type HHR = “N”.

c) for an NT message where there are a mix of half hourly and non half hourly profiles:
i. submission type NHH = “Y”; and
ii. submission type HHR = “Y”

14. For CS message types only, where the switch type on the NT message is MI or TR, records against the losing trader, for the CS arrival date, the number of business days between the arrival date of the NT message and the Actual Transfer date.
15. For CS message types only, updates the ICP so that there is no longer a Trader switch in progress (not applicable to RRs).
16. For CS message types only, reverses any Trader submitted events (Trader and Status) that have Event Dates later than the Actual Transfer Date but not Trader events that commenced an MEP switch where an MN acceptance was also submitted. In this instance, the system will replace these Trader events with details inherited from the Trader event generated as a result of this Trader switch, but with the Event Date and Proposed MEP attributes taken from the Trader event being replaced.
17. Completes audit trail information for each event inserted and reversed.
18. Generates an acknowledgement for the CS/RR to the submitting Trader.
19. Generates a snapshot Event Detail report (PR-030) for each ICP switched but only for new Traders where the CS was submitted by an old Trader, if applicable.
20. Determines the affected party of each event insertion, replacement and reversal and generates notifications to them, with reference to their notification parameters. The affected parties are the Distributor, gaining Trader, losing Trader, MEP, and the Proposed MEP if there is an MEP switch in progress.
21. A Trader event reversal may result in the MEP switch in progress status being set off.

Data outputs:

- ICP updated to indicate the Trader switch is no longer in progress.
- Trader event.
- Possible Trader and Status event reversals.
- Possible Trader event replacements.
- Possible MEP switch in progress status set off.
- Copy of the CS/RR and its associated audit trail information stored on registry for online query but without the channel reading attribute value.
- CS/RR to forward to the other Trader

- CS message only to the Distributor and Metering Equipment Provider.
- Snapshot Event Detail report (PR-030) for each ICP switched, to the new Trader.
- Notifications.
- Acknowledgements.

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Sub-process:	**RW-010 Make withdrawal request (NW)**
Process:	Trader withdraws switch
Participants:	Traders
Code references:	Clause 11.15 of Part 11.Clauses 17 and 18 of Schedule 11.3 and Schedule 11.5 of the Code.
Dependencies:	

Description:
A Trader currently or previously involved in a switch sends a notify withdrawal message (NW) to the registry requesting the withdrawal of a switch.

Business requirements:

1. Only the losing Trader or gaining Trader can request a switch withdrawal.
2. A Trader must not submit a NW message where the end result will be a Trader in a Trader Default situation gaining responsibility for an ICP.
3. A Trader must only submit a NW message where the result would be, if accepted via the AW, a Trader gaining responsibility for the ICP in a period where they have an active role of 'Trader'.
4. Either losing Trader or gaining Trader can initiate the switch withdrawal process.
5. Only the latest switch may be withdrawn. The Trader switch can be one that is still in progress or one that has been completed.
6. A switch cannot be withdrawn where it would invalidate later events.
7. The withdrawal process can be initiated at any point in the switch process, ie after the NT, AN or CS.
8. If any Distributor maintenance is done, any notifications sent to affected parties must indicate that a Trader switch withdrawal is in progress and both Traders involved must be notified.
9. The registry must keep a copy of the NW for a minimum of 3 months.
10. An audit trail and an acknowledgement must be generated for the NW.
11. The NW must be forwarded by the registry to the other Trader in a file and in accordance with their switch notify parameters.
12. The withdrawal process must be completed once the NW has been accepted by the registry, since an NW cannot be corrected or reversed.
13. Once the NW has been accepted, all online queries relating to the ICP in question must highlight that a switch is being withdrawn.

Data inputs:

Each attribute on an input line is comma separated.

NW (notice of withdrawal) attributes are:

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be 'P' - premises.
ICP	Char 15	M	
Trader	Char 4	O	Participant identifier of the Trader who submits withdrawal notice. Either party of current or last switch. Can be derived by system.
Withdrawal advisory code	Char 3	M	Valid withdrawal advisory code – static data maintenance sub-process. Refer to static data tables for codes values
User Reference	Char 32	O	Free text.

Example:
HDR,RQSWITCHNW,RETA,RGST,10/07/2007,11:00:00,1
P,9999999999AB123,RETA,CR,NW UserRef

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the requesting Trader is allowed to make the switch withdrawal request.
3. Checks that the gaining Trader is not in a Trader Default situation.
4. Rejects an NW with errors and returns it to the sender with the reason for the rejection.
5. Updates the relevant ICP to indicate that a switch is being withdrawn.
6. Keeps a copy of the NW, and completes the audit trail information for it.
7. Forwards the NW to the other Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
8. Generates an acknowledgement to the requesting Trader.

Data outputs:

- ICP updated to indicate that the latest switch is being withdrawn.
- Stored copy of the NW and its associated audit trail information.
- NW to forward to the other Trader.
- Acknowledgement.

Sub-process:	**RW-020 Acknowledges withdrawal request (AW)**
Process:	Trader withdraws switch
Participants:	Trader, Metering Equipment Provider
Code references:	Clause 11.15 of Part 11.Clauses 17 and 18 of Schedule 11.3 and Schedule 11.5 of the Code.
Dependencies:	RW-010

Description:
A Trader, having received a notice requesting a switch withdrawal, sends an acknowledge withdrawal (AW) message to the registry in reply. The acknowledgement can either accept or reject the withdrawal request.

Business requirements:
1. The Trader receiving a notice to withdraw a switch must respond to it by sending an AW to the registry.
2. There must be an immediately prior NW for the latest switch of the ICP and no matching AW.
3. A Trader must not submit a AW message where the result is a Trader in a Trader Default situation gaining responsibility for an ICP.
4. A Trader must only submit an AW acceptance message which would cause the ICP to become the responsibility of a Trader in a period where they were active in the role of 'Trader'.
5. The registry must keep a copy of the AW for a minimum of 3 months.
6. An audit trail and an acknowledgement must be generated for the AW.
7. The AW must be forwarded to the other Trader by the registry in a file and in accordance with their switch notify parameters.
8. The AW must be forwarded to the current MEP, unless they have been sent the AW as a result of also being the Trader.
9. An AW cannot be corrected or reversed once accepted by the registry.

Data inputs:

Each attribute on an input line is comma separated.

- AW (withdrawal acknowledgement)

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be 'P' - premises.
ICP	Char 15	M	
Trader	Char 4	O	Trader Participant Identifier who submits the withdrawal acknowledgement. Can be derived by system.

Withdrawal Transfer Status	Char 1	M	A—withdrawal accepted. R—withdrawal rejected.
User Reference	Char 32	O	Free text.
Example: HDR,RQSWITCHAW,RETB,RGST,10/07/2007,11:00:00,1 P,9999999999AB123,RETB,A,AW_UserReference			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the responding Trader is allowed to send the AW message.
3. Checks the gaining Trader is not in a Trader Default situation.
4. Rejects an AW message with errors and returns it to the sender with a reason for the rejection.
5. If the AW message indicates that the withdrawal is accepted, cancels the latest switch. If it was a completed switch, any events inserted by the gaining Trader after the Actual Transfer Date of the switch are reversed except for Trader events that commenced an MEP switch where an MN acceptance was also submitted. In this instance, the system will replace these Trader events with details inherited from the prior Trader's latest Trader event, but with the Event Date and Proposed MEP attributes taken from the Trader event being replaced. The ICP is updated to indicate that a switch is no longer in the withdrawal process. Responsibility for the ICP reverts to the losing Trader.

   Cancels (removes) ICP planned service interruption information for the losing Trader; that is the Trader that does not have ICP responsibility is no longer to be notified of planned service interruption information. If required creates ICP planned service interruption information and notifies the gaining trader in accordance with the gaining Trader's ICP planned service interruption notification parameters.
6. If AW indicates that the withdrawal is rejected and, prior to the commencement of the withdrawal being initiated, a Trader switch was in progress, the system restores the ICP to the *switch in progress* state. (The Trader switch can proceed or another withdrawal can be initiated.) If the withdrawal was for an already completed Trader switch, the system ends the withdrawal in progress for the ICP. (It is available for switching again.)
7. Forwards the AW to the other Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
8. Forwards the AW to the current Metering Equipment Provider of the ICP. All AW messages are batched together in one file and delivered overnight.
9. Completes the audit trail information of each event inserted and reversed as well as for the AW.
10. Generates an acknowledgement of the AW for the responding Trader.
11. Determines the affected parties of each event insertion, replacement and reversal and generates notifications to them, with reference to their notification parameters. The affected parties are the Distributor, gaining Trader, losing Trader, MEP and the Proposed MEP if there is an MEP switch in progress.

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12. Each withdrawal initiation and acknowledgement pair of transactions, regardless of whether the acknowledgement is an acceptance or a rejection, resolves a switch withdrawal request.
13. A Trader event reversal may result in the MEP switch in progress status being set off.

Data outputs:

- ICP updated to indicate that the latest Trader switch is no longer being withdrawn.
- Stored copy of the AW and its associated audit trail information.
- AW to forward to the other Trader and MEP.
- Possible Trader and Status event reversals.
- Possible Trader event replacements.
- Possible MEP switch in progress status set off.
- Notifications.
- Acknowledgements.

Sub-process:	**RC-010 Request switch read change (NC) - Discontinued**
Process:	Trader changes switch read
Participants:	Traders
Code references:	Clauses 6(b) and 12(2)(b) and (3) of Schedule 11.3 of the Code
Dependencies:	

Description:

This message type will no longer be available post migration date but historical information will be available to view and report on. Replaced by new switch message RR. See RS-050.

A gaining Trader wishing to change the validated meter reading or permanent estimate on any completed switch that has not been or is not in the process of being withdrawn sends a request switch read change message (NC) to the registry to be forwarded to the losing Trader involved in the switch.

Business requirements:

1. All NC messages must be sent to the registry in a file. However, the system must also provide an online view of the basic NC information.
2. An NC message must only be applied to any completed switch that has not been or is not in the process of being withdrawn and it must have been for either a standard non-half-hour or standard non-half-hour move switch (S, SM), ie completed with a TN.
3. The premises information given on the NC must be the same as that of the TN message of the most recently completed switch sequence (except for the relay owner field).
4. The registry must keep a copy of the NC for a minimum of 3 months.
5. An audit trail and an acknowledgement must be generated for the NC.
6. The NC must be forwarded by the registry to the other Trader in a file and in accordance with their switch notify parameters.
7. Receipt of the NC must not affect the current switching status in any way.
8. Processing of the message must not generate any events.
9. A subsequent NC relating to a particular switch cannot be sent if there is an existing NC awaiting an associated AC for this switch.
10. Only the graining Trader of the switch in question can input an NC request.
11. Note that the NC is an exact copy of the TN format and the same validation of the values can be applied to the NC.

Data inputs:
Each attribute on an input line is comma separated. NC (notice of change of switch read)

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be 'P'—premises.
ICP	Char 15	M	ICP Identifier.
Trader	Char 4	O	Sending Trader Participant Identifier. Derived by the system if left blank.
Actual Transfer Date	DD/MM/YYYY	M	
Relay Owner	Char 6	O	Owner of relays on premises.
Number Of Meters	Numeric 2	M	Number of meters at ICP.
User Reference	Char 32	O	Free text field carried to history and audits.
For each meter:			There must be exactly <number of meter> rows of 'M' record types for this ICP. They will be separated by intervening 'R' rows.
Record type	Char 1	M	'M'—meter.
ICP	Char 15	M	ICP Identifier.
Last Read Date	DD/MM/YYYY	M	Date meter was last physically read, eg 05/05/2002, or the last validated meter reading if permanent estimate supplied.
Primary Metering Contact Participant Identifier	Char 4	M	Must be a valid Primary Metering Contact.
Meter Identifier	Char 15	M	Unique identifier of meter.
Meter Multiplier	Numeric 3.3	M	Multiplier (up to three decimal places) to transform readings difference to actual usage. Checked against the value of the Meter Multiplier Flag of the Metering event applicable on the Actual Transfer Date. If the Metering event Meter Multiplier Flag is 'Y' then at least one of the Meter Multipliers for this premise must have a value other than unity, ie not 1.

Name	Type	Mandatory/ optional	Description
Register Dials	Numeric 2	M	Number of dials/digits on the meter's registers. Valid values are between 4 and 12.
Meter Location Code	Char 3	M	Value must be one of those in the list of valid meter location codes held by the registry.
Average Daily Consumption	Numeric 6	M	Value indicates average kWh per day for last read period.
Key Held Indicator	Char 1	M	'Y'/'N'.
Number Of Registers	Numeric 2	M	Number of registers for this meter. The total number of registers for the premises (for this ICP) must be greater than or equal to the Meter Register Count of the Metering event applicable on the Actual Transfer Date. This is a count of the number of non half-hour meter registers only. A register for this file is defined as one that returns cumulative non half-hour meter readings used by participants in the preparation of submission files.
Meter Reader Notes	Char 50	O	Free text.
For each register within the meter:			There must be exactly <number of register> rows after each 'M' row.
Record type	Char 1	M	'R'—register.
ICP	Char 15	M	ICP Identifier.
Meter Identifier	Char 15	M	Unique identifier of meter. Must be the same as in the preceding M record.
Register Number	Numeric 2	M	Sequential register number (identifier).
Register Content	Char 6	M	Valid register content code – see static data sub-process, eg D—daytime only, N—night-time only.
Period of Availability	Numeric 2	M/O	Minimum service hours of supply per day. Required if register has controlled or inclusive load. (See register content codes – static data maintenance sub-process.)
Register Units	Char 6	M	Valid register unit – see static data maintenance sub-process, eg kWh, kW, kVA, kVArh.

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Name	Type	Mandatory/ optional	Description
Energy Flow Direction	Char 1	M	Valid values are 'L' for load and 'G' for generation.
Register Reading	Numeric 12	M	Reading value, for this register on this date. Number of digits must not be greater than the number of dials.
Actual or Estimate	Char 1	M	Indicates whether the read was an actual or estimate. Valid values: (A)ctual, i.e. validated meter reading, or (E)stimate, i.e. permanent estimate.
Example: HDR,RQSWITCHNC,RETA,RGST,19/07/2007,14:48:34,3 P,9999999999AB123,RETA,01/01/2009,RETA,1,premises user ref M,9999999999AB123,17/12/2008,,6677AB,,,,12.33,Y,1,MetrNotes R,9999999999AB123,6677AB,12,,,,,,1234,A			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the most recently completed switch for the ICP was either a standard non-half-hour (S) or a standard non-half-hour move (SM) switch.
3. Checks that the NC is being sent by the new Trader of the most recently completed switch.
4. Checks that the Actual Transfer Date, number of meters and User Reference attributes are the same as those given on the TN message of that switch sequence.
5. Rejects any NC with errors and returns it to the sender with the reason for the rejection.
6. Keeps a partial copy of the NC comprising the Actual Transfer Date, relay owner, number of meters and User Reference attributes.
7. Generates an audit trail for the partial NC.
8. Sends the complete NC to the losing Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
9. Generates an acknowledgement for the NC to the other Trader.

Data outputs:

Partial copy of the NC and its associated audit trail information stored on registry for online query.

NC to forward to the other Trader.

Acknowledgements.

Sub-process:	**RC-020 Acknowledge switch read change (AC)**
Process:	Trader changes switch read
Participants:	Traders, Metering Equipment Providers, Distributors
Code references:	Clause 12(3)(a) and 12(2)(b) and (3) of Schedule 11.3 of the Code
Dependencies:	

Description:

The losing Trader, having received a notice to change the validated meter reading or permanent estimate RR on any completed switch that has not been or is not in the process of being withdrawn, sends an acknowledge switch read change message (AC) to the registry in reply. The acknowledgement can either accept or reject the change request.

Business requirements:

1. The Trader receiving a notice to change a validated meter reading or permanent estimate must respond to it by sending an AC message to the registry.
2. The registry must keep a copy of the AC message for a minimum of 3 months.
3. If the AC is for an acceptance of the change, the registry must forward the associated RR to the affected Distributor and Metering Equipment Provider unless they have already been sent the RR as a result of also being the Trader.
4. An audit trail and an acknowledgement must be generated for the AC message.
5. The AC message must be forwarded to the other Trader by the registry in a file and in accordance with the other Trader's switch notify parameters.
6. An AC cannot be corrected or reversed once accepted by the registry.

Data inputs:

Each attribute on an input line is comma separated.

AC (acknowledge change request of switch read) attributes are:

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be ‘P’ - premises
ICP	Char 15	M	
Trader	Char 4	O	Trader that submits the change acknowledgement. Can be derived by system.
Actual Transfer Date	Date		DD/MM/YYYY. Used to identify the switch.

Switch read acknowledgement	Char 1	M	A—change accepted. R—change rejected.
User Reference	Char 32	O	Free text.
Example: HDR,RQSWITCHAC,RETB,RGST,10/07/2007,11:00:00,1 P,9999999999AB123,RETB,01/01/2009,A,USerReference			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the responding Trader is allowed to send the AC message.
3. Rejects an AC with errors and returns it to the sender with a reason for the rejection.
4. Forwards the AC to the other Trader either immediately or as part of a later batch in accordance with that Trader's switch notify parameters.
5. If the AC switch read acknowledgement is A—accept, the associated (prior) RR is to be forwarded to the affected Distributor and Metering Equipment Provider, via an overnight batch file.
6. Generates an acknowledgement of the AC for the responding Trader.

Data outputs:

1. Stored copy of the AC message and its associated audit trail information.
2. AC message to be forwarded to the other Trader.
3. If the AC switch read acknowledgement is A—accept, the associated (prior) RR is to be forwarded to the affected Distributor and Metering Equipment Provider.
4. Acknowledgement.

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Sub-process:	**MN-010 Accept or decline MEP responsibility for ICP (MN)**
Process:	MEP Responsibility Notice
Participants:	Metering Equipment Provider
Code references:	Clauses 1(2) and 1(3) Schedule 11.4 of the Code
Dependencies:	

Description:

The Proposed MEP, having received a notice that the Trader has loaded them in the Trader event as the new Proposed MEP, sends a notice to the registry to decline or accept the responsibility. For an acceptance, the notice will contain the required intended transfer date.

Business requirements:

1. Only the Proposed MEP as indicated on the latest Trader event can send the responsibility notice to the registry for an ICP.
2. If the MN is for an acceptance of responsibility, the registry must forward the associated MN to the affected Distributor, Trader (both parties if a Trader switch is in progress) and old MEP (if exists). An MN decline is only delivered to the current Trader.
3. The MN message must be forwarded to Traders by the registry in a file and in accordance with their (Traders) switch notify parameters. To Distributors and old MEP, the message is sent overnight.
4. The Transfer Date of the MN must be on or after the Event Date of the Trader event that first proposed them.
5. If there are any non-reversed Metering events with Event Dates on or after the Transfer Date, the MN must be rejected. The current (old) MEP will have to reverse them first.
6. An audit trail must be generated for all MN messages and for any replacements.
7. An acknowledgement must be generated for the MN message to the submitting MEP.

Data inputs:

Each attribute on an input line is comma separated.

MN (MEP responsibility notice) attributes are:

Name	Type	Mandatory/ optional	Description
Record type	Char 1	M	Must be 'P' - premises
ICP	Char 15	M	Valid ICP.
MEP Identifier	Char 4	O	MEP that submits the change acknowledgement. Can be derived by system.

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Transfer Date	Date	M/O	DD/MM/YYYY. Can be in the future. Mandatory for an acceptance, optional for a decline.
Responsibility Indicator	Char 1	M	A—responsibility accepted. R—responsibility rejected.
Decline Advisory Code	Char 3	M/O	Only mandatory for a Responsibility Indicator of R. Valid decline advisory code –see static data maintenance sub-process. Current valid codes are: WP – wrong premises AR – No arrangement with Trader (more codes to be advised).
User Reference	Char 32	O	Free text.
Example: HDR,RQSWITCHMN,METB,RGST,10/07/2007,11:00:00,1 P,9999999999AB123,METB,01/01/2012,A,,USerReference			

Processing:

System

1. Validates all attributes and checks their dependencies.
2. Checks that the responding MEP is allowed to send the MN message.
3. Rejects an MN with errors and returns it to the sender with a reason for the rejection.
4. Forwards the MN acceptance to the affected Trader(s) either immediately or as part of a later batch in accordance with that Trader's switch notify parameters. Forward the MN decline only to the current Trader.
5. Forwards the MN acceptance to the Distributor and old MEP (unless the old MEP has already been sent the MN in the dual role of Trader) overnight.
6. Generates an acknowledgement of the MN for the responding MEP.
7. Generates all required audit records.
8. Assigns an Event Date (to enable the correct sorting of this message in the online display of event history) that is the same as the Event Date of the Trader event that initiated the MEP switch.

Data outputs:

Stored copy of the MN message and its associated audit trail information.

MN message to be forwarded to the Trader(s), Distributor and current MEP

Acknowledgement.

Sub-process:	**DS-010 Transfer ICPs between Distributors**
Process:	Switching
Participants:	Registry manager
Code references:	Clause 11.8 and Schedule 11.2
Dependencies:	

Description:

This process is used primarily to accommodate acquisitions or mergers of Distributors, to facilitate transfer of ICPs from one Distributor Participant Identifier to another. The process is managed by the Authority and performed by the registry manager.

Business requirements:

1. The registry manager accepts instructions from the Authority in the form of a file in CSV format containing a list of ICPs to be transferred, plus data associated with each ICP. The spreadsheet may optionally contain a one-row header line.
2. Based on these instructions, the registry transfers the ICPs to the new Distributor Participant Identifier in a single operation. The registry does not manage any transfer negotiation. Results (acknowledgement) and notifications are advised in the normal manner.
3. Updates for large files (>1000 ICPs) may require process scheduling by mutual agreement between the Authority and the registry manager.

Data inputs:

- Pre-requisites to this process are valid NSP Mapping records for the new Distributor (added by the Reconciliation Manager) and valid Distributor Price Category and loss factor codes (added by the new Distributor).
- The NSP Mapping must be for the new Distributor and POC that are supplied in the Distributor transfer file.

  (Note: the DS010 input file does not require a header line)

Name	Type	Mandatory /optional	Description
Record type	Char 3	M	Must be “DET”
ICP	Char 15	M	
Transfer effective date	D/MM/YYYY	M	
Old network	Char 4	M	Participant identifier of the old Distributor
New network	Char 4	M	Participant identifier of the new Distributor
New POC	Char 7	M	POC for NSP mapping

Reconciliation Type	Char 2	M	Existing Reconciliation Type, provided for validation purposes only.
Dedicated NSP	Char 1	M	Existing Dedicated NSP (Y/N), provided for validation purposes only.
Installation Type	Char 1	M	Existing Installation Type (L, G, B), provided for validation purposes only.
Proposed Trader	Char 4	M	Ignored if ICP Status is other than NEW or READY
Unmetered Load Details - Distributor	Char 30	M	Existing Unmetered Load Details, provided for validation purposes only. Must match the Unmetered Load Details – Distributor on the network event valid at the Transfer effective date
Shared ICP List	Char 500	M	Existing list of ICP Identifiers, space delimited. Only valid if Reconciliation Type is SI, provided for validation purposes only. Must match the Shared ICP List on the network event valid at the Transfer effective date
New Distributor Price Category Codes	Char 50	M	Multiple allowed, space delimited
New Distributor Loss Category Code	Char 7	M	
Distributor Installation Details	Char 30	M	Existing Installation Details, provided for validation purposes only. Must match the Distributor Installation Details on the pricing event valid at the Transfer effective date
Chargeable Capacity	Numeric 7.2	M	Existing Chargeable Capacity, provided for validation purposes only. Must match the Chargeable Capacity on the pricing event valid at the Transfer effective date. Maximum Chargeable capacity that may be supplied is 9999999.99
User Reference	Char 32	O	Free text.
Example: DET,9999999999AB123,01/01/2009,NETA,NETB,ABC0111,GN,N,L,RETA,,,PRCat1 PRCat2,LCat1,,,UserReference			

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Processing:

System

Performs the following validation for each ICP

1. Validates all parameter formats:
    - The effective transfer date can be in the past or future.
    - The ICP exists at the effective transfer date and is not decommissioned.
    - The ICP has no network or Pricing events dated beyond the transfer effective date.
    - The ICP belongs to the old Distributor at the transfer effective date.
    - The new Distributor is valid and active in the role of 'Distributor' at the transfer effective date.
    - The Reconciliation Type does not change the type of the ICP ie from standard to Distributor-only or vice-versa.
    - The NSP Mapping with new POC exists and is valid for the new Distributor at the transfer effective date.
    - The Distributor Loss Category Code and Distributor Price Category Code(s) exist and are valid for the new Distributor at the transfer effective date.
    - The values are unchanged for Reconciliation Type, Dedicated NSP, Installation Type, Unmetered Load Details - Distributor, Shared ICP List, Installation Details, Chargeable Capacity, Generation Capacity, Fuel Type, Initial Electrically ConnectedDate, Direct Billed Status and Direct Billed Details.
2. For each ICP meeting validation requirements:
    - A new Network event is recorded for the ICP, effective transfer date and supplied Network event data.
    - A new Pricing event is recorded for the ICP, effective transfer date and supplied Pricing event data.
3. If the ICP was previously at *New*" state, and the addition of any network or pricing data allows it to become *Ready* (or in the case of a Distributor-Only ICP, to become *Distributor-Only*), a Status event is recorded for the ICP and effective transfer date.
4. An audit trail is maintained.
5. An acknowledgement is generated for each event created. For each ICP, this indicates success, or an error code notifying the reason for rejection
6. For each ICP successfully updated, notifications showing the ICPs new values are generated for the old and new Distributor. If a Status event is created, and there is no current or future Trader event, a notification is also generated for the Proposed Trader.
7. For each ICP successfully updated, notifications will be generated for any Traders and Metering Equipment Providers current at the transfer effective date.

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Data outputs:
• ICP updated with network and Pricing events recording new Distributor details and User Reference. • Audit. • Notification to old and new Distributor (and possible notifications to Proposed Trader, current Trader and current Metering Equipment Provider). A Trader switch in progress will result in notifications to both Traders involved in the switch. • Acknowledgement.

3.5 Reporting

Sub-process:	**PR-010 Produce ICP list (on demand)**
Process:	Produce reports
Participants:	Traders, Distributors, Authority, Metering Equipment Providers, Reconciliation Manager
Code references:	Clause 11.19 of the Code
Dependencies:	

Description:

This report is used to show the state of a participant's ICPs over time. It can be requested by Traders, Distributors, Metering Equipment Providers and the Authority. The participant specifies which ICPs to include in the report by providing a set of selection criteria or a list of ICP Identifiers. The report is produced for a given Event Date range. The output of addresses for the ICPs is optional and selectable.

Business requirements:

1. The report must show the values of all attributes, but only the summary level attributes of the metering attributes of the Metering event, at the start of the date range and all subsequent changes made during the date range. For every change, all attributes must be shown.
2. The report must be produced as a file in CSV format, as a minimum standard.
3. Events that have been reversed or replaced must not be reported.
4. When selection criteria are used:
    - Users must be prevented from using the report as a means of trawling through the ICP database to extract information from ICPs they do not own,
    - The output must only show ICP information for Event Dates that were within the submitter's period of responsibility AND are within the specified date range.
5. When a list of specific ICP Identifiers is provided, the output must show all the ICP information within the specified date range, ie it must ignore responsibility restrictions. Responsibility restrictions also do not apply to Distributor-only ICPs. All participants should be able to extract information for Distributor only ICPs when selection criteria of Status includes 'Distributor' and/or the selection criteria of Reconciliation Type includes 'LE' or 'SI'.
6. Where the report requester has more than one role, the report should extract ICP information for all the requester's roles (and be selectable). However, the report should not display duplicate information. For example, if the requester is both a Distributor and a Metering Equipment Providers, any ICP information where the requester is both the Distributor and the Metering Equipment Provider is to appear only once in the report.

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7. If the Address is not required, the report is to exclude the Address information for each ICP output.
8. Selection criteria and ICP lists must be able to be submitted online or via a file.
9. The Authority and the Reconciliation Manager must be able to view information for all participants.
10. If the output format of PR-010 changes in future then the same format changes must apply to PR-020.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.
Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated.
N.B. Options I and D can now be submitted via the browser as well as SFTP.

Parameter Name	Type	Mandatory /Optional	Description/Example
List Type PRAM01	Char 1	M	I – indicates a list of ICPs is provided in the file (after PRAM02) P – indicates a set of parameters defining the selection criteria D – indicates a set of ICPs is provided (after PRAM04) which are date bounded S – indicates a "snapshot" of currently owned ICPs is required.
Include Address PRAM02	Char 1	M	Y/N
If List Type is "I" the list of ICPs follow the parameters in lines in the following format			
Detail record type	Char 3	M	Must be "DET"
ICP number	Char 15	M	Valid ICP number
DET lines re-occurring			
If List Type is "P" the following parameters are required			
Status PRAM03	Char 20	O	Report only ICPs with the entered Status.
Trader / Distributor PRAM04	Char 25	O	List of participant codes. If a Trader is submitting the request the codes must be for Distributors. If a Distributor or MEP is submitting the report the participants must be Traders. If EA or RM is submitting the report then participants are Traders and Distributors.
Reconciliation Type	Char 25	O	List of Reconciliation Types.

PRAM05			
POC PRAM06	Char 25	O	List of POCs.
[1]Proposed Trader PRAM07	Char 25	O	List of Proposed Trader codes.
Roles PRAM08	Char 1	O	If a participant has multiple roles then define under what role the request has been made. For example if a participant is both a MEP and Trader they may request the report as a MEP which will provide visibility to ICPs where they are not the Trader. Values are R – Trader D – Distributor M – MEP Blank is the participants default role, e.g. if both Trader/Distributor and MEP will default to Trader/Distributor
Profile PRAM09	Char 25	O	List of Profiles.
MEP/Distributor PRAM10	Char 25	O	List of participant codes. If a Trader or Distributor is submitting the request the codes must be for MEPs. If a MEP is submitting the request then the codes must be for Distributors. If EA or RM is submitting the report the the codes must be for MEPs.
Submission Type/Meter Type/UNM Flag PRAM11	Char 11	O	UNM, TNHH, THHR, (for the Trader event attributes), NHH, PP, HHR (for the Meter Types on the Metering Event summary).
Highest Metering Category PRAM12	Char 25	O	List of Highest Metering Category Codes from the Metering event summary. Valid values are 1, 2, 3, 4, 5 and 9.
Distributor Price Category PRAM13	Char 25	O	List of Price Category Codes.
Distributor Loss Category PRAM14	Char 25	O	List of Loss Category Codes.
Installation Type PRAM15	Char 6	O	
Start Date PRAM16	DD/MM/YYYY	M	Report ICPs that submitting participant had responsibility for as at this date
End Date PRAM17	DD/MM/YYYY	M	Report ICPs that submitting participant had responsibility for as at this date, or between the Start Date and End Date parameters
If List Type is “D” the following parameters are required			
Start Date PRAM03	DD/MM/YYYY	M	Report ICPs that submitting participant had responsibility for as at this date

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End Date PRAM04	DD/MM/YY YY	M	Report ICPs that submitting participant had responsibility for as at this date
The list of ICPs, follow the parameters, in lines in the following format			
Detail record type	Char 3	M	Must be “DET”
ICP number	Char 15	M	Valid ICP number
DET lines re-occurring			
If List Type is “S” the following parameters are required			
Roles PRAM03	Char 1	O	See above for description.

List Type I example:

HDR,RQICPLIST,CTCT,RGST,27/12/2001,11:13:12,3,list this ICP
PRAM01,I
PRAM02,N
DET,9999999999AB123

List Type P example:

HDR,RQICPLIST,CTCT,RGST,27/12/2001,11:13:12,17,list these ICP’s
PRAM01,P
PRAM02,Y
PRAM03,001 002
PRAM04,RETA RETB
PRAM05,GN
PRAM06,HOR0661 HOR0331
PRAM07,RETA
PRAM08,R
PRAM09,GXP PP1 PP2
PRAM10,MET1 MET2
PRAM11,UNM HHR
PRAM12,
PRAM13,PrCat
PRAM14,LCat
PRAM15,L
PRAM16,01/04/2009
PRAM17,30/04/2009

List Type D example

HDR,RQICPLIST,CTCT,RGST,27/12/2001,11:13:12,5,list ICP’s
PRAM01,D
PRAM02,Y
PRAM03,01/04/2009
PRAM04,30/04/2009
DET,9999999999AB123

List Type “S” example:

HDR,RQICPLIST,CTCT,RGST,27/12/2001,11:13:12,3,list ICP’s
PRAM01,S
PRAM02,Y

PRAM03,M
[1] When the report is requested by a Trader, the value of this parameter must be that Trader's own Trader code. The output will include all those *new* and *ready* ICPs for which the Trader is nominated as the Proposed Trader. Note that in this instance the ICPs will not be 'owned' by the Proposed Trader as there will not have been a Trader assigned. So this parameter is not a true filter but it causes the system to include in the resultant output an additional list of ICPs that are in the New and Ready states (and thus not the responsibility of any Trader) that have the requesting Trader as the Proposed Trader (ie. where the Distributor believes Trader responsibility will lie). So in effect the output will show all ICPs the Trader is responsible for and those where they may have responsibility for. The other filters input will be applied against this combined list."

Processing:
1. Validate report selection criteria. Deliver output to correct party.

Data outputs:

Each attribute on an output line is comma separated.
Report information:

Name	Format	Description (if value not directly obtained from the registry database)
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
ICP creation date	DD/MM/YYYY	The date the ICP Identifier of the ICP was first entered on the registry (Event Date).
Original commissioning Event Date	DD/MM/YYYY	The effective date that the Proposed Trader took responsibility for the ICP (Event Date).
Event start date	DD/MM/YYYY	The Event Date of the change or the date given by start date parameter, whichever is later.
Event end date	DD/MM/YYYY	The day before the Event Date of the next change event, or today's date, or the date given by the end date parameter, whichever is earlier.
NSP event audit number	Char 15	
Network (Distributor)	Char 4	Valid Participant Identifier for Distributor.
POC	Char 7	
Reconciliation Type	Char 2	
Dedicated NSP	Char 1	
Installation Type	Char 1	
Proposed Trader	Char 4	

Unmetered Load Details – Distributor	Char 50	
Shared ICP List	List	
Generation Capacity	Numeric 6.2	
Fuel Type	Char 15	
Initial Electrically Connected Date	DD/MM/YYYY	
Direct Billed Status	Char 11	
Direct Billed Details	Char 60	
NSP User Reference	Char 32	
Pricing audit number	Char 15	
Distributor Price Category Code	Char 50	
Distributor Loss Category Code	Char 7	
Chargeable Capacity	Numeric 7.2	
Distributor Installation Details	Char 30	
Pricing User Reference	Char 32	
Trader audit number	Char 15	
Trader	Char 4	
Profile	Char 25	
ANZSIC	Char 7	
Proposed MEP	Char 4	
Submission Type HHR	Char 1	
Submission Type NHH	Char 1	
UNM Flag	Char 1	
Daily Unmetered kWh	Char 6	
Unmetered Load Details – Trader	Char 50	
Trader User Reference	Char 32	
Metering audit number	Char 15	
MEP	Char 4	

Highest Metering Category	Numeric 1	
Meter Type HHR	Char 1	
Meter Type NHH	Char 1	
Meter Type PP	Char 1	
Advanced Metering Infrastructure Flag	Char 1	
Meter Channel Count	Numeric 3	
Meter Multiplier Flag	Char 1	
Metering User Reference	Char 32	
Status audit number	Char 15	
ICP Status	Char 3	
ICP Status Reason code	Numeric 2	
Status User Reference	Char 32	
Address audit number	Char 15	
Physical Address Unit	Char 20	
Physical Address Number /RAPID number	Char 25	
Physical Address Region	Char 20	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Numeric 4	
Address Property Name	Char 75	
GPS_Easting	Numeric 7.3	
GPS_Northing	Numeric 7.3	
Address User Reference	Char 32	

Example:

HDR,RSICPLIST,RGST,RETA,01/08/2012,18:44:17,2,ICP List
DET,0000000102TRDBF,01/01/2001,03/01/2001,01/06/2012,15/06/2012,NSP-123,NETA,TRK1101,GN,N,B,RETA,,,123.5,wind,03/01/2001,Retailer,All,NSPref,PRI-124,PC1,LC1,12.3,,Priceref,REC-341,RETA,RPS,1234567,RETB,N,Y,N,,,Treref,MET-148,RETB,1,N,Y,N,N,1,N,Metref,STA-123,2,,Statref,ADD-123,,23,Wellington,23 Hope Street,Seatoun,Wellington,7004,The Gables,1234567.123,123.1,Addref
DET,0000000102TRDBF,01/01/2001,03/01/2001,16/06/2012,31/06/2012,NSP-123,NETA,TRK1101,GN,N,B,RETA,,,123.5,wind,03/01/2001,Retailer,All,NSPref,PRI-124,PC1,LC1,12.3,,Priceref,REC-341,RETA,RPS,1234567,RETC,N,Y,N,,,Treref,MET-148,RETB,1,N,Y,N,N,1,N,Metref,STA-123,2,,Statref,ADD-123,,23,Wellington,23 Hope Street,Seatoun,Wellington,7004,The Gables,1234567.123,123.1,Addref

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Sub-process:	**PR-015 Produce current details report**
Process:	Produce reports
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	
Dependencies:	PR-010
Criticality:	Non core

Description:
This report allows selection and reporting of individual event attributes of an ICP but only the summary level attributes for Metering events.

Business requirements:
1. The report must allow selection of any ICP attribute for all event types except only the summary level attributes for Metering events. The selected attribute(s) will be reported. 2. The report will report the selected attributes on all ICP's for which the participant has responsibility. 3. The report will build a secondary heading based on the attributes selected. 4. The report is available on-line only.

Data inputs:
Selected ICP attributes

Processing:
For all ICP's for which the participant has current responsibility report the selected attributes.

Data outputs:

Report information.
The report's secondary heading and output varies depending on the attributes selected.

Name	Type	Mandatory/ Optional	Description/Example
Secondary header variable depending on attributes selected			
ICP Identifier	Char 15	M	
Variable output depending on attributes selected			

For example:
Attributes selected on the Trader event:

- Event Date
- Current audit number
- Date changed

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- Trader identifier
- Profiles

Output file produced:
HDR,RSCDLIST,RGST,RETA,17/02/2012,12:05:35,00000212
ICP Number, Event Date,Date Changed,Current Audit,Trader,Profiles
0000000102TRDBF,01/08/2004,26/09/2005,REC-22158,RETA,RPS MXP
...

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Sub-process:	**PR-020 Produce monthly Trader ICP reports**
Process:	Produce reports
Participants:	Traders
Code references:	Clause 11 of Schedule 11.1
Dependencies:	PR-010

Description:
This is an automatic report that is produced by 0900 hours on the first business day of each reconciliation period for each Trader. The report shows the attributes of each ICP for which they are recorded on the registry as the responsible Trader during the preceding 14 months.

Business requirements:

1. The report must show the state of each attribute at the start and end of the date range and all changes made during the date range. For every change, all attributes must be shown.
2. The report must be produced as a file in CSV format, as a minimum standard.
3. Events that have been reversed or replaced must not be reported.
4. The automatic run of this report must be initiated by the registry manager for all Traders (or their agents).
5. The list must include all ICPs for which they are recorded as the responsible Trader within the last 14 months.
6. An automatic run of this report must be initiated by the registry manager with the following parameters: for each individual participants extract only ICPs at which the participant is recorded on the registry as trading, no address, all ICPs (from event Status) and an Event Date range from the first day of the previous 14th month to the last day of the previous month. N.B. There is no filtering on ICP Status; however, if the ICP has been decommissioned prior to the period covered by the report then it should not be listed.

Data inputs:

Processing:

1. Deliver output to correct party by the time required.

Data outputs:
Report information: See sub-process map PR-010.

Sub-process:	**PR-030 Produce ICP event detail audit report**
Process:	Produce reports
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	Clause 11.22, and clauses 7(8) and 7(9) of Schedule 11.1
Dependencies:	

Description:

This report is used to detail individual events together with their audit trail information. It is available to Traders, Distributors, Metering Equipment Providers and the Authority 'on demand'.

The objective of the report is to show participants all events that had some impact on them during a particular period. This could be because they apply to their period of responsibility, or, involved a change (gain or loss) of their responsibility, ie all switch transactions that they were a party to and events where either the Trader, Metering Equipment Provider or Distributor changed causing a loss or gain of their responsibility.

The report can be selected to show those events that were **input** within a date range (audit date) or that had Event Dates within a date range or a snapshot of all the events "as at" a date and, if required, subsequent changes to these events up to an end date.

Business requirements:

1. The report must be produced as a file in CSV format, as a minimum standard.
2. For the snapshot option automatically generated as a result of a CS switch or the NT switch message, the format will be provided in accordance with the participant's notification parameters which allows for an XML formatted report. The automatically generated report will include Event types of Trader, Metering, Address, Network, Pricing and Status only.
3. When requesting the report using a list of ICPs, the resulting output must show all the ICP events within the specified date range, regardless of responsibility impact considerations.
4. If no ICP list is provided, then the output must show all events within the specified date range that:
    - were in the requester's period of responsibility;
    - involve a switch that the requester was a party to; or
    - involve a loss or gain of the requester's responsibility; or
    - were inserted, replaced or reversed by the requester.
5. When the requester's organisation has two roles, (eg Distributors and Traders can also be Metering Equipment Providers), the report must be generated with reference to the combined roles i.e. where the event affected both roles it will appear only once in the report.
6. When requesting the report to include reversals and replacements with the search criterion of Physical/Event = P, the date of the reversal or replacements is to be taken into account ie is selected if either the input date or the reversal/replaced date falls within the Start and End Dates.

7. Selection criteria must be able to be submitted online or via a file.
8. If the output format of PR-030 changes in future, then the same format changes must apply to PR-035, PR-255 and PR-360

Data inputs:

Each parameter line is preceded by a line type identifier consisting of “PRAMnn”
where nn refers to the parameter number.
Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated.
N.B. Option I can now be submitted via the browser as well as SFTP.

Parameter Name	Type	Mandatory/ Optional	Description/Example
Record Type PRAM01	Char 1	M	I – indicates a list of ICPs is provided in the file as well as parameters to further filter the information P – indicates a set of parameters defining the selection criteria. S – indicates that a snapshot of the event information ‘as at’ the Start Date and also any events from the Start Date to the End Date, where these dates are different, is required for the list of ICPs provided in the file. Where Output file is returned in csv format. X - indicates that a snapshot of the event information ‘as at’ a Start Date and also any events from the Start Date to the End Date, where these dates are different, is required for the list of ICPs provided in the file. Output file is returned in XML format.
If Record Type is “P” or ‘I” the following parameters are required			
Trader PRAM02	Char 4	O	Ignored if Record Type = I. For Record Type P, may be specified if the requester has a role of Distributor, MEP or the EA.
Distributor PRAM03	Char 4	O	Ignored if Record Type = I. For Record Type P, may be specified if the requester has a role of Trader, MEP or the EA.
MEP PRAM04	Char 4	O	Ignored if Record Type = I , S or X. Record Type P, may be specified if the requester has a role of Distributor, Trader or the EA.

Note: when a Trader, Distributor or MEP submits using the Record Type “P” option the submitting Participants index of ICP current and historical responsibility is used, this ensures only the Participants own data is returned.
The Authority is not responsible for ICP’s. When submitted by the Authority. instead of trawling the entire Registry database the responsibility index used is the smallest of PRAM02(Trader), PRAM03(Distributor) or PRAM04(MEP).

Event Type PRAM05	Char 40	M	List event types to be reported, one or more as below space separated: TRA – Trader MET – Metering SWI – Switch (all TRA events caused by switching) ADD – Address PRI – Pricing NET - Network STA – Status NT – NT message AN – AN message TN – TN message (discontinued) CS – CS message TT – TT message (discontinued) NW - NW message AW - AW message NC– NC message (discontinued) RR – RR message MN – MN message AC – AC message
Physical/ Event PRAM06	Char 1	M	P – search audits using a date range based on when they arrived at the database or, if the Include/Reversals is 'Y', then also the date of the reversal/replacement date. E – search audits using a date range based on the Event Date.
Include Reversals PRAM07	Char 1	M	Y/N.
Sort Option PRAM08	Char 1	M	Blank – no sort 1 – ICP/Event Type/Date 2 – Event Type/Date/ICP
Start Date PRAM09	DD/MM/YYYY	M	Start date range to search audits.
End Date PRAM10	DD/MM/YYYY	M	End date range to search audits.
If Record Type is “S” or “X” the following parameters are required			
Start Date PRAM02	DD/MM/YYYY	M	Report ICPs that submitting participant had responsibility for as at this date. Start date range to search audits. If the Record Type = S or X then this is the ‘as at’ date (the date the events apply) which defaults to today’s date if not provided.
End Date PRAM03	DD/MM/YYYY	M	Report ICPs that submitting participant had responsibility for as at this date. End date range to search audits. If Record Type = S or X and a date value is input here that is > Start Date then the system also searches for Events with Event Dates >

			Start Date and <= End Date. To obtain only a snapshot "as at" a date, both the Start and End Dates must be the same. End Date must be >= Start Date when input.
The sort sequence for Record Type “S” and “X” is ICP/Event Type/Date (Sort Option 1)			
If Record Type is “I”, “S” or “X” the list of ICPs are provided after the parameters in the following format			
Detail record type	Char 3	M	Must be “DET”
ICP number	Char 15	M	Valid ICP number
DET lines re-occurring			

Event request example where ICP numbers are supplied:

```
HDR,RQEVENTDTL,RETA,RGST,27/12/2001,11:13:12,11,list ICP’s
PRAM01,I
PRAM02,
PRAM03,
PRAM04,
PRAM05,TRA AW EP
PRAM06,P
PRAM07,N
PRAM08,1
PRAM09,01/01/2009
PRAM10,31/01/2009
DET,9999999999AB123
```

Event request example where parameters are supplied:

```
HDR,RQEVENTDTL,RETA,RGST,27/12/2001,11:13:12,10,list these
PRAM01,P
PRAM02,RETA
PRAM03,NETA
PRAM04,META
PRAM05,REC
PRAM06,P
PRAM07,N
PRAM08,1
PRAM09,01/04/2002
PRAM10,30/04/2002
```

Event request example for a snapshot with results returned in csv format

```
HDR,RQEVENTDTL,RETA,RGST,27/12/2001,11:13:12,5,list these
PRAM01,S
PRAM02,01/04/2011
PRAM03,01/04/2011
DET,9999999999AB123
DET,8888888888AB321
```

Event request example for a snapshot with results returned in xml format:

```
HDR,RQEVENTDTL,RETA,RGST,27/12/2001,11:13:12,5,list these
PRAM01,X
PRAM02,01/04/2011
PRAM03,01/04/2011
DET,9999999999AB123
DET,8888888888AB321
```

Processing:

1. Validate report selection criteria.
2. Deliver output to correct party. For the snapshot option produced as a result of a switch (RS-050) format the output either in CSV or XML format as indicated by the participant's notification option.

Data outputs:

Report information:
Fields returned vary depending on the Event Type(s) selected

Verbose output event types correspond to input event types as follows.

Input Event Type	Output Event Type (full description)	XML Level
TRA	Trader	1
NET	Network	1
MET	MeterSummary	1
	MeterInstall	2
	MeterComp	3
	MeterChannel	4
PRI	Pricing	1
STA	Status	1
ADD	Address	1
SWI	Switch	1
NT	NT	1
AN	AN	1
TN	TN	1
TT	TT	1
CS	CSPremises	1
	CSMeterInstall	2
	CSMeterComp	3
	CSMeterChannel	4
RR	RRPremises	1
	RRMeterChannel	2
AW	AW	1
AC	AC	1
NW	NW	1
AW	AW	1
AC	AC	1
MN	MN	1

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Name	Format	Description (if value not directly obtained from the database)
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Event type (full description)	Char 14	Variable fields depend on the value of this field. For example, if the event type is 'metering' then immediately after the last fixed field, the Metering event attributes are listed.
Event audit number	Char 15	
Event Date	DD/MM/YYYY	
Event creation date/time	DD/MM/YYYY HH:MM:SS	
Created by	Char 15	Participant ID
File name	Char 25	N.B. Registry definition is actually variable length and can be more than 25 Characters.
Event state	Char 8	
Reversal/replaced date/ time	DD/MM/YYYY HH:MM:SS	
Reversed/replaced by	Char 15	
Reversal/replacement file name	Char 25	
Replacement event audit number	Char 15	
Trader event		Variable fields. Event type is "TRADER"
Trader		
Profile		
Submission Type HHR		
Submission Type NHH		
ANZSIC		
Proposed Metering Equipment Provider		
UNM Flag		
Unmetered load details – Trader		
Daily unmetered kWh		
Trader User Reference		

Name	Format	Description (if value not directly obtained from the database)
Metering event – Summary		Variable fields. Event type is “METERSUMMARY”
Metering Equipment Provider		
Highest Metering Category		
HHR Flag		
NHH Flag		
PP Flag		
AMI Flag		
Meter Channel Count		
Meter Multiplier Flag		
Metering User Reference		
Metering event – Installation Information		Variable fields. Event type is “METERINSTALL”
Metering Installation Number		
Highest Metering Category		
Metering Installation Location Code		
ATH Participant Identifier		
Metering Installation Type		
Metering Installation Certification Type		
Metering Installation Certification Date		
Metering Installation Certification Expiry Date		
Control Device Certification Flag		
Certification Variations		
Certification Variations Expiry Date		
Certification Number		
Maximum Interrogation Cycle		

Name	Format	Description (if value not directly obtained from the database)
Lease Price Code		
Metering event – Component Information		Variable fields. Event type is “METERCOMP”
Metering Installation Number		
Metering Component Serial Number		
Metering Component Type		
Meter Type		
AMI Flag		
Metering Installation Category		
Compensation Factor		
Owner		
Removal Date		
Metering event – Channel Information		Variable fields. Event type is “METERCHANNEL”
Metering Installation Number		
Metering Component Serial Number		
Channel number		
Number of Dials		
Register content code		
Period of availability		
Unit of Measurement		
Energy Flow Direction		
Accumulator Type		
Settlement Indicator		
Event Reading		
Switch		Variable fields. Event type is “SWITCH”.
Trader		
Address		Variable fields. Event type is “ADDRESS”
Physical Address Unit		

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Name	Format	Description (if value not directly obtained from the database)
Physical Address Number/ RAPID number		
Physical Address Region		
Physical Address Street		
Physical Address Suburb		
Physical Address Town		
Physical Address Post Code		
Address Property Name		
GPS_Easting		
GPS_Northing		
Address User Reference		
Network pricing		Variable fields. Event type is “PRICING”.
Distributor Price Category Code		
Distributor Loss Category Code		
Chargeable Capacity		
Distributor Installation Details		
Network pricing User Reference		
NET		Variable fields. Event type is “NETWORK”.
Network		Valid Participant Identifier for Distributor.
POC		
Reconciliation Type		
Dedicated NSP		
Installation Type		
Proposed Trader Participant Identifier		
Unmetered Load Details – Distributor		
Shared ICP List		

Name	Format	Description (if value not directly obtained from the database)
Generation Capacity		
Fuel Type		
Initial Energisation Date		Note: Initial Electrically Connected as described in the code is synonymous with Initial Energisation Date. For XML output the term Initial Energisation Date will continue to be used so participants are not required to make any internal change to their systems. Participants will be notified in advance when the XML term (Initial Energisation Date) is aligned with the term used by the code.
Direct Billed Status		
Direct Billed Details		
Network User Reference		
Status		Variable fields. Event type is “STATUS”.
ICP Status		
ICP Status Reason code		
Status User Reference		
NT		Variable fields. Event type is “NT”.
Trader		
Install Address Unit		
Install Address Number/ RAPID number		
Install Address Region		
Install Address Street		
Install Address Suburb		
Install Address city		
Install Post Code		
Install Property Name		
Proposed Transfer Date		
Switch Type		
Proposed Profiles		
Proposed ANZSIC		
User Reference		

Name	Format	Description (if value not directly obtained from the database)
AN		Variable fields. Event type is “AN”
Trader		
Response Code		
Expected Transfer Date		
User Reference		
TN		Variable fields (Discontinued). Event type is “TN”
Trader		
Actual Transfer Date		
Relay Owner		
Number Of Meters		
User Reference		
TT		Variable fields. (Discontinued) Event type is “TT”
Trader		
Actual Transfer Date		
ICP Status		
Status Reason		
Primary Metering Contact Participant Identifier		
Metering Installation Category		
Meter Type HHR		
Meter Type NHH		
Meter Type UNM		
Meter Type PP		
Meter Type ADV		
Unmetered Load Details – Trader		
Daily Unmetered kWh		
Meter Register Count		
Meter Multiplier Flag		
Profile		
User Reference		

Name	Format	Description (if value not directly obtained from the database)
NW		Variable fields. Event type is “NW”
Trader		
Advisory code		
User Reference		
AW		Variable fields. Event type is “AW”
Trader		
Withdrawal Transfer Status		
User Reference		
NC		Variable fields. . (Discontinued) Event type is “NC”
Trader		
Actual Transfer Date		
Relay Owner		
Number Of Meters		
User Reference		
AC		Variable fields. Event type is “AC”
Trader		
Switch Read Acknowledgement		
User Reference		
CS and RR - Premises		Variable fields. Event type is “CS” or “RR”
Trader		
Actual Transfer Date		
User Reference		
CS - Installation		Variable fields. Event type is “CSMETERINSTALL”
Metering Installation Identifier		
Average Daily Consumption		
Key Held Indicator		
CS - Meter		Variable fields. Event type is “CSMETERCOMP”

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Name	Format	Description (if value not directly obtained from the database)
Metering Installation Identifier		
Metering Component Serial Number		
Last Read Date		
Meter Reader Notes		
CS and RR - Channel		Variable fields. Event type is "CSMETERCHANNEL" or "RRMETERCHANNEL
Metering Installation Identifier		
Metering Component Serial Number		
Channel Number		
Reading		Only shown in the report of the Traders that were parties to the switch and, also the responsible Distributor and the MEP, otherwise null. Where the Reading is 0, it will be reported as null for all parties regardless of responsibility.
Actual or Estimate		
MN		Variable fields. Event type is "MN"
MEP Identifier		
Transfer Date		
Responsibility Indicator		
Decline Advisory code		
User Reference		

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Name	Format	Description (if value not directly obtained from the database)

Examples:

See appendix 5 for example of snapshot report in XML format (produced from a CS switch).

PR-030 snapshot "as at" 01/04/2012 Start Date and End Date are the same, output in csv format (including Meter event with 1 installation, 1 meter and 1 register):

HDR,RSEVENTDTL,RGST,RETA,01/03/2012,18:44:17,9,CS Switch snapshot
DET,1234567890AB123,ADDRESS,ADD-987656,25/01/2009,25/01/2009 08:15:30,Bruce,File
A.csv,Active,,,,,,27,Wellington,234 Seaview Road,Seatoun,Wellington,4001,The Larches,1234567.123,987.3,myref
DET,1234567890AB123,METERSUMMARY,MET-123,12/03/2012,13/03/2012 11:11:30,Matt,File
D.csv,Active,,,,,META,1,N,Y,N,N,2,Y,myref
DET,1234567890AB123,METERINSTALL,MET-123,12/03/2012,13/03/2012 11:11:30,Matt,File
D.csv,Active,,,,,1,1,BD,ATHA,NHH,F,21/03/2012,21/03/2023,Y,X,21/03/2015,12345ABC,12,Code1
DET,1234567890AB123,METERCOMP,MET-123,12/03/2012,13/03/2012 11:11:30,Matt,File
D.csv,Active,,,,,1,ABCDE1,M,NHH,N,1,2.234,OWNER1,
DET,1234567890AB123,METERCHANNEL,MET-123,12/03/2012,13/03/2012 11:11:30,Matt,File
D.csv,Active,,,,,1,ABCDE1,1,3,DN,24,kWh,X,C,Y,678
DET,1234567890AB123,NETWORK,NET-222,25/01/2009,25/01/2009 08:15:30,Bruce,File
A.csv,Active,,,,,NETA,GFD0331,GN,N,B,RETA,,,123.5,wind,05/01/2009,Retailer,bill half to Acc Number 349145,myref
DET,1234567890AB123,PRICING,PRI-456,25/01/2009,25/01/2009 08:15:30,Bruce,File
A.csv,Active,,,,,PC1,LC1,12.3,,myref
DET,1234567890AB123,STATUS,STA-444,12/03/2012,14/03/2012 07:00:59,Matt,File C.csv,Active,,,,,2,0,myref
DET,1234567890AB123,TRADER,REC-333,12/03/2012,13/03/2012 10:21:30,Matt,File B.csv,Active,,,,,RETA,RPS MXP,N,Y,1234567,META,Y,5kWh,7,myref

Sub-process:	**PR-035 Produce ICP Attribute Changes**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	PR-030
Criticality:	Non-core

Description:
This report is used to detail daily changes to ICP attributes.

Business requirements:
The report provides information to the Authority's data warehouse for analysis of switch trend information. Daily extract The net results of ICP Attribute updates occurring the previous day are reported. The resulting extract file will be delivered to the Authority SFTP fromreg folder and the Authority's data warehouse. The target delivery time is 6am. The extract is sorted by ICP Identifier, Event Type and Event Date. File output name will be "ICPEventFile_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time.
Baseline Data extract A special case of this report is a *baseline data extract* which can be obtained upon arrangement with the registry manager. This baseline report includes attributes for all ICP's which resided in the registry as at a date specified by the Authority. This will contain one record for each ICP and event type (Address, Network, Pricing, Trader, Metering, Status), and does not include switch messages. The resulting extract file will be delivered to the Authority SFTP fromreg folder and the Authority'sdata warehouse.

Data inputs:

1. Daily report
   (or Baseline report, by arrangement only)
2. Report start date
3. Report end date (daily report only).

Processing:

Baseline Report

1. Read all ICP records at the report date
2. Generate output file with ICP events as the report date
3. Transfer the output file to the Authority SFTP fromreg folder
4. Transfer the output file to the Authority's data warehouse

Daily Extract

1. Read the event audit records that have been updated in the registry in the reporting day.
2. Identify the net effective event updates for the previous day
3. Generate output statistic file
4. Transfer of output file to:
   i. Authority SFTP fromreg folder
   ii. Authority's data warehouse

Data outputs:

Format for the baseline report is as defined for report PR-030, and includes base events only.
Format for the daily report is as defined for report PR-030, with the following modifications to include TN and CS information:

ICP Identifier	As PR-030
Event Description	As PR-030
Event Audit Number	As PR-030
Event Date	As PR-030
Event Creation Date/Time	As PR-030
Created By	As PR-030
File name	As PR-030
Event state	As PR-030
Reversal/replaced date/ time	Blank
Reversed/replaced by	Blank
Reversal/replacement file name	Blank
Creation event audit number	Populated where the event is a reversal or replacement and cross references to the Audit Number which created the Event
TN	Variable fields.
Trader	As PR-030
Actual Transfer Date	As PR-030

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Relay Owner	As PR-030
Number Of Meters	As PR-030
User Reference	As PR-030
Meter Location Codes	Multiple codes are space delimited. Extracted from the 'M' record types submitted in the TN.
Register Content Codes	Multiple codes are space delimited. Extracted from the 'R' record types submitted in the TN.
CS	
Trader	As PR-030
Actual Transfer Date	As PR-030
Relay Owner	null
Number Of Meters	Calculated from the number of component rows supplied in the CS.
User Reference	As PR-030

Sub-process:	**PR-040 Produce switch compliance reports**
Process:	Produce reports
Participants:	Traders, Authority, Metering Equipment Providers
Code references:	11.23 and 11.19. Schedule 11.3 clauses 2 through 18
Dependencies:	

Description:

This is an automatic report that is produced every month by 1600 hours on the first business day of each reconciliation period for the Authority. It can also be requested 'on demand' at other times by Traders, MEPs and by the Authority. Traders and MEPs can only obtain information pertaining to themselves. The Authority can select information for individual or all Traders and MEPs.

There are two types of switch compliance reports: historical and current.

The 'historical' reports show, either in summary or in detail, those switch transactions that were not received by their due date, where the due date was in the past. The Authority requires the automatic delivery of the detail historical report for potential Code breaches of the previous consumption period.

The 'current' reports show, either in summary or in detail, which switch transactions have not been completed 'as at' today, either because the relevant switch message has not arrived and, either the due date has passed (overdue), or because the due date has not been reached yet. This report is used to show work in progress.

Business requirements:

Calculation of due dates

The provisions for the calculation of due dates of each potential breach type need to be maintainable by the Authority as they may change over time. The provisions set out in this report relate to the receipt of the following breach types within certain timeframes by the intended recipient:

AN (AN delivery)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	Losing	AN arrival date is more than 3 business days after the NT arrival date, where the AN arrives immediately after the NT
MI	Losing	AN arrival date is more than 5 business days after receipt of the NT, where the AN arrives immediately after the NT
HH	Losing	AN arrival date is more than 3 business days after receipt of the NT, where the AN arrives immediately after the NT

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Business requirements:

CS (CS received after an AN)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	Losing	CS arrival date is more than 5 business days after the CS Actual Transfer Date AND; no NW has been provided Note: To provide countdown visibility a CS timer must be created on arrival of the AN based on the AN Expected Transfer Date. The breach must be re-evaluated against the CS Actual Transfer Date on arrival of the CS.
MI	Losing	AN is received AND; Proposed transfer date in NT and expected transfer date in AN do not match AND; CS is delivered more than 10 business days after NT arrival AND; No NW notice has been provided
HH	Gaining	A CS arrival date is more than 3 business days after receipt of the AN, AND no NW notice has been provided

T2 (CS received after an NT)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	Losing	CS arrival date is more than 3 business days after receipt of the NT where the CS arrives immediately after the NT
MI	Losing	CS arrival date is more than **5** business days after receipt of the NT AND, before delivery of the CS • No NW notice has been provided, AND • (no AN notice has been provided OR an AN notice is provided, and the NT Proposed Transfer Date matches the AN Expected Transfer Date)
HH	(no breach is generated, included here for completeness)	

E2 (CS Event Date)

Note: The E2 breach is appraised against the CS Actual Transfer date on arrival of the CS; that is, it is determined only upon CS arrival so does not provide countdown visibility.

Switch Type	Breaching Trader	Condition under which a breach is triggered

Business requirements:

TR	Losing	CS Actual Transfer Date is more than 10 business days after receipt of the NT
MI	Losing	NT Proposed Transfer Date and CS Actual Transfer date do not match; AND CS Actual Transfer Date is a) earlier than the NT Proposed Transfer Date; OR b) more than 10 business days after receipt of the NT
HH	Gaining	(no breach is generated, included here for completeness)

RR (RR delivery)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR or MI	Gaining	RR arrival date is more than 4 calendar months from the CS Actual Transfer Date
HH	(no breach is generated, included here for completeness)	

AC (AC delivery)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR or MI	Losing	AC arrival date is more than 5 business days after receipt of replace switch reading (RR) where the switch re-read is rejected.
HH	(no breach is generated, included here for completeness)	

NW (NW delivery before switch completion)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	Losing	NW arrival date is more than 3 business days after receipt of the NT where the NW arrives immediately after the NT
MI	Losing	NW arrival date is more than **5** business days after receipt of the NT where the NW arrives immediately after the NT
HH	Losing	NW arrival date is more than 3 business days after receipt of the NT where the NW arrives immediately after the NT

NA (NW delivery after switch completion)

Business requirements:

Switch Type	Breaching Trader	Condition under which a breach is triggered
All	Either	NW arrival date is more than 2 calendar months after the CS Actual Transfer Date.

AW (AW delivery)

Switch Type	Breaching Trader	Condition under which a breach is triggered
All	Trader responding to the NW	AW arrival date is more than 5 business days after receipt of the NW

SR (NW after initial withdrawal rejection)

Switch Type	Breaching Trader	Condition under which a breach is triggered
All	Either	NW arrival date is more than 10 business days after the initial NW for the same trader requesting the withdrawal. Note: it is possible to breach on these multiple times for the same ICP and event date, if a trader continues to re-request a switch withdrawal for the same ICP and event date more than 10 business days after their original request. The trader sending the corresponding AW (either accepting or rejecting the withdrawal) only receives a breach on the AW if it is sent more than 5 days after the latest NW as in the original rule.

ET (AN Expected Transfer Date)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	(no breach is generated, included here for completeness)	
MI	Losing	AN Expected Transfer Date is earlier than the NT Proposed Transfer Date; OR AN Expected Transfer Date is more than 10 business days after NT arrival date
HH	(no breach is generated, included here for completeness)	

PT (NT Proposed Transfer Date)

Business requirements:

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	(no breach is generated, included here for completeness)	
MI	(no breach is generated, included here for completeness)	
HH	Gaining	NT Proposed Transfer Date is more than 90 days before the NT arrival date; OR If the NT Proposed Transfer Date is: a) Before the arrival date of the NT; AND b) In a different month from the arrival month of the NT; AND c) Is different from the AN Expected Transfer Date

WR (switch completion after withdrawal rejection)

Switch Type	Breaching Trader	Condition under which a breach is triggered
TR	Losing	CS arrival date is more than 2 business days after the arrival date of the AW rejecting the withdrawal; AND a subsequent NW is not provided before delivery of the CS
MI	Losing	An AN or CS arrival date (whichever is applicable, may be one or both) are delivered by the losing Trader more than 2 business days of the arrival date of the AW rejecting the withdrawal; AND a subsequent NW is not provided before delivery of the AN or CS
HH	Gaining	CS arrival date is more than 2 business days after the arrival date of the AW rejecting the withdrawal; AND a subsequent NW is not provided before delivery of the CS

MN (MN delivery)

Switch Type	Breaching MEP	Condition under which a breach is triggered
n/a	Gaining	An MN acceptance arrival date is more than 10 business days after the Input Date of the Trader event that first proposed the MEP. The arrival of an MN decline or a nomination of a new MEP by the submission of a new Proposed MEP attribute on the Trader event or the reversal of the Trader event that commenced this MEP switch means that there will be no MN acceptance arriving therefore the potential switch breach record is deleted (even if overdue).

The following messages are discontinued but are retained in historical records.

Breach Type	Condition under which a breach is triggered

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Business requirements:

TN delivery	a TN with a switch type of either MI or TR must be delivered by the losing Trader within 10 business days of the receipt of the NT if an AN or NW notice has been received. If an AN or NW notice has not been received, the TN*/CS (with a switch type of either MI or TR) must be delivered within 3 business days of the receipt of the NT.
TN Event Date	a TN must be delivered within 3 business days of the Actual Transfer Date recorded on the same TN or (if the Actual Transfer Date was backdated) within 3 business days of the receipt of the NT, whichever is the later date. For a switch type of HH the CS is delivered by the gaining Trader otherwise it is the losing trader that delivers it
TT Event Date	a TT must be delivered within three business days after the Actual Transfer Date recorded on the same TT or (if the Actual Transfer Date was backdated) within 3 business days of the receipt of the NT, whichever is the later date
NC Delivery	NC must be delivered within four calendar months after the Actual Transfer Date of the latest TN.
WC (AW acceptance – withdrawal cycle resolution)	an AW acceptance must be delivered within 10 business days of the receipt of the initial NW unless an AN, TN*/CS or TT* was provided in this time.

Note that after the receipt of an NT, if either the AN, CS or NW is received late then the report will show three breaches – an AN delivery breach, a CS delivery breach and an NW delivery breach.

It must be noted that the 'delivery' of a message, for compliance purposes, means the time the message was sent to the registry. Delivery to the required party is assumed to be 'immediate' even though the time between the registry receiving the messages and their delivery to the required party could be significantly different as participants can elect that the registry sends switch messages at specific times of the day (see switch notify parameters). However, if the message was received by the registry after 1930 hours, it is deemed to be provided at 0730 hours the next day (clause 11.20(2) of the Code).

Note also that CS Event Date and RR delivery breaches are not relevant to the 'current' switch breach reports as they cannot be evaluated until they have actually been received.

Calculation of days overdue

Days overdue = Number of days between (date of delivery of relevant document to participant, due date), where date of delivery is after due date.

If the relevant document has arrived the effective end date of the breach considers document arrival time in its calculation; that is

- if document arrival time is earlier then 07:30 (00:00 to 07:30)

Business requirements:

- arrival time = 7:30,
- arrival date = next/current business day inclusive; that is if a Saturday next Business Days is Monday, if Monday then Business Day = Monday

- if document arrival time is between 07:30 and 19:30
  - arrival time no change,
  - arrival date = next/current business day inclusive; that is if a Saturday next Business Day is Monday, if Monday then Business Day = Monday

- if later than 19:30 (19:30 to 23:59)
  - arrival time = 07:30
  - arrival date = next business day

If the relevant document has not arrived (no date of delivery), then for reporting purposes use today's date (runtime of the report).

Calculation of business days

From Part 1 of the Code: "**business day**" means any day of the week except Saturdays, Sundays, **national holidays** and any other day from time to time declared by the **Authority** not to be a **business day** by notice to each **registered participant** in the manner set out in the Code;

Business days must be treated as calendar days, not multiples of 24 hours, and be conscious of business hours. For example, registry routes NT to Trader before 19:30 on 23 January; current Trader then has until 19:30 on 26 January to deliver the AN back to the registry. An NT delivered after 19:30 and the current Trader has until 27 January.

The days' overdue calculation is performed to a maximum of 100 days, with larger durations represented by the value 99999 business days.

Note: There may be multiple potential breaches per ICP: for example, an AN not received and CS not received (this counts as two breaches); NT sent out by the registry on 2 April 2002, no AN received at all, CS received by the registry on 19 April 2002. The report should output this as a breach of type AN with days overdue equal to 10 (assuming no holidays).

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Data inputs:			
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number. Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter. Multiple space separated values may by input for search criteria. Each attribute on an input line is comma separated.			
Parameter Name	**Type**	**Mandatory /Optional**	**Description/Example**
Switch Type PRAM01	Char 15	M	S SM H HM HN NH MI or TR or MN or HH
Breach Type PRAM02	Char 29	M	AC (AC Delivery) AN (AN Delivery) AW (AW Delivery) NC*/RR (NC*/RR Delivery) NW (NW Delivery) NA (NW after switch completion) TN*/CS (TN*/CS after an AN) T2 (TN*/CS after an NT) E2 (TN*/CS Event Date) TT* (TT* – historical only) E3* (TT* Event Date) WC (AW acceptance – withdrawal cycle resolution) MN (MN Delivery) ET (AN Expected Transfer Date) PT (NT Proposed Transfer Date) WR (switch completion after withdrawal rejection) SR (NW after switch rejection) TN, TT, E3 and NC breaches are retained in historical records only
Summary or Detail PRAM03	Char 1	M	S or D
For the current report:			
As At Date PRAM04	DD/MM/YYYY	M	Input ignored, this is always defaulted to today’s date
Days Due or over due PRAM05	Num 3	M	If negative then days until due, if positive then days over due
Days Due or over due PRAM06	Num 3	M	If negative then days until due, if positive then days over due
Days Due or over due PRAM07	Num 3	M	If negative then days until due, if positive then days over due

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[1]Days Due or over due PRAM08	Num 3	M	If negative then days until due, if positive then days over due
Trader or MEP PRAM09	Char 4	M	The submitting Trader or MEPs participant code, EA may enter any code.
Breach Party PRAM10	Char 1	O	B – report breaches on both participants in the breach S – report breaches you are responsible for O – report breaches other participant is responsible for
For the historical report:			
Start Date PRAM04	DD/MM/YYYY	M	
End Date PRAM05	DD/MM/YYYY	M	
Days Due or over due PRAM06	Num 3	M	If negative then days until due, if positive then days over due
Days Due or over due PRAM07	Num 3	M	If negative then days until due, if positive then days over due
Days Due or over due PRAM08	Num 3	M	If negative then days until due, if positive then days over due
[1]Days Due or over due PRAM09	Num 3	M	If negative then days until due, if positive then days over due
Trader or MEP PRAM10	Char 4	M	The submitting Trader or MEPs participant code, EA may enter any code.
Breach Party PRAM11	Char 1	O	B – report breaches on both participants in the breach S – report breaches you are responsible for O – report breaches other participant is responsible for
[1]an assumed 5th bucket exists which is > than highest positive bucket specified, if no positive value specified then 1 day is assumed			

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Switch breach report request example (historical):
HDR,RQSWBRHIST,RETA,RGST,27/12/2001,11:13:12,11,list breaches
PRAM01,S HN
PRAM02,TT E3
PRAM03,D
PRAM04,01/09/2009
PRAM05,30/09/2009
PRAM06,-20
PRAM07,-10
PRAM08,5
PRAM09,10
PRAM10,RETA
PRAM11,B

Switch breach report request example (current):
HDR,RQCUSWBR,RETA,RGST,27/12/2001,11:13:12,10,list breaches
PRAM01,S HN
PRAM02,TT E3
PRAM03,D
PRAM04,
PRAM05,1
PRAM06,3
PRAM07,5
PRAM08,10
PRAM9,RETA
PRAM10,B

For the historical report

1. From/to date range: transactions that had due dates in this range.

Days overdue or ageing buckets: for the detail report, only the minimum days overdue is specified (minimum value is 1). For the summary report, the user can specify up to four ageing buckets. The resultant report must generate an additional column for all overdues greater than the final bucket. The values are to be input in sequence, i.e. in ascending sequence.

For the current report

1. Ageing buckets (summary report only): The report can be produced summarising transactions that are overdue as at today's date and also those due in the future. The resultant report generates an additional column for all greater than the final bucket input. If requiring those due in the future in a bucket, negative values are input. The values should be input in ascending sequence, ie greatest negative through to the highest positive.

Days till due (detail report only): Selects those due within this number of days (from today's date).

Days overdue (detail report only): Selects those with this minimum number of days overdue.

Processing:
For the history summary report system

Processing:

1. Calculates the due dates.
2. Selects those where:
    - they are overdue;
    - the specified Trader or MEP (s) was a participant (sender or other participant);
    - the due date is within the from/to date range specified; and
    - all other selection criteria is satisfied.
3. Assigns the days overdue count into one of the user-specified ageing buckets or the system-generated catch-all bucket. It is possible that the transaction does not fall into any bucket therefore is excluded from the report.
4. Determines the participant in breach (defaulting participant).
5. Sorts the report by switch type/breach type/defaulting participant.

For the history detail report system

1. Calculates the due dates.
2. Selects those where:
    - they are overdue;
    - the specified Trader or MEP (s) was a participant (sender or other participant);
    - the due date is within the from/to date range specified; and
    - all other selection criteria is satisfied.
3. Selects only those transactions overdue by a number of days equal to or greater than the *days overdue* input by user.
4. Determines the defaulting participant.
5. Sorts the output by switch type/breach type/defaulting participant/days overdue (descending).

For the current summary report system

1. Calculates the due dates.
2. Selects those where:
    - the actual arrival date is missing (not arrived yet);
    - the specified Trader or MEP (s) was a participant (sender or other participant); and
    - all other selection criteria is satisfied.
3. Determines the days overdue or days till due (ie if due date not reached yet) and assigns the count into one of the user-specified ageing buckets or the system-generated catch-all bucket. For the purposes of this report the days till due are treated as negative values. It is possible that a transaction does not fall in any bucket and therefore is excluded from the report.
4. Determines the defaulting participant.

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Processing:

5. Sorts the report by switch type/breach type/defaulting participant.

For the current detail report system

1. Calculates the due dates.
2. Selects those where:
   - the actual arrival date is missing (not arrived yet);
   - the specified Trader or MEP (s) was a participant (sender or other participant); and
   - all other selection criteria is satisfied.
3. Determines the days overdue or days till due. If overdue, selects only those transactions overdue by a number of days equal to or greater than the *days overdue* input by user. If due, selects those transactions less than or equal to the days *till due* parameter.
4. Determines the defaulting participant.
5. Sorts the output by switch type/breach type/defaulting participant/days overdue (descending) then days till due (descending).

NB: If the user specified all breach types then an ICP could potentially be included several times in the report.

Data outputs:

The current/details output line is preceded by a line type identifier consisting of "DET" (detail). All other output files have no line type identifier and start with the Switch Type.
Each attribute on an output line is comma separated.

History summary output information

Name	Format	Description
Switch Type	Char 2	From qualifying event.
Breach type	Char 2	
Defaulting participant	Char 4	Derived by system.
Other participant	Numeric	The non-defaulting participant impacted by the switch.
Total count in breach	Numeric	Total of ageing 1 to 5.
Ageing 1	Numeric	Overdue <= ageing 1 days.
Ageing 2	Numeric	Overdue > ageing 1 days and <= ageing 2 days.
Ageing 3	Numeric	Overdue > ageing 2 days and <= ageing 3 days.
Ageing 4	Numeric	Overdue > ageing 3 days and <= ageing 4 days.

<table>
<tr><th colspan="3">Data outputs:</th></tr>
<tr><td>Ageing 5</td><td>Numeric</td><td>Overdue > ageing 4 days.</td></tr>
<tr><td colspan="3">History detail output information</td></tr>
<tr><td>Switch Type</td><td>Char 2</td><td>From qualifying event.</td></tr>
<tr><td>Breach type</td><td>Char 2</td><td></td></tr>
<tr><td>Defaulting Participant Identifier</td><td>Char 4</td><td>Derived by system.</td></tr>
<tr><td>Other Participant Identifier</td><td>Char 4</td><td>The non-defaulting participant impacted by the switch.</td></tr>
<tr><td>ICP #</td><td>Char 15</td><td></td></tr>
<tr><td>Sent date</td><td>DD/MM/YYYY</td><td>The date the notice or message was sent by the registry to the recipient.
<table>
<tr><th>Breach Type</th><th>Sent date</th></tr>
<tr><td>AN</td><td>NT arrival date</td></tr>
<tr><td>CS</td><td>AN arrival date</td></tr>
<tr><td>T2</td><td>NT arrival date</td></tr>
<tr><td>E2</td><td>CS arrival date</td></tr>
<tr><td>RR</td><td>RR arrival date</td></tr>
<tr><td>AC</td><td>RR arrival date</td></tr>
<tr><td>NW</td><td>NT arrival date</td></tr>
<tr><td>NA</td><td>NW arrival date</td></tr>
<tr><td>AW</td><td>NW arrival date</td></tr>
<tr><td>SR</td><td>NW arrival date</td></tr>
<tr><td>ET</td><td>AN arrival date</td></tr>
<tr><td>PT</td><td>NT arrival date.
For the HH switch, if triggered by the AN this is AN arrival date</td></tr>
<tr><td>WR</td><td>AW arrival date</td></tr>
</table></td></tr>
</table>

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<table>
<tr><th colspan="3">Data outputs:</th></tr>
<tr><td>Due date</td><td>DD/MM/YYYY</td><td>The date that notice of the switch event that is subject to a breach was due to be received (Event Date).
<table>
<tr><th>Breach Type</th><th>Due date</th></tr>
<tr><td>AN</td><td>NT arrival date + timeframe</td></tr>
<tr><td>CS</td><td>• TR Switch type: AN Expected Transfer Date + timeframe
• MI Switch Type: NT arrival date + timeframe
• HH Switch Type: AN arrival date + timeframe</td></tr>
<tr><td>T2</td><td>NT arrival date + timeframe</td></tr>
<tr><td>E2</td><td>CS Actual Transfer Date</td></tr>
<tr><td>RR</td><td>CS Actual Transfer Date</td></tr>
<tr><td>AC</td><td>RR arrival date + timeframe</td></tr>
<tr><td>NW</td><td>NT arrival date + timeframe</td></tr>
<tr><td>NA</td><td>CS Actual Transfer Date</td></tr>
<tr><td>AW</td><td>NW arrival date + timeframe</td></tr>
<tr><td>SR</td><td>Arrival date of earliest submitted NW + timeframe</td></tr>
<tr><td>ET</td><td>AN Expected Transfer Date</td></tr>
<tr><td>PT</td><td>NT Proposed Transfer Date</td></tr>
<tr><td>WR</td><td>AW arrival date + timeframe</td></tr>
</table></td></tr>
<tr><td>Completion date</td><td>DD/MM/YYYY</td><td>The date that notice of the switch event that is subject to the breach was completed (actual arrival date).
<table>
<tr><th>Breach Type</th><th>Completion date</th></tr>
<tr><td>AN</td><td>AN arrival date</td></tr>
<tr><td>CS</td><td>CS arrival date</td></tr>
<tr><td>T2</td><td>CS arrival date</td></tr>
<tr><td>E2</td><td>CS arrival date</td></tr>
<tr><td>RR</td><td>RR arrival date</td></tr>
<tr><td>AC</td><td>AC arrival date</td></tr>
<tr><td>NW</td><td>NW arrival date</td></tr>
<tr><td>NA</td><td>NW arrival date</td></tr>
<tr><td>AW</td><td>AW arrival date</td></tr>
<tr><td>SR</td><td>NW arrival date</td></tr>
<tr><td>ET</td><td>AN arrival date</td></tr>
<tr><td>PT</td><td>NT arrival date.
For the HH switch, if triggered by the AN this is AN arrival date</td></tr>
<tr><td>WR</td><td>CS arrival date</td></tr>
</table></td></tr>
<tr><td>Days overdue</td><td>Numeric</td><td>Number of business days the event is overdue.
Note: for a RR breach this is the number of actual days between CS Actual Transfer Date and RR arrival date.</td></tr>
</table>

Data outputs:		
Current summary output information		
Switch Type	Char 2	From qualifying event.
Breach type	Char 2	
Defaulting participant	Char 4	Derived by system.
Other participant	Char 4	The non-defaulting participant impacted by the switch.
Total count in breach	Numeric	Total of ageing 1 to 5.
Ageing 1	Numeric	Overdue or due <= to ageing 1 days.
Ageing 2	Numeric	Overdue or due > ageing 1 days and <= to ageing 2 days.
Ageing 3	Numeric	Overdue or due > ageing 2 days and <= to ageing 3 days.
Ageing 4	Numeric	Overdue or due > ageing 3 days and <= ageing 4 days.
Ageing 5	Numeric	Overdue or due > ageing 4 days.
Current detail output information		
Switch Type	Char 2	From qualifying event.
Breach type	Char 2	
Defaulting Participant Identifier	Char 4	Derived by system.
Other Participant Identifier	Char 4	The non-defaulting participant impacted by the switch.
ICP Identifier	Char 15	
Sent date	DD/MM/YYYY	The date the notice or message was sent by the registry to the recipient.
Due date	DD/MM/YYYY	The date that notice of the switch event that is subject to a breach was due to be received.
Days till due	Numeric	Number of business days from today's date until the event is due (calculated if the due date is in the future).
Days overdue	Numeric	Number of business days the event is overdue.

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Sub-process:	**PR-042 Produce rolling switch compliance report**
Process:	Produce reports
Participants:	Traders, Authority
Code references:	11.3 clause 4
Dependencies:	

Description:
A trader providing a trader switch completion message for NT Switch Type MI and TR, must ensure that at least 50% of their Actual Transfer Dates, over a 12-month period, are less than 6 business days after the arrival date of the switch request (NT).

Business requirements:

1. The registry must calculate a report date range where
    a. End of date range is the provided End Date
    b. Start of date range is End Date minus 365 (days)
2. The report must include trader switches where
    a. switch completion message arrival date is in the date range, and
    b. switch type is MI or TR; and
    c. the losing Trader was responsible for the ICP for greater than the Responsibility Months filter.
3. The report must count the number of trader switch completions splitting, the number of business days taken between the arrival date of the NT and the Actual Transfer date into:
    a. Greater than 5 business days
    b. Less than 6 business days
4. The report must calculate the percentage of total trader switch completions, over the date range, that are less than 6 business days
5. The count and percentage must be recorded against the trader who had responsibility for completing the switch; that is the losing Trader.
6. If run by a trader, the report must produce output for that trader only. If run by the Authority the report must include information for all traders

Data inputs:

Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number.
Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory /Optional	Description/Example
End Date PRAM01	dd/mm/yyyy	O	End date. If null defaults to today

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Responsibility Months PRAM02	Numeric	O	Exclude ICP switches where the losing Trader owned the ICP for less than the Responsibility Months
Rolling switch compliance report request examples: HDR,RQSWROLL,RETA,RGST,27/01/2018,11:13:12,2,Switch Rollover Report PRAM01,27/11/2016, PRAM02,2			

Processing:

System

1. Calculates the date range.
2. Accumulates trader switch completions occurring in the date range
    a. Excludes trader switch completions where the losing Trader was responsible for the ICP for fewer months than the Responsibility Months filter
3. Calculates the percentage of trader switches less than 6 days
4. Delivers output

Data outputs:

Name	Format	Description
Participant Identifier	Char 4	
Total switch completions	Numeric	Total switch completions occurring on the date range
Greater than 5 business days	Numeric	Number of switch completions where difference between NT arrival date and CS Actual transfer date is greater than 5 business days
Less than 6 business days	Numeric	Number of switch completions where difference between NT arrival date and CS Actual transfer date is less than 6 business days (5 days or fewer)
Percentage less than 6 business days	Decimal	Percentage of switch completions occurring in less than 6 business days. Rounded to 2 decimal places

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Data outputs:
Examples: HDR,RSSWROLL,RGST,RETA,27/01/2018, 11:18:12,0000001,Switch Rollover Report RETA,12745,177,12568,98.61 Report response for an Authority request: HDR,RSSWROLL,RGST,EMCO,27/01/2018, 11:18:12,0000004,Switch Rollover Report RETA,12745,177,12568,98.61 RETB,6811,798,6013,88.28 RETC,1555,851,704,45.27 RETD,13315,67,13248,99.49

Sub-process:	**PR-050 Produce ICP days report**
Process:	Produce reports
Participants:	Reconciliation Manager
Code references:	Clause 11.26(a) of the Code.
Dependencies:	

Description:

This report is produced for the Reconciliation Manager automatically twice a month and on demand. The report identifies the number of ICP days, per NSP, differentiated by half-hour metering type or non-half hour metering type attributable to each Trader for NSPs that are recorded on the registry as consuming electricity during the consumption period(s) (i.e ICPs that had the Status of *active*). Only ICPs with Installation Types of 'Load' and 'Both' are included.

N.B. If an ICP is active on a day when its associated NSP is inactive, the day is excluded from the count of ICP days for that ICP. If the count of ICP days is zero for a whole consumption period, the entry is not reported to the Reconciliation Manager.

Business requirements:

1. The registry must deliver the information to the Reconciliation Manager for the prior consumption period by 1600 hours on the 4th business day of the current reconciliation period.
2. The registry must deliver revised information to the Reconciliation Manager in respect of the immediately preceding 14 consumption periods, by 1600 hours on the 13th business day of the current reconciliation period.
3. The calculation for each Trader includes all those ICPs for which a Trader was responsible during the relevant consumption period that were active during that time. The number of active days is split by month.
4. Only ICPs with Installation Types of 'Load' and 'Both' are included.
5. The ICP days calculated per ICP and month (consumption period) are then summarised by NSP, submission type HHR, submission type NHH and month. Metering types of unmetered and pre-pay will have been taken into account by the Trader when assigning the submission types HHR and NHH.
6. Where an ICP has both half-hour and non-half-hour submission types, two entries are to appear on this report (they will have the same number of ICP days calculated for each submission type).
7. Each ICP must be regarded as active only for the days when the associated NSP is also active. Where an ICP is recorded as being active outside its NSP effective date range (as per the NSP Mapping static data table), the Registry must:

a. reduce the ICP days calculated to match the number of days the NSP was active in the consumption period where the ICP consumption days exceeds the NSP active days for the consumption period, and

b. exclude the ICP days calculated from the report to the Reconciliation Manager, where an NSP has zero days active in the consumption period, and

c. report to the Authority, as a Consumption Error (see SD-050), all instances of consumption outside the NSP effective date range and include the following information:

   i. ICP Identifier

   ii. NSP Identifier

   iii. Trader Identifier

   iv. Consumption period end date.

8. The results of NSP level validation must be reported regardless of whether Consumption Errors have been detected.

9. The report must be able to be re-sent for a particular month via an SFTP request.

10. The report must also be delivered to the Authority's data warehouse.

Data inputs:			
Name	Format	Mandatory/ Optional	Description/Example
Record Type	Char 3	M	Must be "DET"
Reporting Type	Integer	M	1 – 1 month period 14 – 14 month period
Reporting Period	MMYYYY	M/O	Mandatory if Reporting Type is 1. This will be the period being reported. Optional if Reporting Type is 14. The 14 month report will cover the 14 prior months up to and including the previous month.
Participant Identifier	Char 4	O	Participant whose ICP days will be reported.
Request example: HDR,RQMICPDAYS,RETA,RGST,24/02/2012,10:11:12,1,ListDays DET,1,102011,RETB			

Processing:
The system:

1. For each preceding consumption period, Trader, Submission Type, NSP, and ICP, calculates the ICP period (start date and end date) and the total number of days the ICP was recorded in the registry as being *active* (ICP days).
2. For each ICP period, checks against the NSP Mapping table to ensure that the whole period falls within an active period of the associated NSP. If it does not, then the system reduces the calculated ICP days by the number of days the NSP was inactive during this ICP period.
3. Sums the ICP days of all the ICP periods by consumption period (descending), Trader, Submission Type and NSP.
4. Where the ICP days is zero for a consumption period, omits reporting the ICP days information to the Reconciliation Manager.
5. Informs the Authority of the results of the NSP level validation.
6. Transfer the output file to the Authority's data warehouse.

Data outputs:		
ICP days output information		
Name	**Format**	**Description**
Record Type	Char 3	"DET"
Month	MM/YYYY	Consumption period (format mm/yyyy).
Trader Identifier	Char 4	Trader Participant Identifier.
Submission Type	Char 3	'NHH' or 'HHR'.
NSP	Char 11	NSP identifier.
ICP days	Numeric	Calculated value – total number of days the Trader's ICPs were active for NSPs recorded on the registry as consuming electricity during the consumption period. Note that *NSP consumption* is inferred from the consumption of ICPs recorded at that NSP.
Example: HDR,RSMICPDAYS,RGST,RETA,24/02/2012,11:02:13,00000002,ListDays DET,01/2011,RETB,NHH,NETAABY0111,123 DET,01/2011,RETB,NHH,NETAAZZ0111,14		
Sample email for an ICP Days Consumption Error		
Heading: Consumption error report from Registry: Report - ICP Days *Message text:* The following ICPs have been detected with consumption outside their NSPs effective date ranges, An investigation is required to determine why the Registry has identified these ICPs:		

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ICP <ICP Id> has consumption recorded for Trader <trader id> exceeding the number of days the NSP <NSP identifier> was active during Month: <consumption month>

Alternate Message text where no consumption errors detected:
No ICP's were detected with consumption outside any NSP's effective date ranges.

Example 1: PR-050 ICP Days report
Consumption error report from Registry : Report - ICP Days

The following ICPs have been detected with consumption outside the NSP effective date ranges., An investigation is required to determine why the Registry has identified consumption these:
ICP 123456789ABC123 has consumption recorded for Trader RETA exceeding the number of days the NSP NETANETA001 was active during. Month: 30/04/2015
ICP 9876543210AB321 has consumption recorded for Trader RETB exceeding the number of days the NSP NETANETA001 was active. during Month: 30/04/2015

Example 2: PR-050 ICP Days report
Consumption error report from Registry: Report - ICP Days

No ICP's were detected with consumption outside any NSP's effective date ranges.

Sub-process:	**PR-060 Produce audit log**
Process:	Produce reports
Participants:	Distributors, Traders, Metering Equipment Providers, Authority.
Code references:	11.19
Dependencies:	

Description:

The user can request 'on demand' that the registry sends them a log of all the files the registry has delivered to them, over a specified period, in order to check that the registry has processed all the information the participant has sent.

Business requirements:

1. The registry must be able to provide all users with a log giving all the dates and times when files were sent by it to the user's company.
2. The user must be able to specify a period during which files were sent.
3. Only details of files sent to the requesting user's company must be included in the log.
4. The log must include details of all types of file sent, ie switching messages, acknowledgements, notifications and reports.
5. For each file, the log must contain the time and date it was sent.
6. The registry must deliver the log immediately in a single file.

Data inputs:

Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.

Name	Format	Mandatory/ Optional	Description/Example
Record Type	Char 3	M	Must be "DET"
File Type	Char 3	M	Type of file to be reported, Recognised types are ACK – overnight acknowledgement files NOT – overnight notification files SW – switch files
Start Date	DD/MM/YYYY	M	Start date for query

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End Date	DD/MM/YYYY	M	End date for query, must be equal of later than Start Date
Request example: HDR,RQAUDIT,CTCT,RGST,27/12/2001,11:13:12,2,list files DET,NOT,01/01/2009,31/01/2009			

Processing:
1. Validate selection criteria. Deliver the log to the correct party.

Data outputs:		
Each attribute on an output line is comma separated A file containing the requested audit log.		
Name	Format	Description
Record Type	Char 3	Will always be “DET”
File Name	Char 25	
Sent Date	DD/MM/YYYY	Date file was sent from the Registry
Example: HDR,RSAUDIT,RGST,CTCT,22/02/2002,15:55:33,4,All My Files For April DET,ICP20010401111114.ack,01/04/2001 DET,NOT20010401000035.txt,01/04/2001 DET,LIS20010404161417.txt,04/04/2001 DET,ICPUpdateProfiles.ack,16/04/2001		

Sub-process:	**PR-065 Request file handler status**
Process:	Produce reports
Participants:	Distributors, Traders, Metering Equipment Providers, Authority.
Code references:	
Dependencies:	
Criticality:	Non core

Description:
The Participant may request a report on all batch jobs currently queued or being processed by the Registry file processors.

Business requirements:
1. The registry must be able to provide all users with a list of the batch jobs currently queued or being processed

Data inputs:
A file containing a header may be submitted. Request example: HDR,RQFHSTATUS,RETA,RGST,23/03/2007,15:49:06,00000000,my user reference

Processing:
1. Interrogate the Registry job queue and report all batch jobs

Data outputs:
Each attribute on an output line is comma separated A file containing the requested audit log.

Name	Format	Description
Object Identifier	Char	Unique job object identifier
File Name	Char 25	
File Status	Char 4	000 – waiting file handler 010 – processing 011 – recovering 999 – in error

Name	Format	Description
Participant Identifier	Char 4	
Date processing started	DD MMM YY	
File size	Char 1	S – Small L - large
Records processed	Numeric	
File processor identifier	Char 4	LFP0 – Large File processor number 0 LFP1 – Large File processor number 1 LFP2 – Large File processor number 2 DFP0 – Dual file processor number 1 DFP1 – Dual File processor number 1 DFP2 – Dual File processor number 2 SFP0 – Small file processor number 1 SFP1 – Small File processor number 1 SFP2 – Small File processor number 2 NFP0 – Notify File processor number
Example: HDR,RSFHSTATUS,RGST,RETA,30/05/2011,10:42:50,00000004,Jason 2245.769,$_LIS20070530103209.txt,000,RETA,30 May 2007 10:34:52,S,4750,DFP2 2245.771,$_LIS20070530103242.txt,010,RETA,30 May 2007 10:35:56,S,4750,SFP0 2245.773,$_LIS20070530103305.txt,010,RETB,30 May 2007 10:36:14,S,4750,DFP1 2245.783,$_FHSFHS20070323154906.txt,010,NETA,30 May 2007 10:42:37,S,0,DFP2		

Sub-process:	**PR-070 Produce monthly statistics**
Process:	Produce reports
Participants:	Distributors, Traders, Metering Equipment Providers, Authority
Code references:	Clause 11.23 of the Code.
Dependencies:	

Description:

The registry must publish monthly statistics about the number of ICPs notified to the registry, the number of switch notifications received by the registry in accordance with clause 2 of Schedule 11.3, and any other information agreed between the registry and the Authority, by 1600 hours on the 6th business day of each month for the previous consumption period.

Business requirements:

Part 1: ICP Totals [file 1]

Report the following summary totals at the end of each month. These represent accumulated total values for the Registry at the end of the report month.

End of the Month. A snapshot of the Registry demographics as at the end of the month. This includes:

1. Number of ICP's on the registry.

   Number of ICP's split by Status, i.e. total number *new*, *ready*, *active*, *inactive, distributor, decommissioned*

2. Number of ICP's with NEW Status
3. Number of ICP's with READY Status
4. Number of ICP's with ACTIVE Status
5. Number of ICP's with INACTIVE Status
6. Number of ICP's with DISTRIBUTOR Status
7. Number of ICP's with DECOMISSIONED Status
8. Number of switches completed during the month. This includes all non withdrawn switches where the switch Actual Transfer Date is in the report month.
9. Number of unique NSP's where the NSP is used by an ICP

In addition, the following Activity Statistics are collected for reporting purposes. These represent activity values for the Registry during the report month.

1. Number of customers switched. Includes all switches that are completed (TN, CS or TT received) during the month regardless of the Actual Transfer Date of the switch. Does not include withdrawn switches

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2. Number of ICP's created in the month (new ICP's)
3. Number of ICP's decommissioned during the month.
4. Number of ICP's made inactive during the month.
5. Number of ICP enquiries during the month. This includes:
    - on-line
        - address search, increment for each search request
        - inquiry on an individual ICP
    - sFTP, number of response lines for each of:
        - PR-010, PR-020, PR-030, PR-040, PR-060, NP-020, NP-030, NP-040, RS-010, RS-020, RS-030, RS-040, RW-010, RW-020
6. Number of Trader switches in progress as at the end of the month.
7. Number of switch withdrawal requests made in the month.
8. Number of switch withdrawals where the switch itself had been completed
9. Number of switch withdrawals where the Trader switch itself was in progress.
10. Number of switch withdrawals rejected where the Trader switch itself was completed.
11. Number of switch withdrawals rejected where the Trader switch itself was in progress.

Number of events inserted during the month by event type and how many of these were historical inserts. An historical event is an event that does not affect an ICP's current state.

1. Inserted Address
2. Inserted Address Historical
3. Inserted Metering
4. Inserted Metering Historical
5. Inserted Network
6. Inserted Network Historical
7. Inserted Pricing
8. Inserted Pricing Historical
9. Inserted Trader
10. Inserted Trader Historical
11. Inserted Status
12. Inserted Status Historical

Number of event reversals/replacements made in the month by event type and how many of these were historical.

1. Reversed / Replaced Address

2. Reversed / Replaced Address Historical
3. Reversed / Replaced Metering
4. Reversed / Replaced Metering Historical
5. Reversed / Replaced Network
6. Reversed / Replaced Network Historical
7. Reversed / Replaced Pricing
8. Reversed / Replaced Pricing Historical
9. Reversed / Replaced Trader
10. Reversed / Replaced Trader Historical
11. Reversed / Replaced Status
12. Reversed / Replaced Status Historical
13. ICP's changed - consolidated total of non historical updates (reversals/replacements/inserts)
14. ICP histories changed - consolidated total of historical updates (reversals/replacements/inserts)

Part 2: ICP's By Role

The Authority is required to receive four sets of statistics detailing the number of ICP's *active*, *inactive* and *decommissioned* at the end of the month and the *number that have been switched during the month by:

1. Trader Participant Identifier; [file 2]
2. Distributor Participant identifier; [file 3]
3. NSP identifier; and [file 4]
4. Trader participant Identifier and NSP. [file 5]

*Number that have been switched includes non withdrawn switches where the switch Actual Transfer Date is greater than the start of the month. Switches with an Actual Transfer Date prior to the start of the month are not included

Data Inputs:

Processing:

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Data Outputs:

Monthly statistics to be available, online and downloadable, to all participants. Report contents are the same for all participants, i.e. irrespective of responsibility.

Authority reports to be automatically delivered at the end of each month in CSV format to
a) the registry SFTP server's fromreg folder for the Authority, and
b) the Authority's data warehouse.

The Authority reports will include files 1 through 5

The Administrator has the facility to manually resend files to the Authority's data warehouse..

Files contain the standard Registry file header. Header fields are as follows:

> Header record type,File type,Sender,Recipient,File creation date,File creation time (24 hour format),Number of detail recs,User Reference
> e.g. HDR,RMSTATR1,RGST,BOPE,27/12/2010,11:10:30,24,

The second heading line contains column headings, which are the field descriptions below.

Statistics Files 1: ICP Totals

File Name	File type
MonthlyStatisticsYYYYMM.csv	RMSTATR1

Description	Type
Record type	DET
Month	Char
Parameter description	Numeric
Value	Numeric

Statistics Files 2: ICP Statistics by Trader

File Name	File type
RetailerStatsYYYYMMnnnn.csv	RMSTATR2

Description	Type
Record type	DET
Trader Name	Char 30
Trader Participant Identifier	Char 4
ICP's Active	Numeric
ICP's Inactive	Numeric
ICP's Decommissioned	Numeric
ICP's Switched	Numeric

Statistics Files 3: ICP Statistics by Distributor

File Name	File type
DistributorTotalsYYYYMMnnnn.csv	RMSTATR3

Description	Type
Record type	DET
Distributor Name	Char 30
Distributor Participant Identifier	Char 4
ICP's Active	Numeric
ICP's Inactive	Numeric
ICP's Decommissioned	Numeric
ICP's Switched	Numeric

Statistics Files 4: ICP Statistics by NSP Identifier

File Name	File type
NSPTotalsYYYYMMnnnn.csv	RMSTATR4

Description	Type
Record type	DET
NSP	Char
ICP's Active	Numeric
ICP's Inactive	Numeric
ICP's Decommissioned	Numeric
ICP's Switched	Numeric

Statistics Files 5: ICP Statistics by Trader and NSP Identifier

File Name	File type
ICPByRetailerNSPYYYYMMnnnn.csv	RMSTATR5

Description	Type
Record type	DET
Trader Name	Char 30
Trader Participant Identifier	Char 4
NSP	Char
ICP's Active	Numeric
ICP's Inactive	Numeric
ICP's Decommissioned	Numeric
ICP's Switched	Numeric

Sub-process:	**PR-080 Produce monthly HHR ICP list**
Process:	Produce reports
Participants:	Reconciliation Manager
Code references:	Clause 11.26(d) of the Code.
Dependencies:	

Description:
This report is produced automatically for the Reconciliation Manager. It lists, by NSP and Trader, all those ICPs with Submission Type HHR= 'Y' that were active during the relevant consumption period and the periods for which they were active.

Business requirements:

1. The registry must deliver the information to the Reconciliation Manager for the prior consumption period by 1600 hours on the 4th business day of the current reconciliation period.
2. The registry must deliver revised information to the Reconciliation Manager, in respect of the immediately preceding 14 consumption periods, by 1600 hours on the 13th business day of the current reconciliation period.
3. Only ICPs with a Submission Type HHR = 'Y' must be included in the list.
4. Only ICPs that were status active at some time during the relevant consumption period must be included in the list. An entry in the list must be for a contiguous period during which the ICP was active for a single Trader and NSP within a single consumption period (ICP active period). There may be multiple ICP active periods for a consumption period
5. Each ICP must be regarded as active only for the days when the associated NSP is also active. Where an ICP is recorded as being active outside its NSP effective date range (as per the NSP Mapping static data table), the Registry must:
    a. adjust the ICPs reported consumption days so that they do not exceed the associated NSP's active date range for that consumption period, and
    b. exclude the ICP consumption days from the report to the Reconciliation Manager, if an NSP was not active at all during the consumption period, and
    c. report to the Authority, as a Consumption Error (see SD-050), all instances of consumption outside the NSP effective date range and include the following information:
        i. ICP Identifier
        ii. NSP Identifier
        iii. Trader Identifier
        iv. Consumption period end date.

6. The results of NSP level validation must be reported regardless of whether Consumption Errors have been detected
7. The report must be able to be resent for a particular month upon request to the Registry Manager.

Data inputs:

Processing:

The system:

1. For each consumption period and for each Trader, identifies those ICPs with submission type HHR = Y that had an active status during some part of the consumption period and derives their start and end dates (ICP active periods). Note that if there are periods for which the ICP was inactive during the consumption period there will be more than one entry in this report.
2. Calculates the ICP days for each ICP active period (end date – start date + 1).
3. Reduces the ICP days for every day the ICP active period falls outside the associated NSPs active period, as recorded in the NSP Mapping table. Note that the start date and the end date of an ICP active period are not affected by any adjustment.
4. If the ICP days are reduced to zero, omits reporting the ICP days information to the Reconciliation Manager.
5. Creates an output file for each Consumption Period
6. Sorts the list entries by NSP, Trader, ICP Identifier and start date.
7. Notifies the Authority of the results of the NSP level validation

Data outputs:

Each attribute on an output line is comma separated
HHR ICP list output information for the Reconciliation Manager

Name	Format	Description
Record Type	Char 3	"DET"
Month	MM/YYYY	Consumption period.
NSP	Char 11	NSP identifier
Trader Participant Identifier	Char 4	
ICP Identifier	Char 15	

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Start date	DD/MM/YYYY	First day in month that the ICP was the responsibility of the Trader and was active.
End date	DD/MM/YYYY	Last day in month that the ICP was the responsibility of the Trader and was active.
ICP days	Numeric	Number of days between start date and end date.

File format must have the following naming convention:

- RSMHHRRLIST_<YYYYMM>_<timeStamp>.csv where YYYYMM represents the consumption period being reported; for example:
    - RSMHHRRLIST_202010_20201027173853.csv - Consumption Period October 2020
    - RSMHHRRLIST_202009_20201027173853.csv - Consumption Period September 2020
    - RSMHHRRLIST_202008_20201027173853.csv - Consumption Period August 2020

Where files for multiple consumption periods are created the timestamp for each file must be the same

Sample email for an ICP Days Consumption Error

Heading:
Consumption error report from Registry: Report - HHR ICP List

Message text:
The following ICPs have been detected with consumption outside their NSP effective date ranges. An investigation is required to determine why the Registry has identified these ICPs:
ICP <ICP Id> has consumption recorded for Trader <trader id> exceeding the number of days the NSP <NSP identifier> was active during Month: <consumption month>

Alternate Message text where no Consumption Errors detected:
No ICP's were detected with consumption outside NSP effective date ranges.

Example 1: PR-080 HHR ICP List report
Consumption error report from Registry: Report - HHR ICP List

The following ICPs have been detected with consumption outside their NSP effective date ranges. An investigation is required to determine why the Registry has identified these ICPs:
ICP 123456789ABC123 has consumption recorded for Trader RETA exceeding the number of days the NSP NETANETA001 was active during Month: 30/04/2015

Example 2: PR-080 HHR ICP List report
Consumption error report from Registry: Report - HHR ICP List

No ICP's were detected with consumption outside NSP effective date ranges.

Sub-process:	**PR-090 Produce active NSPs report**
Process:	Produce reports
Participants:	Clearing manager, system operator, Reconciliation Manager
Code references:	Clause 11.25 of the Code.
Dependencies:	

Description:

This report is produced at the request of the clearing manager, system operator, or Reconciliation Manager, each of whom may request that the report be provided automatically (ie a frequency over an indefinite period). The report lists all active NSPs connected to a local network, all active NSPs connected to a network for which a Trader has been responsible, and the dates on which each Trader's responsibility under the Code at an NSP commenced and ceased, during the previous 14 months.

Business requirements:

1. The report must be produced at the request of the clearing manager, system operator, or Reconciliation Manager. It has been requested that the report be provided by 1600 hours on the first business day of every month.

The report must list only those NSPs that are active.

Data inputs:

Processing:

1. Extract the Trader, NSPs and periods (start and end dates) of ICPs that were active during the previous 14 months.
2. Sort and summarise by Trader, NSP reporting the earliest start date and latest end date of the active ICPs. Note that it is possible for all ICPs of a Trader to be inactive for a duration then become active again. The system will therefore show at least two entries in the report for this type of situation.

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Data outputs:		
Each attribute on an output line is comma separated. **Active NSPs report output information**		
Name	**Format**	**Description**
Record Type	Char 3	"DET"
Trader Participant Identifier	Char 4	All Traders.
NSP	Char 11	Each NSP Identifier at which Trader was responsible for an ICP in the active state.
Start date of active period	DD/MM/YYYY	Start date of earliest ICP.
End date of active period	DD/MM/YYYY	End date of latest ICP.

Sub-process:	**PR-100 Produce loss factors report**
Process:	Produce reports
Participants:	Reconciliation Manager, Participants, Authority
Code references:	Clause 11.26(b) of the Code.
Dependencies:	

Description:
This report is produced twice a month automatically for the Reconciliation Manager. It details the loss factor values for each Distributor Loss Category Code recorded by the registry in respect of all trading periods during the previous 14 months.

Business requirements:

1. The registry must deliver the information to the Reconciliation Manager for the prior consumption period by 1600 hours on the 4th business day of the current reconciliation period.
2. The registry must deliver revised information to the Reconciliation Manager, in respect of the immediately preceding 14 consumption periods, by 1600 hours on the 13th business day of the current reconciliation period.
3. The report must show details of all Distributor Loss Category Codes recorded by the registry in respect of all trading periods during the previous 14 month – i.e. that are still current or were current during any of those consumption periods.
4. The report must be able to be requested via SFTP by any participant.
5. The report must also be transferred to the Authority's data warehouse.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.
Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated.

Name	Type	Mandatory /Optional	Description/Example
Start Date	DD/MM/YYYY	M	
End date	DD/MM/YYYY	M	
Participant Identifier	Char 4	M	
Current Codes	Char 1	O	Y to report current codes.
Historical Codes	Char 1	O	Y to report current codes.

Example

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```
HDR,RQMLOSSFS,RETA,RGST,23/03/2007,15:49:06,00000005,my user reference
PRAM01,01/01/2009
PRAM02,25/11/2011
PRAM03,NETA
PRAM04,Y
PRAM05,N
```

Processing:

1. From the loss factor table on the registry, identify all Distributor Loss Category's except those with an end date after 14 months before the current consumption period.
2. Transfer the output file to the Authority's data warehouse.

Sort by Network Participant Identifier, Distributor Loss Category Code, and start date.

Data outputs:

Each attribute on an output line is comma separated.
Loss factors report output information

Name	Format	Description
Record Type	Char 3	"DET"
Distributor Participant Identifier	Char 4	Valid Participant Identifier for Distributor.
Distributor Loss Category Code	Char 15	
Consumption loss factor	Numeric 1.4	1.0024
Generation loss factor	Numeric 1.4	1.0024
Start date	DD/MM/YYYY	
End date	DD/MM/YYYY	Within preceding 14 months or blank.
Start trading period	Numeric 4	For example: 0000
End trading period	Numeric 4	For example: 2300
Date and time of last change	DD/MM/YYYY HH:MM:SS	Audit date/time of insert or update.

Sub-process:	**PR-110 Produce maintenance compliance report**
Process:	Produce reports
Participants:	Authority, Distributors, Traders, Reconciliation Manager, Metering Equipment Providers
Code references:	Clause 11.20(2), clauses 8, 9, 22, 23, 28 and 30 of Schedule 11.1 and clauses 2 and 3 of Schedule 11.4 of the Code.
Dependencies:	

Description:

This is an automatic report that is produced every month by 1600 hours on the 1st business day of each reconciliation period for the Authority.

It can also be requested by Traders, Distributors, the Reconciliation Manager, Metering Equipment Providers and the Authority. Traders, Metering Equipment Providers, the Reconciliation Manager and Distributors can only obtain information pertaining to themselves. The Authority can select information for individual or all participants.

Both a summary and detailed reports are automatically produced every month for the Authority. These reports summarise and detail the number of events that have not been notified to the registry within the timeframes specified in Part 11 of the Code. Those events might relate to ICPs, events, NSPs, Distributor Loss and Price Categories.

Business requirements:

1. The report must be produced monthly by 1600 hours on the 1st business day of each reconciliation period for the Authority or on request by Traders, Metering Equipment Providers and Distributors.
2. The report must show the non-compliance instances that have not been notified to the registry as required by the Code of which the registry is aware. Those events include the following:

   For Distributor compliance:

   a) (Clause 8(2) of schedule 11.1.) The provision of information by Distributors about:
      - Network events (including the creation of an ICP Identifier for an ICP);
      - Address event information; or
      - Pricing event information; or
      - Status event information

   Changes to these events must be input no later than 3 business days after the change takes effect.

   * However, NSP identifier changes must be input no later than 8 business days after the change takes effect.

b) Distributor Loss Category Codes. Changes to loss factors must be entered on the table in the registry at least 2 calendar months before the loss factor takes effect (clause 22 of Schedule 11.1);

c) Distributor Price Category Codes. Changes to Distributor Price Category Codes must be entered on the table in the registry at least 2 calendar months before the code takes effect (clause 23 of Schedule 11.1);

For Trader compliance:

- Clause 9 of Schedule 11.1. The provision of information by Traders about Trader events and Status events must be provided no later than 5 business days after the change takes effect.

For Reconciliation Manager compliance:

- Clauses 28 and 30 of Schedule 11.1. Reconciliation Manager maintenance of NSP information. A new NSP identifier must be allocated at least 1 business day of the Reconciliation Manager receiving notice of the creation of the NSP. The creation or decommissioning of an NSP must be notified to the registry within 1 business day after the Reconciliation Manager receives notice of the creation or decommissioning.

For Metering Equipment Provider Compliance

- Clause 3 of Schedule 11.4. A change to metering event information (not the initial population) must be made no later than 10 business days after the change comes into effect (MTR).
- Clause 2 of Schedule 11.4. The first population metering event information by a new MEP must be made no later than 15 business days after the change comes into effect (MT1).

3. All inserts, updates and reversals are to be reported.
4. Information provided to the registry after 1930 hours is deemed to be provided at 0730 the next day (clause 11.20(2) of the Code).
5. The report must be transferred to the Authority's data warehouse.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn"
where nn refers to the parameter number.

Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated

Parameter Name	Type	Mandatory/ Optional	Description/Example
Month and year of breaches PRAM01	MMYYYY	M	

Breach Type PRAM02	Char 32	M	List event types to be reported, one or more as below space separated: • NET – Distributor maintenance (including ICP creation) • NSP – ICP NSP change • PRI – Distributor pricing • ADD – Distributor Address • REC – Trader change • MTR –Metering change (not first) • MT1 –Metering change (first) • STAT –Distributor Status change • TRADERSTATUS – Trader status change • LFT – Loss factor table • PCT – Price Category Table • NSPT – NSP table
Detail or Summary PRAM03	Char 1	M	S or D
Participant PRAM04	Char 4	M	Defaults to report requester. Authority may request for any participant
Example request: HDR,RQMMAINTCP,CTCT,RGST,27/12/2001,11:13:12,2,list data PRAM01,032010 PRAM02,NET ADD PRAM03,S PRAM04,RETA			

Processing:

1. Extract all relevant information (eg event maintenance, Distributor Loss Category maintenance, Distributor Pricing Category maintenance and NSP mapping table information) entered on the registry during the previous month.
2. Transfer the output file to the Authority's data warehouse.
3. Detail report is sorted by participant, maintenance type, input date sequence.
4. Summary report is sorted by participant and maintenance type.

Note the days overdue calculation is performed to a maximum of 100 days. Larger durations are represented (internally to the Registry only) by the value 99999 business days.

Data outputs:

Each attribute on an output line is comma separated. **Maintenance compliance report output information – detail**		
Name	**Format**	**Description**
Record Type	Char 3	"DET"
Participant Identifier	Char 4	
Maintenance type	Char 3	<For event maintenance the event type description>, loss factor, price category code, NSP mapping table.
Input date	DD/MM/YYYY	
Effective date	DD/MM/YYYY	Event Date or start date or end date.
ICP Identifier	Char 15	Only for event maintenance.
The following depends on the maintenance type value:		

Name	**Description**
For Network event maintenance (NSP and NET): (If only NSP Identifier is changed then NSP, or else NET. If NSP and NET then 2 rows generated.)	
Network Participant Identifier	Valid Participant Identifier for Distributor.
POC	
Reconciliation Type	
Dedicated NSP	
Installation Type	
Proposed Trader Participant Identifier	
Unmetered Load Details – Distributor	
Shared ICP List	Space separated ICP numbers
Generation Capacity	
Fuel Type	
Initial Electrically Connected Date	
Direct Billed Status	
Direct Billed Details	
Network User Reference	
For network Pricing event maintenance: (PRI)	
Distributor Price Category Code	
Distributor Loss Category Code	
Chargeable Capacity	

Name	Description
Distributor Installation Details	
Network pricing User Reference	
For Address event maintenance: (ADD)	
Physical Address Unit	
Physical Address Number/ RAPID number	
Physical Address Region	
Physical Address Street	
Physical Address Suburb	
Physical Address Town	
Physical Address Post Code	
Address Property Name	
GPS Easting	
GPS Northing	
Address User Reference	
For loss factor table maintenance: (LFT)	
Network Participant Identifier	Valid Participant Identifier for Distributor.
Distributor Loss Category Code	
Loss factor consumption	
Loss factor generation	
Start date	
End date	
Start period	
End period	
For pricing category table maintenance: (PCT)	
Network Participant Identifier	Valid Participant Identifier for Distributor.
Distributor Price Category Code	
Effective start date	
Effective end date	
Price category description	
For NSP mapping table maintenance: (NSPT)	
Owner	
POC	
Registry network	

Name	Description
Registry NSP description	
Parent POC	
Parent network	
Balancing area	
Network type	
Network connection status	
Start date	
Start trading period	
End date	
End trading period	
ICP# of EN NSP	
For Trader event maintenance: (REC)	
Trader	
Profile	
Proposed MEP	
UNM Flag	
Daily Unmetered kWh	
Unmetered Load Details – Trader	
Submission Type HHR	
Submission Type NHH	
ANZSIC	
Trader User Reference	
For Metering event maintenance: (MTR and MT1)	
MEP Participant Identifier	
Highest Metering Category	
HHR Flag	
NHH Flag	
PP Flag	
AMI Flag	
Meter Channel Count	
Meter Multiplier Flag	
Metering User Reference	

Name	Description
For Status event maintenance: (STAT and TRADERSTATUS) (Distributor and Trader respectively)	
ICP Status	
ICP Status Reason code	
Status User Reference	

Maintenance compliance report output information – summary		
Field	**Format**	**Description**
Record Type	Char 3	“DET”
Month	MM/YYYY	03/2010
Participant Identifier	Char 4	
Maintenance type	Char 3	<For event maintenance the event type description>, loss factor, price category, NSP mapping table.
Number of non-compliant events	Numeric 6	999999

Sub-process:	**PR-120 Produce NSP mapping table report**
Process:	Produce reports
Participants:	Reconciliation Manager, participants
Code references:	Clause 11.26(c) of the Code.
Dependencies:	

Description:

This report is produced automatically for the Reconciliation Manager but is produced for all participants 'on demand'. It details the entries in the NSP mapping table that were applicable during previous consumption periods – ie the balancing area to which each NSP belongs recorded by the registry in respect of all trading periods.

Business requirements:

1. The registry must deliver the information to the Reconciliation Manager for the prior consumption period by 1600 hours on the 4th business day of the current reconciliation period.
2. The registry must deliver revised information to the Reconciliation Manager, in respect of the immediately preceding 14 consumption periods, by 1600 hours on the 13th business day of the current reconciliation period.
3. The registry must allow all registry participants to view the NSP mapping table online and to download it.
4. The information must be able to be requested via SFTP by any participant.
5. Entries in the report must have the following information:
   - identifier – Char 4 (Distributor Participant Identifier);
   - registry POC – Char 7;
   - registry Network Participant Identifier – Char 4;
   - registry NSP description – Char 32;
   - parent POC – Char 7;
   - parent Network Participant Identifier – Char 4;
   - balancing area – Char 12;
   - network type – Char 1 (G = grid connected, E = embedded or I = interconnection point);
   - network connection status – Char 1 (active = Y or inactive = N);
   - start date – date (DD/MM/YYYY);
   - start trading period – Char 2;
   - end date – date (DD/MM/YYYY or blank);
   - end trading period – Char 2;

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Business requirements:
• ICP Identifier of SB ICP – Char 15; • audit input date/time; • input by (user name); • audit deletion date/time; and • deleted by (user name).

Data inputs:
A report may be requested by submitting a file with a header only Example request: HDR,RQMNSPMAP,RETA,RGST,27/12/2016,11:13:12,0,

Processing:
1. From the NSP mapping table, select all entries except those with an end date prior to 14 months previous. Sort by registry POC, registry Network Participant Identifier, start date, and start trading period.

Data outputs:

Each attribute on an output line is comma separated.
NSP mapping table report output information

Name	Format	Comment
Identifier	Char 4	Distributor Participant identifier
Registry POC		
Registry Network Participant Identifier		
Registry NSP description		
Parent POC		
Parent network		
Balancing area		
Network type		
Network connection status		
Start date	DD/MM/YYYY	
Start trading period	Numeric	

End date	DD/MM/YYYY	
End trading period	Numeric	
ICP Identifier of EN NSP	Char 15	
Audit input date/time	DD/MM/YYYY HH:MM:SS	
Input by (user name)	Char 10	
Audit deletion date/time	DD/MM/YYYY HH:MM:SS	
Deleted by (user name)	Char 10	

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Sub-process:	**PR-130 Produce monthly activity and status summary report**
Process:	Produce reports
Participants:	Authority
Code references:	Clause 11.23
Dependencies:	

Description:
This report is produced automatically for the Authority and provides statistics for each of the previous 3 months. It is a combination of monthly activity and status as at the end of each month.

Business requirements:
1. The report should be delivered to the Authority by 1600 hours on the 6th business day of each month covering the previous 3 months. 2. The report must also be transferred to the Authority's data warehouse.

Data inputs:

Processing:

Data outputs:

Authority reports to be automatically delivered at the end of each month in CSV format to:

a) the registry SFTP server's fromreg folder for the Authority, and

b) the Authority's data warehouse.

The Administrator has the facility to manually resend files to the Authority's data warehouse

Each attribute on an output line is comma separated.

Monthly activity and status summary report output information

Name	Format	Description
Month	MMYYYY	
POC	Char 7	
Network Participant Identifier	Char 4	Valid Participant Identifier for Distributor.
Reconciliation Type	Char 2	
Trader	Char 4	Trader Participant Identifier
Number of ICPs	Numeric	As at end of month

ICPs created	Numeric	In month
Status new (999)	Numeric	As at end of month
Status ready (000)	Numeric	As at end of month
Status inactive (001)	Numeric	As at end of month
Status active (002)	Numeric	As at end of month
Status decommissioned (003)	Numeric	As at end of month
Status distributor (888)	Numeric	As at end of month
Metering type HHR	Numeric	As at end of month
Metering type NHH	Numeric	As at end of month
UNM Flag	Numeric	As at end of month
Metering type PP		As at end of month
Advanced Metering Infrastructure	Numeric	As at end of month
Submission Type HHR	Numeric	As at end of month
Submission Type NHH	Numeric	As at end of month
Meter installation category 1 active	Numeric	As at end of month
Meter installation category 2 active	Numeric	As at end of month
Meter installation category 3 active	Numeric	As at end of month
Meter installation category 4 active	Numeric	As at end of month
Meter installation category 5 active	Numeric	As at end of month
Meter installation category 1 inactive	Numeric	As at end of month
Meter installation category 2 inactive	Numeric	As at end of month
Meter installation category 3 inactive	Numeric	As at end of month
Meter installation category 4 inactive	Numeric	As at end of month
Meter installation category 5 inactive	Numeric	As at end of month

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Meter installation category 1 decommissioned	Numeric	As at end of month
Meter installation category 2 decommissioned	Numeric	As at end of month
Meter installation category 3 decommissioned	Numeric	As at end of month
Meter installation category 4 decommissioned	Numeric	As at end of month
Meter installation category 5 decommissioned	Numeric	As at end of month
ICP enquiries	Numeric	In month
ICPs changed	Numeric	In month
CS switches	Numeric	In month
Switch withdrawals	Numeric	In month
Price category changes	Numeric	In month
Loss category changes	Numeric	In month
No meter setting	Numeric	ICPs with all metering types = N as at end of month
No metering event		ICPs in month with no metering event data e.g. new ICPs and solely UML ICPs.

Sub-process:	**PR-140 Produce monthly switch completion report**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	

Description:
This report is produced automatically for the Authority and provides switch completion statistics for each of the previous 3 months.

Business requirements:

1. The report must be delivered to the Authority by 1600 hours on the 3rd business day of each month covering the previous 3 months
2. The report counts the number of business days taken between NT arrival and the TN/CS /TT. These numbers are expressed as average business days to two decimal points per calendar month by participant and meter type (HHR and NHH).
3. The switch counts appear against the Trader who has responsibility for completing the switch.
    - NHH switch will appear against the losing Trader who has responsibility for supplying the TN/CS and for switch types of MI and TR.
    - HHR switch will appear against the gaining Trader who has responsibility for supplying the TT/CS and for the switch type of HH.
4. The count refers to the calendar month in which the NT was initiated; for example, an NT initiated in January that completes in February appears in January's figures.
5. For the purposes of the business days calculation, if notification of a switch event arrives on a public holiday it is assumed to have arrived the next business day.
6. Number of days will be based on date of receipt of the switch event, ie a switch event notification received after 19:30 will be deemed to have arrived today not tomorrow.
7. The report includes maximum and minimum business days recorded to complete a switch per participant per month, the maximum and minimum are across both HHR and NHH switches.
8. The total NHH switches performed by a participant will be printed and also expressed as a percentage of the total NHH switches performed in the month to 2 decimal points. HHR switches will be accumulated and expressed in the same manner.
9. A weighted average business days until completion will be calculated separately for each month against NHH, HHR and across all switches. The weighted average figures will be detailed in a separate line at the end of each month.
10. The type S/TR and SM/MI non half hour switches will be reported separately and in addition to the aggregated NHH figures. Type S/TR and SM/MI switches will each include figures for

minimum, maximum and average business days. Type S/TR and SM/MI switches will each be reported with a weighted average at the end of each month.

11. Any switch that has been withdrawn is excluded from the counts.
12. The report data will be comma separated.
13. The Authority reports to be automatically delivered at the end of each month in CSV format to:
    - the registry SFTP server's fromreg folder for the Authority, and
    - the Authority's data warehouse.

Data inputs:

Processing:

Data outputs:		
Each attribute on an output line is comma separated. **Monthly activity and status summary report output information**		
Name	**Format**	**Description**
Month	MMM-99	e.g. Jan-08
Participant Identifier	Char 4	
S or TR minimum	Numeric	Minimum days taken to complete a type S or TR NHH switch
S or TR maximum	Numeric	Minimum days taken to complete a type S or TR NHH switch
SM or MI minimum	Numeric	Maximum days taken to complete a type SM or MI NHH switch
SM or MI maximum	Numeric	Maximum days taken to complete a type SM or MI NHH switch
Avg Bus Days S or TR	Numeric 3.2	Average business days taken to complete a type S or TR NHH switch
Avg Bus Days SM or MI	Numeric 3.2	Average business days taken to complete a type SM or MI NHH switch
Avg Bus Days NHH	Numeric 3.2	Average business days taken to complete a NHH switch
Avg Bus Days HHR	Numeric 3.2	Average business days taken to complete a HHR switch

Maximum	Numeric	Maximum days taken to complete a switch
Minimum	Numeric	Minimum days taken to complete a switch
NHH	Numeric	Number of NHH switches performed by the participant and percentage that represents of all NHH for all participants in the month
HHR	Numeric	Number of HHR switches performed by the participant and percentage that represents of all HHR for all participants in the month
Total	Numeric	Number of switches (NHH and HHR) performed by the participant and percentage that represents of all switches for all participants in the month
Weighted averages	Numeric 3.2	Weighted averages for each month for: • Type S/TR NHH switches • Type SM/MI NHH switches • NHH • HHR • Total switches

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Sub-process:	**PR-145 Produce daily switch report - Discontinued**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	PR-140
Criticality:	Non Core

Description:
No longer required.

Business requirements:
1. Refer to PR-140 Monthly Switch Completion report for a full description of business requirements and output format. PR-145 differs in the following manner: 2. The report must be delivered to the Authority by 0900 hours each day covering the previous day. 3. A switch withdrawal (AW) is included in the count. 4. A switch that is started, completed and withdrawn on the same day is not included.

Data inputs:

Processing:

Data outputs:	
Daily activity and status summary report output information. The fields are as specified for PR-140 Monthly Switch Completion report, except those below.	
Name	**Description**
Day (replaces Month)	Format dd/mm/yyyy
NHH S or TR opened	Number of S or TR switches opened of NHH meter types
NHH SM or MI opened	Number of SM or MI switches opened of NHH meter types
HHR opened	Number of HHR switches opened

Sub-process:	**PR-160 Produce Automated Trade Notification**
Process:	Produce reports
Participants:	Reconciliation Manager, System Operator
Code references:	Clauses 11.25 and 11.26 of the Code
Dependencies:	

Description:

The registry will provide to the Reconciliation Manager a file containing a Traders start date of trading at an NSP and the end date of trading at an NSP. The data covers the preceding 14 months, summarised by Installation criteria.

Business requirements:

1. The Trade Notifications file must be delivered to the Reconciliation Manager by 9am each day.
2. The Reconciliation Manager and System Operator may also request the report on demand.
3. The report details the date that a Trader started trading on an NSP and the date a Trader ended trading on an NSP for each unique occurrence of Installation criteria:
   - NSP
   - Installation Type
   - Reconciliation Type
   - Profile
4. Only ICP's that have the Status *active* are considered to be trading.

Data inputs:

The report may be requested by the Reconciliation Manager or System Operator at any time either on-line or by SFTP. An SFTP request requires a header record in the following format:

Name	Type	Mandatory/ Optional	Description/Example
Header	Char 3	M	Must be "HDR"
Request name	Char 10	M	Must be "RQATRADE"
Sender	Char 4	M	Participant identifier for example NZRM
Recipient	Char 4	M	Must be "RGST"
Date	DD/MM/YYYY	M	Valid date
Time	HH:MM:SS	M	Valid time
Number of records	Numeric	M	Must be 0
User Reference	Char 32	O	Free format User Reference. This is carried through and placed on the output file.

Example
HDR,RQATRADE,NZRM,RGST,03/08/2010,14:27:05,0,AdHoc trade report request

Processing:
1. Report all periods where a Trader traded on an NSP 2. Sort the output by NSP then Trader

Data outputs:

The output report will contain a standard header followed by the trading information.
Each attribute on an output line is comma separated.
The output file name will have the following format:

- RSMATRADE< yyyyMMddHHMMSS>.txt

Name	Format	Description
Point of connection	Char 7	
Network	Char 4	Valid Participant Identifier for Distributor.
Reconciliation Type	Char 2	
Participant identifier	Char 4	
Profile code	Char 3	Profile that was active on the NSP
Installation Type	Char 1	L - Load G - Generation B - Both
Start date	DD/MM/YYYY	Date Trader started trading on the NSP
End date	DD/MM/YYYY	Date Trader end trading on the NSP. If the Trader is still trading then the end date is null

Output example:
HDR,RSMATRADE,RGST,NZRM,04/08/2010,00:05:00, 3984,REGISTRY
ABY0111,NETA,GN,RETA,PG1,L,01/05/2010,
ABY0111,NETA,GN,RETA,EG1,L,01/05/2010,
ABY0111,NETA,GN,RETA,HHR,L,01/05/2010,
ABY0111,NETA,GN,RETA,T08,L,01/05/2010,27/07/2010
ABY0111,NETA,GN,RETA,T08,L,14/08/2010,

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Sub-process:	**PR-170 Produce Monthly report**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	

Description:
This report is produced automatically for the Authority each month and provides a count of the number of ICP's a participant is responsible for in *Active* or *Ready* state.

Business requirements:
1. The report must be delivered to the Authority by 06:00 hours on the 1st day of each month. 2. An ICP is included where it is in a *Ready* or *Active* state. 3. Number of ICP's a distributor or Trader are responsible for are counted against that participant.

Data inputs:

Processing:
1. Read all ICP's. 2. Ignore ICP where Status is other than Ready or Active. 3. Accumulate counts against the current Distributor and Trader who are responsible for the ICP. 4. Write counts to output file. 5. Transfer the output file to the Authority by email.

Data outputs:

Each attribute on an output line is comma separated.

The Authority report to be automatically delivered at the end of each month, report name:

- ICPsOwned<month name><year>.csv, for example ICPsOwnedFebruary2011.

Name	**Description**
Industry Code and Name	Participant identifier and description
Active	Number of ICP's owned in Active state
Ready	Number of ICP's owned in Ready state
Trader	Whether Participant is a Trader
Network	Whether Participant is a Distributor

Sub-process:	**PR-180 Produce ICP Switching Trend Report**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	

Description:

The report provides the following information:

1. ICPs that have switched Trader
2. ICP's whose Status changes from Ready to Active or Inactive
3. ICP's whose Status changes from Decommissioned to Inactive
4. ICP's whose Status changes from Inactive to Decommissioned
5. ICP's whose current Address has changed

This information is provided to the Authority by 1600 hours on the 6th business day of each month for the previous month.

Business requirements:

The report provides information to the Authority's data warehouse for analysis of switch trend information.

The terminology used in the following functional description has been selected to maintain consistency with common registry usage.

Base Data extract

Extract ICP data as at an input effective date. A Base extract will contain records of the following Action type (see Action field description below).

1. BASE; consists of
    - ICP's with Status Active or Inactive as at the input report start date

Delta Data extract

Extract net deltas for ICP's between an effective date range. The delta is identified as one of the following:

1. SWITCH; consists of
    - ICPs that have switched.
    - ICP's who have had a completed switch withdrawn.

2. START TRADING; consists of
    - ICPs that have moved from a non Trading state (New, Ready or Decommissioned) to a Trading state (Active or Inactive).

3. STOP TRADING; consists of
   - ICP's moved from Inactive to Decommissioned
   - ICP's moved from Inactive or Active to Ready (initial Trader assignment reversal)

4. ADDRESS; consists of
   - ICPs that have had an Address change to their current Address.

Notes

1. The Delta Data contains the net changes across the input date range. If there is no net change the ICP is not reported.
   For example these are not reported:
   a) an ICP that became ACTIVE then returned to READY during the period
   b) an ICP with a switch notification that was subsequently withdrawn during the period.

2. Where multiple deltas occur of the same action type over the same reporting period only the latest delta is reported and is identified by the most recent event Effective Date.

3. The BASE report contains records with action type of BASE only, to provide an indication of the report type. This record is otherwise identical to action type ADDRESS.

Data inputs:

1. Base or Delta report
2. Report start date
3. Report end date (delta report only).

Processing:

Base Report

1. Read all ICP records at the report date that have an active or inactive Status.
2. Generate output statistic file with BASE action records
3. Transfer the output file to the Authority SFTP fromreg folder
4. Transfer the output file to the Authority's data warehouse

Delta Report

1. Read the event audit records that have been updated in the registry in the consumption month
2. Generate output statistic file
3. Transfer the output file to the Authority SFTP fromreg folder
4. Transfer the output file to the Authority's data warehouse

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Data outputs:
Authority report to be automatically delivered at the end of each month in CSV format to a) the registry SFTP server's fromreg folder for the Authority, and b) the Authority's data warehouse. The Administrator has the facility to manually resend files to the Authority's data warehouse Files contain the standard registry file header. Header fields are as follows: • Header record type,File type,Sender,Recipient,File creation date,File creation time (24 hour format),Number of detail recs,User Reference e.g. HDR,RSPR180STA,RGST,EMCO,15/02/2011,11:10:30,24, Report sort order will be • ICP Identifier • Effective Date

Name	Format	Description
ICP Identifier	Char 15	ICP Identifier.
Effective Date	Date DD/MM/CCYY	The date the change became effective.
Creation Date	Date DD/MM/CCYY	The date the delta was updated to the Registry Null for Base Report
Action	Char 18	One of: • BASE • SWITCH • START TRADING • STOP TRADING • ADDRESS (Note the format for records with action of BASE and ADDRESS are identical)
Losing Trader	Char 4	Populated where Action is SWITCH, otherwise blank. This contains the Trader who has lost the ICP
Gaining Trader	Char 4	If Action is SWITCH • Trader who has gained the ICP If Action is BASE or START TRADING, • Trader who assigned an ICP to themselves or • Trader who owns the ICP after reversal of a decommission event. Otherwise blank

Name	Format	Description
Withdrawal Reason	Char 2	Populated if action is SWITCH. The Switch Withdrawal Code
Status	Char 14	ICP Status as at the Effective Date, one of: • Inactive • Active • Decommissioned
Distributor	Char 4	Distributor at the Effective Date
NSP	Char 11	NSP identifier as at the Effective Date
Meter Category	Numeric	Meter Category as at Effective Date
Address Details		The Address details apply as at the Effective Date, Address details are populated if action is BASE, ADDRESS or START TRADING.
Physical Address Unit	Char 20	Physical Address Unit
Physical Address Number/Rapid Number	Char 25	Physical Address Number/Rapid Number
Physical Address Street	Char 30	Physical Address Street
Physical Address Suburb	Char 30	Physical Address Suburb
Physical Address Town	Char 30	Physical Address Town
Physical Address Region	Char 20	Physical Address Region
Physical Address Post Code	Numeric	Physical Address Post Code

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Sub-process:	**PR-190 Produce EIEP Statistics**
Process:	Produce Reports
Participants:	Authority
Code references:	None
Dependencies:	EI-010, EI-020, EI-030
Criticality	Non-core

Description:
Monthly statistics representing the number and volumes of files sent and received by the EIEP transfer hub.

Business requirements:
1. The report is delivered to the Authority by 06:00 hours on the 1st day of each month 2. The Authority will receive a file detailing EIEP Transfer statistics by Participant, as described in Data Outputs. 3. The report will be automatically delivered at the end of each month in CSV format to a) the Registry SFTP server's fromreg folder for the Authority, and b) the Authority's data warehouse. 4. The Administrator has the facility to manually resend files to the Authority's data warehouse.

Data inputs:
None

Processing:
Accumulate statistics through examination of the EIEP transfer audits for the report month.

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Data outputs:

Files contain the standard Registry file header. Header fields are as follows:

Header record type, File type, Sender, Recipient, File creation date, File creation time (24 hour format), Number of detail records, User reference

Description	Type	Value
Report Month	MMYYYY	
Participant Code	Char 4	
Total Files sent	Numeric	
Volume files sent	Numeric	Total volume in bytes
Total Files received	Numeric	
Volume files received	Numeric	Total volume in bytes
Total Files rejected	Numeric	

File example:

```
HDR,RMSTATEIEP,RGST,EMCO,01/08/2011,00:10:30,5,
072011,CTCT,266,36578923,199,887691,0
072011,GEOL,212,59886311,190,999499,4
072011,MERI,119,67779,61,1880,1
```


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Sub-process:	**PR-210 Missing Metering Data**
Process:	Produce reports
Participants:	Authority, MEP
Code references:	
Dependencies:	
Criticality:	Non-core

Description:
This report is used to identify where a MEP has sent an MN notification but has not populated the Metering data.

Business requirements:

1. The report may be run by a MEP or the Authority
2. The report will include ICP's which are MEP Switch In Progress where a MEP has sent either
    - an MN notification rejecting responsibility, or
    - an MN notification accepting responsibility but has not populated the metering data.
3. The report may be run on demand by MEP's and the Authority.
4. Report output is as at the run date of the report
5. If run by a MEP the report will return ICP's where the MEP is the last notified MEP.
6. If run by the Authority the report will return ICP's for the requested MEP, or ICP's for all MEP's as per data inputs.
7. File output name will be "PR210_MissingMetering_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time.
8. The file is sorted by gaining MEP.

Monthly reporting

The report is run automatically on the 2nd day of each month and delivered to the Authority SFTP fromreg folder and the Authority's data warehouse. The target delivery time is 6am.
The automated report will return ICP's for all MEP's.

Data inputs:			
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number. Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter. Each attribute on an input line is comma separated			
Parameter Name	Type	Mandatory/ Optional	Description/Example
PRAM01	Char 4	M/O	Defaults to report requester. Authority may request for any MEP Identifier. Authority may report all MEP’s by leaving the parameter blank
Example request: HDR,RQMISSMETR,EMCO,RGST,27/11/2013,11:13:12,1,list data PRAM01,META			

Processing:
Validate input parameters. Generate output file. Transfer output file to Participant SFTP fromreg folder. Transfer the output file also to the Authority’s data warehouse.

Name	**Format**	**Description**
Record Type	Char 3	“DET”
ICP Identifier	Char 15	
Trader	Char 4	Participant identifier of trader currently responsible for the ICP
Loosing MEP	Char 4	Participant identifier of the MEP who will lose responsibility.
Gaining MEP	Char 4	Participant identifier of the last notified MEP
Submission Date	DD/MM/YYYY	Input date the MN notification of acceptance was submitted by the Gaining MEP.
MN Responsibility Indicator	Char 1	

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Name	Format	Description
Examples: HDR,RSMISSMETR,RGST,EMCO,27/11/2013,11:13:12,7,list data DET,1234567890AB123,RETA,METB,META,27/10/2013,A DET,2345678901CD234,RETA,METB,META,27/10/2013,R DET,3456789012EF345,RETA,METB,META,28/10/2013,A DET,4567890123GH456,RETB,METB,META,28/10/2013,A DET,5678901234IJ567,RETC,META,METB,30/10/2013,A DET,6789012345KL678,RETC,META,METB,30/10/2013,A DET,7890123456MN789,RETD,META,METB,30/10/2013,R		

Sub-process:	**PR-220 Uncertified Metering Installations**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	
Criticality:	Non-core

Description:
This report will report ICP's where the latest metering event contains Uncertified Metering Installations.

Business requirements:

1. The report will include status Active ICP's where the ICP's latest Metering event contains the following:
   a. There is any interim certification in the metering records; or
   b. There is full certification for any Metering Installation where the Metering Installation Certification Date has expired; or
   c. There is full certification for any Metering Installation and where the Metering Installation Certification Variations Expiry Date has expired.
2. The report is run automatically on the 7th, 14th and 21st day of each month and delivered to the Authority SFTP fromreg folder and the Authority's data warehouse. The target delivery time is 6am.
3. File output name will be "PR220_UncertifiedMetering_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time.
4. The file is sorted by ICP identifier.

Data inputs:

Processing:
Generate output file. Transfer output file to Participant SFTP fromreg folder. Transfer the output file also to the Authority's data warehouse.

Name	Format	Description
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Trader	Char 4	Participant identifier of trader currently responsible for the ICP
MEP	Char 4	Participant identifier of MEP currently responsible for the ICP
Metering Event Date	DD/MM/YYYY	Event date on the latest Metering event.
Metering Installation (repeating)		
Record Type	Char 2	"MI"
ICP Identifier	Char 15	
Metering Installation Type		
Metering Installation Number	Numeric 3	
Metering Installation Category	Numeric 1	
Metering Installation Certification Type	Char 1	
Metering Installation Certification Expiry Date	DD/MM/CCYY	
Metering Certification Variations	Char 1	
Metering Certification Variations Expiry Date	DD/MM/CCYY	
Discrepancy Type	Char 32	One of: • Interim • Certification Expired • Certification Variations Expired

Name	Format	Description

Examples:
HDR,RSUNCERMTR,RGST,EMCO,27/10/2013,11:13:12,6,Uncertified Meter Insts – day <n>
DET,1234567890AB123,RETA,META,27/09/2013
MI,1234567890AB123,674,NHH,1,F,12/10/2013,X,12/10/2013,Certification Expired
MI,1234567890AB123,675,NHH,1,F,31/01/2025,12/10/2013,Certification Variations Expired
DET,1234567777CD666,RETA,META,18/04/2009
MI,1234567777CD666,888,NHH,1,I,12/10/2013,X,12/10/2013,Interim
MI,1234567777CD666,999,HHR,1,F,12/10/2013,X,12/10/2013,Certification Expired

Sub-process:	**PR-230 Electrical Connection Misalignment**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	
Criticality:	Non-core

Description:

This report is used to identify ICP's where the latest ICP Initial Electrically Connected date does not align (match) with either:

- the Event Date of the first Status event with a status of Active (or Inactive if no Active event), or
- the Event Date of the first Metering Event.

The report will also identify ICPs where either:

- the ICP Initial Electrically Connected Date is present on an ICP with a current Status of New or Ready, or

where the Initial Electrically Connected date is missing.

Business requirements:

1. The report must exclude ICP's where the ICP was created before 29/8/2013 or the ICP's current Status is decommissioned.
2. ICP's must be reported if any of the following criteria are met:
   - the Initial Electrically Connected Date on the latest Network event containing an Initial Electrically Connected Date doesn't match the Event Date of the first Status Event with a Status of Active (or Inactive if no Active Status event is found); or
   - the Event Date of the first Metering event is after either the latest Initial Electrically Connected Date or the first Active or Inactive status date; or
   - the ICP's current status is one of New or Ready, and an Initial Electrically Connected Date exists on the latest Network Event, or
   - the ICP currently has an Inactive/Active status and the Initial Electrically Connected date on the latest Network Event is missing as at the latest Inactive/Active event date.
3. If an ICP has a current status of Active or Inactive it must only be reported where 15 business days have elapsed between the Initial Electrically Connected Date, or, if null, the Event Date of the first Status Event with a Status of Active (or Inactive if no Active Event found), and the run date of the report. An ICP with a current status of New or Ready and an Initial Electrically Connected Date must always be reported.

Business requirements:
4. The report must be run automatically on the 4th day of each month and delivered to the Authority SFTP fromreg folder and the Authority's data warehouse. The target delivery time is 6am.

Data inputs:
ICPs created on or after 29/8/2013.

Processing:
System: 1. Selects ICPs created on or after 29/8/2013 where the ICP's current Status is not decommissioned. 2. Identifies electrically connected misalignments. 3. Generates the output file. 4. Transfers the output file to Authority SFTP fromreg folder. 5. Transfers the output file also to the Authority's data warehouse.

Data outputs:

File output name will be "PR230_ElectricalConnectionAlign_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time.
The file will be sorted by ICP identifier within the Distributor who input the first Initial Electrically Connected Date (or the first Distributor if no Initial Electrically Connected Date exists).

Name	Format	Description
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Distributor	Char 4	Participant identifier of the current Distributor of the ICP
Proposed Trader	Char 4	Participant identifier of First Proposed Trader of the ICP. Null if missing
Accepting Trader	Char 4	Participant identifier of Trader who provided the first Status Event with a Status of Active (or Inactive if no Active event found). Null if missing.
MEP	Char 4	Participant identifier of of the MEP who provided the first Metering Event. Null if missing.
Initial Electrically Connected Date	DD/MM/YYYY	Initial Electrically Connected Date on the most recent Network event. If the Initial Electrically Connected Date is missing, then "Missing"

First Active Status Event Date	DD/MM/YYYY	Date ICP first moved to Status Active or Inactive, else null.
First Metering Event Date	DD/MM/YYYY	Event Date of first Metering event, otherwise if status New or Ready then null, else “Missing”.
Current New or Ready Event Date	DD/MM/YYYY	Event date of the current Status if the ICPs current status is New or Ready, otherwise null.

Examples:
HDR,RS230NRG,RGST,EMCO,02/11/2013,11:13:12,5, Energisation Misalignment
DET,1234567890AB123,NETA,RETA,RETA,META,Missing,27/04/2003,26/08/2013,
DET,2345678901CD234,NETA,RETA,RETA,META,14/04/2009,27/04/2003,26/08/2013,
DET,3456789012EF345,NETB,RETB,RETB,META,21/08/2013,26/08/2013,Missing,
DET,4567890123GH456,NETC,RETA,RETA,META,12/12/2012,27/04/2003,Missing,
DET,4567890123GH456,NETC,RETA,RETA,META,24/04/2003,,,25/04/2003

Sub-process:	**PR-240 Profiles Misalignment**
Process:	Produce reports
Participants:	Authority
Code references:	
Dependencies:	
Criticality:	Non-core

Description:
This report is used to identify ICP's where the Profiles Codes on the latest Trader Event do not align with either the latest Metering, or with the Trader Submission Type.

Business requirements:

1. The report will include ICP's where the current ICP status is Active
2. ICP's will be reported where
   a. The latest Metering Event contains at least one Metering Component Type of "L", and the Control Device Certification Flag is "N", and the Profile list on the latest Trader Event contains other than RPS, HHR, PV1, EG1 and UML; or
   b. the Profile list on the latest Trader Event includes HHR, and there is no Metering Event or the Latest Metering Event does not contain a Metering Component Type of M; or
   c. the Profile list on the latest Trader Event includes HHR and the Submission Type HHR on the latest Trader Event is N
3. The report is run automatically on the 3rd day of each month and delivered to the Authority SFTP fromreg folder and the Authority's data warehouse. The target delivery time is 6am.
4. Three output files will be produced (see data outputs). File output names will be
   - "PR240_UncertifiedControlDevice_<timestamp>.csv"
   - "PR240_NoMeterForHHR_<timestamp>.csv"
   - "PR240_SubmissionHHRMismatch_<timestamp>.csv"

   where timestamp is format "yyyymmddhhmmss" and specifies the report run time.
5. Each file is sorted by ICP identifier

Data inputs:

Processing:
Identify Profile misalignments. Generate output files. Transfer output file to Authority SFTP fromreg folder. Transfer output file also to the Authority's data warehouse.

Data outputs:		
Name	**Format**	**Description**
File: PR240_UncertifiedControlDevice		
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Latest Metering Event Date	DD/MM/YYYY	Event Date of the currently in force Metering Event
MEP	Char 4	Participant identifier of the MEP
Trader	Char 4	Participant identifier of the current Trader who has responsibity for the ICP
Latest Trader Event Date	DD/MM/YYYY	Event Date of the currently in force Trader Event
Profiles	Char	Space separated Profile codes from the currently in force Trader Event
For each load control device		
Record Type	Char 2	LC
ICP Identifier	Char 15	
Metering Installation Number	Numeric 3	
Metering Installation Type	Char 3	
Metering Installation Certification Type	Char 1	
Metering Installation Certification Expiry Date	DD/MM/YYYY	
Control Device Certification Flag	Char 1	

Example: HDR,RSUNCERTDV,RGST,EMCO,27/11/2013,05:05:17,7,Automatic from Registry DET,1234567890AB123,24/08/2013,META,RETA,13/01/2012,VV1 RPS LC,1234567890AB123,123,NHH,F,25/10/2015,Y LC,1234567890AB123,124,NHH,F,25/10/2015,Y LC,1234567890AB123,125,HHR,F,25/10/2015,Y DET,9876543210DE345,24/08/2013,META,RETA,13/01/2012,VV1 RPS LC,9876543210DE345,455,NHH,F,25/10/2015,Y LC,9876543210DE345,456,NHH,F,25/10/2015,Y		
File: PR240_NoMeterForHHR		
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Latest Metering Event Date	DD/MM/YYYY	Event Date of the currently in force Metering Event, or "Missing"
MEP	Char 4	Participant identifier of MEP, or "Missing"
Trader	Char 4	Participant identifier of the current Trader who has responsibity for the ICP
Latest Trader Event Date	DD/MM/YYYY	Event Date of the currently in force Trader Event
Profiles	Char	Space separated Profile codes from the currently in force Trader Event
Example: HDR,RSNOMTRHHR,RGST,EMCO,27/11/2013,05:05:17,2,Automatic from Registry DET,1234567890AB123,24/08/2013,META,RETA,13/01/2012,HHR RPS DET,9876543210DE345,24/01/2011,Missing,RETA,13/01/2012,HHR		
File: PR240_SubmissionHHRMismatch		
Record Type	Char 3	"DET"
ICP Identifier	Char 15	
Trader	Char 4	Participant identifier of the current Trader who has responsibity for the ICP
Latest Trader Event Date	DD/MM/YYYY	Event Date of the currently in force Trader Event
Submission Type HHR	Char 1	Submission Type HHR from the currently in force Trader Event
Submission Type NHH	Char 1	Submission Type NHH from the currently in force Trader Event
Profiles	Char	Space separated Profile codes from the currently in force Trader Event

Example:
HDR,RSHHRMISMA,RGST,EMCO,27/11/2013,05:05:17,2,Automatic from Registry
DET,1234567890AB123,RETA,24/08/2013,N,N,HHR RPS
DET,9876543210DE345,RETB,24/01/2011,Y,Y,RPS

Sub-process:	**PR-250 Produce Trader Default General Information**
Process:	Produce reports
Participants:	Authority
Code references:	Schedule 11.5 of the Code
Dependencies:	

Description:

This report is used to identify general information for ICP's under the responsibility of a defaulting Trader; that is a Trader who has committed an event of default as defined in the code or has been placed in a Trader Default situation. The Report will also identify ICP's for which the Defaulting Trader may gain or lose responsibility due to in-progress Trader Switch/Switch Withdrawal activity.

Business requirements:

1. The report is available ad-hoc
2. ICP's will be reported where:
   a. The defaulting Trader has responsibility for the ICP; or
   b. An ICP is in the process of a Trader Switch or Switch Withdrawal where the successful completion of the switch/withdrawal will result in the defaulting Trader gaining responsibility for the ICP; or
   c. An ICP is in the process of a Trader Switch or Switch Withdrawal where the successful completion of the switch will result in the defaulting Trader losing responsibility for the ICP (a switch away)
3. The report will include active, inactive and decommissioned ICP's
4. A csv output file will be produced (see data outputs) refer appendix 4
5. The file output is sorted by ICP identifier
6. The file is transferred to the Authority's data warehouse.

Data inputs:

Name	Format	Mandatory/ Optional	Description/Example
Participant PRAM01	Char 4	M	Defaulting Trader Participant Identifier
Request example: HDR,RQDTGENERL,EMCO,RGST,24/02/2014,11:14:33,1,DefaultTraderGeneralData PRAM01,RETA			

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Processing:
System: 1. Identify all the ICP's for selected Trader in default where their current ICP status is active, inactive or decommissioned. 2. Identifies all ICP's in a state of "Trader Switch in Progress" where the defaulting Trader will potentially gain or lose responsibility 3. Identifies all ICP's in a state of being withdrawals where defaulting Trader will gain or lose responsibility 4. Generate output file for these ICPs 5. Transfer output file to the Authority's data warehouse

Data outputs:

Each attribute on an output line is comma separated.
First line after the standard batch file header is a comma separated row of column headings that describe the attributes in the detail lines that follow

Name	Format	Description
Record Type	Char 3	"DET"
Defaulting Trader	Char 4	Participant Identifier for Trader in Trader Default
ICP Identifier	Char 15	
ICP Status	Char 3	Current ICP status. One of: • 002 (Active) • 001 (Inactive) • 003 (Decommissioned)
ICP Status Reason Code	Char 3	Status reason code. Populated where ICP status is one of • Inactive; or • Decommissioned
ICP Status Reason description	Char 120	Text description of the ICP Status Reason code
ANZSIC	Char 7	
Distributor Identifier	Char 4	Participant identifier for the ICPs distributor
PoC	Char 7	Point of Connection
Reconciliation Type	Char 2	
Distributor price category code	Char 50	
Installation Type	Char 1	
Meter Type Pre Pay	Char 1	Indicator (Y/N) the ICP has Pre Pay metering
Meter Type AMI	Char 1	Indicator (Y/N) the ICP has AMI metering

Meter Type NHH	Char 1	Indicator (Y/N) the ICP has NHH metering
Meter Type HHR	Char 1	Indicator (Y/N) the ICP has HHR metering
Submission Type HHR	Char 1	Indicator (Y/N) ICP Trader submission type is HHR
Submission Type NHH	Char 1	Indicator (Y/N) ICP Trader submission type is NHH
Submission Type NHH and Submission Type HHR	Char 1	Indicator (Y/N) ICP Trader submission type is HHR and NHH
UNM	Char 1	Indicator (Y/N) the UNM flag is set on the latest Trader Event.
Unmetered Load recorded against ICP	Char 6	The Daily Unmetered kWh recorded on the latest Trader event.
Profile Codes	Char 25	Profile codes on latest Trader Event.
Switch Status	Char 2	Indicator of ICP Switch in progress state. One of: • SA – Switch away from defaulting Trader • SG – Switch gain to defaulting Trader • WA – Switch withdrawal away from defaulting Trader • WG – Switch withdrawal gain to defaulting Trader • Null – no switch in progress
MEP Switch in Progress	Char 1	Indicator (Y/N) ICP MEP Switch is in progress:
Highest Metering Category	Numeric 1	The highest code of any of the Metering Installation Categories
MEP	Char 4	MEP Identifier of the current MEP. Null if ICP does not have a current MEP.
Physical Address Unit	Char 20	
Physical Address Number /RAPID number	Char 25	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Numeric 4	
Physical Address Region	Char 25	
Address Property Name	Char 75	
GPS_Easting	Numeric 7.3	
GPS_Northing	Numeric 7.3	

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Address User Reference	Char 32	

Example:

HDR, RSDTGENERL,RGST,EMCO,24/02/2014,3,RetailerDefaultGeneralData

Record Name,Defaulting Trader,ICP Identifier,ICP Status <refer above table for all header values>

DET,RETA,0000000100AA7D1,002,,,000000,NETB,NETB001,GN,PCAT1,L,Y,N,N,N,N,Y,N,N,,RPS,,N,1,META,A,109,High,,Rangiora,7733,Canterbury,,,,UserRef

DET,RETA,0000000107AAA1B,002,,,000000,NETB,NETB001,GN,PCAT2,L,N,N,Y,N,N,Y,N,N,,RPS,WA,N,1,META,A,110,High,,Rangiora,7733,Canterbury,,,,UserRef

Sub-process:	**PR-255 Produce Metering Installation Information**
Process:	Produce reports
Participants:	Traders, Distributors, Authority, Metering Equipment Providers
Code references:	
Dependencies:	

Description:

This report is used to show full metering installation information, in PR-030 format, applicable during a particular period.

It can be requested by Traders, Distributors, MEPs and the Authority. It can be submitted online and via file.

The participant specifies parameters to be used as selection criteria (filters) to extract the required metering installation information to be returned in the report rather than having to provide a list of specific ICPs as required by PR-030. The metering installation information reported is limited to ICPs where the requester had responsibility during a selected period.

Business requirements:

1. The report must show the values of all metering installation attributes applicable for the date range input.
2. The report must be able to be produced as a file in both CSV and XML format.
3. Events that have been reversed or replaced must not be reported.
4. The output must only show metering installation information for event dates that were within the submitter's period of responsibility AND satisfy the selection criteria.
5. Where the report requester has more than one role, the report must extract ICP information for all the requester's roles (and be selectable); however, duplicate information must not be displayed e.g. if the requester is both a Distributor and an MEP, any ICP information where the requester is both the Distributor and the MEP must appear only once in the report.
6. The report must be able to be submitted online or via a file.
7. The Authority must be able to view information for all participants.

Data Inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.

Leaving an optional parameter null is assumed that ALL values are required, i.e. there is no filter.

Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated

Parameter Name	Type	Mandatory /Optional	Description/Example
Format PRAM01	Char 1	O	C or null indicates file is returned in CSV format (the default). X indicates file is returned in XML format.

Status PRAM02	Char 20	O	List of space separated valid status codes. Only 001, 002 and 003 are valid. Filters the report to only include those ICPs with the selected Status(es) as at the Event Date. If no filter is entered, all Status values will be included.
Trader(s) PRAM03	Char 24	O	List of space separated valid Trader participant codes. If a Trader is the submitter, any values input are ignored. The submitting Trader's participant code is the default value when omitted and the only input value permitted. The Authority may input multiple participant codes of valid Traders. Filters the report to only include those ICPs where the Trader(s) had responsibility within the Start and End Date parameters.
Distributor(s) PRAM04	Char 24	O	List of space separated valid Distributor participant codes. If a Distributor is the submitter, any values input are ignored. The submitting Distributor's participant code is the default value when omitted and the only input value permitted. The Authority may input multiple participant codes of valid Distributors. Filters the report to only include those ICPs where the Distributor(s) had responsibility within the Start and End Date parameters.
MEP(s) PRAM05	Char 24	O	List of space separated valid MEP participant codes. If a MEP is the submitter, any values input are ignored. The submitting MEP's participant code is the default value when omitted and the only input value permitted. The Authority may input multiple participant codes of valid MEPs. Filters the report to only include those ICPs where the MEP(s) had responsibility within the Start and End Date parameters. If this report is being run by the Authority, at least one Trader, Distributor or MEP filter must be entered.
Role PRAM06	Char 1	O	Valid values are • R – Trader • D – Distributor • M – MEP. If a participant has multiple roles then the parameter defines under what role the request has been made. For example, if a participant is

			both a MEP and Trader and they request the report as a MEP, the report will provide visibility to ICPs where they were the responsible MEP only and not the Trader. Blank is the participants default role, e.g. if both Trader/Distributor and MEP will default to Trader/Distributor.
Start Date PRAM07	DD/MM/YYYY	M	Valid Date. Filters the report to only include ICPs that the submitting participant had responsibility for as at this date or between the Start Date and End Date parameters.
End Date PRAM08	DD/MM/YYYY	M	Valid Date >= Start Date, Filters the report to only include ICPs that the submitting participant had responsibility for as at this date.

List request example:

HDR,RQICPLISTM,META,RGST,27/12/2001,11:13:12,13,list by filter
PRAM01,C
PRAM02,001 002
PRAM03,RETA
PRAM04,NETA
PRAM05,
PRAM06,M
PRAM07,01/04/2014
PRAM08,30/04/2014

Processing:

3. Validates report selection criteria (parameters).
4. Extracts metering events based on the report filters. All 4 levels of metering information are extracted.
5. Delivers output to correct party according to the input format parameter.

Data Outputs:

File output is identical to PR-030 for Input Event Type MET. The output will automatically be sorted into ICP identifier and event date order.
Reversed/replaced events are not reported, to retain compatibility with PR-030 the following fields are null:

- Reversal/replaced date/ time
- Reversed/replaced by
- Reversal/replacement file name
- Replacement event audit number

Name	Format	Description (if value not directly obtained from the database)
Record Type	Char 3	"DET"
ICP Identifier	Char 15	

Event type (full description)	Char 14	Variable fields depend on the value of this field. For example, if the event type is 'metering' then immediately after the last fixed field, the Metering event attributes are listed.
Event audit number	Char 15	
Event Date	DD/MM/YYYY	
Event creation date/time	DD/MM/YYYY HH:MM:SS	
Created by	Char 15	
File name	Char 25	
Event state	Char 8	
Reversal/replaced date/ time	DD/MM/YYYY HH:MM:SS	Always null
Reversed/replaced by	Char 15	Always null
Reversal/replacement file name	Char 25	Always null
Replacement event audit number	Char 15	Always null
Metering event – Summary		Variable fields. Event type is "METERSUMMARY"
Metering Equipment Provider		
Highest Metering Category		
HHR Flag		
NHH Flag		
PP Flag		
AMI Flag		
Meter Register Count		
Meter Multiplier Flag		
Metering User Reference		
Metering event – Installation Information		Variable fields. Event type is "METERINSTALL"
Metering Installation Number		
Highest Metering Category		
Metering Installation Location Code		

ATH Participant Identifier		
Metering Installation Type		
Metering Installation Certification Type		
Metering Installation Certification Date		
Metering Installation Certification Expiry Date		
Control Device Certification Flag		
Certification Variations		
Certification Variations Expiry Date		
Certification Number		
Maximum Interrogation Cycle		
Lease Price Code		
Metering event – Component Information		Variable fields. Event type is “METERCOMP”
Metering Installation Number		
Metering Component Serial Number		
Metering Component Type		
Meter Type		
AMI Flag		
Metering Installation Category		
Compensation Factor		
Owner		
Removal Date		
Metering event – Channel Information		Variable fields. Event type is “METERCHANNEL”
Metering Installation Number		
Metering Component Serial Number		

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Channel number		
Number of Dials		
Register content code		
Period of availability		
Unit of Measurement		
Energy Flow Direction		
Accumulator Type		
Settlement Indicator		
Event Reading		

Sub-process:	**PR-270 Produce report of Traders in a trader default situation by NSP**
Process:	Produce reports
Participants:	Authority
Code references:	Schedule 11.5 of the Code
Dependencies:	

Description:

This report is used to identify Traders trading on NSP's on which a Trader, in a trader default situation, also trades.

The information will assist the Authority in the ICP Tender and assignment process during a trader default situation.

Business requirements:

The report must be available on demand and only by the Authority.

1. The report may only be run against a Trader who is in a trader default situation (defaulting Trader). The defaulting Trader is identified by a trader default start date set by the Registry Manager on instruction from the Authority
2. The report must show all NSPs on which a defaulting Trader trades and detail all the other Traders, not in a trader default situation, trading on those NSPs. A Trader trades on an NSP where they have responsibility for ICPs that are in the active or inactive states.

Data inputs:

Name	Format	Mandatory/ Optional	Description/Example
Trader Identifier PRAM01	Char 4	M	Participant identifier of trader in a trader default situation
Request example: HDR,RQDTNSPTR,EMCO,RGST,24/02/2014,11:14:33,1,NSPTraders PRAM01,RETA			

Processing:

System:

1. Verifies that the selected Trader is in a trader default situation.
2. Identifies ICP's with a status of active and inactive for which the selected Trader is currently responsible for.

3. Identifies the NSP of these ICP's.
4. Identifies the other Traders trading at these NSPs excluding any traders that are in a trader default situation (i.e., excluding the selected Trader and all other defaulting Traders).
5. Generates the output file sorting in ascending NSP order.

Data outputs:

Each attribute on an output line is comma separated.
First line after the standard batch file header is a comma separated row of column headings that describe the attributes in the detail lines that follow

Name	Format	Description
Record Type	Char 3	"DET"
Defaulting Trader participant identifier	Char 4	Participant Identifier of Trader in a trader default situation
NSP identifier	Char 11	NSP in use by ICP's belonging to the defaulting Trader
Trader participant identifiers	Char	Comma separated list of Trader participant identifiers operating on the NSP.

Example:
HDR, RSDTNSPTR,RGST,EMCO,24/02/2014,4,NSPTraders
Record Type,Defaulting Trader participant identifier,NSP identifier,Trader participant identifiers
DET,RETA,NETAABC0011,RETB,RETC,RETZ
DET,RETA,NETAABC0099,RETB
DET,RETA,NETAABD0011,RETC,RETZ

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Sub-process:	**PR-280 Responsibility outside Participant Role**
Process:	Participant Role Change
Participants:	Authority
Code references:	
Dependencies:	

Description:

This report will identify ICP's, for a specified Participant, where the Participant has responsibility for an ICP in periods where they were or are no longer active in that role. It will also, automatically, detail the number of ICPs where a responsible participant's role will end in the next 5 days.

Business requirements:

1. The report must only be accessible by the Authority.
2. The report must be available on demand.
3. The on-demand report must be submitted to provide either the total number of qualifying ICPs (summary) or list each qualifying ICP (detail).
4. The on-demand report must report ICP's for a specified Participant and Role where:
    a. The ICPs Status is not decommissioned, and
    b. The ICPs responsibility resides with the Participant in a period where the Participant *was* or *is not currently* or *will not be in the future* active in that role. (The active periods – Role Start Date and Role End Date per Participant and Role is stored in the reference data within the Registry.)

    N.B. If the ICP is currently being switched (Trader, MEP or Distributor switch, as appropriate) it will still be reported.
5. An automatic report providing advance warning must be delivered to the Authority each day. It will detail Participants who have a future-dated Role End Date but have ICP's for which they will retain responsibility past the Role End Date. The automatic report will produce only summary information – total numbers of ICPs. A detailed report identifying the individual ICPs will be available via the on-demand report.
6. The automatic report must be run automatically at 7:30pm each night. The automatic report will include all Participants and their Roles where a Role is due to end within the next 5 days. It will report the count of ICPs currently the responsibility of the Participant against each Role. N.B: Where a Role End Date is greater than the report run date + 5 days, the Participant is not reported.
7. The Detail report option will list ICP id's in ascending order

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Data inputs:			
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number. Each attribute on an input line is comma separated			
Parameter Name	**Type**	**Mandatory/ optional**	**Description**
Participant PRAM01	Char 4	M	Participant Identifier.
Role Period PRAM02	Char 1	M	F – Future • Report ICP’s only if the Participant has a future dated Role End Date; and • Report ICP’s where Participant ICP responsibility extends beyond the future Role End Date A – All • Report ICP’s where a Participant has ICP responsibility outside the period in which their Role is/was active.
Future Role End Days PRAM03	Numeric	O	If the Role Period is ‘A’ then the entered value is ignored. If the Role Period is ‘F’ then: • include Participants whose Role End Date is within today + Future Role End Days • if zero or null, default to 5.
Participant Role PRAM04	Char 1	M	T – Trader D – Distributor M - MEP
Summary or Detail PRAM05	Char 1	M	S – Summary • Produce a summary report D – Detail • Produce a report detailing each ICP
Example: HDR,RQPARTYROL,EMCO,RGST,28/03/2014,11:00:00,4 PRAM01,RETA PRAM02,F PRAM03,35 PRAM04,T PRAM05,S			

Processing:

System

1. Validates the input parameters.
2. When the Role Period is 'F', identifies the non-decommissioned ICP's that are currently the responsibility of the specified Participant in the specified Role and where the Participant's Role End Date is within today + Future Role End Days parameter.
3. When the Role Period is 'A', identifies non-decommissioned ICP's that were/are the responsibility of the specified Participant in the specified Role and where the Participant either was not or is not active in that role ie. the ICP is not in the Participant's active period for the role.
4. If the Summary report was requested, then counts the ICPs identified.
5. Generates either the Summary or Detail report format.

Data outputs:

First line after the standard batch file header is a comma separated row of column headings that describe the attributes in the detail lines that follow, the column headings will vary depending on the request parameters

Name	Format	Description
Summary report format:		
Record Type	Char 3	"DET"
Participant	Char 4	Participant Identifier (from Data Inputs)
Role	Char 1	Participant Role (from Data Inputs)
Number of ICPs	Numeric	Number of ICP's under the Participant's responsibility in the Role as at today's date.
Detail report format:		
Record Type	Char 3	"DET"
Participant	Char 4	Participant Identifier (from Data Inputs)
Role	Char 1	Participant Role (from Data Inputs)
ICP Identifier	Char 15	ICP Identifier of the ICP under the responsibility of the Participant in the Role
Event date	DD/MM/CCYY	Event Date of relevant event where Participant gained responsibility
ICP Status	Char 3	ICP Status as at the Event Date.

Summary output example:
HDR,RSPARTYROL,RGST,EMCO,28/03/2014,11:00:00,2
Record Type,Participant,Role,Number of ICPs
DET,RETA,T,3

Detail output example:
HDR,RSPARTYROL,RGST,EMCO,28/03/2014,11:00:00,4
Record Type,Participant,Role,ICP Identifier,Event date,ICP Status
DET,RETA,T,00012345678AB2E,27/04/2014,002
DET,RETA,T,00012345679AC3E,21/04/2014,002
DET,RETA,T,00012345670AD4E,12/04/2014,001

Sub-process:	**PR-290 Produce Trader Default Situation Market Share Report**
Process:	Produce reports
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	

Description:

This report is produced on request for the Authority and provides a market share percentage for each Trader trading at NSPs where there is a defaulting Trader. The market share is divided into mass market and commercial & industrial (C&I) categories.
Market share is aggregated to NSP level across Trader Participants trading on NSP's at which a defaulting Trader is also trading.

Business requirements:

1. The report is available on demand and only by the Authority.
2. The report may only be run against a Trader who is in a trader default situation (defaulting Trader). The defaulting Trader is identified by a trader default start date set by the Registry Manager on instruction from the Authority.
3. The report must calculate the market share per Trader trading at NSPs where the defaulting Trader is trading. The market share is split per *category*. All Traders that are in a trader default situation are excluded from the market share calculation.
4. The report must include all the NSPs where the defaulting Trader is trading. Traders *trading at an NSP* where there is a default situation are identified from the ICPs where:
    a. The Trader is the currently responsible Trader; and
    b. The ICPs status is Active, or Inactive with a status reason other than 'Ready for Decommissioning'.
5. The report must calculate the market share for the following *categories* per Trader *trading at an NSP*:

<u>Mass Market* ICPs</u>

6. A Mass Market ICP is identified as having a Highest Metering Category of 0, 1 or 2.
7. Where Metering information has not been provided an ICP will default to mass market
8. The Mass Market ICP's count is further split by Submission Type NHH and Submission Type HHR.
9. Where a Mass Market ICP is both Submission Type NHH and HHR it will appear in both counts

<u>Commercial & Industrial ICPs</u>

10. A Commercial & Industrial ICP is identified as having a Highest Metering Category of 3, 4, 5 or 9.
11. Each Commercial & Industrial ICP count is split by Highest Metering Category.
12. Where a defaulting Trader is the only Trader *trading at an NSP*, the report must contain just the NSP identifier and total numbers of ICP's where the defaulting Trader is trading.

N.B. Where a Trader(s) percentage is < 1 %, rounding may cause the total percentage to exceed 100%.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory /optional	Description
Trader Default PRAM01	Char 4	M	Participant Identifier of Trader in a Trader Default situation.
Example HDR,RQMKTSHARE,EMCO,RGST,23/03/2007,15:49:06,1,Trader Default Market Share PRAM01,RETZ			

Processing:

System:

1. Verifies that the selected Trader is in a Trader Default situation.
2. Identifies the NSP's where the selected defaulting Trader is currently trading.
3. Identifies all the other Traders (other than the selected defaulting Trader) trading at these NSPs excluding those traders that are also in a Trader Default situation.
4. For each NSP:
   a) Counts the number of ICPs where the selected defaulting Trader is currently trading.
   b) Counts the number of ICPs where all the non-defaulting Traders are currently trading.
   c) Counts the number of ICPs where all the Traders are currently trading (including the defaulting Traders).
   d) For each non-defaulting Trader counts the number of ICPs, where that Trader is currently trading, by each of the following categories:
      - highest metering category is one of 0, 1 or 2, and submission type NHH;
      - highest metering category is one of 0, 1 or 2 and submission type HHR;
      - highest metering category 3;
      - highest metering category 4;
      - highest metering category 5;
      - highest metering category 9.
   e) For each category calculates the market share as a percentage of the total count of ICPs excluding the defaulting Traders portion (i.e. uses b above)

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f) Rounds the percentage to the nearest whole number except when the percentage > 0 and < 1 when it is rounded up to 1%.

5. Where all (100%) of the ICPs at an NSP are being traded by the selected defaulting Trader, the non-defaulting Trader and subsequent fields are left blank and reported.

6. Formats the report in ascending NSP sequence.

Data outputs:

Each attribute on an output line is comma separated.

First line after the standard batch file header is a comma separated row of column headings that describe the attributes in the detail lines that follow

Name	Format	Description
Record Type	Char 3	"DET"
NSP	Char 11	NSP identifier where the selected defaulting Trader is currently trading.
Number of ICPs at NSP	Numeric	Count of ICP's at the NSP where Traders are currently trading, including all Traders in a trader default situation.
Number of defaulting Trader ICP's at NSP	Numeric	Count of all ICP's at the NSP for which the defaulting Trader is responsible.
Trader	Char 4	Trader Participant Identifier of a non-defaulting Trader trading at the NSP.
Mass Market NHH	Char 4	Percentage of the non-defaulting Trader's NHH Mass Market ICP's at the NSP.
Mass Market HHR	Char 4	Percentage of the non-defaulting Trader's HHR Mass Market ICP's at the NSP.
C&I Category 3	Char 4	Percentage of the non-defaulting Trader's Metering Installation Category 3 ICP's at the NSP.
C&I Category 4	Char 4	Percentage of the non-defaulting Trader's Metering Installation Category 4 ICP's at the NSP.
C&I Category 5	Char 4	Percentage of the non-defaulting Trader's Metering Installation Category 5 ICP's at the NSP.
C&I Category 9	Char 4	Percentage of the non-defaulting Trader's Metering Installation Category 9 ICP's at the NSP.

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File example:
HDR,RSMKTSHARE,RGST,EMCO,28/03/2014,11:00:00,7,Trader Default Market Share
Record Type,NSP, Number of ICPs at NSP,<refer above table for all header values>
DET,ABC0123,1600,800,RETA,12%,16%,25%,1%,25%,0%
DET,ABC0123,1600,800,RETB,78%,26%,25%,1%,1%,0%
DET,ABC0123,1600,800,RETC,10%,58%,50%,99%,74%,0%
DET,DEF0321,1800,25,RETB,90%,10%,50%,0%,1%,0%
DET,DEF0321,1800,25,RETD,10%,90%,50%,0%,99%,0%
DET,GHI0999,2,2,,,,,

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Sub-process:	**PR-300 Report Trader Default tender and mandatory assignment**
Process:	Provide reports
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	TD-050, TD-070

Description:

The Authority may request to see summarised or detailed results of a Tender Round or mandatory assignment. For a Tender Round, the report may be run either whilst the Tender Round is in progress or after it has closed.

When run for a Tender Round, the report provides an overview of the Tender Round's progress, by Tender Block, including information on potential or actual over/under subscription of ICPs.

The report also allows early identification of Tender Blocks which are undersubscribed that will form part of a mandatory assignment.

Business requirements:

1. The report must be available to the Authority only.
2. The report must specify the defaulting Traders Participant identifier.
3. The report must allow selection by Allocation Identifier, or all Allocations (all Tender Rounds and mandatory assignment).
4. Any tender, closed or in-progress must be able to be reported.
5. The report must be available in summary or detail form.
6. For a Tender Round, the detail level determines the output as follows:
    a. Summary – provides a breakdown for each Tender Block and the over- or under-subscription.
    b. Trader detail – provides a breakdown as per the summary but additionally must report Traders bid information such as the volume of ICPs bid per Tender Block and the Tariff.
    c. ICP detail – only available when the allocation process has been run. Provides a breakdown as per the summary but additionally provides allocation details or the non-allocation reason of each ICP of each Tender Block.
7. For Mandatory Assignment, the detail level determines the output as follows:
    a. Summary – provides the number of ICPs allocated in each Mandatory Assignment Block.
    b. Trader detail – provides a breakdown as per the summary but also provides the number of ICPs allocated to each Trader in each Mandatory Assignment Block.
    c. ICP detail – provides a breakdown as per the summary but additionally provides allocation details or the non-allocation reason of each ICP of each Mandatory Assignment Block.

Data inputs:

Tender Blocks (TD-030)

Allocation results. (TD-070).

Trader bid files (TD-050).

Parameters:
Each parameter is preceded by a line type identifier or “PRAMnn” where nn refers to the parameter number
Leaving an optional parameter blank it is assumed that ALL values are required.
Multiple space separated values may be input for tender identifier

Parameter Name	Type	Mandatory /optional	Description
Defaulting Trader	Char 4	M	Defaulting Trader participant identifier
Allocation Identifier	Char 1	O	Space separated. Any combination of • <x> where <x> is the Tender Round number • M – Mandatory Assignment • Blank indicates all rounds
Report Detail Level	Char 1	O	S – Summary only (the default) T – Summary and Trader details I – Summary and ICP details
Unallocated ICPs only	Char 1	O	Only applies to Report Detail Level I. Y or N. Defaulted to No. If Y then the report only selects the ICPs where there is no Allocated Trader.

File Example
HDR,RQTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,3,Summary Tender 1_Mandatory
PRAM01,RETA
PRAM02,1
PRAM03,S

HDR,RQTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,3,Detail summary and trader bids
PRAM01,RETA
PRAM02,
PRAM03,T

HDR,RQTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,4,Details down to ICP level
PRAM01,RETA
PRAM02,2
PRAM03,I

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PRAM04,N

Processing:
System: 1. Verifies the Trader is in a Trader Default situation. 2. Verifies the parameters. 3. Extracts information from the Tender Blocks or Mandatory Assignment Blocks, ICPs related to these and the Trader Bid files provided by Traders that satisfy the parameters. 4. Reports the information to the level required – summary only, summary and trader details or summary and ICP details.

Data outputs:
Each attribute on an output line is comma separated. First line after the standard batch file header is a comma separated row of column headings that describe the attributes in the summary detail lines that follow (excluding Trader detail and ICP detail column headings; that is, column headings will appear for the summary output only) The output file name is PR300_TenderResults<timestamp>.csv where timestamp is format "yyyymmddhhmmss" and specifies the report run time

Summary output.
Tender Block information sorted by Allocation Identifier and characteristics sequence.

Name	Format	Description
Defaulting Trader	Char 4	Defaulting Trader participant identifier
Allocation Identifier	Char 1	<x> where <x> is the Tender Round number M – mandatory assignment
NSP	Char 11	NSP identifier
Price Category Codes	Char 2000	Space separated list of Price Category Codes
MEP	Char 4	Participant identifier of the MEP
Meter Types	Char 20	One or more of the following, space separated: • NHH • HHR • PP • AMI • UML
Highest Metering Category	Numeric 1	1 through 5, or 9, null if not populated

Installation Category	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
Number of ICPs available for Tender	Numeric 9	Number of ICPs available for tender in the Tender Block in the Tender Round. Null for a Mandatory Assignment Block.
Number of ICPs available for allocation	Numeric 9	• Number of ICPs available in the Tender Block or Mandatory Assignment Block at allocation time. • Null for a Tender Block before the allocation has been run • For a Tender Block after the allocation has been run, this may be different from Number of ICPs available for Tender, due to switching or change of characteristics or status of ICPs.
ICPs tendered	Numeric 9	For a Tender Round, the total volume of bids tendered by all Traders. Null for a Mandatory Assignment block.
ICPs allocated	Numeric 9	• The total number of ICPs in the block allocated to all Traders. • Null for a Tender Block before the allocation has been run
Subscription	Numeric 9	Over or under(-) subscription for the Tender Block. Null for a Mandatory Assignment Block.
Trader details output, additional comma separated values appearing under the related summary line. Sorted by Trader.		
Trader	Char 4	Allocated Trader participant identifier.
Allocation Identifier	Char 1	One of: • <x> where <x> is the Tender Round number • M – mandatory assignment
ICPs Bid	Numeric 9	Number of ICPs this Trader has tendered in their bid in this Tender Round for the Tender Block. Blank for a Mandatory Assignment Block.
Tariff	Numeric 6.6	Tariff supplied by this Trader in the bid. Blank for a Mandatory Assignment Block. Maximum value 999999.999999

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ICPs allocated	Numeric 9	Number of ICPs allocated to the Trader in this Tender Round for the Tender Block (field populated only after allocation process has run).
ICP detail output, additional comma separated values appearing after the related Summary line. Sorted by allocated Trader.		
ICP identifier	Char 15	ICP number
Allocation Identifier	Char 1	One of: • <x> where <x> is the Tender Round number • M – mandatory assignment
Allocated Trader	Char 4	Trader participant identifier of trader allocated the ICP. Null if ICP was not allocated to a trader in this Tender Round.
Tariff	Numeric 6.6	Tariff supplied by this Trader. Null if ICP unallocated, or Mandatory Assignment.
Reason for non-allocation	Char 1	Null if ICP allocated. N – No Trader Available

Example of summary option for tender 1:
HDR,RSTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,4,Summary results
Defaulting Trader,Allocation Identifier, <refer above table for all header values>
RETA,1,NETANETA001,PCAT1,META,NHH,0,L,GN,5,4,1,1,-4
RETA,1,NETANETA001,PCAT1,META,HHR,1,L,GN,4,4,10,4,6
RETA,1,NETANETA001,PCAT2,META,NHH UML,0,L,GN,1,1,0,0,-1

Example of trader detail option for all Tender Rounds:
HDR,RSTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,12,Detail results of Tender
Defaulting Trader,Allocation Identifier, <refer above table for all header values>
RETA,1,NETANETA001,PCAT1,,NHH,0,L,GN,5,,1,,-4
RETB,1,1,0.30,
RETA,1,NETANETA001,PCAT1,META,HHR,1,L,GN,4,,10,,6
RETB,1,4,0.32,
RETC,1,4,0.30,
RETD,1,2,0.30,
RETA,1,NETANETA001,PCAT2,,NHH UML,0,L,GN,1,,0,,-1
RETA,1,NETBNETB001,PCAT1,META,HHR,3,L,GN,5,,11,,6
RETB,1,3,0.31,
RETC,1,3,0.30,
RETD,1,5,0.32,

Example of ICP detail option for all Tender Rounds
HDR,RSTNDRLIST,EMCO,RGST,27/12/2001,11:13:12,4,Detail results of Tender
Defaulting Trader,Allocation Identifier, <refer above table for all header values>

```
RETA,M,NETANETA001,PCAT1,,NHH,0,L,GN,,1,,1,
0000000110AAD7C,M,RETD,,
RETA,M,NETBNETB001,PCAT1,META,NHH,1,L,GN,,1,,1,
0000000215AA330,M,RETC,,
RETA,M,NETBNETB001,PCAT1,META,NHH PP,1,B,SB,,1,,0,
0000000218AAC6B,M,,,N
```


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Sub-process:	**PR-310 Report Trader Default allocation results**
Process:	Provide Reports
Participants:	Authority, Traders
Code references:	Schedule 11.5
Dependencies:	TD-070

Description:
A Trader may report their own ICP allocations for a Tender Round or mandatory assignment once the allocation process has been run for the relevant allocation identifier. The report is available in either summary or detail form. The Authority may report the results of any Tender Round for any Trader.

Business requirements:
1. A Trader must only be able to report the results of their own ICP allocations. 2. The Authority must be able to report the allocation results for a specific Trader. 3. The report must be available in summary or detail form. When requested in summary, the Tender Block or Mandatory Assignment Block information must be summarised with the number of ICPs allocated to the Trader. When requested in detail form, Tender Block or Mandatory Assignment Block information must be reported with the individual ICP identifiers and the current address information.

Data inputs:

Allocation results. (TD-070).

ICP address events

Parameters:
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory /optional	Description
Defaulting Trader	Char 4	M	Participant identifier of a Trader in a Trader Default situation
Trader Identifier	Char 4	M	The participant identifier whose tender allocation will be reported. If a Trader is requesting the report this must be the Traders own identifier The Authority may inquire on any Trader

Allocation Identifier	Char 1	O	Space separated. Any combination of • <x> where <x> is the Tender Round number • M – Mandatory Assignment • Blank indicates all rounds
Summary or Detail	Char 1	M	S – Summary D - Detail
File example: HDR,RQTDTALLOC,RETB,RGST,23/09/2014,09:01:17,4,My Allocated ICPs PRAM01,RETA PRAM02,RETB PRAM03,M PRAM04,D			

Processing:

System:

1. Validates report selection criteria.
2. Validates that the allocation process has been run for the defaulting Trader and if not rejects the request.
3. Generates either summary or detail output extracting the address details from the latest Address Event of the ICP.
4. Delivers output to requesters fromreg directory.

Data outputs:

The file output name will be:

- "PR310_ICPAllocation<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time

Each attribute on an output line is comma separated.

If the report requester is the Authority the first line after the standard batch file header is a comma separated row of column headings that describe the attributes in the detail lines that follow, the column headings will vary depending on the request parameters

Name	Format	Description
Record Type	Char 3	"DET"
Defaulting Trader	Char 4	Defaulting Trader participant identifier
Allocation Identifier	Char 1	<x> where <x> is the Tender Round number M – mandatory assignment
NSP	Char 11	
Price Category Codes	Char 2000	Space separated list of Price Category Codes

MEP	Char 4	Meter Equipment Provider participant identifier
Meter Types	Char 20	One or more of the following, space separated: • NHH • HHR • PP • AMI • UML
Highest Metering Category	Numeric 1	1 through 5, or 9, null if not populated
Installation Category	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
Allocated Trader	Char 4	Trader to which the ICP was allocated in the allocation process.
Summary request: The following attribute is appended to the row detailed above.		
ICPs allocated	Numeric 9	Total number of ICPs allocated to the Allocated Trader in the Tender Block.
Detail request: The following attributes are appended to the row detailed above.		
ICP Identifier	Char 15	ICP Identifier
Tariff	Numeric 6.6	Tariff supplied by the Trader.
Physical Address Unit	Char 20	
Physical Address Number/ RAPID Number	Char 25	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Numeric 4	
Physical Address Region	Char 20	
Address Property Name	Char 75	

GPS_Easting	Numeric 7.3	The easting location
GPS_Northing	Numeric 7.3	The northing location

Summary option example:
HDR,RSTDTALLOC,RGST,RETB,23/09/2014,09:01:17,4, My Allocated ICPs
Record Type,Defaulting Trader,Allocation Identifier,<refer above table for all header values>
DET, RETX,1,NETAABC0111,PC1,META,NHH,1,L,GN,RETB,100
DET, RETX,1,NETAABC0111,PC1,METB,NHH,1,L,GN,RETB,850
DET, RETX,1,NETAABC0222,PC1,META,NHH,1,L,GN,RETB,275
…

Detail option example:
HDR,RSTDTALLOC,RGST,RETB,23/09/2014,09:01:17,1225,My Allocated ICPs
Record Type,Defaulting Trader,Allocation Identifier,<refer above table for all header values>
DET,RETX,1,NETAABC0111,PC1,META,NHH,1,L,GN, RETB,1234567890AB123,.28,A.23,Kelvin Drive,,Temuka,8877,Canterbury,123.55,321.77
DET,RETX,1,NETAABC0111,PC1,META,NHH,1,L,GN, RETB ,4455789333CDAB2,..30,.455,Leonard Street,,Auckland,1455,Auckland,457.22,321.12
…

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Sub-process:	**PR-320 Monitor switch saving protection scheme**
Process:	Switching
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	

Description:

In order to monitor the effectiveness of the switch saving protection scheme, the Authority has introduced two switch withdrawal codes:

a. CE - Customer cancels the switch because the original switch request was an error (e.g., customer provides incorrect information)

b. CX –Customer cancels the switch for a reason other than that in CE (e.g. the customer changes their mind)

This report is produced monthly for the Authority and provides statistics on the above switch withdrawal advisory codes for the previous reporting period.

The report is available to run on an ad-hoc basis where it will report statistics on the above switch withdrawal advisory codes for any reporting period.

Business requirements:

1. The automatic report must be delivered to the Authority by 09:00 hours on the 15th day of each month covering the previous reporting period.
2. It must be possible to run the report ad-hoc for any date range.
3. The report must include Trader switch withdrawals (NW), in the report date range, where the switch withdrawal code is one of:
    a) CE – customer error; or
    b) CX – customer cancellation.
4. The report date range refers to the input date when the switch withdrawal NW was supplied. For example an NT initiated in January has a NW supplied in February. The ICP appears in February figures.
5. The report must identify the state of the switch when the withdrawal was submitted, this will be one of:
    a) In progress – the switch was awaiting a CS i.e. had not completed when the withdrawal request occurred
    b) Completed – the switch had been completed (a CS had been supplied). The switch was being withdrawn after completion
6. The report must identify the outcome of the switch withdrawal, this will be one of:
    a) Accepted - the withdrawal acknowledgement (AW) accepted the withdrawal
    b) Rejected – the withdrawal acknowledgement (AW) rejected the withdrawal

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c) Unknown – the withdrawal acknowledgement (AW) has not been received

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory /optional	Description
Start Date PRAM01	DD/MM/YYYY	M	Start date of the report period during which the switch withdrawal NW was supplied.
End Date PRAM02	DD/MM/YYYY	M	End date of the report period during which the switch withdrawal NW was supplied.

Example:
HDR,RQSWSVPRSC,EMCO,RGST,23/03/2007,15:49:06,2,Switch Save Protection Scheme
PRAM01,01/01/2015
PRAM02,31/01/2015

Processing:

System:

1. Validates the input parameters
2. Identifies all ICPs that have received a switch withdrawal (NW) message between the start and end date reporting period, where the withdrawal code is one of CE or CX
3. Generates the results file and delivers it to the Authority.

Data outputs:

Each attribute on an output line is comma separated.

Results File supplied to the Authority detailing the withdrawal switch. The file output name for the automatic monthly file will be:

- "PR320_SaveProtectionScheme_<timestamp>.csv where timestamp is format "yyyymmddhhmmss" and specifies the run time.

Name	Format	Description
Record Type	Char 3	"DET"
ICP identifier	Char 15	
Withdrawal code	Char 2	One of CE or CX
Submitting Trader	Char 4	Participant identifier of the Trader submitting the withdrawal request

Other Trader	Char 4	Participant identifier of the other Trader involved in the Trader switch
Trader Switch status	Char	One of • In progress • Completed
Result of withdrawal	Char 11	One of • Accepted - where withdrawal was accepted • Rejected - where withdrawal was rejected • Unknown- where the AW has not yet been received
File example: HDR,RSWDLSAVWB,RGST,EMCO,28/03/2014,11:00:00,6, Switch Save Protection Scheme DET,1234567890AB123,CE,RETB,RETD,In progress,Unknown DET,2345678901AB234,CE,RETB,RETD,In progress,Unknown DET,3456789012AB345,CE,RETB,RETE,Completed,Accepted DET,3456789012AB345,CX,RETB,RETE,Completed.Rejected DET,4567890123AB456,CE,RETC,RETA,In progress,Unknown DET,5678901234AB567,CE,RETC,RETA,In progress,Unknown		

Sub-process:	**PR-330 Produce Distributor Annual Levy report**
Process:	Produce annual levy report
Participants:	Authority
Code references:	
Dependencies:	

Description:

This report is produced automatically for the Authority on 30 October each year, and provides the daily average per month of the number of ICPs of each reconciliation type, in the *active* or *ready* state, that were the responsibility of each distributor during the previous 12 month period from 1 July to 30 June.

Business requirements:

1. The report must be delivered to the Authority by 06:00 hours on 30 October.
2. The report must cover the period 1 July of the previous year to 30 June of the current year.
3. Only ICPs that were in the *ready* or *active* state for any time during the above period must be included in the report

Data inputs:

Processing:

The system:

1. Accumulate counts against the Distributor responsible for the ICP in the month
2. Calculates the daily average number of ICPs per month for each distributor, reconciliation type and status (*ready*, *active*) by dividing the number of ICPs by the number of days in the month.
3. Constructs the appropriate output rows and writes them to the output file.
4. Transfers the output file to the Authority by email to an email group as specified by the Authority

Data outputs:

Each attribute on an output line is comma separated.

The Authority report to be automatically delivered 30 October each year, report name:

- ICPsOwnedDistributor<previous year><current year>.csv,

for example ICPsOwnedDistributor20142015.

Description row		
Event data	**Format**	**Validation rules**
Title column 1	Char 3	Must be “Record type”
Title column 2	Char 50	Must be “Distributor”
Title column 3	Char 20	Must be “Reconciliation Type”
Title column 4	Char 20	Must be “Ready July”
Title column 5	Char 20	Must be “Ready August”
Title column 6	Char 20	Must be “Ready September”
Title column 7	Char 20	Must be “Ready October”
Title column 8	Char 20	Must be “Ready November”
Title column 9	Char 20	Must be “Ready December”
Title column 10	Char 20	Must be “Ready January”
Title column 11	Char 20	Must be “Ready February”
Title column 12	Char 20	Must be “Ready March”
Title column 13	Char 20	Must be “Ready April”
Title column 14	Char 20	Must be “Ready May”
Title column 15	Char 20	Must be “Ready June”
Title column 16	Char 20	Must be “Ready Total”
Title column 17	Char 20	Blank column to separate ready and active counts
Title column 18	Char 20	Must be “Active July”
Title column 19	Char 20	Must be “Active August”
Title column 20	Char 20	Must be “Active September”
Title column 21	Char 20	Must be “Active October”
Title column 22	Char 20	Must be “Active November”
Title column 23	Char 20	Must be “Active December”

Description row		
Event data	**Format**	**Validation rules**
Title column 24	Char 20	Must be “Active January”
Title column 25	Char 20	Must be “Active February”
Title column 26	Char 20	Must be “Active March”
Title column 27	Char 20	Must be “Active April”
Title column 28	Char 20	Must be “Active May”
Title column 29	Char 20	Must be “Active June”
Title column 30	Char 20	Must be “Active Total”
Title column 31	Char 20	Blank column to separate counts
Title column 32	Char 20	Must be “Ready/Active Total”

Detail row		
Name	**Format**	**Description**
Detail record type	Char 3	DET – indicates the row is a detail record of consumption information.
Participant Identifier	Char 4	Valid participant identifier that existed within the report period
Reconciliation type	Char 2	Reconciliation type of group of ICPs over which the calculation is performed
Ready July	Numeric 8.2	Count of ICP days in the month of July in the previous year where the ICP was in the Ready status/total days in the month
Ready August	Numeric 8.2	Count of ICP days in the month of August in the previous year where the ICP was in the Ready status/total days in the month
Ready September	Numeric 8.2	Count of ICP days in the month of September in the previous year where the ICP was in the Ready status/total days in the month
Ready October	Numeric 8.2	Count of ICP days in the month of October in the previous year where the ICP was in the Ready status/total days in the month

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Detail row		
Name	**Format**	**Description**
Ready November	Numeric 8.2	Count of ICP days in the month of November in the previous year where the ICP was in the Ready status/total days in the month
Ready December	Numeric 8.2	Count of ICP days in the month of December in the previous year where the ICP was in the Ready status/total days in the month
Ready January	Numeric 8.2	Count of ICP days in the month of January in the current year where the ICP was in the Ready status/total days in the month
Ready February	Numeric 8.2	Count of ICP days in the month of February in the current year where the ICP was in the Ready status/total days in the month
Ready March	Numeric 8.2	Count of ICP days in the month of March in the current year where the ICP was in the Ready status/total days in the month
Ready April	Numeric 8.2	Count of ICP days in the month of April in the current year where the ICP was in the Ready status/total days in the month
Ready May	Numeric 8.2	Count of ICP days in the month of May in the current year where the ICP was in the Ready status/total days in the month
Ready June	Numeric 8.2	Count of ICP days in the month of June in the current year where the ICP was in the Ready status/total days in the month
Ready Total	Numeric	Sum of Ready count rounded
Blank column	Char 20	Blank column to separate ready and active counts
Active July	Numeric 8.2	Count of ICP days in the month of July in the previous year where the ICP was in the Active status/total days in the month
Active August	Numeric 8.2	Count of ICP days in the month of August in the previous year where the ICP was in the Active status/total days in the month
Active September	Numeric 8.2	Count of ICP days in the month of September in the previous year where the ICP was in the Active status/total days in the month

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Detail row		
Name	**Format**	**Description**
Active October	Numeric 8.2	Count of ICP days in the month of October in the previous year where the ICP was in the Active status/total days in the month
Active November	Numeric 8.2	Count of ICP days in the month of November in the previous year where the ICP was in the Active status/total days in the month
Active December	Numeric 8.2	Count of ICP days in the month of December in the previous year where the ICP was in the Active status/total days in the month
Active January	Numeric 8.2	Count of ICP days in the month of January in the current year where the ICP was in the Active status/total days in the month
Active February	Numeric 8.2	Count of ICP days in the month of February in the current year where the ICP was in the Active status/total days in the month
Active March	Numeric 8.2	Count of ICP days in the month of March in the current year where the ICP was in the Active status/total days in the month
Active April	Numeric 8.2	Count of ICP days in the month of April in the current year where the ICP was in the Active status/total days in the month
Active May	Numeric 8.2	Count of ICP days in the month of May in the current year where the ICP was in the Active status/total days in the month
Active June	Numeric 8.2	Count of ICP days in the month of June in the current year where the ICP was in the Active status/total days in the month
Active Total	Numeric	Sum of active count rounded
Blank column	Char 20	Blank column to separate ready and active counts
Ready/Active Total	Numeric	Sum of Ready and Active annual total rounded
Example: HDR,RSDISTLEVY,RGST,EMCO,30/10/2015,01:33:47,32,Levy DET,Distributor,Reconciliation Type,Ready July,Ready August,….Active July,Active August … DET,NETA,GN,124.65,127.00,…..127.00,186.25…		

Sub-process:	**PR-340 Produce Trader Annual Levy report**
Process:	Produce annual levy report
Participants:	Authority
Code references:	
Dependencies:	

Description:
This report is produced automatically for the Authority on 30 October each year and provides a weighted average count of the number of ICP's in an active state a Trader participant is responsible for in the period 1 July in the previous years to 30 June in the current year.

Business requirements:
1. The report must be delivered to the Authority by 06:00 hours on 30 October. 2. The report must cover the period 1 July of the previous year to 30 June of the current year. 3. Only ICPs that were in the *active* state for any time during the above period must be included in the report

Data inputs:

Processing:
The system: 1. Accumulate counts against the Trader responsible for the ICP in the month 2. Calculates the daily average number of ICPs per month for each Trader, reconciliation type and status by dividing the number of ICPs by the number of days in the month. 3. Constructs the appropriate output rows and writes them to the output file. 4. Transfers the output file to the Authority by email to an email group as specified by the Authority

Data outputs:
The report will contain a standard header. The following line comprises a description row The output file name will have the following format: • ICPsOwnedTrader<previous year><current year>.csv, for example, ICPsOwnedTrader20142015.

Description row		
Event data	**Format**	**Validation rules**
Title column 1	Char 3	Must be “Record type”
Title column 2	Char 50	Must be “Trader”
Title column 3	Char 20	Must be “Reconciliation Type”
Title column 4	Char 20	Must be “Active July”
Title column 5	Char 20	Must be “Active August”
Title column 6	Char 20	Must be “Active September”
Title column 7	Char 20	Must be “Active October”
Title column 8	Char 20	Must be “Active November”
Title column 9	Char 20	Must be “Active December”
Title column 10	Char 20	Must be “Active January”
Title column 11	Char 20	Must be “Active February”
Title column 12	Char 20	Must be “Active March”
Title column 13	Char 20	Must be “Active April”
Title column 14	Char 20	Must be “Active May”
Title column 15	Char 20	Must be “Active June”
Title column 16	Char 20	Must be “Active Total”

Detail row		
Name	**Format**	**Description**
Detail record type	Char 3	DET – indicates the row is a detail record of consumption information.
Participant Identifier	Char 4	Valid participant identifier that existed within the report period
Reconciliation type	Char 2	Reconciliation type of group of ICPs over which the calculation is performed

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Detail row		
Name	**Format**	**Description**
Active July	Numeric 8.2	Count of ICP days in the month of July in the previous year where the ICP was in the Active status/total days in the month
Active August	Numeric 8.2	Count of ICP days in the month of August in the previous year where the ICP was in the Active status/total days in the month
Active September	Numeric 8.2	Count of ICP days in the month of September in the previous year where the ICP was in the Active status/total days in the month
Active October	Numeric 8.2	Count of ICP days in the month of October in the previous year where the ICP was in the Active status/total days in the month
Active November	Numeric 8.2	Count of ICP days in the month of November in the previous year where the ICP was in the Active status/total days in the month
Active December	Numeric 8.2	Count of ICP days in the month of December in the previous year where the ICP was in the Active status/total days in the month
Active January	Numeric 8.2	Count of ICP days in the month of January in the current year where the ICP was in the Active status/total days in the month
Active February	Numeric 8.2	Count of ICP days in the month of February in the current year where the ICP was in the Active status/total days in the month
Active March	Numeric 8.2	Count of ICP days in the month of March in the current year where the ICP was in the Active status/total days in the month
Active April	Numeric 8.2	Count of ICP days in the month of April in the current year where the ICP was in the Active status/total days in the month
Active May	Numeric 8.2	Count of ICP days in the month of May in the current year where the ICP was in the Active status/total days in the month
Active June	Numeric 8.2	Count of ICP days in the month of June in the current year where the ICP was in the Active status/total days in the month

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Detail row		
Name	**Format**	**Description**
Active Total	Char 12	Sum of active count rounded
Example: HDR,RSTRADLEVY,RGST,EMCO,30/10/2015,01:33:47,32,Trader Levy DET,Trader,Reconciliation Type,Active July,Active August,Active September,Active October… DET,RETA,GN,124.65,127.00,127.00,186.25…		

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Sub-process:	**PR-350 Produce Trader Default Status**
Process:	Produce reports
Participants:	Clearing Manager, Authority
Code references:	None
Dependencies:	None
Criticality	Non core

Description:

During an imminent or actual Trader Default the Clearing Manager may need to either prepare or make manual prudential adjusts.
This report provides information to allow the Clearing Manager to better prepare for and mitigate the effects of a Trader Default.

To enhance accuracy of prudential adjustments the Clearing Manager requires up to date information about:

a) ICPs for which a Trader has current responsibility
b) ICPs that have recently switched away from a Trader
c) ICPs that are switch in progress and being switched away from a Trader
d) ICPs that are switch in progress and being switched to a Trader
e) ICP's that have completed a switch to or away from a Trader and the switch is being withdrawn

The report accepts a Trader Participant identifier and a start date, and calculates a date range from the supplied start date up to the run date of the report. It analyses ICPs in the date range and produce an excel workbook consisting of two sheets.

Sheet 1 – detail:
A list of ICP identifiers with

- switch information
- ICP responsibility information
- NSP identifier
- Specific ICP attributes including
    - Status
    - Submission type
    - Profile code(s)
    - Unmetered load

Sheet 2 – summary:
A count of ICP's for which a trader was responsible for each day between the calculated date range.

Business requirements:
1. The report must be available to the Clearing Manager and The Authority 2. The output must be produced as an excel spreadsheet with a separate sheet created for detail and summary level information. 3. Selection criteria must be able to be submitted online or via a file.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of “PRAMnn”
where nn refers to the parameter number.
Leaving an optional parameter blank it is assumed there is no filter.
Multiple space separated values may by input for search criteria.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory/ Optional	Description/Example
Trader Participant Identifier	Char 4	M	The participant identifier of the Trader to be interrogated. The participant identifier supplied must fulfil the role of Trader. Note: There may be occasions where a default is imminent, but the Trader has not yet been placed in default. The supplied Trader Participant Identifier does not need to be recorded as Trader Default in the Registry.
Range Start Date	DD/MM/YYYY	O	If Range Start Date is not supplied: • If the Trader Participant Identifier is marked as in default the Range Start Date is the Trader Default Date; otherwise • Range Start Date is set to report run date minus 14 days (2 weeks).

Request example:

HDR,RQTDSTATUS,NZCM,RGST,27/12/2001,11:13:12,2,Trader default status request
PRAM01,RETZ
PRAM02,01/09/2020

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Processing:

System:

1. Validates report criteria
2. Builds the report date range
3. For the detail output, identifies ICPs that are status active or inactive that:
    a. Have completed a switch away from the Trader Participant identifier within the report date range; OR
    b. Have received a Notice of Withdrawal of a completed switch and the Trader Participant identifier will gain or lose the ICP because of the withdrawal; OR
    c. Have received a Notice of Transfer to switch from or to the Trader Participant identifier and the switch is incomplete; OR
    d. Are not switch in progress and the Trader Participant identifier has responsibility at the run date of the report
4. For the summary output, for each date in the date range, records a count of ICPs where
    a. The trader is responsible for the ICP'; and
    b. The ICP is status active or inactive
5. Compiles results into an Excel Spreadsheet. Output for Detail and Summary is placed on a separate sheet with the sheet name identifying the type of output.
6. Delivers Excel file to the requesters SFTP directory

Data outputs:

Sheet 1 – Detail:
Output is in Switch Event Date then Switch Arrival date then Gaining Trader order

Name	Format	Description
Switch Event Date	DD/MM/YYYY	If the ICP is switch in progress: a) If the switch received a CS Switch message and is being withdrawn • CS Actual Transfer Date b) If the ICP has not received a CS Switch message; • NT Proposed Transfer Date If the ICP is not switch in progress and switched away from the Trader Participant identifier within the report date range • CS Actual Transfer Date Otherwise blank
Switch Arrival Date	DD/MM/YYYY or Char 23	If the ICP switch is complete, and the ICP switch is not being withdrawn • Arrival date of the CS Switch message

		If the ICP is switch in progress; that is, awaiting either a AW Switch message to withdraw a completed switch, or a CS Switch message to complete a switch: a) if the Trader Participant Identifier will lose ICP responsibility • Switch Away In Progress b) if the Trader Participant Identifier will gain ICP responsibility • Switch Gain In Progress Otherwise blank
ICP Identifier	Char 15	
Gaining Trader	Char 4	If the ICP has switched away from the Trader Participant Identifier or is switch in progress this is the gaining Trader; otherwise this is the Trader Participant Identifier.
NSP Identifier	Char 11	The NSP of the ICP as at the run date of the report.
Current Status	Char	The status of the ICP as at the run date of the report
Submission Type HHR	Char 1	The ICP's Submission Type HHR from the Trader event as at the run date of the report
Submission Type NHH	Char 1	The ICP's Submission Type NHH from the Trader event as at the run date of the report
Profile Code(s)	Char	Space separated list of profile codes from the ICP's Trader event as at the run date of the report
Trader Daily Unmetered kWh	Decimal	The ICP's Daily Unmetered kWh from the Trader event as at the run date of the report
Sheet 2 – Summary: Output is ascending Date order		
Date	DD/MM/YYYY	The date to which the ICP Ownership count relates
ICP Ownership Count	Numeric	The number of ICPs for which the Trader Participant Identifier is recorded in the Registry as responsible as at the corresponding Date

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Sheet 1 Detail output example:

Switch Event Date	Switch Arrival Date	ICP Identifier	Gaining Trader	NSP Identifier	Current Status	Submission Type HHR	Submission Type NHH	Pro coc
10/08/2020	10/08/2020	0000000106AA65E	RETA	NETAPOC0001	Active	Y	N	
10/08/2020	10/08/2020	0000000101AAB94	RETA	NETAPOC0001	Active	Y	N	
10/08/2020	10/08/2020	0000000104AA6DB	RETA	NETAPOC0001	In-active	Y	N	
11/08/2020	13/08/2020	0000000103AAB11	RETB	NETAPOC0002	Active	N	Y	
12/08/2020	12/08/2020	0000000102AA754	RETC	NETAPOC0099	Active	N	Y	
12/08/2020	13/08/2020	0000000105AAA9E	RETC	NETAPOC0100	Active	N	Y	
13/08/2020	13/08/2020	0000000100AA7D1	RETC	NETAPOC0100	Active	Y	N	
15/08/2020	Switch Away In Progress	0000000110AAD7C	RETA	NETBPOC1234	Active	Y	N	
15/08/2020	Switch Away In Progress	0000000200AA4D2	RETA	NETBPOC1234	Active	Y	N	
15/08/2020	Switch Gain In Progress	0000000177AAF46	RETZ	NETZPOC1234	Active	Y	N	
		0000000201AA897	RETZ	NETBPOC1234	Active	Y	N	
		0000000208AA6C6	RETZ	NETCPOC4321	Active	Y	N	

Sheet 2 Summary output example:

Date	ICP Ownership Count
10/08/2020	250
11/08/2020	250
12/08/2020	249
13/08/2020	246

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Sub-process:	**PR-360 ATH and MEO Metering Report**
Process:	Produce reports
Participants:	Traders, Distributors, Metering Equipment Providers, Approved Test House, Meter Equipment Owner
Rule references:	None
Dependencies:	None
Criticality	Non core

Description:
Two types of report can be requested. The ATH report shows metering event details where the submitting participant is recorded as the approved test house(ATH) on a metering event installation. The MEO report shows metering event details where the submitting participant is recorded as the owner(MEO) on a metering event component. Only active metering events are reported, reversed, and replaced metering events are excluded

Business requirements:
1. A separate report must be produced for ATHs and MEOs. 2. The submitting participant must only receive information about metering installations and components where they are recorded as either the ATH or the MEO. 3. The reports must be available in both CSV and XML format 4. The reports must be available to be requested online or via a file

Data inputs:
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number. Leaving an optional parameter blank it is assumed there is no filter. Multiple space separated values may by input for search criteria. Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory/ Optional	Description/Example
Report type (PRAM01)	Char 4	O	The type that is being interrogated, one of • ATH - report metering where the submitting participant is the ATH on a Metering Installation • MEO - report metering where the submitting participant is the Owner on a Metering Component • ALL or null – return both ATH and MEO information (produces 2 output files)
Date from (PRAM02)	DD/MM/YYYY	O	Event date when to start search for active metering events If not supplied defaults to 01/04/1999
Date to (PRAM03)	DD/MM/YYYY	O	Event date when to end search for active metering events If not supplied defaults to today's date. Must be on or after Date from (PRAM02)
Current Only (PRAM04)	Char 1	O	Y - include only the latest active metering events otherwise include all active metering events from01/04/1999 to today's date unless a date range (from PRAM02 to PRAM03) is specified. If Y and a date range (PRAM02 and/or PRAM03) is also provided, then the current active metering events are filtered to be within the date range.
Include MEP (PRAM05)	Char	O	Space separated list of MEP participant identifier(s). Select only those active metering events where the MEP matches the given value(s)
Exclude MEP (PRAM06)	Char	O	Space separated list of MEP participant identifier(s). Exclude all those active metering events where the MEP matches the given value. If the same MEP appears on both include and exclude lists it will be excluded
Output Format (PRAM07)	Char 1	O	X – output returned in XML format C (or any value other than X) – output returned in csv format

ATH installation request example where MEP inclusion specified, XML output

HDR,RQMETERDTL,ATH1,RGST,07/07/2033,11:13:12,7,exclusionExample

PRAM01,ATH
PRAM02,01/04/1999
PRAM03,31/12/9999
PRAM04,Y
PRAM05,META METB
PRAM06,
PRAM07,X

Parameter Name	Type	Mandatory/ Optional	Description/Example
MEO components request example where MEP exclusion specified, csv output HDR,RQMETERDTL,MEO1,RGST,07/07/2022,11:13:12,7,inclusionExample PRAM01,MEO PRAM02,01/04/1999 PRAM03,31/12/9999 PRAM04, PRAM05, PRAM06,METC PRAM07,C			

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Processing:

1. Validate report selection criteria.
2. If the report type is ATH, then for each selected active metering event where the submitting participant is recorded as the approved test house for a Metering Installation select for output all the data on
    a) The metering summary; and
    b) The Metering Installation itself; and
    c) all the Metering Components and Metering Channels on the Metering Installation
3. If the report type is MEO,then for eachselected active metering event where the submitting participant is recorded as the Owner on a Metering Component select for output all the data on:
    a) both the Metering Summary and the Metering Installation to which the Metering Component belongs, and
    b) The Metering Component; and
    c) All Metering Channels on that Metering Component
4. Deliver output to submitting participant in the required output format, either CSV or XML format as indicated by the participant's Output Format option.

Data outputs:

Report information:
A separate file must be produced for each role.
File naming convention PR360_<timestamp>_<role>.csv; for example

- PR360_20220412112637_ATH.csv
- PR360_20220412112637_MEO.csv

XML output:
Corresponds to PR-030 format. Includes metering events only. The root element <PR-030> is replaced by <PR-360>.

CSV format:
Corresponds to PR-030 format. Includes metering events only.

Sub-process:	**PR-370 Resend ICP planned service interruptions**
Process:	ICP planned service interruptions
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	
Dependencies:	SI-010, SI-020

Description:
A Distributor, Trader or MEP participant may report on ICP planned service interruption records.

Business requirements:
1. A Distributor must be able to report ICP planned service interruption records they have submitted to the Registry. 2. A Trader or MEP must be able to report ICP planned service interruptions where they have at least 1 ICP involved in the planned service interruption. A separate file must be delivered for each role performed by the participant; that is, ICPs where a participant performs the role of MEP only must be in a separate file from ICPs where the participant performs a trader or distributor role. 3. The report must return either a. All ICP planned service interruptions; or b. A specific ICP planned service interruption

Data inputs:

- ICP planned service interruption notification parameters (SI-010).
- ICP planned service interruptions (SI-020).

Parameters:
Each parameter line is preceded by a line type identifier consisting of “PRAMnn” where nn refers to the parameter number.
Each attribute on an input line is comma separated.

Parameter Name	Type	Mandatory /optional	Description
Network participant identifier and Distributor event number	Char 19	O	Distributor’s network participant identifier and unique Distributor Event Number. If null then report all ICP planned service interruptions where the requesting participant has ICPs involved.

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All ICPs (ignored for distributors)	Char 1	O	Y – report all ICPs involved in the planned service interruption N – report only ICPs where the participant is currently responsible in the role of MEP or gaining MEP in a MEP switch, Trader or gaining Trader in a Trader switch. Null – default to planned service interruption notification settings For MEP this parameter defaults to N (a MEP may only view ICPs where they are the current or gaining MEP)
Include description line	Char 1	O	Y – output includes a DES line N – output does not include a DES line Null - default to planned service interruption notification settings (for a distributor request this equates to N)
File example requesting an individual ICP service interruption, with all ICPs and no DES line: HDR,RQPLINTLIS,RETA,RGST,23/09/2014,09:01:17,4,My ICP Service interruptions PRAM01,NETA123456 PRAM02,Y PRAM03, File example requesting all ICP service interruptions including own ICPs with a DES line HDR,RQPLINTLIS,RETA,RGST,23/09/2014,09:01:17,4,My ICP Service interruptions PRAM01,NETA123456 PRAM02,N PRAM03,Y			

Processing:

System:

1. Validates report selection criteria.
2. Reports ICP planned service interruptions considering participant ICP planned service interruption notification parameters and the role a participant has with the ICP.
3. Delivers output to the distributor's fromreg folder on the SFTP folder or EIEPIn folder in accordance with the delivery channel used by the distributor to submit planned service interruption information to the registry.
4. Delivers output to the trader/MEP's fromreg folder on the Registry SFTP folder or EIEPIn folder in accordance with the participant's notification preferences (or defaults).

Data outputs:

Each attribute on an output line is comma separated.

Name	Format	Description
HDR input line	Char	Line as supplied in the most recent distributor input file.
DET input line	Char	Line as supplied in the most recent distributor input file

File example where a single ICP planned service interruption requested:
HDR,RSPLINTLIS,RGST,RETA,23/09/2014,09:01:17, 00000003,My ICP Service interruptions
HDR,PLINT,1.0,NETA,,RETA,08/06/2018,14:22:00,6677991,2,PLS,OX-88713,,E
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....

File example where all ICP planned service interruption requested and a DES line:
HDR,RSPLINTLIS,RGST,RETA,23/09/2014,09:01:17,00000008,My ICP Service interruptions
DES,ICP Identifier, Feeder, Street/Area Affected.Interruption Reason...
HDR,PLINT,1.0,NETA,,RETA,08/06/2018,14:22:00,6677991,2,PLS,OX-88713,,E
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....
HDR,PLINT,1.0,NETA,,RETA,07/06/2018,09:22:00,6677800,1,PLS,AM-13,,E
DET,0000000575AA176,,Amberley 223 Main road,Power Pole Replacement,....
HDR,PLINT,1.0,NETA,,RETA,07/06/2018,09:22:00,666675,1,PLR,WA-99987,,E
DET,0000000677AA176,,Wanganui 33 Kings street,NSP replacement,....

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Sub-process:	**AC-020 Produce Audit compliance report**
Process:	Audit compliance reporting
Participants:	Traders, Distributors, Metering Equipment Providers, Participant Audit Agent, Registry Manager, Authority
Code references:	
Dependencies:	Non-core

Description:

This report is used to support and monitor compliance with specific clauses of the Code. It is available to Traders, Distributors, Metering Equipment Providers, Participants Audit Agent and the Authority 'on demand'.

The report will interrogate the Registry data and apply a series of audit compliance checks, commensurate with participant roles, to identify instances of code non-compliance or potential code non-compliance.

Business requirements:

1. The report must be available to Traders, Distributors, MEP, Participant Audit Agents, Registry Manager and the Authority.
2. The report must return audit compliance information for participants with ICP responsibilities; that is participants with a role of Trader, Distributor and MEP.
3. The output from audit compliance reporting must be produced as excel spreadsheet file(s) with a separate spreadsheet created for each role performed by a participant. The spreadsheet must report the results for each Audit Compliance Rule on a separate sheet.
4. A Participant, or a Participant Audit Agent acting on behalf of a participant must only view their own audit compliance information.
5. The Registry Manager and Authority must be able to report audit compliance information for any participant.

Data inputs:

Each parameter line is preceded by a line type identifier consisting of "PRAMnn" where nn refers to the parameter number.

Leaving an optional parameter blank it is assumed that ALL values are required, i.e. there is no filter.

Multiple space separated values may by input for search criteria.

Each attribute on an input line is comma separated

Parameter Name	Format	Mandatory /Optional	Description/Example
Participant identifier	Char 4	M/O	The identifier of the Participant whose Audit Compliance information will be reported. If submitting Participant is a Participant Audit Agent, this must be a Participant identifier for whom they currently act as an agent. If submitting Participant is subject to Compliance, if supplied: • Participant identifier must be their own identifier, otherwise the report will default to the submitting participants identifier If submitting Participant is the Authority a Participant identifier must be supplied.
Query Type	Char 1	O	T – run Timeliness Audit Compliance rules A – run Accuracy Audit Compliance rules B or blank – report all (the default)
Date From	DD/MM/YYYY	M/O	Ignored for Query Type Accuracy. Query Type Timeliness: • Used in conjunction with Date To. Report events that were input between the Date From and Date To • Mandatory if Query Type is T, B or blank
Date To	DD/MM/YYYY	M/O	Ignored for Query Type Accuracy. Query Type: Timeliness • Used in conjunction with Date From. • Must not be less than the Date From. • In conjunction with Date From the date range must not exceed 12 months. • Mandatory if Query Type is T, B or blank
Accuracy Date	DD/MM/YYYY	O	Ignored for Query Type Timeliness. Query Type Accuracy: • identify events effective as at this date If not provided defaults to today

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Parameter Name	Format	Mandatory /Optional	Description/Example
Evaluation Role	Char	O	Space delimited Compliance Roles to be evaluated. May be a combination of: • RET – execute Trader specific compliance rules • NET – execute Distributor specific compliance rules • MEP – execute MEP specific compliance rules If null, the roles performed by the supplied Participant Identifiers are executed (the default). Example: • RET MEP - execute Trader and MEP compliance rules. Distributor rules will not be executed Note: an Evaluation Role that does not match a role performed by a participant will not return any compliance results, for example: selecting a participant whose sole role is distributor and requesting evaluation of trader specific compliance rules.
Request example: HDR,RQAUDCOMP,RETA,RGST,28/02/2019,11:13:12,6,Timeliness for RETA 2017-2018 PRAM01,RETA PRAM02,B PRAM03,01/03/2017 PRAM04,30/03/2017 PRAM05,01/03/2017 PRAM06,RET MEP			

Processing:

System

1. Validates the report criteria
2. Runs Audit Compliance rules where
    a. is not discontinued
    b. If Query Type is Accuracy, is active as at the Accuracy Date
    c. If Query Type is Timeliness, is active as at the Date From
    d. matches Query Type(s)
3. Where Query Type is Accuracy
    a. identifies events where the event is effective as at Accuracy Date; and
    b. the ICP is status Active as at the Accuracy Date, unless otherwise specified in the rule
4. Where Query Type is Timeliness
    a. Identifies events where the event was input between the Date From and Date To; and
    b. ICP status is any status, unless otherwise specified in the rule
5. Compiles compliance results into an Excel Spreadsheet. Output for each Compliance Rule is placed on a separate sheet with the sheet name of corresponding Rule Identifier
6. Delivers Excel file to the requesters sFTP directory

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Processing (cont'd)

Notes:

- For Accuracy queries, unless otherwise stated Metering Components (and associated sub-elements) are ignored where they have been removed; that is have a Removal Date
- For timeliness queries, where multiple events are referenced in the query, evaluation occurs in order in which they are stated, for example a query with 2 conditions:
  - ICP must be Status Active for the first time; and
  - Network Event Initial Electrically Connected Date differs from Status Active event date

  In the first instance the query must find a Status event input in the timeliness period that moves the ICP to active for the first time. Only at that point will it then look for the associated network event and compare Initial Electrically Connected Date.

Audit Compliance rules applied where a Participant fulfils the role of Trader	
Rule Name: Change to Active Status not new connection	
Rule Identifier	AC020Trader01
Reference	Clause 10 of Schedule 11.1
Description	If information provided by a Trader to the Registry about an ICP changes, the Trader must provide written notice to the Registry of the change no later than five business days after the change.
Query	Select ICPs where • ICP Status was changed to Active; and • the change to Active is the second or subsequent change to Active; that is exclude new connections; and • the difference between Status Event Date and Status Event input date is more than 5 business days [**Output1**] Count ICPs where • ICP Status was changed to Active; and • the change to Active is the second or subsequent change to Active; that is exclude new connections [**Output2**]
Query Type	Timeliness
Output	

ICP Identifier	Status Event Date	Status Event input date	Business days (difference between Status Event Date and Status Event input date)	Initial Electrically Connected Date	ICP Status	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Status Event Date and Status Event input date:
Rule Name: Change to Inactive status							
Rule Identifier	AC020Trader02						
Reference	Clause 10 of schedule 11.1						
Description	If information provided by a Trader to the Registry about an ICP changes, the Trader must provide written notice to the Registry of the change no later than five business days after the change.						
Query	Select ICPs where • ICP Status was changed to Inactive; and • the difference between Status Event Date and Status Event input date is more than 5 business days[Output1] Count ICPs where • ICP Status was changed to Inactive[**Output2**]						
Query Type	Timeliness						
Output							
ICP Identifier	Status Event Date	Status Event input date	Business days (difference between Status Event Date and Status Event input date)	ICP Status	Status Reason	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Status Event Date and Status Event input date
Rule Name: Change to trader fields (not new connection or switch)							
Rule Identifier	AC020Trader03						
Reference	Clause 10 of schedule 11.1						

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Description	If information provided by a trader to the registry manager about an ICP changes, the trader must provide written notice to the registry manager of the change no later than five business days after the change					
Query	Select ICPs where a trader event has been input that is • not the ICP's initial assignment; and • not created because of a trader switch; and • the difference between Trader Event Date and Trader Event input date is more than 5 business days[**Output1**] Count ICPs where • not the ICP's initial assignment; and • not created because of a trader switch[**Output2**]					
Query Type	Timeliness					
Output						
ICP Identifier	Trader Event Date	Trader Event input date	Business days (difference between Trader Event date and Trader Event input date)	Fields name changed because of the update with old and new values semicolon separated; for example: • <field name> <old value:<new value>; That is; ANZSIC A01:A23;Profile Code RPS:MSP;	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Trader Event Date and Trader Event input date
Rule Name: MEP nomination						
Rule Identifier	AC020Trader04					
Reference	Clause 11.18					
Description	A trader who is responsible for an ICP (excluding UML) must ensure that an MEP is recorded in the registry for that ICP (clause 11.18(4)).					
Query	Select Trader event where • ICP has no MEP; and • Trader event has a UNM flag of N; and • Trader event nominates a MEP; and • ICP is Status Active and has been Status Active for > 14 business days since the MEP nomination; and					

	• no subsequent Trader event has nominated a MEP where that nomination has been accepted; and • no MN message has been received accepting the nomination						
Query Type	Accuracy						
Output							
ICP Identifier	Trader Event date	Trader Event input date	MEP participant Identifier of the nominated MEP				
Rule Name: Change to Active status new connection							
Rule Identifier	AC020Trader05						
Reference	Clause 9 of Schedule 11.1						
Description	Each Trader must provide the status of the ICP within 5 business days to the Registry for each ICP for which it is recorded in the registry as having responsibility						
Query	Select ICPs where • ICP Status was first changed to Active; that is include new connections only; and • the difference between Status Event Date and Status Event input date is more than 5 business days[**Output1**] Count ICPs where • ICP Status was first changed to Active; that is include new connections only[**Output2**]						
Query Type	Timeliness						
Output							
ICP Identifier	Status Event Date	Status Event input date	Business days (difference between Status Event Date and Status Event input date)	Initial Electrically Connected Date	ICP Status	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Status Active Event Date ICP first moved to Active and Status Event input date
Rule Name: Population of ANZSIC code new connection and switch in							
Rule Identifier	AC020Trader06						

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Reference	Clause 9 of Schedule 11.1					
Description	Each Trader must provide the business classification (ANZSIC) code of the ICP within 20 business days to the Registry for each ICP for which it is recorded in the Registry as having responsibility					
Query	Select ICPs where a) ICP is first moved to status active; and b) the ANZSIC code was changed; and c) the difference between the status 'active' Event Date and the Trader Event input date is more than 20 business days; Or The ICP has a switch completion (CS); and a) the ANZSIC code was changed; and b) the difference between the Trader Event Date and the Trader Event input date is more than 20 business days					
Query Type	Timeliness					
Output						
ICP Identifier	Trader Event Date	Trader Event input date	Business days (difference between Trader Event Date and Trader Event input date)	Initial Electrically Connected Date	ICP Status	ANZSIC code
Rule Name: Trader Unmetered field is Y blank daily kWh or zero daily kWh						
Rule Identifier	AC020Trader07					
Reference	Clause 9(1)(f) of Schedule 11.1					
Description	If a settlement type of UNM is assigned to that ICP, the trader must populate: • the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or • the daily average kWh of unmetered load at the ICP in all other cases (clause 9(1)(f)(ii))					
Query	Select ICPs where • UNM flag = Y; and • Daily Unmetered kWh is one of null, zero or "ENG"					
Query Type	Accuracy					
Output						

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ICP Identifier	UNM Flag	Daily Unmetered kWh	Unmetered Load Details - Trader	ICP Status	Unmetered Load Details – Distributor	Shared ICP list
Rule Name: Distributor unmetered load populated while Trader field is not populated						
Rule Identifier	AC020Trader08					
Reference	Clause 9(1)(f) of Schedule 11.1					
Description	If a settlement type of UNM is assigned to that ICP, the Trader must populate: • the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or • the daily average kWh of unmetered load at the ICP in all other cases (clause 9(1)(f)(ii)).					
Query	Select ICPs where • UNM Flag = N; and • Unmetered Load Details - Distributor is not null					
Query Type	Accuracy					
Output						
ICP Identifier	UNM Flag	Daily Unmetered kWh	Unmetered Load Details - Trader	ICP Status	Unmetered Load Details – Distributor	Shared ICP list
Rule Name: Daily Unmetered kWh comparison to Distributor field						
Rule Identifier	AC020Trader09					
Reference	Clause 9(1)(f) of Schedule 11.1					
Description	If a settlement type of UNM is assigned to that ICP, the Trader must populate: • the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or • the daily average kWh of unmetered load at the ICP in all other cases (clause 9(1)(f)(ii)).					
Query	Select ICPs where • UNM flag is “Y”; and • Unmetered load details - Distributor field is populated in the following format (either colon or semicolon separated):					

<table>
<tr><td></td><td colspan="8">

Watts;Hours;description, or
Watts:Hours:description

and

Difference between Daily Unmetered kWh and Daily kWh is greater than 0.1

</td></tr>
<tr><td>Query Type</td><td colspan="8">Accuracy</td></tr>
<tr><td colspan="9">Output</td></tr>
<tr><td>ICP Identifier</td><td>UNM Flag</td><td>Daily Unmetered kWh</td><td>Unmetered Load Details - Trader</td><td>ICP Status</td><td>Unmetered load details - Distributor</td><td>Daily kWh: (watts * hours)/1000</td><td>Difference between Daily Unmetered kWh and Daily kWh</td><td>Shared ICP list</td></tr>
<tr><td colspan="9">Rule Name: Annual unmetered kWh over 3000</td></tr>
<tr><td>Rule Identifier</td><td colspan="8">AC020Trader10</td></tr>
<tr><td>Reference</td><td colspan="8">Clause 10.14 (2)(b)</td></tr>
<tr><td>Description</td><td colspan="8">The Trader must ensure that unmetered load does not exceed 3,000 kWh per annum, or 6,000 kWh per annum if the load is predictable and of a type approved and published by the Authority.</td></tr>
<tr><td>Query</td><td colspan="8">Select ICPs where

UNM Flag = Y; and
Daily Unmetered kWh is greater than or equal to 8.22 (3,000/365)

</td></tr>
<tr><td>Query Type</td><td colspan="8">Accuracy</td></tr>
<tr><td colspan="9">Output</td></tr>
<tr><td>ICP Identifier</td><td>UNM Flag</td><td>Daily Unmetered kWh</td><td>Unmetered Load Details – Trader</td><td>ICP Status</td><td>Unmetered Load Details - Distributor</td><td colspan="3">Active Days; elapsed days the trader event with un-metered load has been active.
This is the difference between the Event Date of the Trader event with Daily Unmetered kWh and the earlier Event Date of either:
a) a subsequent trader event where Daily Unmetered kWh is less than 8.22; or</td></tr>
</table>

						b) a subsequent status event where the ICP is status inactive
Rule Name: Blank or unknown ANZSIC codes						
Rule Identifier	AC020Trader11					
Reference	Clause 9 (1(k) of Schedule 11.1					
Description	Traders are responsible to populate the relevant ANZSIC code for all ICPs for which they are responsible					
Query	Select ICPs where • ANZSIC code contains “T99” in any part of the code; or • ANZSIC code field is not populated					
Query Type	Accuracy					
Output						
ICP Identifier	ICP Status				ANZSIC Code	
Rule Name: Residential ANZSIC with metering category over Category 1						
Rule Identifier	AC020Trader12					
Reference	Clause 9 (1(k) of Schedule 11.1					
Description	Traders are responsible to populate the relevant ANZSIC code for all ICPs for which they are responsible					
Query	Select ICPs where • ANZSIC code is residential (000000); and • Highest Metering Category is blank, 2, 3, 4, 5 or 9					
Query Type	Accuracy					
Output						
ICP Identifier	ICP Status	ANZSIC Code	Highest Metering Category			
Rule Name: Active with blank MEP						

Rule Identifier	AC020Trader13			
Reference	Clause 9 of Schedule 11.1			
Description	Each trader must provide the MEP identifier to the registry manager for each ICP for which it is recorded in the registry as having responsibility			
Query	Select ICPs where • ICP Status is Active; and • Proposed MEP field is null; and • UNM flag = N Note: Registry validation precludes this situation, rule is included here for completeness			
Query Type	Accuracy			
Output				
ICP Identifier	ICP Status	MEP Participant Identifier	Proposed MEP identifier	UNM Flag
Rule Name: Inactive Status with New connection in progress reason, or Ready status with Initial Electrically Connected Date				
Rule Identifier	AC020Trader14			
Reference	Clause 9 of Schedule 11.1			
Description	Each Trader must provide the ICP status to the Registry for each ICP for which it is recorded in the registry as having responsibility			
Query	Select ICPs where • Initial Electrically Connected Date is not null; and o ICP Status is Inactive with a status reason of 12 (new connection in progress); or o ICP current Status is Ready and Proposed Trader = Trader submitting the query			
Query Type	Accuracy			
Output				
ICP Identifier	ICP Status	Status Reason	Initial Electrically Connected Date	Network Participant Identifier
Rule Name: Remotely disconnected without AMI Metering				
Rule Identifier	AC020Trader15			
Reference	Clause 9 of Schedule 11.1			

Description	Each trader must provide the ICP status to the Registry for each ICP for which it is recorded in the registry as having responsibility			
Query	Select ICPs where • ICP Status is Inactive; and • Status Reason is Inactive with a Status Reason of Electrically disconnected remotely by AMI meter (07); and • AMI Flag field = N			
Query Type	Accuracy			
Output				
ICP Identifier	ICP Status	Status Reason	AMI Flag	MEP Participant Identifier
Rule Name: Over Category 2 with NHH submission flag				
Rule Identifier	AC020Trader16			
Reference	Clause 9 of Schedule 11.1			
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility			
Query	Select ICPs where • Highest Metering Category is 3, 4 or 5; and • Submission Type HHR field = N			
Query Type	Accuracy			
Output				
ICP Identifier	ICP Status	Highest Metering Category	Submission Type HHR	MEP Participant Identifier
Rule Name: Active ICPs category 9, null or zero not unmetered				
Rule Identifier	AC020Trader17			
Reference	Clause 9 of Schedule 11.1			
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility			
Query	Select ICPs where			

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	• Highest Metering Category is 9, null or zero; and • UNM flag = "N"; and • ICP status is Active					
Query Type	Accuracy					
Output						
ICP Identifier	ICP Status		Highest Metering Category	UNM Flag		MEP Participant Identifier
Rule Name: HHR submission flag without HHR profile or NHH submission flag with HHR profile						
Rule Identifier	AC020Trader18					
Reference	Clause 9 of Schedule 11.1					
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility					
Query	Select ICPs where • Submission Type HHR flag = "Y" and Profile Code does not include HHR; or. • Submission Type HHR flag = "N" and Profile Code does include HHR					
Query Type	Accuracy					
Output						
ICP Identifier	ICP Status		Highest Metering Category	Profile Code(s)	Submission Type HHR	Submission Type NHH
Rule Name: HHR submission and NHH submission flag both Y						
Rule Identifier	AC020Trader19					
Reference	Clause 9 of Schedule 11.1					
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility					
Query	Select ICPs where • Submission type HHR flag = "Y"; and • Submission type NHH field = "Y"					
Query Type	Accuracy					

Output							
ICP Identifier	Status		Highest Metering Category	Profile Code(s)	Submission Type HHR	Submission Type NHH	
Rule Name: Distributed generation discrepancies							
Rule Identifier	AC020Trader20						
Reference	Clause 9 of Schedule 11.1						
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility						
Query	Select ICPs where • Profile code does not contain any of PV1, EG1 or HHR; and • Installation Type field is “B” or “G”; and • Metering Installation contains a non-removed Metering Component (Removal Date = null) with a Channel containing a Register Content Code of EG and Energy Flow Direction of I						
Query Type	Accuracy						
Output							
ICP Identifier	ICP Status		Installation Type	Generation Capacity	Fuel Type	Profile Codes space separated	Register Content Code	Flow Direction
Rule Name: Accuracy of status active event date							
Rule Identifier	AC020Trader21						
Reference	Clause 9 of Schedule 11.1						
Description	Each trader must provide the ICP information to the Registry for each ICP for which it is recorded in the registry as having responsibility						
Query	Select ICPs where • ICP status is Active; and • The change to Active was made by the Trader being queried; and • no other Status Active events exist (that is; ICP has one Status event with an Active status); and						

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<table>
<tr><td></td><td colspan="5">

on the Metering active as at the Status Active Event Date, no Metering Installation Certification Date, on any fully certified Metering Installation (without regard to Component Removal Date), matches the Status Active Event Date; or the elapsed days between Status Event Date and Initial Electrically Connected Date is greater than 0

Obtain the smallest Elapsed Days difference between Metering Certification Date and Status Event Date, this may result in a negative figure.
Examples:
1; Cert date after status active event date:

Status Event Date = 01/02/2019
Cert date on installation1 = 02/02/2019
Cert date on installation2 = 03/02/2019

(02/02/2019 minus 01/02/2019). Elapsed Days = 1

2; Cert date precedes status active event date:

Status Event Date = 01/02/2019
Cert date on installation1 = 02/02/2019
Cert date on installation2 = 31/01/2019

(31/01/2019 minus 01/02/2019) Elapsed Days = -1

3; Cert date precedes status active event date:

Status Event Date = 01/02/2019
Cert date on installation1 = 31/01/2019
Cert date on installation2 = 29/01/2019

(29/01/2019 minus 01/02/2019) Elapsed Days = -2

</td></tr>
<tr><td>Query Type</td><td colspan="5">Timeliness</td></tr>
<tr><td colspan="6">Output</td></tr>
<tr><td>ICP Identifier</td><td>Metering Installation Certification Date</td><td>Initial Electrically Connected Date</td><td>Status Event Date</td><td>Elapsed days (difference between Metering Installation Certification Date and Status Event Date; or 999 if no metering is present as at Status Event Date)</td><td>Elapsed days (difference between Status Event Date and Initial Electrically Connected Date; or 999 if Initial Electrically Connected Date is not present)</td></tr>
</table>

Rule Name: Not certified within 5 business days of status change to Active (new connections)							
Rule Identifier	AC020Trader22						
Reference	Clause 10.33A						
Description	A Trader must arrange for the certification of a metering installation to be completed within 5 business days of the ICP being electrically connected:						
Query	Select ICPs where • ICP status is Active; and • this is the first time the ICP has been at the Active status; that is this is a new connection ICP; and • On the first fully certified Metering Installation, regardless of Metering Component Removal Date, the business days between the Status Event Date and the *Metering Installation Certification Date is greater than 5 business days; and no Metering Installation contains a Metering Installation Certification Date equal or less than 5 business days *Where more than 1 installation on the metering has a Certification Date greater than 5 business days only the first occurrence must be reported Where no metering has been provided as at the Status Active event date, the Metering Installation Certification Date must be null, and Business days difference must be zero.						
Query Type	Timeliness						
Output							
ICP Identifier	ICP Status	Highest Metering Category	MEP Participant Identifier (or Proposed MEP if MEP has yet to provide metering information)	Status Event Date	Metering Installation Certification Date	Business days (difference between Metering Installation Certification Date and Status Event Date)	Initial Electrically Connected Date
Rule Name: Not certified within 5 business days of status change to Active (reconnections)							
Rule Identifier	AC020Trader23						
Reference	Clause 10.33A						
Description	A reconciliation participant must arrange for the certification of a metering installation to be completed within 5 business days of the ICP being electrically connected						

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Query	Select ICPs where • the ICP status is Active; and • this is the second or subsequent time the ICP has been at the Active status; that is the ICP has been reconnected; and The Certification Expiry Date, where provided, is prior to the Active Status event date							
Query Type	Timeliness							
Output:								
ICP Identifier	ICP Status	Highest Metering Category	MEP participant identifier (or Proposed MEP if MEP has yet to provide metering information)	Status Event Date	Metering Installation Certification Date	Metering Installation Certification Expiry Date	Business days (if metering is present and a Metering Installation Certification Date has been supplied • difference between Metering Installation Certification Expiry Date and Status Event Date; otherwise • zero)	Initial Electrically Connected Date
Rule Name: ICPs with profiles requiring certified control devices where control devices are not certified								
Rule Identifier	AC020Trader24							
Reference	Clause 33(1) of schedule 10.7							
Description	A Trader must ensure that a control device is certified under this Part by an ATH before the reconciliation participant uses any raw meter data that depends on the operation of the control device, for any purpose under Part 15							
Query	Select ICPs where: • Profile Code is one of E11, E08, E13, C23, C24, TON, TOC, T07, T08, T23 or T24; and • On the current Metering, any Installation Control Device Certification Flag = N							
Query Type	Accuracy							
Output								
ICP Identifier	ICP Status	Profile Code	Control Device Certification Flag	AMI Comm	AMI Non Comm			
Audit Compliance rules applied where a Participant fulfils the role of Distributor								
Rule Name: Change to Ready status prior to trading								

Rule Identifier	AC020Distributor01				
Reference	Clause 7(2) of Schedule 11.1				
Description	The distributor must provide information specified in Clauses 7(1)(a) to 7(1)(o) of Schedule 11.1 as soon as practicable and prior to electricity being traded at the ICP.				
Query	Select ICPs where: • the business days between the Status Ready input date and the first Status Active Event date is a negative value				
Query Type	Timeliness				
Output					
ICP Identifier	Status Ready input date	Status Active Event Date	Business days (difference between Status Active Event Date and Status Ready input date)	Initial Electrically Connected Date	ICP Status
Rule Name: Initial Electrically Connected Date					
Rule Identifier	AC020Distributor02				
Reference	Clause 7(2A) of Schedule 11.1				
Description	The distributor must provide the information specified in sub-clause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.				
Query	Select ICPs where between Date From and Date To • Initial Electrically Connected date was changed from null to a date; and • The business days between Initial Electrically Connected Date and Network Event input date is greater than 10				
Query Type	Timeliness				
Output					
ICP Identifier	Initial Electrically Connected Date	Network Event input date (for the Network Event containing the initial Electrically Connected Date)	Business days (difference between Initial Electrically Connected Date and Network Event input date)		

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Rule Name: Pricing updates (new connection)				
Rule Identifier	AC020Distributor03			
Reference	Clause 7(3) Schedule 11.1			
Description	The distributor must provide the following information to the Registry no later than 10 business days after the trading of electricity at the ICP commences: • the actual price category code assigned to the ICP (Clause 7(3)(a) of Schedule 11.1)			
Query	Select ICPs where between Date From and Date To: • Initial Electrically Connected Date was changed from null to a date; and • Distributor Price Category Code was first updated; and • Distributor Price Category Code Event Date is the same as Initial Electrically Connected Date; and • The business days difference between Pricing Event date and Pricing Event input date is greater than 10			
Query Type	Timeliness			
Output				
ICP Identifier	Pricing Event Date	Pricing Event input date	Business days (difference between Pricing Event date and Pricing Event input date)	Initial Electrically Connected Date
Rule Name: Pricing Updates (not new connection)				
Rule Identifier	AC020Distributor04			
Reference	Clause 8 Schedule 11.1			
Description	If information held by the Registry that relates to an ICP for which the Distributor is responsible changes, the Distributor must give written notice to the Registry of that change.			
Query	Select ICPs where • the Distributor Price Category Code was updated; and • this was the second or subsequent pricing update; that is exclude those ICPs recorded in “Pricing updates (new connection)”; and • the business days difference between Pricing Event date and Pricing Event input date is greater than 3			
Query Type	Timeliness			
Output				

ICP Identifier	Pricing Event Date	Pricing Event input date	Business days (difference between Pricing Event date and Pricing Event input date)
Rule Name: NSP changes			
Rule Identifier	AC020Distributor05		
Reference	Clause 8 Schedule 11.1		
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the registry manager of that change. Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP). In those cases, notification must be given no later than eight business days after the change takes effect. If the change to the NSP identifier is for more than 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.		
Query	Select ICPs where: • the POC was updated; and • the update was a change from not null value to another not null value; that is exclude initial population of POC; and • the business days differences between Network Event Date and Network Event input date is greater than 8 days		
Query Type	Timeliness		
Output			

ICP Identifier	Network Event Date	Network Event input date	Business days (difference between Network Event Date and Network Event input date)	Original POC	New POC
Rule Name: Addition of distributed generation information					
Rule Identifier	AC020Distributor06				
Reference	Clause 8 Schedule 11.1				
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the registry manager of that change				

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<table>
<tr><td>Query</td><td colspan="8">Select ICPs where:
• Installation Type was changed from a non-null value to another non-null value (L, G or B*); and
• The business days difference between Network Event Date and Network Event input date is greater than 3[Output1]
*Changes to and from null must not be reported

Count ICPs where:
• Installation Type was changed from a non-null value to another non-null value (L, G or B*)[Output2]</td></tr>
<tr><td>Query Type</td><td colspan="8">Timeliness</td></tr>
<tr><td colspan="9">Output:</td></tr>
<tr><td>ICP Identifier</td><td>Network Event Date</td><td>Network Event input date</td><td>Business days (difference between Network Event Date and Network Event input date)</td><td>Installation Type</td><td>Generation Capacity</td><td>Fuel Type</td><td>Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places</td><td>Average Business Days between Network Event Date and Network Event input date</td></tr>
<tr><td colspan="9">Rule Name: Other network changes</td></tr>
<tr><td>Rule Identifier</td><td colspan="8">AC020Distributor07</td></tr>
<tr><td>Reference</td><td colspan="8">Clause 8 Schedule 11.1</td></tr>
<tr><td>Description</td><td colspan="8">If information held by the Registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the Registry of that change.</td></tr>
<tr><td>Query</td><td colspan="8">Select ICP’s where:
• network event information was changed; and
• The business days difference between Network Event Date and Network Event input date is greater than 3; and
• excluding changes recorded under rules[Output1]
o Initial Electrically Connected Date
o NSP changes
o Addition of distributed generation information</td></tr>
</table>

<table>
<tr><td></td><td colspan="6">(That is exclude ICP where details changed are:
○ Initial Electrically Connected Date
○ NSP (POC, Network Identifier, Reconciliation Type)
○ Generation Capacity)

Count ICPs where
• Network event information has changed; and
• excluding changes recorded under rules[Output2]
○ Initial Electrically Connected Date
○ NSP changes
○ Addition of distributed generation information
(That is exclude ICP where details changed are:
○ Initial Electrically Connected Date
○ NSP (POC, Network Identifier, Reconciliation Type)
○ Generation Capacity)</td></tr>
<tr><td>Query Type</td><td colspan="6">Timeliness</td></tr>
<tr><td colspan="7">Output:</td></tr>
<tr><td>ICP Identifier</td><td>Network Event Date</td><td>Network Event input date</td><td>Business days (difference between Network Event Date and Network Event input date)</td><td>Semicolon list of fields changes in format:
• <field name> <old value>:<new value> for example:
Shared ICP List :01023456AB123;Direct Billed Status TBA:Both;</td><td>Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places</td><td>Average Business Days between Network Event Date and Network Event input date</td></tr>
<tr><td colspan="7">Rule Name: Change of address details</td></tr>
</table>

Rule Identifier	AC020Distributor08				
Reference	Clause 8 Schedule 11.1				
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the Registry of that change.				
Query	Select ICPs where: • an update to address details occurred; and • the update is the 2nd or subsequent update of address details; and • The business days difference between Address Event Date and Address Event input date is greater than 3[**Output1**] Count ICPs where o An update to address details occurred[**Output2**]				
Query Type	Timeliness				
Output:					
ICP Identifier	Address Event Date	Address Event input date	Business days (difference between Address Event Date and Address Event input date)	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Address Event Date and Address Event input date
Rule Name: Change of status to decommissioned					
Rule Identifier	AC020Distributor09				
Reference	Clause 8 Schedule 11.1				
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the Registry of that change.				
Query	Select ICPs where: ICP status was changed to decommissioned, and the input date of the Status event that updated the ICP to Status Inactive with a status reason of "ready for decommissioning" is a) greater than decommission Status Event Date, and the difference between Trader inactive Status Event input date and decommission event input date > 3 business days or				

	b) less or equal to decommission status Event Date. and the difference between decommission Status Event Date and input date > 3 business days[**Output1**] Count ICPs where ICP status was changed to decommissioned and there is a Status Event that updated the ICP to Status Inactive with a Status Reason of "ready for decommissioning"[**Output2**]							
Query Type	Timeliness							
Output:								
ICP Identifier	Status Event Date	Status Event input date	Business days (difference between Status Event Date and Status Event input date)	Status Inactive input date; that is where status was changed to Inactive with reason of Ready for decommissioning (6)	Business days (difference between Status Event Date and Status Inactive input date; that is where status was changed to Inactive with a reason of Ready for decommissioning)	Trader participant identifier	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Status Inactive Event Date and Status Event input date
Rule Name: NSP discrepancies								
Rule Identifier	AC020Distributor10							
Reference	Clauses 7(4) and 7(5) of schedule 11.1							
Description	The distributor must notify the registry of the NSP identifier of the NSP to which the ICP is usually connected under clause 7(1)(b).							
Query	Select ICP's with a status of Active. Match ICPs* based on combination of Street, Town and Region, report where: • multiple ICPs matches are identified on Street, Town and Region, and; • 10% or fewer matched ICP's have a different NSP; and							

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<table>
<tr><td></td><td colspan="3">
number of matched ICP’s with a different NSP is less than 3
Where multiple anomalies are identified for the same street, town and region each must be reported,
Example 1:
100 ICP’s match on street, town and region:
96 use NSP NETA001
2 use NSP NETA002 (2%) - reported
2 use NSP NETA003 (2%) - reported
Example 2:
100 ICP’s match on street, town and region:
90 use NSP NETA001
8 use NSP NETA002 (8%) - not reported (exceeds 2 ICPs)
2 use NSP NETA003 (2%) - reported
Example 3:
100 ICP’s match on street, town and region:
86 use NSP NETA001
11 use NSP NETA002 (11%) - not reported (exceeds 2 ICPs and exceeds 10%)
3 use NSP NETA003 (3%) – not reported (exceeds 2 ICPs)
*the query is picking up a list of anomalies that can be physically checked by a network
</td></tr>
<tr><td>Query Type</td><td colspan="3">Accuracy</td></tr>
<tr><td colspan="4">Output:</td></tr>
<tr><td>ICP Identifier</td><td>Street_Town_Region_POC (concatenation POC is the Point of Connection in use by the majority of ICPs at the street, town, region combination)</td><td>POC used by ICP</td><td>ICP Status</td></tr>
<tr><td colspan="4">Rule Name: Duplicate addresses</td></tr>
<tr><td>Rule Identifier</td><td colspan="3">AC020Distributor11</td></tr>
<tr><td>Reference</td><td colspan="3">Clause 2 of schedule 11.1</td></tr>
</table>

Description	Each ICP identifier must have a location address that allows the ICP to be readily located
Query	Select ICP's with a status of Active where • the following fields are duplicated across multiple ICP's: o Unit o Number o Street o Suburb o Town o Post Code o Region o Property Name o GPS Easting o GPS Northing or • at least one of GPS Easting or GPS Northing are null and Number is null and Property Name is null.
Query Type	Accuracy

Output:

ICP Identifier	Unit	Number	Street	Suburb	Town	Post Code	Region	Property Name	GPS Easting	GPS Northing

Rule Name: Blank Initial Electrically Connected Date	
Rule Identifier	AC020Distributor12
Reference	Clause 7(2A) of Schedule 11.1
Description	The distributor must provide the information specified in sub-clause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.
Query	Select ICPs where: • ICP Status was initially changed to Active after 29/08/2013; and

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	• Initial Electrically Connected Date on the Network Event in force as at the Status Active Event date is blank;				
Query Type	Accuracy				
Output:					
ICP Identifier	Active Status Event date			Initial Electrically Connected Date (the first IECD provided in a subsequent Network Event, this will be null if IECD has never been provided)	
Rule Name: Accuracy of Initial Electrically Connected Date					
Rule Identifier	AC020Distributor13				
Reference	Clause 7(2A) of Schedule 11.1				
Description	The distributor must provide the information specified in sub-clause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected				
Query	Select ICPs where • ICP Status is Active; and • ICP has not had a previous Active status; and • The elapsed days difference between Initial Electrically Connected Date and Status Event Date is greater than zero; or the elapsed days between Initial Electrically Connected Data and the metering installation with the *earliest Metering Installation Certification Date is not zero (clarification note: unmetered ICPs are identified under the first condition, metered ICPs are identified under the second condition) *Earliest refers to the oldest certification date, for example: if 2 cert dates exist: • 12/05/2015 • 01/05/2015 - this date is used				
Query Type	Timeliness				
Output:					
ICP Identifier	Metering Installation Certification Date (from the metering installation with the	Initial Electrically Connected Date	Status Event Date	Elapsed days IECD and Status Event Date (difference between Initial Electrically	Elapsed days IECD and Certification Date (difference between Initial Electrically

	earliest Metering Installation Certification Date)			Connected Date and Status Event Date)	Connected Date and Metering Installation Certification Date)
Rule Name: Distributor NHH generation discrepancies					
Rule Identifier	AC020Distributor14				
Reference	Clause 8 Schedule 11.1				
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the registry manager of that change				
Query	Select ICPs where • Profile Code is EG1 or PV1 (embedded generation); and o Installation Type is L; or o Generation Capacity is blank; or o Fuel Type is blank				
Query Type	Accuracy				
Output:					
ICP Identifier	Profile	Installation Type	Generation Capacity	Fuel Type	Status
Rule Name: Initial Electrically Connected Date populated but Status is not Active					
Rule Identifier	AC020Distributor15				
Reference	Clause 8 Schedule 11.1				
Description	If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the Registry of that change.				
Query	Select ICPs where • Initial Electrically Connected Date is not null; and • ICP Status is New, Ready, or Inactive with a Status Reason of New connection in progress (12)				
Query Type	Accuracy				

Output:		
ICP Identifier	ICP Status	Initial Electrically Connected Date
Rule Name: Monitoring of New and Ready status		
Rule Identifier	AC020Distributor16	
Reference	Clause 15 Schedule 11.1	
Description	If an ICP has had the status of "New" or has had the status of "Ready" for 24 months or more, the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1). The distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1)	
Query	Select ICPs where • ICP status New or Ready and • Initial Network Event Date earlier than 24 months from the run date of the query	
Query Type	Timeliness	
Output:		
ICP Identifier	Network Event Date (event date of the initial Network event)	ICP Status
Audit Compliance rules applied where a Participant fulfils the role of MEP		
Rule Name: New MEP not a new connection		
Rule Identifier	AC020MEP01	
Reference	Clauses 1 & 2 of Schedule 11.4	
Description	The gaining MEP must advise the Registry of the metering records for the metering installation within 15 days of becoming the MEP for the metering installation.	
Query	Select ICPs where • a second or subsequent MEP has gained metering responsibility; and • the business days difference between Metering Event Date and Metering Event input date is greater than 15[**Output1**] Count ICPs where • a second or subsequent MEP has gained metering responsibility[**Output2**]	

Query Type	Timeliness							
Output:								
ICP Identifier	Metering Event Date (initial metering input by an MEP when assigning themselves metering responsibility)	Metering Event input date	Business days (difference between Metering Event Date and Metering Event input date)	Trader Event input date of the Trader event first nominating the gaining MEP	MN Event input date	Business days (difference between Metering Event Date and Trader Event input date)	Business days (difference between Trader Event input date and MN Event input date)	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places
Rule Name: Active with no metering								
Rule Identifier	AC020MEP02							
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4							
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible							
Query	Select ICPs where • a MEP has accepted their nomination; and • nominated MEP has not supplied Metering Installation information; that's is; has not supplied metering, or has supplied a Metering Summary record only							
Query Type	Accuracy							
Output:								
ICP Identifier	Highest Metering Category (from the currently in force metering)	Participant Identifier of the nominated MEP	Proposed MEP Nomination Date; that is event date of the Trader event that nominated the MEP that was subsequently accepted by the MEP	ICP Status				

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Rule Name: Becoming MEP for new connection								
Rule Identifier	AC020MEP03							
Reference	Clauses 1 & 3 of Schedule 11.4							
Description	The MEP must advise the registry of the registry metering records or any change to the registry metering records for a metering installation for which it is responsible, no later than 10 business days following							
Query	Select ICPs where • the ICP has a single MEP; that is the ICP has no previous or subsequent MEP; and • on the Metering event where the MEP assumed ICP responsibility, the business days difference between Metering Event Date and Metering Event input date is greater than 10[**Output1**] Count ICPs where • the ICP has a single MEP; that is the ICP has no previous or subsequent MEP; and • a Metering Event input where the MEP assumed ICP responsibility [**Output2**]							
Query Type	Timeliness							
Output:								
ICP Identifier	Metering Event Date (initial metering input by an MEP when assigning themselves metering responsibility)	Metering Event input date	Business days (difference between Metering Event Date and Metering Event input date)	Trader Event input date of the Trader event first nominating the gaining MEP	MN Event input date	Business days difference Meter Event and Trader input (difference between Metering Event Date and Trader Event input date)	Business days difference Trader input and MN input (difference between Trader Event input date and MN Event input date)	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places
Rule Name: Metering update after recertification								
Rule Identifier	AC020MEP04							

Reference	Clause 3 of Schedule 11.4					
Description	The MEP must advise the registry of the registry metering records or any change to the registry metering records for a metering installation for which it is responsible, no later than 10 business days following a change to the Metering Installation					
Query	Select ICPs, for fully certified Metering Installations, where • Metering Event Date matches the Metering Installation Certification Date; and • there was a prior Metering Installation Certification Date before the current Metering Installation Certification Date (that is ensure new connections are excluded); and • the business days difference between Metering Installation Certification date and Metering Event input date is greater than 10[**Output1**] Count ICPs, for fully certified Metering Installations, where • Metering Event Date matches the Metering Installation Certification Date; and • there was a prior Metering Installation Certification Date before the current Metering Installation Certification Date (that is ensure new connections are excluded)[**Output2**]					
Query Type	Timeliness					
Output:						
ICP Identifier	Metering Event Date	Metering Installation Certification Date	Metering Event input date	Business days (difference between Metering Installation Certification Date and Metering Event input date)	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Metering Installation Certification Date and Metering Event input date
Rule Name: Metering update corrections						
Rule Identifier	AC020MEP05 - Disabled but may be available in a future release					
Reference	Clause 3 of Schedule 11.4					
Description	The MEP must advise the registry of the registry metering records or any change to the registry metering records for a metering installation for which it is responsible, no later than 10 business days following the change to the Metering Installation:					
Query	Select ICPs, for fully certified Metering Installations, where a Metering event occurred and the ICP does not appear in the following queries: a) New MEP not a new connection					

	b) Becoming MEP for new connection c) Metering update after recertification and • The business days difference between Metering Event Date and Metering Event input date is greater than 10[**Output1**] Count ICPs, for fully certified Metering Installations, where a Metering event occurred and the ICP does not appear in the following queries: a) New MEP not a new connection b) Becoming MEP for new connection c) Metering update after recertification[**Output2**]				
Query Type	Timeliness				
Output:					
ICP Identifier	Metering Event Date	Metering Event input date	Business days (difference between Metering Event Date and Metering Event input date)	Percentage Compliance: (Output2 – Output1)/Output2 rounded to 2 decimal places	Average Business Days between Metering Event Date and Metering Event input date
Rule Name: Accuracy of certification dates					
Rule Identifier	AC020MEP06				
Reference	Clause 7(1) of schedule 11.4				
Description	A metering equipment provider must, if required under this Part, provide to the registry manager the information indicated in Table 1 as being "Required", in the prescribed form, for each metering installation for which it is responsible.				
Query	Select ICPs where • MEP is the first MEP at the ICP; and • Initial Electrically Connected Date is equal to Status Active Event Date; and • Metering Installation Certification Date on the initial metering, on any fully certified Metering Installation (without regard to Metering Component Removal Date), differs from Status Active Event Date				
Query Type	Accuracy				
Output:					

ICP Identifier	Metering Installation Number	Metering Installation Certification date	Initial Electrically Connected Date	Status Active Event Date	Elapsed days (difference between Metering Installation Certification date and Initial Electrically Connected Date)
Rule Name: Expired Certification					
Rule Identifier	AC020MEP07				
Reference	Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7				
Description	The MEP must obtain and maintain certification for all installations and metering components for which it is responsible				
Query	Select ICPs where • Metering Installation Certification Expiry date on the ICPs current metering is prior to the Configurable Date Field				
Query Type	Accuracy				
Output:					

ICP Identifier	Metering Installation Certification Expiry Date	Highest Metering Category	Metering installation Certification Type	Metering Installation Number	Metering Component Serial Numbers (of all non-removed components on the installation	ICP Status	Certification Variations
Rule Name: Certification duration							
Rule Identifier	AC020MEP08						
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4						
Description	The MEP must provide the information indicated as being ‘required’ in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.						
Query	Select ICPs where, for fully certified metering installations, the difference, in months between Metering Installation Certification Date and the Metering Installation Certification Expiry Date on the current Metering exceeds the following thresholds: • 180 months for Highest Metering Category 1						

	• 120 months for Highest Metering Category 2 or 3 • 60 months for Highest Metering Category 4 • 36 months for Highest Metering Category 5						
Query Type	Accuracy						
Output:							
ICP Identifier	Metering Installation Certification Date	Metering Installation Certification Expiry Date	Duration in whole months (rounded up difference between Metering Installation Certification Date and Metering Installation Certification Expiry Date)	Highest Metering category	Metering Installation Number	Metering Component Serial Numbers	ICP Status
Rule Name: Certification as a lower category							
Rule Identifier	AC020MEP09						
Reference	Clauses 6(1)(b) and (d), and 6(2)(b) of Schedule 10.7						
Description	A category 2 or higher metering installation may be certified by an ATH at a lower category than would be indicated solely on the primary rating of the current						
Query	Select ICPs where • Highest Metering Category is 2; and o On Metering Component Compensation Factor is greater than 100; Or • Highest Metering Category is 3; and o On Metering Component Compensation Factor is greater than 240						
Query Type	Accuracy						
Output:							
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Compensation factor	Highest Metering Category	ICP Status		
Rule Name: cat 3 and above without HHR Profile Code or HHR Metering or HHR installations							

Rule Identifier	AC020MEP10
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.
Query	Select ICPs with a Highest Metering Category of 3, 4 or 5 and Metering Component Type of M, where • Submission Type HHR field = N; or • Profile Code does not include HHR; or • HHR Flag = N; or • Metering Installation Type is not = "HHR", or • Meter Type is not = HHR, where the Removal Date is null
Query Type	Accuracy
Output:	

ICP Identifier	Highest Metering Category	Metering Installation Number	Metering Component Serial Number	ICP Status	Submission Type HHR	HHR Flag	Metering Installation Type	Meter Type

Rule Name: Compensation Factor on Category 1 Metering Installation	
Rule Identifier	AC020MEP11
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.
Query	Select ICPs where • Highest Metering Category = 1; and • For any Metering Component where ○ Compensation Factor greater than 3
Query Type	Accuracy
Output:	

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ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Compensation Factor
Rule Name: CT component installed on category 1 metering installation					
Rule Identifier	AC020MEP12				
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4				
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.				
Query	Select ICPs where • Highest Metering Category = 1; and • for any Metering Component o Metering Component Type of "C"				
Query Type	Accuracy				
Output:					
ICP Identifier	Metering Installation Number	Highest Metering Category	ICP Status	Metering Component Type	Metering Component Serial Number
Rule Name: HHR profile and submission type and meter or installation type is not HHR					
Rule Identifier	AC020MEP13				
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4				
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.				
Query	Select ICPs where • Profile Code contains HHR; and • Submission Type HHR = Y; and • HHR Flag = N; and • There are no non-removed Metering Installations with a Meter Type of HHR; that is if any HHR installations are found do not report				
Query Type	Accuracy				

Output:								
ICP Identifier	Metering Installation Number	Highest Metering Category	ICP Status	Profile Code	Submission Type HHR	HHR Flag	Metering Installation Type	Meter Type
Rule Name: Blank Registry records								
Rule Identifier	AC020MEP14							
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4							
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible							
Query	Select ICPs where • a MEP is recorded; and ○ no Metering Installation information has been provided; that is Meter Summary information exists, but no underlying Metering Installation information has been provided; or ○ all Metering Components (on all Metering Installations) have been removed							
Query Type	Accuracy							
Output:								
ICP Identifier		Highest Metering Category	ICP Status					
Rule Name: Compensation factor of 3								
Rule Identifier	AC020MEP15							
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4							
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.							
Query	Select ICPs where • Highest Metering Category= 1; and • Metering Installation Certification Date is after 29/08/2013; and on any of the installation Metering Components							

	○ Compensation Factor = 3					
Query Type	Accuracy					
Output:						
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Metering Installation Certification Date	Compensation Factor
Rule Name: Over category 1 with no CT's						
Rule Identifier	AC020MEP16					
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4					
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible					
Query	Select ICPs where • Highest Metering Category is 2, 3, 4 or 5; and • There are no Metering Components, on any Metering Installation, where ○ Component Type = C					
Query Type	Accuracy					
Output:						
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Metering Installation Certification Date	Compensation Factor
Rule Name: All compensation factors						
Rule Identifier	AC020MEP17					
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4					
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible					
Query	Select ICPs where • Highest Metering Category is 2, 3, 4 or 5; and					

	• Metering Component Type = M; and • Compensation Factor is not a defined Static Data value
Query Type	Accuracy

Output:						
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Metering Installation Certification Date	Compensation Factor

Rule Name: CN only	
Rule Identifier	AC020MEP18
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.
Query	Select ICPs where: • ANZSIC Code is Residential (000000); and • Metering Component contains a Meter Channel with a Register Content Code of CN; and • No other Registers on any Installation/Component combination contain a Register Content Code other than CN
Query Type	Accuracy

Output:							
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Period of Availability	ANZSIC Code

Rule Name: No control device recorded	
Rule Identifier	AC020MEP19
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.

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Query	Select ICPs where
	• AMI Flag (on the meter summary) = N; and
	• For a Metering Installation
	  ○ No Metering Component, on the Metering Installation has a Metering Component of "L"; and
	  ○ A Metering Channel on a Metering Component contains a Register Content Code of IN, CN, D, N, DC, NC, DIN, NIN, DOP, DPK, NB, NO, OP, PK or SH; that is requires a load control device
	For example:
	ICP with 2 installations:
	• Installation 1 – has 3 Metering Components, component 1 has a Metering Channel with a Register Content Code of "IN", component 3 is type "L" – not reported (at least 1 component on the installation contains type "L")
	• Installation 2 – has 3 Metering Components, none are type "L", a Metering Channel on Metering Component 3 has a Register Content Code of "IN" – reported (no components on the installation contain a type "L")						

Query Type	Accuracy						
Output:							
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Period of Availability	Metering Component AMI Flag
Rule Name: Day + night not = 24							
Rule Identifier	AC020MEP20						
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4						
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.						
Query	Select ICPs where • combined Period of Availability for all D and N registers, over all Metering Installations, does not equal 24 or a multiple of 24; or • combined Period of Availability for all DC and NC registers, over all Metering Installations, does not equal 24 or a multiple of 24; or • combined Period of Availability for all DIN and NIN registers, over all Metering Installations, does not equal 24 or a multiple of 24; or • combined Period of Availability for all DOP, DPK and N registers over all Metering Installations does not equal 24 or a multiple of 24						

Query Type	Accuracy							
Output:								
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Period of Availability for Day (D, DC or DIN)	Period of Availability for Night (N, NC or NIN)	Register Content Code	Metering Component AMI Flag
Rule Name: Day without night								
Rule Identifier	AC020MEP21							
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4							
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible							
Query	Select ICPs where • Register Content Code is D where there is not a N on any other Register on any other Metering Installation on the ICP; or • Register Content Code is DC where there is not a NC on any other Register on any other Metering Installation on the ICP; or • Register Content Code is DIN where there is not a NIN on any other Register on any other Metering Installation on the ICP (Note, this query must identify Register Content Codes per ICP not per Installation because some two register meters have different serial numbers per register.)							
Query Type	Accuracy							
Output:								
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Metering Component AMI Flag		
Rule Name: Night without day								
Rule Identifier	AC020MEP22							
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4							

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Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.					
Query	Select ICPs where • Register Content Code is N where there is not a D or a combination of both DOP and DPK on any other Register on any other Metering Installation on the ICP; or • Register Content Code is NC where there is not a DC on any other Register on any other Metering Installation on the ICP; or • Register Content Code is NIN where there is not a DIN on any other Register on any other Metering Installation on the ICP (Note, this query needs to identify Register Content Codes per ICP not per Installation because some two register meters have different serial numbers per register.)					
Query Type	Accuracy					
Output:						
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Metering Component AMI Flag
Rule Name: IN24 or IN0						
Rule Identifier	AC020MEP23					
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4					
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible.					
Query	Select ICPs where • Register Content Code is IN; and • Period of Availability is 24 or 0					
Query Type	Accuracy					
Output:						
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Period of Availability	Metering Component AMI Flag
Rule Name: UN not = 24							

Rule Identifier	AC020MEP24						
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4						
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible						
Query	Select ICPs where • Register Content Code is UN; and • Period of Availability is not = 24						
Query Type	Accuracy						
Output:							
ICP Identifier	Metering Installation Number	Metering Component Serial Number	Highest Metering Category	ICP Status	Register Content Code	Period of Availability	Metering Component AMI Flag
Rule Name: UN only with a control device							
Rule Identifier	AC020MEP25						
Reference	Clause 7 (1), (2) and (3) of Schedule 11.4						
Description	The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry, in the prescribed form for each metering installation for which the MEP is responsible						
Query	Select ICPs where a metering Installation contains a) a non-removed Metering Component with a Metering Component Type of L (control device is present); and b) all non-removed Metering Component, with a Metering Component Type of M, contain Register Content Codes that are ("UN" or start with the number 7) Example ICP with 2 installations: • Installation 1 with 3 Metering Components a. Metering Component 1 has a Metering Component Type of "M"; and • All Register Content Codes are UN or start with 7						

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<table>
<tr><td></td><td colspan="7">b. Metering Component 2 has a Metering Component Type of “M”; and
• All Register Content Codes are UN or start with 7
c. Metering Component 3 has a Metering Component Type of “L”
• Installation 2 – with 3 Metering Components
a. Metering Component 1 has a Metering Component Type of “M”; and
• Contains Register Content Codes that are <> “UN” or start with 7
b. Metering Component 2 has a Metering Component Type of “M”; and
• All Register Content Codes are “UN” or start with 7
c. Metering Component 3 has a Metering Component Type of “L”
Results:
• Installation 1: Component 1 and Component 2 are reported:
a. Contains a Metering Component with a Metering Component Type of “L” (Component #3); and
b. All Metering Components with a Metering Component Type of “M” (#1 and #2) have Registers that are “UN” or start with 7
• Installation 2 is <u>*not*</u> reported:
a. Contains a Metering Component with a Metering Component Type of “L” (Component #3); however Metering Component 1 contains Content Code that is not “UN” or starts with 7.</td></tr>
<tr><td>Query Type</td><td colspan="7">Accuracy</td></tr>
<tr><td colspan="8">Output:</td></tr>
<tr><td>ICP Identifier</td><td>Metering Installation Number</td><td>Highest Metering Category</td><td>ICP Status</td><td>Register Content Code</td><td>Period of Availability</td><td>Metering Component AMI Flag</td><td>Metering Component Serial Number</td></tr>
</table>

1. Delivers the results of the request to the requester sFTP fromreg folder

Data outputs:
A spreadsheet for each participant role delivered to participants sFTP folder. Spreadsheet file name: • AuditCompliance_<Participant Identifier>_<role>_<yyyymmddhhmmss>.xslx For example, where run for a participant with roles of Trader and MEP 2 spreadsheet reports will be produced: • AuditCompliance_RETA_Trader_20180812121245.xslx • AuditCompliance_RETA_MEP_20180812121245.xslx Each spreadsheet will contain a separate sheet for each Rule Name. Within each sheet multiple columns each contain a heading and query output.

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3.6 User parameters

Sub-process:	**MP-010 Set switching message receipt times**
Process:	Maintain user parameters
Participants:	The relevant Traders, Metering Equipment Providers and Distributors
Code references:	
Dependencies:	

Description:
A user with supervisor privileges should be able to choose the time switch messages are received and how they are grouped. Note that Distributors and Metering Equipment Providers will always receive their MN, CS and RR notifications overnight so do not need to set switching receipt times. Switching options are : • To deliver switch messages at specific times each day (08:00 hours or 11:00 hours or 15:00 hours or 18:00 hours) or sent immediately they are received by the Registry • To batch all switch messages in one file or in separate files.

Business requirements:
1. Only a user with supervisor privileges will be able to perform this function. 2. Users must be able to choose to receive switching messages individually immediately when they are processed by the registry or in batches at specific times during the day. 3. Where users choose to receive switching messages at specific times, all messages of one type, eg NT or AN, will be sent by the registry in separate files. 4. Users must be able to further choose to separate switching messages into files based on sending Trader, ie NTs sent by RETA will be in a separate file as will NTs from RETB. The default is all Traders together in one file per message type. 5. Once set, the parameter settings will apply to all switching messages received by the participant company.

Processing:

Data inputs:
• Delivery time(s). • Grouping selection.

Data outputs:
Confirmation of new settings on screen. Audit trail of changes.

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Sub-process:	**MP-020 Set notify parameters**
Process:	Maintain user parameters
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	
Dependencies:	RS-050, NP-020, NP-060

Description:

A user with supervisor privileges will be able to select for which event types notifications are received by their participant company. Only those notifications not explicitly mentioned in the Code will be available for selection.

In addition, participants can select whether to receive

- their snapshot version of the PR-030 in CSV or XML format.
- whether their snapshot version of the PR-030 is to be delivered with NT, the CS or not at all. The delivery will be immediate for the NT to the new Trader, but for the CS it will be delivered in accordance with the switch notify parameters of the CS of the new Trader.

Business requirements:

1. Only a user with supervisor privileges must be able to perform this function.
2. Where a participant has a dual role, eg Trader and Metering Equipment Providers, it must be able to set the parameters separately for each role.
3. The Registry must not send duplicate notifications for the same event at an ICP in respect of which a participant has dual roles.
4. Traders must always receive notification of Address, Status, Network, Metering and all Trader events.
5. Distributors must always receive notification of Address, Status, Network, Metering, Pricing events and of Trader events generated at the completion of a switch.
6. Metering Equipment Providers must always receive notification of Status, Metering and Trader events generated at the completion of a switch.
7. Once set, the parameter settings must apply immediately to all the participant's notifications.

Processing:

1. Validate and process notification options.

Data inputs:
• Event notification settings for each event type and role. • Event Detail report snapshot reporting format – CSV or XML.

Data outputs:
• Confirmation of new settings on screen. • Audit trail of changes.

Sub-process:	**MP-030 Setup report schedules**
Process:	Maintain user parameters
Participants:	Participants
Code references:	
Dependencies:	Non-core

Description:
Participants must be able to schedule requests for reports that will be processed automatically by the system on a recurring basis, using a set of defined date parameters that will reconfigure on each subsequent run. Participants can maintain Report Schedule Definitions to indicate when the report will be run by selecting a combination of a recurrence pattern and an option from the selected pattern (example below). Recurrence patterns are: • Daily; or • Weekly; or • Monthly; or • Yearly For example, Daily except weekends, where the report will be run on weekdays but not on Saturdays and Sundays.

Business requirements:
6. Report schedule definitions: a) Can only be created by users that have been assigned the security resource. b) Can only be edited by users that have been assigned the security resource and it has no associated scheduled reports using it. c) Can only be deleted by users that have been assigned the security resource; and it has no associated scheduled reports using it. 7. Report schedule: a) Participants must be able to schedule report requests that will be processed automatically by the system. b) Must only be performed by users that have been assigned the security resource. c) Any user can view the list of reports that have been scheduled to run automatically by the system, for their associated participants only. The Registry Manager can view the list for any participant.

d) Can only be deleted by users that have been assigned the security resource.

Data inputs:

1. Report schedule definition:
   - Attributes for the Report Schedule Definition.
   - Deletion of a Report Schedule Definition.

2. Report schedule:
   - Report request associated with a Report Schedule Definition.
   - Deletion of a report schedule recurrence.

Processing:

System

1. Report schedule definition:
   - Validates Report Schedule Definition attributes for creating or editing; and completes the audit trail if successful.
   - Deletes Report Schedule Definition and completes the audit trails of the deletion.

2. Report schedule:
   - Processes the report request associated with a Report Schedule Definition; and reschedules for next occurrence.
   - Deletes report schedule recurrence and completes the audit trails for the deletion.

Data outputs:

1. Report schedule definition:
   - Created or edited Report Schedule Definition with the associated audit trail information.
   - Deletion of Report Schedule Definition with the associated audit trail information.

2. Report schedule:
   - Requested report produced and delivered to the requester's fromReg directory.
   - Reschedule report produced in item above (when applicable).
   - Deletion of report schedule recurrence with the associated audit trail information.

3.7 Notifications

Sub-process:	**NP-010 Acknowledge event change**
Process:	Notify participants
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	Clause 11.21 and 11.2A of the Code.
Dependencies:	DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RS-010, RS-020, RS-030, RS-040, RS-050, RW-010, RW-020, RC-010, RC-020, MN-010, SD-030, SD-040

Description:

The Code requires that when information such as a change to an ICP attribute and notification of a switch transaction is sent to the registry, the registry confirms receipt of the information to the participant within four hours of the information being provided to the registry.

For transactions entered online (except for Loss Factor and Pricing category maintenance), although an online message of a successful update is sufficient as a confirmation, current automation of back-office systems by clients requires that all acknowledgements must also be provided in a file.

For batch updates sent in a file, acknowledgements of each update must be provided in a file. If the system rejects a change received in the file, it must indicate the reason as part of the acknowledgement (error processing).

Users must be able to see online whether their changes, whether submitted online or via file, have been confirmed (acknowledged). The details shown must include:

- date and time stamp;
- participant (sent to); and
- file name.

Business requirements:

1. The participant who provided the information must be sent an acknowledgement within four hours of the information being provided by the participant.

Processing:

System

1. Formats and sends acknowledgement to submitter.

Data inputs:
As a result of the following sub-processes: DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RS-010, RS-020, RS-030, RS-040, RS-050, RW-010, RW-020, RC-010, RC-020, MM-010, MM-020, MM-030, MN-010, SD-030, SD-040

Data outputs:
Acknowledgements. Each attribute on an output line is comma separated. Acknowledgement information to include:

Name	**Format**	**Mandatory/ optional**	**Comments**
Record Type	Char 3	M	"DET"
Date processed	DD/MM/YYYY	M	
Time processed	HH:MM:SS	M	
Registry audit reference	Char 15	O	Audit number of the successful update.
Request mode	Char 1	M	W (web browser) F (file upload)
ICP Identifier	Char 15	M	For PC and LF Action Requested types, the category code, otherwise the ICP identifier.

Name	Format	Mandatory/ optional	Comments
Event Date	DD/MM/CCYY	O	For PC and LF Action Requested types this is the Start Date of the code. For switch messages : NT switch – requested transfer date AN switch – input date TN switch – actual transfer date (switch Event Date) TT switch – actual transfer date (switch Event Date) NC switch – switch Event Date AC switch – switch Event Date CS switch – actual transfer date (switch Event Date) RR switch – actual transfer date (switch Event Date) MN switch – transfer date. This is null if the MN rejects the nomination For event change acknowledgements this is the Event Date of the transaction.
Action requested	Char 3	M	REC—Trader event MET—Metering event STA—Status event PRI—Pricing event NET—network (NSP) event ADD—Address event NT—NT message AN—AN message TN*—TN message CS —CS message TT*—TT message NW—NW message AW—AW message NC*—NC message RR—RR message AC—AC message MN – MN responsibility message DCH—initial creation date PC—Price category code change LF—Loss category code change * Discontinued.

Name	Format	Mandatory/ optional	Comments
Result	Num 3	M	000 if update successful, otherwise an error code.
Submitted by	Char 10	O	User ID.
User supplied reference	Char 32	O	Free text field carried over from input file.
Metering Error Location	Char 100	O	When Result is an error code, contextual information which may be helpful in finding the error, e.g. locating the specific row within a set of metering event data. H: for the header row, I:<Metering Installation Number> to identify the installation row. M:<serial number> to identify the component row. R:<serial number>:<channel number> to identify the channel row. P: for the premises row (CS/RR)

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Sub-process:	**NP-020 Send switch messages**
Process:	Notify participants
Participants:	Traders, Metering Equipment Providers
Code references:	Clauses 19, 20 and 22 of Schedule 11.3 of the Code.
Dependencies:	RS-010, RS-020, RS-030, RS-040, RS-050, RW-010, RW-020, RC-010, RC-020, MN-010, PR-030

Description:

Traders and MEPs are required to send all their switch messages to the registry, not directly to the other participant. It is the responsibility of the registry to pass them on to the other participant.

Business requirements:

In providing the switch transfer mechanism, the registry must:

1. Route only valid switch messages and only to the appropriate recipient;
2. Take into account the recipient's switch file delivery preferences (switching parameters);
3. Deliver the switching messages via file to the recipient in the same format as they are input;
4. Provide an authoritative audit trail of all switch data transfer activity, ie who, when, filename, from which participant, to which participant, etc; and retain the actual switch files for a minimum of 3 months.
5. Deliver the PR-030 snapshot where appropriate and in accordance with the Traders switch notify parameters (MP-020).

Processing:

System

1. Determines who is the intended recipient from the information contained in the switch message and the participants to the switch (see table in section 1.12.4).
2. Determines if the PR-030 snapshot is also to be delivered and to whom.
3. Groups the messages and PR-030 snapshot (if relevant) and delivers them at the time and batching method indicated in the recipient's switching parameters.

Data inputs:

Valid switch messages – NT, AN, TT, TN, CS, NW, AW, NC, RR, AC, MN.
Switch notify parameters.

Data outputs:
Switch file. PR-030 snapshot file with the same filename as the related switch file but with a .eda file extension.

Sub-process:	**NP-030 Notify of event change**
Process:	Notify participants
Participants:	Traders, Distributors, Metering Equipment Providers, Approved Test Houses, Metering Equipment Owners
Code references:	Clause 11.29 of the Code
Dependencies:	DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RW-020, NP-020, RS-050, MM-010, MM-020, MM-030, NP-020

Description:

The purpose of notifications is to enable participants to synchronise the data stored in their systems with that held in the Registry. Whenever there is a change to Registry information, notifications are delivered to the affected parties (see 1.11.13), taking into account the participant's preferences indicated in their notification parameters (see NP-020).

Notifications have two output formats, one for standard (i.e. non-metering) information and one for metering information. The standard file has a filename beginning with "NOT" while the notification file containing metering information has a filename beginning with "NMR". Both files are delivered in the same manner and at the same time.

Participants can access their notifications either directly from their SFTP directory or via web services in the case of participants with ICP responsibility (traders, distributors, MEPs).

Business requirements:

1. The Registry must send a notification of changes to and ICP to all affected parties on the day the Registry receives the information (clause 11.29).
2. Since one or more of the responsible parties may be the subject of a change to an ICP, the Registry must be able to inform both current (old) and/or new responsible or proposed parties of the change (see above section 1.11 Notifications for details).
3. The Registry must only provide an affected participant with those notifications requested by that participant.
4. Where a participant has multiple roles that includes ATH/MEO, the Registry must be able to provide ATH/MEO output separately, if required.
5. Where an ATH/MEO also fulfils a role that includes ICP responsibility; that is MEP, Trader or Distributor, and an ICP for which they have responsibility in that role is updated, they must receive notifications based on ICP responsibility. In all circumstances, a participant with multiple roles must receive a single notification.

Data inputs:
• Valid new, reversed or replaced events. • Participants notification parameters (NP-020)

Processing:
System 1. Determines who the participants are that are affected by the change. 2. Checks whether the participant wishes to receive notifications for the event type of the change and type of maintenance, and whether metering notifications are to be reported separately for ATH and MEO roles, as indicated by its notification parameters (see NP-020). 3. Formats the notification and makes it available to each affected participant that requires it

Data outputs:
• Notification file (current format for all events except Metering) • Metering Event Notification file.

The (standard) notification should contain the following information:

Name	**Format**	**Mandatory/ optional**	**Comments**
Record Type	Char 3	M	"DET"
Event Date	DD/MM/YYYY	M	
ICP Identifier	Char 15	M	
Notification type	Char 1	M	R (event reversal), A (change of data).
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch, M if ICP is currently undergoing an MEP switch, B if ICP is undergoing both a Trader and MEP switch or else blank.
Network audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.

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Name	Format	Mandatory/ optional	Comments
Network Participant Identifier	Char 4	O	Valid Participant Identifier for Distributor.
POC	Char 7	O	
Reconciliation Type	Char 2	O	
Dedicated NSP	Char 1	O	
Installation Type	Char 1	O	
Proposed Trader	Char 4	O	
Unmetered Load Details - Distributor	Char 50	O	
Shared ICP List	List	O	
Generation Capacity	Numeric 6.2	O	
Fuel Type	Char 15	O	
Initial Electrically Connected Date	DD/MM/YYYY	O	
Direct Billed Status	Char 11	O	
Direct Billed Details	Char 60	O	
Network User Reference	Char 32	O	
Network pricing audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Distributor Price Category Code	Char 50	O	
Distributor Loss Category Code	Char 7	O	
Chargeable Capacity	Numeric 7.2	O	
Distributor Installation Details	Char 30	O	
Network pricing User Reference	Char 32	O	

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Name	Format	Mandatory/ optional	Comments
Address audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Physical Address Unit	Char 20	O	
Physical Address Number/ RAPID number	Char 25	O	
Physical Address Street	Char 30	O	
Physical Address Suburb	Char 30	O	
Physical Address Town	Char 30	O	
Physical Address Post Code	Numeric 4	O	
Physical Address Region	Char 20	O	
Address Property Name	Char 75	O	
GPS_Easting	Numeric 7.3	O	
GPS_Northing	Numeric 7.3	O	
Address User Reference	Char 32	O	
Trader audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Trader	Char 4	O	
Profile	Char 25	O	
ANZSIC	Char 7	O	
Proposed MEP Participant Identifier	Char 4	O	From Trader event
Submission Type HHR	Y/N	O	From Trader event
Submission Type NHH	Y/N	O	From Trader event
UNM Flag	Y/N	O	From Trader event
Unmetered Load Details – Trader	Char 50	O	From Trader event

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Name	Format	Mandatory/ optional	Comments
Daily Unmetered kWh	Char 6	O	From Trader event
Trader User Reference	Char 32	O	
Status audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
ICP Status	Char 3	O	999—new, 888—distributor, 000—ready, 002—active, 001—inactive, 003—decommissioned.
ICP Status Reason	Numeric 2	M/O	See static data tables for current codes.
Status User Reference	Char 32	O	

Name	Format	Mandatory/ optional	Comments

Example 1:

Assume we have an ICP on the Registry with the following Pricing Details:

Event Date 1 April 2001 Price Code = 40W
Event Date 30 September 2001 Price Code = 60W.

The Distributor realises that the ICP should have been on Price code 45W for the period 1 April 2001 to 30 Sept 2001 at which time it changed to 60W and so updates the Registry by inserting a new network pricing event (via the "Change Distributor Details" screen or via Distributor Maintenance) with an event date of 1 April 2001. The following notification file would be generated:

DET,01/04/2001,0000123456UNAED,R,,,,,,,,,,,,,,,,123456799,40W,L1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

DET,01/04/2001,0000123456UNAED,,,,,,,,,,,,,,,,,,123456800,45W,L1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Example 2:

If the Distributor wanted to update the ICP so that the Price Code was 45W for the period 1April 2001 to current date then he would be required to do two things, reverse the Network Pricing event dated 30 September 2001 (via the "Change Distributor Details" screen or via Distributor Maintenance) and insert the Network Pricing Event dated 1 April 2001 as per above. Under this scenario three notification lines would be output to the relevant parties these would be as follows:

Line 1 for the reversal of the 30 Sept. event:

DET,30/09/2001,0000123456UNAED,R,,,,,,,,,,,,,,,,123456797,60W,L1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Lines 2 and 3 for the insertion of the 1 April event:

DET,1/04/2001,0000123456UNAED,R,,,,,,,,,,,,,,,,123456799,40W,L1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

DET,1/04/2001,0000123456UNAED,,,,,,,,,,,,,,,,,,123456800,45W,L1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Example 3 New distributor and retailer events added:

HDR,RSAUNOTIFY,RGST,EMCO,13/06/2012,00:32:00,00000002

DET,1/01/2009,99999999999AB123,A,,NET-123,NETA,ABCD123,GN,N,B,RETA,UnmeteredDetail,,B,wind,1/01/2009,Both,Optional Field,NetworkUserRef,PRI-123,Pcat1,Lcat1,1234,installdetails,PricingUserref,ADD-123,Unit1,678,Perkins Road,Ohau,Tekapo,7797,Canterbury,White House,1234567.123,57.6,Addref,,,,,,,,,,,,,,

DET,1/01/2009,99999999999AB123,A,,,,,,,,,,,,,,,,,,,

Metering Event Notification file format:

The first 6 columns are identical for all transaction types and will contain the same values for a single ICP. The order of the transaction types follows the usual pattern of METERHEADER, METERINSTALL, METERCOMP, METERCHANNEL, METERCHANNEL etc., METERINSTALL, METERCOMP, METERCHANNEL, METERCHANNEL etc. for a single ICP. A new ICP is indicated by a METERHEADER.

Header row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Event date	DD/MM/YYYY	M	
ICP	Char 15	M	
Notification type	Char 1	M	R (event reversal), A (change of data).
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch, M if ICP is currently undergoing an MEP switch, B if ICP is undergoing both a Trader and MEP switch, else blank.
Metering audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Transaction Type	Char 14	M	'METERHEADER' for metering header information
MEP Participant Identifier	Char 4	M	
Highest Metering Category	Numeric 1	M	
HHR Flag	Y/N	M	
NHH Flag	Y/N	M	
PP Flag	Y/N	M	
AMI Flag	Y/N	M	
Meter Channel Count	Numeric 3	M	
Meter Multiplier Flag	Char 1	M	
Metering user reference	Char 32	O	
Number of installations	Numeric 2	M	There must be this many 'METERINSTALL' rows following (interspersed with the associated 'METERCOMP' and 'METERCHANNEL' rows) immediately following this row

Installation Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Event date	DD/MM/YYYY	M	
ICP	Char 15	M	Must be same as the ICP in the prior 'METERHEADER' record.
Notification type	Char 1	M	R (event reversal), A (change of data).
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch, M if ICP is currently undergoing an MEP switch, B if ICP is undergoing both a Trader and MEP switch, else blank.
Metering audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Transaction Type	Char 14	M	'METERINSTALL' for metering installation information.
Metering Installation Number	Numeric 3	M	A number identifying the installation within the ICP. Is unique within the ICP.
Highest Metering Category	Numeric 1	M	1 to 5.
Metering Installation Location Code	Char 50	M	A 6 character code (can be 1 to 6 characters) from the list of codes within the Registry that identifies the location of the metering installation and, optionally, concatenated with the New Zealand Transverse Mercator 2000 (NZTM2000) GPS co-ordinates of the metering installation.
ATH Participant Identifier	Char 4	M/O	A valid Participant Identifier of the ATH. Mandatory if the Metering Installation Certification Type is 'F'.
Metering Installation Type	Char 3	M	'HHR' or 'NHH' or 'NON.
Metering Installation Certification Type	Char 1	M	Interim ('I) or Full ('F).
Metering Installation Certification Date	DD/MM/YYYY	M/O	Mandatory if the Metering Installation Certification Type is 'F'.
Metering Installation Certification Expiry Date	DD/MM/YYYY	M	
Control Device Certification Flag	Char 1	M	Y/N
Certification Variations	Char 1	M	'X' – An exemption under the Act for the metering installation applies; or 'A' – The alternate measuring transformer certification process is used; or 'N' – None.

Event data	Format	Mandatory/ optional	Comments
Certification Variations Expiry Date	DD/MM/YYYY	M/O	Mandatory if Certification Variations is other than 'N'.
Certification Number	Character 25	M/O	Mandatory if the Metering Installation Certification Type is 'F'.
Maximum Interrogation Cycle	Numeric 3	M	In days.
Lease Price Code	Char 6	O	Free text.
Number Of Components	Numeric 2	M	There must be this many 'METERCOMP' rows (interspersed with the associated 'METERCHANNEL' rows) following this row for this ICP.

Meter/Component Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Event date	DD/MM/YYYY	M	
ICP	Char 15	M	Must be same as the ICP in the prior 'METERINSTALL' record.
Notification type	Char 1	M	R (event reversal), A (change of data).
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch, M if ICP is currently undergoing an MEP switch, B if ICP is undergoing both a Trader and MEP switch, else blank.
Metering audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Transaction Type	Char 14	M	'METERCOMP' for meter/component information
Metering Installation Number	Numeric 3	M	Must be the same as the Metering Installation Number in the prior 'METERINSTALL' record.
Metering Component Serial Number	Char 25	M	Identifier of meter. Validated by system to be unique within the ICP.
Metering Component Type	Char 1	M	M – Meter, C – CT, V – VT, D – Data Storage Device, L- Control Device
Meter Type	Char 3	M/O.	HHR/NHH/PP. Mandatory where Metering Component Type = M.
AMI Flag	Char 1	M	Y/N

Event data	Format	Mandatory/ optional	Comments
Metering Installation Category	Numeric 1	M/O	1 – 5. Mandatory where Metering Component Type = M.
Compensation Factor	Numeric 6.3	M	Maximum value is 999999.999. Where the Metering Components Type is M (meter) the value is greater than zero.
Owner	Char 6	O	If the Owner is a participant then their valid 4 character Participant Identifier otherwise free text > 4 characters.
Removal Date	DD/MM/YYYY	O	
Number of Channels	Numeric 3	M	Total number of channels on the component. There must be this many 'METERCHANNEL' rows immediately following this row.

Channel Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Event date	DD/MM/YYYY	M	
ICP	Char 15	M	Must be same as the ICP in the prior 'METERCOMP' record.
Notification type	Char 1	M	R (event reversal), A (change of data).
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch, M if ICP is currently undergoing an MEP switch, B if ICP is undergoing both a Trader and MEP switch, else blank.
Metering audit number	Char 15	O	For a Notification Type of R this is the Audit Number of the event that was reversed or replaced. For a Notification Type of A this is the audit number of the new event.
Transaction Type	Char 14	M	'METERCHANNEL' for register/channel information
Metering Installation Number	Numeric 3	M	Must be same as the Metering Installation Number in the prior 'METERCOMP' record.
Metering Component Serial Number	Char 25	M	Must be same as the Metering Component Serial Number in the prior 'METERCOMP' record.
Channel Number	Numeric 2	M	Must be a unique number within the metering component.
Number of Dials	Numeric 2	M/O	Number of dials/digits (not recording fractions of a unit) on the meter's registers/channels. Valid values

Event data	Format	Mandatory/ optional	Comments
			are between 4 and 12. Mandatory where Metering Component Type = M.
Register Content Code	Char 6	M/O	Valid register content code from the static reference table stored in the registry. Mandatory where Metering Component Type = M or D.
Period of Availability	Numeric 2	M/O	<=24. Minimum service hours per day that supply is available for. Mandatory where Metering Component Type = M or D.
Unit of Measurement	Char 6	M/O	Valid channel unit code from the static reference table stored in the registry. Eg. kWh, kW, kVA, kVArh. Mandatory where Metering Component Type = M or D.
Energy Flow Direction	Char 1	M/O	Valid values are 'I' for injection and 'X' for exit. Mandatory where Metering Component Type = M or D.
Accumulator Type	Char 1	M/O	Valid values are 'C' for cumulative and 'A' for absolute. Mandatory where Metering Component Type = M or D.
Settlement Indicator	Char 1	M	Y/N.
Event Reading	Numeric 12	O	Must be less than what can be stored with the Number of Dials.

File example:

HDR, RSMENOTIFY,RGST,EMCO,01/08/2011,00:10:30,7,Myref

DET,01/02/2012,9999999999AB123,A,,MET-234,METERHEADER,META,1,N,Y,N ,N,2,N,Myref,2

DET,01/02/2012,9999999999AB123,A,,MET-234,METERINSTALL,1,1,BA,ATH1,NHH,F,3/12/2000,3/12/2015,N,N,,123456B,180,,1

DET,01/02/2012,9999999999AB123,A,,MET-234,METERCOMP,1,44455Cv,M,NHH,N,1,1,MOwner,,1

DET,01/02/2012,9999999999AB123,A,,MET-234,METERCHANNEL,1,44455Cv,1,5,UN,24,kWh,X,C,Y

DET,01/02/2012,9999999999AB123,A,,MET-234,METERINSTALL,2,1,BP,ATH1,NHH,I,3/12/2000,3/12/2015,N,N,,43555554,180,,1

DET,01/02/2012,9999999999AB123,A,,MET-234,METERCOMP,2,435545,M,NHH,N,1,1,MOwner,,1

DET,01/02/2012,9999999999AB123,A,,MET-234,METERCHANNEL,2,435545,1,5,UN,24,kWh,X,C,Y

Sub-process:	**NP-040 Re-send switching messages**
Process:	Notify participants
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	
Dependencies:	NP-020

Description:

Participants will be able to request that the registry re-sends all the switch messages that were delivered to them during a period of time.

Note that Distributors and Metering Equipment Providers are only able to receive MN, CS and RR switch messages.

Business requirements:

1. The registry must be able to send participants their switching protocol messages again when requested.
2. Participants must be able to request that all messages be re-sent for a specific period.
3. Participants must be able to select that, only messages of a specific type, eg NT or AW, for a specific period be re-sent to them.
4. The registry must re-send all the requested messages immediately in a single file.

Processing:

Data inputs:

Start date.

End date.

Switching message type.

Example:
HDR,RQRSSWFLS,CTCT,RGST,27/12/2001,11:13:12,1,All notifications for April
DET,NT,01/04/2007,30/04/2007

Data outputs:

File of requested switching messages.

Sub-process:	**NP-050 Re-send notifications**
Process:	Notify participants
Participants:	Distributors, Traders, Metering Equipment Providers
Code references:	
Dependencies:	NP-030

Description:
A Trader, Distributor or Metering Equipment Providers can request that the registry re-sends all the notifications that were delivered to them during a period of time.

Business requirements:
1. The registry must be able to re-send to participants their notifications when requested by that participant. They must be able to re-send standard and/or metering notifications. 2. Only Traders, Metering Equipment Providers and Distributors must be able to request their notifications be re-sent. 3. Users must be able to specify the period for which notifications are re-sent. 4. The registry must deliver all the notifications immediately in a single file (however, standard notifications must remain separate from Metering notifications).

Processing:

Data inputs:
Start date. End date. Example: HDR,RQRSNOTIFY,CTCT,RGST,27/12/2001,11:13:12,1,All NOT notifications for April DET,01/04/2007,30/04/2007 HDR,RQMTNOTIFY,CTCT,RGST,27/12/2001,11:13:12,1,All NMR notifications for April DET,01/04/2007,30/04/2007

Data outputs:
A file containing the requested notifications. This includes the standard notifications and the Metering event notifications

Sub-process:	**NP-060 Alert Participants**
Process:	Notify participants
Participants:	Distributors, Traders, Metering Equipment Providers, Authority
Code references:	
Dependencies:	MP-020, SD-050

Description:

The system will alert participants daily when the following situations occur:

1. The responsible Trader, Distributor and MEP will be notified if any of their meter's certification is within 2 months of expiry.
2. The responsible Trader and Distributor will be notified where:
   - an ICP has no Trader applicable for the Event Date matching the Initial Electrically Connected Date, or within one day either side of it , and
   - there is no Initial Electrically Connected Date but the ICP Status is Active. This condition only applies to ICPs that have creation dates after the transition date to the new Code (29 August 2013).
3. The system will alert the Authority when a Meter Event, with a Metering Installation Certification Type of Interim, is added to the Registry and the event date of the meter event is after the Metering Installation Certification Type code effective end date.

Notices will be delivered daily overnight in a single report and optionally an email alerts will be sent to the email addresses held in the participants Metering Alerts email group (see SD-050).

For all alert types the Authority requires a report (no emails) as at the last day of each month, not daily.

Business requirements:

1. The Registry must send responsible participants of an ICP an alert overnight when a meter on the most recent metering event is within 2 months of its expiry date and beyond and the ICP Status is Active. An alert will continue to be reported until the expiry date is updated to fall outside the scope of the report.
2. The Registry must send the responsible Trader and Distributor as well as the Authority alerts for each of the following conditions:
   - Where an ICP has no Trader applicable for the Event Date matching the Initial Electrically Connected Date, or within one day either side of it, and
   - where there is no Initial Electrically Connected Date but the ICP Status is Active. This condition only applies to ICPs that have creation dates after the transition date to the new Code.

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N.B. Where there is no Trader, the responsible Trader for the notice delivery is the Proposed Trader on the Network Event applicable at the Initial Electrically Connected Date. If there is no Proposed Trader no alert is sent to any responsible Trader but it will/may appear in the report to the Authority.

3. The Registry must deliver to the Authority alerts for the following condition:
    - Where a metering event has been added with a Metering Installation Certification Type value of Interim with an event date after the Certification Type interim effective end date.
4. The Registry must deliver the alerts overnight in a single file to participants each day but only once a month, as at the last day of each month, to the Authority. An Alert for the same ICP and situation sent to participants must be reported to the Authority as a single alert. Where an alert for the same ICP and situation has been sent multiple times the most recent alert only must be sent.
5. The Authority does not require email alerts but when requested by the participant an email notice must be sent to the email addresses held in the participants Metering Alerts email group (see SD-050).

Processing:

1. Determines who the participants are that are affected by the alert.
2. Formats the appropriate alert, calculates the number of days (due or overdue) and delivers it to each affected responsible participant.

Data inputs:

Metering Events
Network Events
Status Events
Trader Events

Data outputs:

A file containing the requested alerts identifying the ICP.

An optional email with alerts attached. The email body lists the alert filenames.

Example (monthly alert file to the Authority):

HDR,RSPALERTM,RGST,EMCO,01/05/2016,00:10:16,00000005,Monthly Participant Alerts
DET,0000000100AA7D1,C,1,1,BA,ATH1,NHH,F,01/03/2009,05/10/2012,N,N,,123456B,180,,-86
DET,0000000107AAA1B,T,01/01/2016,05/04/2016,05/01/2016,NETC,NETC001,GN,N,L,RETB,05/01/2016,2,0
,60
DET,0000000108AA5C5,E,02/04/2016,02/04/2016,05/01/2016,NETB,NETB001,GN,N,L,RETC,,2,RETC,0
DET,0000000101AAB94,I,02/04/2016,08/04/2016,METB

DET,0000000214AAF75,I,25/04/2016,28/04/2016,METC

For certification alerts:

Attributes	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'DET'
ICP	Char 15	M	
Alert Type	Char 1	M	'C' for certification alerts.
Metering Installation Number	Numeric 3	M	Sequential number identifying the installation within the ICP. Must be unique within the ICP.
Highest Metering Category	Numeric 1	M	1 to 5 and 9.
Metering Installation Location Code	Char 50	M	A valid code from a list stored in the registry static reference tables.
ATH Participant Identifier	Char 4	M/O	A valid Participant Identifier of the ATH. Mandatory if the Metering Installation Certification Type is 'F'.
Metering Installation Type	Char 3	M	'HHR' or 'NHH' or 'NON'.
Metering Installation Certification Type	Char 1	M	Interim ('I) or Full ('F).
Metering Installation Certification Date	DD/MM/YYYY	M/O	Mandatory if the Metering Installation Certification Type is 'F'.
Metering Installation Certification Expiry Date	DD/MM/YYYY	M	
Control Device Certification Flag	Char 1	M	Y/N
Certification Variations	Char 1	M	'X' - An exemption under the Act for the metering installation applies; or 'A' - The alternate measuring transformer certification process is used; or 'N' – None.
Certification Variations Expiry Date	DD/MM/YYYY	M/O	Mandatory if Certification Variations is other than 'N'.
Certification Number	Character 25	M/O	Mandatory if the Metering Installation Certification Type is 'F'.
Maximum Interrogation Cycle	Numeric 3	M	In days.
Lease Price Code	Char 6	O	Free text.
Number of days until certification expiry	Numeric 5	M	Calculated. Number of days between the Metering Installation Certification Expiry Date and report run date. Positive value if the installation has yet to expire otherwise a negative value.

For alerts where there is no Trader at the Initial Electrically Connected Date:

Attributes	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'DET'

Attributes	Format	Mandatory/ optional	Comments
ICP	Char 15	M	
Alert Type	Char 1	M	'T' for no Trader electrically connected alert.
Event Date	DD/MM/YYYY	M	Event Date of the Network Event in which the latest Initial Electrically Connected Date was first input.
Input Date	DD/MM/YYYY	M	Input date of the event from which the Event Date above was obtained.
Network Participant Identifier	Char 4	M	As at the Event Date.
POC	Char 7	M	As at the Event Date.
Reconciliation Type	Char 2	M	As at the Event Date.
Dedicated NSP	Char 1	M	As at the Event Date.
Installation Type	Char 1	M	As at the Event Date.
Proposed Trader	Char 4	O	As at the Event Date.
Initial Electrically Connected Date	DD/MM/YYYY	M	As at the Event Date.
Current ICP Status	Char 3	M	From the Status event applicable at the date the report was run.
ICP Status on Initial Electrically Connected Date	Char 3	M	From the Status event applicable at the Initial Electrically Connected Date.
Overdue Days	Numeric 5	M	Calculated. Number of business days between Initial Electrically Connected Date and date the report was run. Where there is no Initial Electrically Connected Date set to 99999.

For alerts where the Initial Electrically Connected Date is missing but the status is active:

Attributes	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'DET'
ICP	Char 15	M	
Alert Type	Char 1	M	'E' for no initial electrically connected date alert.
Event Date	DD/MM/YYYY	M	The Event Date of the Event which triggered the alert.

Attributes	Format	Mandatory/ optional	Comments
Input Date	DD/MM/YYYY	M	Input date of the event from which the Event Date above was obtained.
Network Participant Identifier	Char 4	M	As at the Event Date.
POC	Char 7	M	As at the Event Date.
Reconciliation Type	Char 2	M	As at the Event Date.
Dedicated NSP	Char 1	M	As at the Event Date.
Installation Type	Char 1	M	As at the Event Date.
Proposed Trader	Char 4	O	As at the Event Date.
Initial Electrically Connected Date	DD/MM/YYYY	M	As at the Event Date.
Current ICP Status	Char 3	M	From the Status event applicable at the date the report was run.
Trader	Char 4	O	From the Trader event applicable at Event Date.
Overdue Days	Numeric 5	M	Calculated. Number of business days between the first Status event with an active status and date the report was run.

For alerts where the Metering Installation Certification Type is Interim

Attributes	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'DET'
ICP	Char 15	M	
Alert Type	Char 1	M	'I' for Interim certification type
Event Date	DD/MM/YYYY	M	The Event Date of the Event which triggered the alert.
Input Date	DD/MM/YYYY	M	Input date of the event from which the Event Date above was obtained.
MEP Participant Identifier	Char 4	M	As at the Event Date.

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Sub-process:	**NP-070 Web Service notify of event change**
Process:	Notify participants
Participants:	Distributors, Traders, Metering Equipment Providers
Code references:	Clause 11.29 of the code
Dependencies:	DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, NP-020, RS-050, MM-010, MM-020, MM-030

Description:

This function is concerned with provision of a web service to allow participants to download ICP notifications.

A participant polls the Registry requesting either unsent notifications are sent, or that previously sent notifications are resent.

The Registry will respond with either:

a) A batch of notifications; or

b) An “all notifications sent” response.

A participant continues to poll the Registry requesting notifications are sent until an all notifications sent response is received.

Business requirements:

1. A participant calling the web service must:
    a) Fulfil a role that allows access to the web service; that is has a role of Trader, Distributor or MEP; and
    b) Have authorisation to use the Web Service from the Registry Administrator
2. A participant call the web service must provide a valid logon and password
3. A participant must be able to request notifications for a Notification Date. The Notification Date may be and date on which notifications have been generated by the Registry.
4. If a null of invalid Notification Date is provided the Registry must default the Notification Date to the date notifications were last generated
5. The Registry must send notifications starting from the provided *Resumption Point that were created on the Notification Date.
6. If an invalid, null or 0 (zero) Resumption Point is provided the Registry must send notifications starting from the first notification created on the Notification Date.
7. The Registry must return a response with a batch of notifications (if any), Notification Date and Resumption Point.

8. If all notifications have been delivered, or there are no notifications for the Notification date and Resumption Point the Registry must return a Resumption Point of 0 (zero) and a message stating “All notifications have been delivered”.
9. Each notification must contain a single event occurring on the Notification Date for an ICP. Multiple events with the same event date are reported as separate notification outputs. ***Note: this differs from NP-030 batch file output where events for an ICP occurring on the same event date are combined into a single output line.***
10. The Registry Administrator must have the ability to vary the maximum number of notified returned in a batch.
11. A participant may continue to request notifications, providing the Notification Date and Resumption Point from the previous response until the Registry stats that all notifications have been delivered.
12. A participant must not send duplicate requests; that’s is ‘x” requests for the same Notification Date and Resumption Point within “y” minutes. If duplicate requests are sent the Registry must:
    a) Alert the Registry Administrator via email to email group NotificationAPI; and
    b) Deactivate participant access to the web service
13. The “x” and “y” settings must be maintained by the Registry Administrator.
14. The Registry Administrator may deactivate access to the web service.

Data inputs:
• Logon user ID and password • Notification Date • Resumption Point

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Processing:

System:

1. Validates participant has provided a valid logon user ID and password
2. Validates participant is permitted to access the web service based on their role. If invalid returns a response message:
    a) "No access to this Registry Web Service. Please contact the Registry Administrator"
3. Validates participant access to the web service. If deactivated returns a response message:
    a) "Access to this Registry Web Service is deactivated. Please contact the Registry Administrator".
4. Validates if participant has exceeded maximum duplicate requests ("x" in "y" period). If exceeded the Registry:
    a) Deactivates access to the web service
    b) Returns a response message:
        i. "Multiple requests for the same input parameters received. Please contact the Registry Administrator"
    c) Raises an alert email to the NotificationAPI email group.
5. Creates a response including:
    a) Collection of Metering and non-metering notifications, the number returned not exceeding the maximum number of notifies returned in a batch (note web service is XML format and allows metering and non-metering information to be provided in the same response).
    b) Notification Date
    c) Resumption Point, 0 (zero) if all notifications have been sent
    d) Response message. If all notifications for a Notification Date have been sent the message must state "All notifications have been delivered"; otherwise null.

Data outputs:

Web service response including:

- Notification Date
- Resumption Point
- Message
- Collection of Notifications

The (standard) notification output must contain the following information

Name	Format	Mandatory / optional	Comments
Record Type	Char 3	M	"DET"
Event Date	DD/MM/YYYY	M	

ICP Identifier	Char 15	M	
Notification type	Char 1	M	R (event reversal), A (change of data)
Switch status	Char 1	O	S if ICP is currently undergoing a Trader switch; otherwise M if ICP is currently undergoing an MEP switch; otherwise B if ICP is undergoing both a Trader and MEP switch; otherwise Blank
Notification information as per NP-030; that is one of Network, Address, Trader, Status, Pricing or Metering			

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Sub-process:	**NP-080 Web Service notify of ICP planned service interruption**
Process:	Notify participants
Participants:	Distributors, Traders, Metering Equipment Providers
Code references:	
Dependencies:	SI-020

Description:

This function is concerned with provision of a web service to allow participants to query the ICP planned service interruptions against an ICP.

A participant polls the Registry requesting ICP planned service interruption information in accordance with the following filters:

a) ICP identifier; or

b) Distributor Event Number; or

c) network participant identifier.

The Registry will respond with:

c) A rejection error; or

d) All current and impending ICP planned service interruptions; or

e) A “no ICP planned service interruptions” response.

Business requirements:

1. A participant calling the web service must:

Have authorisation to use the Web Service from the Registry Manager

2. A participant calling the web service must provide a valid logon and password
3. A participant must be able to request current and impending planned service interruptions for an ICP.
4. A Distributor must be able to see ICP planned service interruption records they have submitted to the Registry.
5. A Trader or MEP must be able to see ICP planned service interruptions where they have at least 1 ICP involved in the planned service interruption.
6. If an ICP involved in a planned outage has a reconciliation type of “LE” there are no visibility restrictions; that is, planned outage interruption information, for all ICPs involved in the outage, may be viewed by any participant

7. If there are no ICP planned service interruptions the Registry must return a message stating, "No current or impending planned service interruptions for this [ICP/Distributor Event Number/ network participant identifier]".
8. The Registry Manager may deactivate access to the web service.

Data inputs:

- Logon user ID and password
- ICP Identifier, or Distributor Event Number, or network participant identifier.

Processing:

System:

1. Validates participant has provided a valid logon user ID and password
2. Validates participant access to the web service. If deactivated returns a response message:
    a) "Access to this Registry Web Service is deactivated. Please contact the Registry Manager".
    b) Logs the unauthorised access to the web service
3. Creates a response including all current and future dated planned service interruption records

Data outputs:

Web service response including:

- ICP planned service interruption records (if any), or no ICP planned service interruptions.
- Message (e.g., No current or impending planned service interruptions)

The ICP planned service interruption information must contain information as per SI-020.

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3.8 Online queries

Sub-process:	**QU-010 Search to find an ICP identifier**
Process:	Make query online
Participants:	All users
Code references:	Clause 11.28 of the Code
Dependencies:	

Description:

A participant may request access to the registry. If the participant is granted access, a user may wish to find an ICP identifier by using its Address or Metering Component Serial Number with, optionally, a Metering Component Type to find it and check its details.

Users may particularly want to use this facility when an ICP identifier is being switched in order to verify that the correct ICP identifier is being switched.

N.B. In order that the address search produces consistent results, Distributors are provided with Address completion standards. These are provided in Appendix 2 for reference.

Business requirements:

1. Users must be able to search for an ICP identifier using address or metering attributes as search criteria. When more than one ICP identifier matches the search criteria, all the matching ICP identifiers must be presented to the user and the user must be able to select the required ICP identifier from the list.
2. The minimum information required for searching must be either Physical Address Property Name or Physical Address Street or Metering Component Serial Number.
3. A wildcard search facility must be provided unless an exact match is required.
4. It must be possible to search for an exact match on the Physical Address Street, or if a Street has not been provided on the ICP address record, by the Address Property Name. Exact match requires the full name including “Road”, “Street” etc.
5. It must be possible to search for multiple words or words that include a hyphen e.g. *Great King* or *Raymond-Blanc*, when searching on Physical Address Property Name or the Physical Address Street.
6. It must be possible to restrict the list of ICP identifiers to only those that are currently the responsibility of the user’s company.
7. It must be possible to restrict the list of ICP identifiers to only those that have been commissioned i.e. are in the ‘active’ or ‘inactive’ state.

8. When searching for ICP identifiers whose ICP metering information contains a specific Metering Component Serial Number, an additional filter on Meter Component Type must be available.
9. The search facility must be available online and via web services

Data inputs:

Search criteria on the following attributes:

- Physical Address Unit.
- Physical Address Number.
- Physical Address Street.
- Physical Address Property Name.
- Physical Address Suburb.
- Physical Address Town.
- Physical Address Region.
- Metering Component Serial Number.
- Metering Component Type.

Additional search criteria filters:

- Exact match only.
- Own ICPs only.

1. Only Commissioned.

Processing:

System

- Finds and displays all the ICP identifiers that meet the search criteria, current responsible Participants (Network, Trader and MEP), Status, first Metering Component Serial Number and GPS co-ordinates. The last 2 attributes are not displayed when performing search on Metering Component Serial Number
- Allows the user to select an individual address.

Data outputs:

- List of ICP Identifiers associated with the search criteria.

Sub-process:	**QU-020 View ICP information**
Process:	Make query online
Participants:	All users
Code references:	Clause 11.28 of the Code.
Dependencies:	QU-010

Description:

A participant may request access to the registry. If the participant is granted access, a user can view all the information about an ICP that includes its current attributes, history of changes, notifications delivered and audit details. The only exception to this is the channel reading value provided in CS and RR switch messages. This information is only viewable by users of the responsible participants at the Event Date of the switch.

Business requirements:

1. All approved users must be able to view all attributes of an ICP. However, the channel reading values provided in the CS and RR switch messages must only be available to the participants responsible for the ICP on the Event Date.
2. The details of the ICP must be displayed 'as at' a particular date including whether the ICP is the subject of any switch. All attributes that were applicable on the 'as at' day must be shown.
3. The user must be able to view for the ICP identifier all current and impending ICP planned service interruptions
4. The user must be able to view the history of the ICP (i.e. all the events associated with an ICP) and all switch messages.
5. The user must be able to drill down from events to see the full details of the event, details of changes made, the notifications delivered and the audit details.
6. The user must be able to view and download a CSV version of events and switch transactions.
7. The user must be able to view a map of the location of the ICP using its stored GPS co-ordinates.
8. The user must be able to view reconciliation information including periods of responsibility of participants and NSP trading periods.
9. All screen layouts and contents must be agreed with the Authority, and must not be changed without the Authority's consent.

Data Inputs:

- ICP Identifier.
- 'As at' date – defaulted to today's date.
- ICP history filters – event/switch type, with or without changes.
- Map display option.
- CSV file download option

Processing:

For the ICP identified, the system:

Finds and displays the attributes, derived attributes (summary data), historical information, notifications, reconciliation information and audit details of the ICP that were applicable on the "As at' date.

Data outputs:

Summary Data:

The following attributes and derived attributes are displayed:

ICP Identifier

'As at' Date

ICP planned service interruptions

ICP switch status derived attributes:

- Trader Switch
- MEP Switch

Status Event attributes

- Event Date
- ICP Status
- Status Reason

Address Event attributes

- Event Date
- Physical Address Unit
- Physical Address property Name
- Physical Address Number
- Physical Address Street
- Physical Address Suburb
- Physical Address Town

- Physical Address Region
- Physical Address Post Code

Network Event attributes

- Event Date
- Network participant Identifier
- POC
- Reconciliation Type
- Dedicated NSP
- Installation Type
- Unmetered Load Details – Distributor
- Shared ICP List
- Direct Billed Status

Pricing Event attributes

- Event Date
- Distributor Price category Code
- Chargeable Capacity
- Distributor Installation Details
- Distributor Loss Category Code

Trader Event attributes:

- Event Date
- Participant Identifier of Trader
- Proposed MEP
- Profile
- Unmetered Load Details for Trader
- ANZSIC
- Submission Type HHR
- Submission Type NHH

Metering Event attributes:

- Event Date
- MEP Participant Identifier
- HHR Flag
- NHH Flag

- PP Flag
- Meter Multiplier Flag
- Highest Metering Category
- Meter Channel Count

Metering Event derived attributes:

- C&I TOU
- AMI Comm
- AMI Non Comm
- Serial Numbers

ICP History and Audit Details:

Shows all events and switch transactions for a selected ICP. The information displayed for each is:

- Event Type
- Effective Date
- Input Date
- Input Time
- Audit Reference
- Input By Participant Identifier
- User's Participant Identifier
- Mode of input (screen or file)
- State of event (Active, Reversed or Replaced)

For reversed or replaced events the following extra information is shown:

- Reversal or Replacement date and time
- Audit reference
- Participant
- Input By Participant Identifier
- User's Participant Identifier
- Mode of input (screen or file)

View Details:

Shows a selected event or switch transaction's details either on screen or in CSV format - see ICP event maintenance and switching (sections 3.1 to 3.4) for formats. All CSV formatted details are downloadable.

Notifications:

Shows a selected event or switch transaction's notifications that were delivered, detailing:

- Notification Type
- Operation Type (input/reversal/replacement)
- Filename
- Date and time submitted

Reconciliation information:

Shows the periods of responsibility of reconciliation participant s of an ICP, identifying, per change of Trader, Network, POC Installation Type and Submission Type where the Status was ‘active’ with an Installation Types of 'Load' or 'Both':

- Start Date
- End Date
- Trader Participant Identifier
- Network Participant Identifier
- POC
- Installation Type
- Status
- Meter Type(s)

Shows an ICP’s NSP trading periods, identifying per change of Trader, NSP, Installation Type, Reconciliation Type and Profile:

- Start Date
- End Date
- Trader Participant Identifier
- Network Participant Identifier
- POC
- Installation Type
- Reconciliation Type
- Status
- Profiles

ICP Planned service interruptions:

Shows all current and impending planned service interruptions record for an ICP detailing:

- Distributor Event Number
- Feeder
- Communication Type Code
- Interruption start date(s) and time(s)

- Interruption end date(s) and time(s)
- Interruption alternative start date
- Date and time submitted
- Revision Reason
- URL for additional information

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Sub-process:	**QU-030 View static table information**
Process:	Make query online
Participants:	All users
Code references:	Clause 11.28 of the Code
Dependencies:	SD-010 to SD-040

Description:
A participant may request access to the registry. If the participant is granted access, the participant can view the static data tables online and download them, particularly the NSP mapping table, pricing categories and loss categories.

Business requirements:
1. Users require online and download facilities of all static table information. 2. For pricing categories and loss categories, the download should be selectable by Network Participant Identifier.

Processing:

Data inputs:
• Static table files.

Data outputs:
• Same format as input.

Sub-process:	**QU-040 View Registry Audit Data**
Process:	Online Queries
Participants:	Registry Manager, Authority, Participants
Code references:	None
Dependencies:	None
Criticality	Non core

Description:

A search and inquiry screen to allow a participant to view and download their own audit records. The Authority may view audit records for any Participant.

The audit information relates to the following types of activity:

Data Change

- Changes to pricing codes
- Changes to Loss Factor Codes, Price Category Codes, NSP Mapping and Static Data.

User Event

- User logon, logoff events, and logon access denied

Supervisor Event

- Supervisor modification to notification parameters
- Supervisor modification to switch notification parameters
- Supervisor modification to EIEP notification parameters
- Supervisor modification to email contact addresses

EIEP Event

- EIEP transfer receipts, deliveries, acknowledgements and notifications.

Administrator Event

- Administrator modifications to Non Contiguous NSP Mapping information
- Administrator modifications to Participant definitions
- Changes to email contact addresses on behalf of Participants

Business requirements:

1. A participant must only be able to view the audit information that relates to their own activity on the Registry.

2. The Authority and the administrator must be able to view audit information for any Participant.

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Data inputs:
A participant may perform an audit search using the criteria below. • Audit Type, Audit Activity, Audit Category • Participant and User • Date Range or most recent audits

Processing:
1. System displays the audit records that match the selection criteria entered.

Data outputs:	
Audit records which satisfy the selection criteria Download file in csv format	
Audit Type	Details
User Event	• Licenses available • Licences used
Data Change	Loss Factor Code: • Code • Description • Start Date • End Date • Network • Consumption • Generation • Start Period • End Period NSP Mapping • Owner • Network • POC • Balance Area • Network Type • Parent Network • Parent POC • Start Date • End Date • Active • Description • Start Period • End Period

	• SB ICP's Price Category Code • Code • Description • Start Date • End Date • Network Static Data • Code Type • Code • Description • Start Date • End Date
EIEP Event	• Sender • Recipient • Utility • File Type • Report Month • Report Date • Unique ID • File Name • Delivered As • File Size • Arrival Time • Error code
Supervisor Event	EIEP Parameters • Acknowledge receipt to sender by email • Acknowledge receipt to sender's inbox • Confirm successful transfer to sender by email • Confirm successful transfer to sender's inbox • Notify receipt file transfer by email • EIEP email contact address list Switch Notifications • Send at 08:00 • Send at 11:00 • Send at 15:00 • Send at 18:00 • Send immediately • Use separate files Email contact address (excluding EIEP) • Email address group • Email contact address list

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Administrator Event	Administrator Maintenance • Participant Code • Description • Industry Company • Participant Disabled Indicator Start Date • Stop Date • Network Indicator • Reconciliation Manager Indicator • Trader Indicator • Clearing Manager indicator • Market Surveyor Indicator • System Operator Indicator • Complaints Commission Indicator • Metering Equipment Provider Indicator • Suppress Trader EOM List Report indicator • Non-Reconciled Indicator • FTP Directory Name • Zip Files Indicator • Email contact address list NSP Mapping Non Contiguous Dates • NSP Network • NSP POC • NSP Network • Network Type

3.9 Maintaining static data

Sub-process:	**SD-010 Maintain NSP data**
Process:	Maintain static data
Participants:	Reconciliation Manager, participants
Code references:	Clauses 24 to 30 of Schedule 11.1 of the Code.
Dependencies:	

Description:

The Reconciliation Manager maintains the NSP information stored in the registry. The registry uses the information to validate the NSP identifier recorded as being connected to an ICP and to determine the Distributor on whose network the NSP is located.

Business requirements:

1. Entries in the NSP mapping table must have the following information:
    - owner** – Char 4 (Distributor code);
    - POC ** – Char 7;
    - network participant identifier** – Char 4;
    - registry NSP description – Char 32;
    - network type** – Char 1 (G—grid, E—embedded, I—interconnection point);
    - parent POC – Char 7 (blank if grid connected);
    - parent network – Char 4 (blank if grid connected);
    - balancing area** – Char 12;
    - start date** – date (DD/MM/YYYY);
    - start trading period** – Char 2;
    - end date – date (DD/MM/YYYY or blank);
    - end trading period – Char 2; and
    - ICP Identifier of SB ICP – Char 15.

    Each entry in the NSP table must be unique within the registry for the fields above shown marked with asterisks.

    Entries for the same owner, POC, network participant identifier, network type and balancing area must be for contiguous date/trading period date ranges (must have no gaps and no overlaps) unless they are identified as being able to be non-contiguous (can have gaps but no overlaps).

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2. The Reconciliation Manager must be able to insert, update, delete NSP mapping table information online and in batch mode and must be the only service provider able to do this.
3. The system must record audit information of changes.
4. An online facility must be provided for all users to view the NSP information, sorted by registry POC, registry network and start date.
5. The information held in the NSP table must be available for all users to download.
6. Registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.
7. The information must be able to be requested via SFTP by any participant.
8. The validation for an NSP may be lifted on request of the Authority to allow non-contiguous dates on the same NSP.

Non Contiguous Date Relaxation

NSP mapping validation does not allow non-contiguous dates however there are specific mappings that require this validation to be relaxed. To enable the rule relaxation the registry manager, under instruction from the Authority, will mark specific NSP's as being allowed to have non-contiguous active date ranges. The NSP mapping entries will be identified by unique keys advised by the Authority:

- NSP Owner
- POC
- Network Participant Identifier
- Network Type

9. On instruction from the Authority, the registry manager will update mapping entries permitted to exist with non-contiguous dates. Where the Reconciliation Manager submits an NSP Mapping table update either via SFTP or on-line the table of NSP mappings allowed non-contiguous date ranges will be referenced. If an NSP Mapping with the same unique keys is present in the non-contiguous table then a non-contiguous date range will be allowed, otherwise the update will be rejected as per existing rules.

Processing:

The system:

1. Validates all attributes and checks any dependencies.
2. Uses valid input lines to add new entries into the NSP mapping table and to update or delete existing ones, provided the action does not cause there to be any:
    - overlapping date ranges in the NSP mapping table,
    - gaps in date ranges in the NSP mapping table, unless the input line's NSP information is in the list of permitted non-contiguous NSPs,
    - deletions of NSP mapping table entries, if the NSP information has been used in an event.

    In these cases the input file is rejected.
3. Deletes an NSP mapping table entry where there is no matching input line, unless the NSP has been used in an event.
4. Updates an NSP mapping table entry where there is a matching input line that has at least one attribute containing different information.
5. Inserts an additional entry into the NSP mapping table where the input line does not match.
6. Adds an appropriate audit trail entry for each creation, update, and deletion.
7. Acknowledges every insertion, update, deletion, validation error and processing error. Also acknowledges duplicates (each input line that exactly matches an NSP mapping entry) that require no changes.

Data inputs:

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NSP mapping table maintenance file

Each entry in a file is comma separated.

Name	Type	Mandatory/ optional	Description
Record type	Char 3	M	Must be “DET”
NSP Owner	Char 4	M	Must be a valid participant code
POC	Char 7	M	Must be a valid POC
Network Participant Identifier	Char 4	M	Must be a valid participant code
NSP Description	Char 32	O	
Network Type	Char 1	M	G-grid, E-embedded, I-interconnection point
Parent POC	Char 7	O	Must be a valid POC
Parent Network	Char 4	O	Must be a valid participant code. Blank if grid connected
Balancing Area	Char 30	O	Must be <= 12 characters
Start Date	DD/MM/YYYY	M	Must be a valid date and can be in the future.
Start Trading Period	Numeric 2	M	1..48
End Date	DD/MM/YYYY	O	Must be valid date >= Start Date
End Trading Period	Numeric 2	O	1..48 If Start Date = End Date, then it must be >= Start Trading Period
ICP for NSP	Char 15	O	Valid ICP number

NSP mapping table non-contiguous NSP list

Name	Type	Mandatory/ optional	Description
NSP Owner	Char 4	M	Must be a valid participant code
POC	Char 7	M	Must be a valid POC
Network Participant Identifier	Char 4	M	Must be a valid participant code
Network Type	Char 1	M	G-grid, E-embedded, I-interconnection point

Data outputs:

Updated NSP mapping table

Audit trail entries

Acknowledgement file - the input file detail line with the following 2 fields appended to the end of each line:

Name	Type	Mandatory/ optional	Description
Maintenance Action	Char 1	O	One of: • Null – no action record not changed • C – record created • U – record updated • D – record deleted
Maintenance Code	Numeric	M	One of: • 995 – no action occurred on the input line • 000 - update processed successfully • error code

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Sub-process:	**SD-020 Maintain static data**
Process:	Maintain static data
Participants:	Registry Manager
Code references:	Clauses 19 to 22 of Schedule 11.3 of the Code.
Dependencies:	

Description:

All the codes and identifiers used in the registry are maintained by the registry manager. The registry manager receives instructions regarding the maintenance of these codes and identifiers from the Authority, which approves all new codes and identifiers. The types of codes and identifiers to be maintained and their purposes are as follows:

- Participant identifiers and the roles of each participant (4 characters) – valid Trader, Metering Equipment Providers, Approved Test Houses and Distributor Participant Identifiers, their full company names and their roles.
- Event types (3 characters) – used to validate events.
- Profiles (3 characters) – general list of all Profiles that can be used in the system.
- Profiles available to individual Traders during specific periods.
- Regions (15 characters) – used to validate the regions that can be used in addresses. The current regions are:
    - Auckland;
    - Bay of Plenty;
    - Canterbury;
    - Gisborne;
    - Hawke's Bay;
    - Manawatu;
    - Marlborough;
    - Nelson & Bays;
    - Northland;
    - Otago;
    - Southland;
    - Taranaki;
    - Timaru & Oamaru;
    - Waikato;
    - Wairarapa;
    - Wanganui;
    - Wellington; and
    - West Coast.
- Event Status codes (three digits numeric) – used to validate Status events.
- Status Reason codes (two digits numeric) – used to validate the Status Reason in Status events:

The current reasons associated with a decommissioned Status are:

01—setup in error;

02—installation dismantled; and

03—ICP amalgamation.

The current reasons associated with an inactive Status are:

04— electrically disconnected vacant property;

05—reconciled elsewhere;

06— electrically disconnected ready for decommissioning;

07— electrically disconnected remotely by AMI meter;

08— electrically disconnected at pole fuse;

09— electrically disconnected due to meter disconnected;

10— electrically disconnected at meter box fuse; and

11— electrically disconnected at meter box switch and

12 – New connection in progress

- NT switch types (two characters) – used to validate NT switching protocol messages: S, SM, H, HM, NH, HN, HH, MI and TR. S, SM, H, HM, NH, HN will be discontinued after migration but will remain in historical records.
- Additional NT switch types for a Trader Default situation –T<n> (where <n> is A, B, etc for ICPs allocated during tender 1, 2, etc) and MA (ICPs allocated during mandatory assignment). The Trader Default switch types must only be used by the Registry Manager during a Trader Default switching process
- Meter channel, TN/NC and CS/RR register content codes (four characters) – used to validate metering channel updates, TN, NC, CS and RR switching protocol messages (see below).
- TN/NC and CS/RR register units (five characters) – valid values for TN, NC, CS and RR messages: kWh, kW, kVA, kVArh.
- TN/NC and CS/RR meter location codes – valid values for use in TN, NC, CS and RR messages (see below).
- AN response codes and MN advisory codes (two characters) – used to validate AN and MN switching protocol messages (see below).
- NW withdrawal advisory codes (two characters) – used to validate NW switching protocol messages (see below).
- AW/AC withdrawal response codes (one character) – used to validate AW and AC switching protocol messages: A—accept, R—reject.
- Fuel Type codes (char 15) and Description (char 100):

  bio-mass - bio-mass (includes wastes and residues);

vehcle-V2G – electric vehicle (includes fuel cells) exporting through a vehicle-to-grid configuration
fresh water - fresh water (includes stored, pumped and run of river);
geothermal - geothermal;
industrial proc - industrial process (includes heat, excludes bio-mass);
liquid fuel - liquid fuel (includes diesel, petrol and fuel oil);
natural gas -natural gas;
solar - solar;
solar+battery - solar PV generation and a battery
standalone batt - battery only excludes EV batteries in a vehicle to grid configuration
tidal - tidal;
wave - wave;
wind - wind;
wind+battery - wind turbine and a battery
other - includes any process that doesn't fit neatly into another category, includes multiple generators of different fuel types; and
undefined - this code exists only to support the creation of the fuel type field and cannot be selected by distributors.

- ANZSIC codes with an additional code "000000" to indicate a residential consumer. A table of :

  ANZSIC Code (char 7)

  Description (char 120)

- Direct Billed Status codes (char 11). A table of 'Retailer', 'Distributor', 'Neither', 'Both', 'TBA' and NULL.
- Reconciliation Type codes (2 characters). Used to validate the Reconciliation Type in Network events. For a list of valid codes see the description of this attribute in section 1.4.
- Installation Type codes (1 character). Used to validate the Installation Type in Network events. For a list of valid codes see the description of this attribute in section 1.4.
- Metering Installation Type codes (3 characters). Used to validate the Metering Installation Type in the Metering Installation level of Metering events. For a list of valid codes see the description of this attribute in section 1.4.
- Certification Type codes (1 character). Used to validate the Certification Type in the Metering Installation level of Metering events. For a list of valid codes see the description of this attribute in section 1.4.
- Certification Variation codes (1 character). Used to validate the Certification Variations in the Metering Installation level of Metering events. For a list of valid codes see the description of this attribute in section 1.4.
- Component Type codes (1 character). Used to validate the Metering Component Type in the Metering Component level of Metering events. For a list of valid codes see the description of this attribute in section 1.4.11.

- Trader Default minimum tariff (numeric 6.6). Used during a Trader Default situation. Compared against the tariff supplied by a Trader tendering for ICPs. An unrealistic tariff could inadvertently cause a recipient Trader to receive ICP's that may cause hardship. The minimum tariff is set by the Authority and is in c/kWh
- Switch Saving Participant register. Used to record traders that have elected to have or cancel the switch saving protection scheme. Register includes trader name, participant identifier, start date, and end date (discontinued).
- Compensation Factors. Contains a list of known, commonly used Compensation Factors where Metering Component Type is M (metered). Only used in audit compliance reporting.
- Trader Default Exclusion Code (3 characters). Describes the reason why a Trader is unable to accept a mandatory assignment of ICPs.
- EIEP File Types (7 characters). Used to identify EIEP Transfer Permissions (EI-040). The EIEP file must indicate whether it is transferred to the recipients batch directory for further processing
- Reserved Entity Codes a code value that may not be used as an entry on a static data table, for example, a Distributor may not use DEF or DRL as a Distributor Loss Factor Code
- Planned Outage Communication Codes (3 characters). Used to identify the type of planned outage information; that is, a new outage, revision, or cancellation of an existing planned outage

Business requirements:

1. Only the registry manager must be able to add, modify or delete codes.
2. Each code and identifier must have an effective start date and end date associated with it and a full description.
3. The registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.

Processing:

Data inputs:

- New or changed information for each table.

Data outputs:

- Updated static data tables.

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Current valid codes

AN response codes

Code	Description	Explanation of use
AA	Acknowledge and accept	Switch is accepted; there are no relevant issues.
CO	Contracted customer	Alerts that this customer has a fixed-term contract at the ICP. The current Trader may be contacting this customer, relative to a switch.
MP	Metering is pre-paid	Alerts that meter is pre-paid.
MU	Unmetered supply	Alerts supply is unmetered.
OC	Occupied premises	Advises that the existing customer has not yet advised they are moving out. The premises are occupied.
PD	Premises electrically disconnected	Alerts that this site is electrically disconnected.
AD	Advanced Metering Infrastructure metering infrastructure	Alerts that meter is an advanced meter.

NW withdrawal advisory codes

Code	Description	Status	Explanation of use
CR	Customer requests cancellation	*Discontinued	Customer has changed their mind and wishes to cancel.
IN	Invalid ICP Status	Active	Site is in the process of being decommissioned.
UA	Unauthorised switch	Active	Account holder did not authorise switch request.
WS	Wrong switch type	Active	Switch notification received is being withdrawn.
MI	Withdrawn on metering issue	Active	Gaining Trader requests withdrawal because of metering issue.
WP	Wrong premises	Active	The wrong premises have or are being switched (due to the Trader's error).
DF	Date failed	Active	RTD (requested transfer date) greater than 10 business days in the future.

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WR	Losing Trader not current Trader	Active	Withdrawn, as the losing Trader is not the current Trader for the ICP. ICP has been switched to another Trader and the registry has not been updated to reflect that switch.
MG	Temporary withdrawal code	Active	Used only during transition to indicate that the switch was withdrawn due to transition requirements.
CE	Customer error	Active	Customer cancels the switch because the original switch request was an error (e.g. customer provides incorrect information)
CX	Customer cancellation	Active	Customer cancels the switch for a reason other than that in CE (e.g. the customer changes their mind)
TD	Trader Default	Active	Switch withdrawn as Trader is in a Trader Default situation. Reserved for system use.

*Discontinued: history is still available to view and report on

Register Content codes

The register content codes use the standard convention, in the following order:

1. season – e.g. ‘S’ or ‘SR’ (summer), ‘W’ or ‘WR’ (winter)
2. day of week – e.g. WD (weekday), WE (weekend)
3. time of day – e.g. PK (peak), OP (off-peak), SH (shoulder)
4. type of load – e.g. CN (controlled), IN (inclusive, combination of controlled and uncontrolled load), UN (uncontrolled).

In the below table, where a “Status” cell covers multiple register content code rows, the register content codes must be used together at the same metering installation

Register content code	Description	Status	Comments
AD	kVA demand - kVA MDI	Approved for use	
AH	kVAh - cumulative kVA channel	Approved for use	

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Register content code	Description	Status	Comments
CN	Controlled - all load on the channel is subject to control by the distributor at any time via a load control device.	Grandfathered	Use of CN is grandfathered for fully controlled at fixed times, night only and night boost metering installations (for example CN8 and CN11) until the next recertification. All new and recertified night only and night boost metering installations to use NO or NB (as appropriate)
D	Day – may only be used with N. Daytime of an uncontrolled 2-channel day/night meter, switched between channels at fixed times via an internal time clock or external signal.	Approved for use. Grandfathered where N is used on its own.	Day/Night uncontrolled Use of N on its own is grandfathered for fully controlled at fixed times, night only and night boost metering installations (for example N8 and N11) until the next recertification. All new and recertified night only and night boost metering installations to use NO or NB (as appropriate).
N	Night – may only be used with D. Night-time of an uncontrolled 2-channel day/night meter, switched between channels at fixed times via an internal time clock or external signal.		
DC	Day Controlled – may only be used with NC. Daytime of a 2-channel day/night meter switched between channels at fixed times via an internal time clock or external signal. All metered load is subject to control at any time via a load control device, and consumption is separately recorded for the day and night periods.	Approved for use	Day/Night controlled

Register content code	Description	Status	Comments
NC	Night Controlled – may only be used with DC. Night-time of a 2-channel day/night meter switched between channels at fixed times via an internal time clock or external signal. All metered load is subject to control at any time via a load control device, and consumption is separately recorded for the day and night periods.		
DIN	Day Inclusive – may only be used with NIN. Day time of a 2-channel day/night meter, switched between channels at fixed times via an internal time clock or external signal. All metered load on the channel is a combination of controlled and uncontrolled loads.	Approved for use	Day/Night inclusive
NIN	Night Inclusive – may only be used with DIN. Night-time of a 2-channel day/night meter, switched between channels at fixed times via an internal time clock or external signal. All metered load on the channel is a combination of controlled and uncontrolled loads.		
DOP	Triple Saver Off-Peak (11:00-17:00, 21:00-23:00)	Grandfathered	Use of this combination is grandfathered for existing metering installations until the next recertification Use generic codes for all new or recertified metering installations
DPK	Triple Saver Peak (07:00-11:00, 17:00-21:00)		
N	Night 23:00-07:00		
EG	Embedded Generation	Approved for use	

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Register content code	Description	Status	Comments
IN	Inclusive - load on the channel is a combination of controlled and uncontrolled loads	Approved for use	
INEM	Emergency - load on the channel is a combination of load controlled only in an emergency and uncontrolled load	Approved for use	
KD	kW demand - kW MDI	Approved for use	
NB	Night Boost - for a single channel meter, where the load is switched on/off at fixed times during the night period and a boost period during day via a load control device	Approved for use	
NO	Night Only - for a single channel meter, where the load is switched on/off at fixed times for the night period via a load control device	Approved for use	
OP	Off-peak	Approved for use	Use PK/OP for 2-channel peak/off-peak and PK/OP/SH for 3- channel peak/off-peak/shoulder metering configurations
PK	Peak		
SH	Shoulder		
RH	kVArh - reactive meter register	Approved for use	
SL	Metered streetlights. Only applies to NHH meter channels used for streetlights.	Approved for use	
S	Summer - records consumption during summer	Approved for use	Summer/winter
W	Winter - records consumption during winter		

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Register content code	Description	Status	Comments
SENW	Weekday night (Monday – Friday 21:00 - 07:00); and all weekend (Friday 21:00 - Monday 07:00)	Grandfathered	Use of these codes is grandfathered for existing metering installations until the next recertification. Use generic codes for all new or recertified metering installations
SEOP	Off-peak (Monday - Friday 11:00 - 17:00; and 19:30 - 21:00)		
SEPK	Peak (Monday - Friday 07:00 - 11:00; and 17:00 - 19:30)		
SRD	Summer Day – Records day consumption during summer	Approved for use	Summer/winter day/night
SRN	Summer Night – Records night consumption during summer		
WRD	Winter Day – Records day consumption during winter		
WRN	Winter Night – Records night consumption during winter		
SWD	Summer Weekday - records consumption during summer weekdays	Approved for use	Summer/winter weekday/weekends
SWE	Summer Weekend - records consumption during summer weekends		
WWD	Winter Weekday - records consumption during winter weekdays		
WWE	Winter Weekend - records consumption during winter weekends		
SWDD	Summer Weekday Day - records day consumption during summer weekdays	Approved for use	Summer/winter weekday/weekend day/night

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Register content code	Description	Status	Comments
SWDN	Summer Weekday Night - records night consumption during summer weekdays		
SWED	Summer Weekend Day - records day consumption during summer weekends		
SWEN	Summer Weekend Night - records night consumption during summer weekends		
WWDD	Winter Weekday Day - records day consumption during winter weekdays		
WWDN	Winter Weekday Night - records night consumption during winter weekdays		
WWED	Winter Weekend Day - records day consumption during winter weekends		
WWEN	Winter Weekend Night - records night consumption during winter weekends		
SWDPK	Standard 3 Rate Summer Weekday Peak (07:00-11:00, 17:00-21:00)	Grandfathered	Use of this combination of codes is grandfathered for existing metering installations until the ICPs are moved from the closed price category to a different price category or the combination is no longer required.
WDOP	Standard 3 Rate Weekday Off-peak (11:00-17:00, 21:00-23:00) & Weekend Off-peak (07:00-23:00)		
WWDPK	Standard 3 Rate Winter Weekday Peak (07:00-11:00, 17:00-21:00)		
N	Night 23:00-07:00		

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Register content code	Description	Status	Comments
UN	Uncontrolled - no load on the channel is subject to control via a load control device	Approved for use	
WD	Weekday - records consumption during weekdays	Approved for use	Weekday/weekend
WE	Weekend - records consumption during weekends		
WDD	Weekday Day (Mon-Fri). Must be used with WED and may be used with other register content codes for the night period. Records day consumption during weekdays. Non-seasonal equivalents of SWDD and WWDD (Summer and Winter weekday daytime).	Approved for use	Weekday/weekend day May be used with other codes for night periods.
WED	Weekend Day. Must be used with WDD and may be used with other register content codes for the night period. Records day consumption during weekends. Non-seasonal equivalents of SWED and WWED (Summer and Winter weekend daytime).		
OPKOOB	Weekdays 11:00 - 17:00, 21:00 - 7:00 & Weekend 24 Hours. Must be used with PKOOB.	Grandfathered	Use of these codes is grandfathered for existing metering installations until the next recertification. Use generic codes for all new or recertified metering installations.
PKOOB	Weekdays 07:00 - 11:00 & 17:00 - 21:00. Must be used with OPKOOB.		

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Register content code	Description	Status	Comments
OPKOOC	Any day 22:00 - 07:00. Must be used with PKOOC and SPKOOC.	Grandfathered	Use of these codes is grandfathered for existing metering installations until the next recertification. Use generic codes for all new or recertified metering installations.
PKOOC	Weekdays 07:00 - 09:30 & 17:30 - 20:00. Must be used with OPKOOC and SPKOOC.		
SPKOOC	Weekdays 09:30 - 17:30, 20:00 - 22:00 & weekend 07:00 - 22:00. Must be used with OPKOOC and PKOOC.		
7302	30 minute recorded channel kVAh	Approved for use	
7304	30 minute recorded channel kWh	Approved for use	
7306	30 minute recorded channel kVArh	Approved for use	
7052	5 minute recorded channel kVAh	Approved for use	
7054	5 minute recorded channel kWh	Approved for use	
7056	5 minute recorded channel kVArh	Approved for use	
Discontinued register content codes			
DWD	Day of week days (7:00am-9:00pm)	Discontinued	
NWD	Night of week days (9:00pm-7:00am)	Discontinued	
OPKOOA	Any Day 22:00 - 06:00, part of a three register tariff. Must be used with PKOOA and SPKOOA. Period of availability must be 8 hours	Discontinued	
PKOOA	Weekdays 07:30 - 09:30 & 17:30 - 19:30, part of a three register tariff. Must be used with OPKOOA and SPKOOA. Period of availability must be 4 hours	Discontinued	

Register content code	Description	Status	Comments
SPKOOA	Weekdays 06:00 - 07:30, 09:30 - 17:30, 19:30 - 22:00 & Weekend 06:00 - 22:00, part of a three register tariff. Must be used with OPKOOA and PKOOA. Period of availability must be 12 hours	Discontinued	
OPKOOD	Any Day 23:00 - 07:00, part of a three register tariff: • must be used with either: – PKOOD and SPKOOD; or – PKOOE and SPKOOE period of availability must be 8 hours.	Discontinued	
PKOOD	Any day 07:00 - 09:30 & 17:30 - 20:00, part of a three register tariff: • must be used with OPKOOD and SPKOOD period of availability must be 5 hours.	Discontinued	
SPKOOD	Any day 09:30 - 17:30, 20:00 - 23:00, part of a three register tariff: • must be used with OPKOOD and PKOOD period of availability must be 11 hours.	Discontinued	
OPKOOD	Any Day 23:00 - 07:00, part of a three register tariff: • must be used with PKOOE and SPKOOE period of availability must be 8 hours.	Discontinued	

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Register content code	Description	Status	Comments
PKOOE	Any day 07:00 - 10:00 & 16:00 - 21:00, part of a three register tariff: • must be used with OPKOOD and SPKOOE period of availability must be 8 hours.	Discontinued	
SPKOOE	Any day 10:00 - 16:00, 21:00 - 23:00, part of a three register tariff: • must be used with OPKOOD and PKOOE period of availability must be 8 hours.	Discontinued	

Meter Location Codes

Code	Description	Code	Description	Code	Description
0	No ML code	**FD**	FRONT DOOR	**IL**	INSIDE LIVING ROOM
BA	BASEMENT	**FF**	FIRST FLOOR	**IM**	IN MONTROSE BOX
BD	BACK DOOR	**FG**	FRONT GATE	**IN**	INSIDE
BG	BACK OF GARAGE	**FO**	FOYER	**INP**	IN PORCH
BO	BOILER ROOM	**FP**	FRONT PORCH	**IO**	INSIDE OFFICE
BP	BACK PORCH	**FS**	IMPLMENT SHED	**IP**	IN PUMP SHED
BR	IN BEDROOM	**FW**	FRONT WALL	**IR**	INSIDE REAR
BS	BACK OF SHED	**GF**	GROUND FLOOR	**IS**	INSIDE STORE
BW	BACK WALL	**GH**	GLASS HOUSE	**ISD**	IN SHED
CM	CENTRAL MTR	**GO**	GO TO OFFICE	**IT**	IN TRANSFORMER
CP	CAR PORT	**GW**	GARAGE WALL	**IW**	IN WORKSHOP
CS	DAIRY SHED	**IB**	INSIDE BACK DOOR	**LA**	LAUNDRY
CT	CELL TOWER	**IC**	INSIDE IN CUPBOARD	**LB**	LEFT BACK
DE	INST DISCON@ POLE	**ID**	IN DINING ROOM	**LF**	LEFT ON FRONT
DR	DRIVEWAY SIDE	**IF**	INSIDE FRONT DOOR	**LG**	LH ON GARAGE
DS	DEER SHED	**IG**	INSIDE GARAGE	**LP**	LEFT PORCH
FB	UNDER FRONT BALCO	**IH**	INSIDE HALL	**LR**	IN LUNCH ROOM
FC	FW OF GARAGE	**IK**	INSIDE KITCHEN	**LS**	LEFT SHED

Code	Description	Code	Description	Code	Description
LW	LEFT WALL	**PB**	POLE BOX	**RW**	RIGHT WALL
MC	IN CUBICLE	**PD**	PUMP IN OLD DAIRY	**SA**	SAME
ME	MAIN ENTRANCE	**PF**	PLYNTH ON FENCE	**SB**	STABLE
ML	MULTIPLE LOCATION	**PL**	IN PLYNTH	**SH**	SHED
MM	MOTOR ROOM	**PM**	PUMP	**SQ**	SHEARERS QUARTERS
MR	UP RIGHT OF WAY	**PS**	PACKSHED	**SR**	IN SWITCH ROOM
MT	IN MEN'S TOILET	**RB**	RIGHT BACK	**SS**	WOOL SHED
MX	METER ROOM	**RF**	RH ON FRONT	**ST**	SUB STATION
NM	NOT METERED	**RG**	RH ON GARAGE	**TR**	TRANSFORMER RM
OC	OUTSIDE CUPBOARD	**RM**	REMOTE METER	**TS**	IN TEMP SUP BOX
OF	ON FENCE	**RO**	REAR OF OFFICE	**UP**	UPSTAIRS
OH	ON HOUSE	**RP**	RIGHT PORCH	**US**	UNDER STAIRWAY
OM	ON MONTROSE BOX	**RS**	REAR SHED	**UT**	UNDER TREE
OMB	ON MAIN SW/BOARD	**RT**	READ THRU WINDOW	**WH**	WHISPER CABINET
OP	ON PUMP SHED	**RU**	ON REAR UNIT	**WS**	WORKSHOP

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Trader Default Exclusion Codes

Code	Description	Explanation of use
DIA	Distributor Agreement	There is no arrangement in place with the Distributor to trade on that NSP, Trader only offers spot price
FV	Financial Viability	Obtaining responsibility for ICP's may pose a serious threat to financial viability
MTR	Meter Types	The Trader is unable to trade against the Meter Type
PC	Price Category Codes	The Trader is unable to trade against the Distributor Price Code category
MC	Meter Category	The Trader is unable to trade against the Meter Category
INT	Installation Type	The Trader is unable to trade against this installation Type
OTH	Other	Used where other codes do not cover a specific situation where a Trader cannot gain ICP's

EIEP File Type Codes

Code	Description	Explanation of use
EIEP1	Detailed ICP billing and volume information	EIEP1 allows: a) traders to provide billing and volume information to distributors at an ICP level to enable distributors to invoice fixed and variable network charges, meet the distributor's network planning pricing design, and regulatory information, and provide information to the extended reserve manager. b) distributors to provide information to traders to support their invoices for network charges, and to enable traders to reconcile the network charges at detailed level.

Code	Description	Explanation of use
ICPHHAB	Detailed ICP billing and volume information ICPHHAB	File type ICPHHAB provides ICP level 'as billed data' for HHR ICPs billed in previous period
ICPMMAB	Detailed ICP billing and volume information ICPMMAB	File type ICPMMAB provides ICP level 'as billed' data summed at meter channel delivery price level for NHH ICPs.
ICPMMNM	Detailed ICP billing and volume information ICPMMNM	File type ICPMMNM provides 'incremental as billed normalised' ICP level data summed at meter channel delivery price level.
ICPMMRM	Detailed ICP billing and volume information ICPMMRM	File type ICPMMRM provides 'replacement RM normalised' ICP-level data summed at meter channel delivery price level that aligns with the volume information submitted to the reconciliation manager reporting.
ICPMMSP	Detailed ICP billing and volume information ICPMMSP	File type ICPMMSP provides 'incremental RM normalised' ICP level data summed at meter channel delivery price level that aligns in aggregate with the volume information submitted to the reconciliation manager for the relevant initial reconciliation (month 0). In addition, it also reflects incremental changes in volume information submitted to the reconciliation manager for the latest reconciliation revision cycle (months 1, 3, 7 and 14) and any other special reconciliations if directed by the Authority.

Compensation Factors

Compensation Factor	Compensation Factor (continued)
1	1000
10	1200
15	1500
20	2000

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Compensation Factor	Compensation Factor (continued)
30	2400
40	3000
50	3600
60	4000
80	6000
100	7500
120	8000
160	9000
200	10000
240	12000
300	16000
320	20000
360	30000
400	40000
500	90000
600	120000
640	125000
800	180000

Participant Role Types

Code	Description
3PP	Third Part Provider
ATH	Approved Test House
CC	Complaints Commission
CM	Clearing Manager
EA	Electricity Authority
MEO	Meter Equipment Owner
MEP	Meter Equipment Provider
NET	Network
PA	Participant Agent
RA	Registry Administrator
RET	Retailer
RM	Reconciliation Manager
SO	System operator
VO	View Only

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Reserved Entity Codes

Static Data Table Name	Reserved Value
Distributor Loss Factor Code	DEF
Distributor Loss Factor Code	DRL

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Sub-process:	**SD-030 Maintain Distributor Loss Category Codes**
Process:	Maintain static data
Participants:	Distributors
Code references:	Clause 22 of Schedule 11.1 of the Code.
Dependencies:	SD-030

Description:

Each Distributor must update their own loss factor codes for Distributor Loss Category Codes entered on the table in the registry.

'Distributors' include local network owners, embedded network owners and grid-connected generators.

Business requirements:

1. Only Distributors must be able to maintain Loss Category codes and only in respect of codes that they own.
2. It should be possible to update codes both online and in batch mode.
3. A Loss Category Code must not be a reserved entity code.
4. A Loss Category Code must have no more than two loss factors in a calendar month. This means that loss factors must apply to the whole month (there can be no changes to the loss factors partway through a month), but there can be two records applicable to the month for different sets of trading periods, ie day and night.
5. Each Loss Category Code must be associated with a date range, consisting of one or more complete calendar months, during which its loss factor applies.
6. There must be only one Loss Category Code associated with any date range, and date ranges must not overlap.
7. The combination of Distributor code, Loss category Code, start date and start period must be unique.
8. Only Loss Category Code information relating to a future date range may be modified.
9. Each Loss Category Code must cover a range of trading periods so that every trading period has a single applicable loss factor. (For example, there could be different factors applied to day and night.)
10. Each participant must be able to view and download the complete Loss Category Code table on the registry online.
11. The table entry relating to a Loss Category Code may only be deleted if it has never been used against an ICP.
12. The registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.

NB: It must be noted that a trading period of 48 indicates the end of day. Users are to make their own appropriate adjustments for Daylight Saving.

Example of Loss Factor Code changes over time showing how the Start Period and End Period is to be applied:

Network	Loss Categoryc ode	Loss factor consump-tion	Loss factor genera-tion	Start date	End date	Start period	End period
NELS	N5	1.0490	1.0000	01/04/04		1	48
NELS	N6	1.0300	1.0000	01/04/04	31/05/05	1	48
NELS	N6	1.0300	1.0000	01/06/05		1	48
ORON	WGL	1.0470	.9530	01/10/03	31/03/04	1	15
ORON	WGL	1.0520	1.0000	01/10/03	31/03/04	16	48
ORON	WGL	1.0550	1.0000	01/04/04	30/09/04	1	15
ORON	WGL	1.0610	1.0000	01/04/04	30/09/04	16	48
ORON	WGL	1.0470	1.0000	01/10/04		1	15
ORON	WGL	1.0520	1.0000	01/10/04		16	48

Processing:

System

Validates all attributes and checks any dependencies.

Updates the Loss Category Code table in the registry accordingly.

Generates notifications to all Traders who are responsible for ICPs that have been assigned the affected loss factor code.

Data inputs:

Each attribute on an output line is comma separated.

New or modified loss category code information.

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Attributes input	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Network Participant Identifier	Char 4	M	Valid Participant Identifier for Distributor.
Distributor Loss Category Code	Char 7	M	
Loss factor consumption	Numeric 1.4	M	May be modified only if the start date is in the future. Maximum Loss Factor Consumption that may be supplied is 9.9999
Loss factor generation	Numeric 1.4	O	May be modified only if the start date is in the future. Maximum Loss Factor Generation that may be supplied is 9.9999
Start date	DD/MM/YYYY	M	May be modified only if in the future.
End date	DD/MM/YYYY	O	If missing, denotes that loss factors are valid until further notice. May only be modified when missing or in the future, and cannot be changed to a date in the past.
Start period	Numeric 2 (1 to 48)	O	Defaults to 1.
End period	Numeric 2 (1 to 48)	O	Defaults to 48. If < start period then the duration indicated ends on the following day, ie goes over midnight.

Example
HDR,RQMAINTLF,NETA,RGST,27/03/2008,14:01:01,1, LF factors
DET,NETA,LFCA,1.1234,0.9876,01/05/2008,,1,48

Data outputs:

- Updated distributor loss category code table.
- Audit trail.
- Notifications sent to all Traders who are responsible for ICPs that have been assigned the affected distributor loss category code. This file output is shared with notifications of Distributor Price Category Code changes (SD-040). It is different from the notification file described in NP-030) .
- For consistency the Distributor Loss Category Code table acknowledgements use the same output format as NP-010 but the code and Start Date are included in place of the ICP identifier and the Event Date respectively.

Notification file format “NON”:

Attributes input	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	“DET”
Notification Type	Char 2	M	“LF”
Network Participant Identifier	Char 4	M	
Distributor Loss Category Code	Char 7	M	
Loss factor consumption	Numeric 1.4	M	
Loss factor generation	Numeric 1.4	O	
Start date	DD/MM/YYYY	M	
End date	DD/MM/YYYY	O	
Start period	Numeric 2 (1 to 48)	M	
End period	Numeric 2 (1 to 48)	M	
Date and time of last change	DD/MM/YYYY HH:MM:SS	M	Date and time when information was last updated or inserted.

Example:
HDR,RSOTHERNT,RGST,RETA,05/04/2012,01:36:15,00000001
DET,LF,NETA,LFC0001,1.045,1.070,04/04/2012,03/04/2012,1,48,10/07/2010 12:15:03

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Sub-process:	**SD-040 Maintain Distributor Price Category Codes**
Process:	Maintain static data
Participants:	Distributors, participants
Code references:	Clause 23 of Schedule 11.1 of the Code.
Dependencies:	

Description:

Each Distributor must update their own Distributor Price Category Codes entered on the table in the registry.

Business requirements:

1. Only Distributors must be able to update Distributor Price Category Codes and only in respect of codes that they own.
2. It should be possible to update codes both online and in batch mode.
3. A Distributor Price Category Code must be included on the table in respect of all periods for which an ICP has the Distributor Price Category Code assigned to it.
4. Each Distributor Price Category Code must be associated with a date range.
5. There must be only one Distributor Price Category Code associated with any date range, and date ranges must not overlap.
6. The combination of Distributor Participant Identifier, Distributor Price Category Code and start date must be unique.
7. Each participant must be able to view and download the complete loss factor code table on the registry online.
8. A table entry relating to a Distributor Price Category Code may only be deleted if it the Code has never been assigned to an ICP.
9. The registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.
10. The information must be able to be requested via SFTP by any participant.

Processing:

System:

1. Validates all attributes and checks any dependencies.
2. Updates the Distributor Price Category Code table in the registry accordingly.

3. Generates notifications to all Traders who are responsible for ICPs that have been assigned the relevant Distributor Price Category Code.

Data inputs:

Each attribute on an output line is comma separated.

New or modified Distributor Price Category Code information.

Name	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	"DET"
Network Participant Identifier	Char 4	M	Valid Participant Identifier for Distributor.
Distributor Price Category Code	Char 15	M	
Effective start date	DD/MM/YYYY	M	May be modified only if in the future.
Effective end date	DD/MM/YYYY	O	If missing, denotes that pricing factors are valid until further notice. May be modified: • Where no end date currently exists the supplied end date is future dated relative to today; or • Where an end date does exist the supplied end date is future dated relative to the existing end date
Distributor Price Category Code description	Char 32	O	

Example
HDR,RQPRICECAT,RETA,RGST,03/08/2011,14:27:05,1,Price Category Updates
DET,NETA,PRCAT99,01/04/2013,,High Value Category

Data outputs:

Updated Distributor Price Category Code table.
Audit trail.
Notifications sent to all Traders who are responsible for ICPs that have been assigned the affected Distributor Price Category. This file output is shared with notifications of Distributor Loss Category Code changes (SD-030). It is different from the notification file described in NP-030).
Acknowledgements. For consistency, Distributor Price Category Code table acknowledgements use the same output format as NP-010 but the code and Start Date are included in place of the ICP identifier and the Event Date respectively.

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Notification file format “NON”:

Attributes input	Format	Mandatory/ optional	Comments
Record Type	Char 3	M	“DET”
Notification Type	Char 2	M	“PC”
Network Participant Identifier	Char 4	M	
Distributor Price Category Code	Char 15	M	
Distributor Price Category description	Char 32	O	
Effective start date	DD/MM/YYYY	M	
Effective end date	DD/MM/YYYY	O	
Date and time of last change	DD/MM/YYYY HH:MM:SS	M	Date and time when information was last updated or inserted.

Example:
HDR,RSOTHERNT,RGST,RETA,05/04/2012,01:36:15,00000001
DET,PC,NETA,PRC0001,PriceCategoryCode1,12/07/2011,12/07/2012,10/07/2010 12:15:03

Sub-process:	**SD-050 Maintain email groups**
Process:	Maintain static data
Participants:	Distributors, Traders, MEP, Registry Manager
Code references:	None
Dependencies:	SD-020
Criticality	Non core

Description:

The Registry Manager, on instruction from the Authority, will define new email groups.

The list of Email contact addresses in an email group is maintained by a Participant's supervisor user (or a user nominated by the supervisor).

An inquiry screen allows participant users to view and download their own email contact address list for each email group.

The Registry Manager and Authority, via the administration or web application, may view and download email contacts address lists for any participant.

In addition, the Registry Manager may perform maintenance of email contact address lists on behalf of a Participant by inputting contact address details via the administration or web application, or by importing a file containing contact address details for an email group for multiple participants using the administration application.

Business requirements:

1. A Participant must be able only to view and download their own company's email contact address list for each email group
2. A Participant supervisor (or a user nominated by the supervisor) must be able to maintain their own company's email contact address lists for all email groups.
3. The Registry Manager must be able to maintain email contact address lists on behalf of a Participant via the administration or web application.
4. The Registry Manager must be able to import a batch file of email contact address lists via the administration application.
5. The Authority and Registry Manager must be able to view email contact address lists for any Participant.
6. The Authority and Registry Manager must be able to download email contact address lists.
7. The Registry Manager, on instruction from the Authority, must be able to create or delete email contact groups. An email group must not be removed if any Participant has an email contact address list in that group.

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8. The Registry must maintain an audit trail of changes to email groups and email contact address lists.

Data inputs:			
New or changed email addresses:			
Attributes input	**Format**	**Mandatory /optional**	**Comments**
Email Group name	Char 50	M	Valid Email Group name already known to the Registry.
Email Contact Address List	Char Max	O	Semi colon space delimited email contact addresses, for example • nrgSupervisor@myNRG.com; helpdesk@myNRG.com
New or changed email group:			
Attributes input	**Format**	**Mandatory /optional**	**Comments**
Email Group Name	Char 50	M	Email Group name, for example: • Trader Default • EIEP • EIEP13A (EIEP13B, EIEP13C) • Metering Alerts
Email Group Description	Char 120	M	Free format description of the email group
Email Import batch file:			
Attributes input	**Format**	**Mandatory /optional**	**Comments**
File header:			
Email Group Heading	Char 11	M	“Email Group”

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Email Group Identifier	Char 50	M	Identifies the email group against which the participant email contact addresses will be loaded. Must be a valid Email Group. A file containing no Email group or an invalid Email group is treated as a fatal error and the import aborted.
File detail:			
Participant	Char 4	M	Participant Identifier. Must be a valid participant identifier; else the import line is reported as in error.
Email Contact Address List	Char Max	O	Semi colon space separated email addresses. If the field contains “Removal” the participant’s existing email contact addresses are removed otherwise the email addresses themselves are not validated. If no email addresses are supplied, any existing email addresses for the Participant are left unchanged.
File example: Email Group,Switching Saves RETA,helpdesk@reta_energy.com;savesdesk@reta_energy.com RETB,energyHelpDesk@retb_energyGroup.com; energyGroupSaves@retb_energyGroup.com RETC,Removal RETD,savesInvestigator@retc.co.nz RETE, The above file will perform the following: 1. Add or replace email address for RETA, RETB and RETD 2. Remove any existing email address for RETC 3. RETE’s existing email contact address list will remain unchanged			
Download selection criteria: a. Selected participant b. All participants c. An email group for all participants d. All email groups for all participants			

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Processing:
The system: 1. Enables the appropriate access to email groups and email contact address lists according to whether the user is a participant, participant supervisor, Registry Manager or the Authority. 2. Processes any uploads and/or downloads of email group information and/or email contact address lists 3. Updates email group and email contact address lists. 4. Generates an audit trail.

Data outputs:
• Updated static data • Audit record • Downloaded email groups and emails contact address lists
N.B. Each attribute on an output line is comma separated
Download format for: • Selected participant • All participants

Name	**Format**	**Comment**
Participant	Char 4	Participant Identifier
Name	Char 40	Participant Company name from SD-020
Role(s)	Char	List of Participant Role Type codes separated by a slash (“\”) character, of the roles currently performed by the participant in the Registry from SD-020.
Email Group Name	Char 50	Email group name
Email Contact Address List	Char	Email contact addresses, semi colon space delimited

Example: Download all email groups for selected participant
Participant, Name,Role(s),Email Group, Email Contact Address
RETA, RETA Test Participant,RET/MEP,Outages,nrgSupervisor@myNRG.com; helpdesk@myNRG.com
RETA, RETA Test Participant,RET/MEP,EIEP,nrgSupervisor@myNRG.com; helpdesk@myNRG.com

Example: Download all email groups for all participants with no concatenation
Participant, Name,Roles(s),Email Group, Email Contact Address
RETA, RETA Test Participant,RET/MEP,Outages,nrgSupervisor@myNRG.com; helpdesk@myNRG.com
RETA, RETA Test Participant,RET/MEP,EIEP,nrgSupervisor@myNRG.com; helpdesk@myNRG.com
RETB, RETB Test Participant,RET, Outages,nrgSupervisor@myNRG.com; helpdesk@myNRG.com
RETB, RETB Test Participant,RET,EIEP,nrgSupervisor@myNRG.com; helpdesk@myNRG.com
RETC, RETC Test Participant,RET,Outages,
RETC, RETC Test Participant,RET,EIEP,

Example: Download all email groups for all participants with concatenation
Email Group, Email Contact Address
Outages,nrgSupervisor@myNRG.com; helpdesk@myNRG.com; abcSupervisor@myABC.com; helpdesk@myABC.com
EIEP, nrgSupervisor@myNRG.com; helpdesk@myNRG.com; abcSupervisor@myABC.com; helpdesk@myABC.com

Download format for:

- Email group for all participants. File name format
  - No concatenation
    - <email group>_AllParties_<dateTimestamp>.csv, for example: Trader Default_AllParties_20150218132617.csv
  - Concatenation
    - <email group>_AllParties_Concatenate_<dateTimestamp>.csv, for example: Trader Default_AllParties_Concatenate_20150218132617.csv
- All email groups for all participants File name format
  - No concatenation
    - AllGroups_AllParties_<dateTimestamp>.csv, for example: AllGroups _AllParties_20150218132617.csv
  - Concatenation
    - AllGroups_AllParties_Concatenate_<dateTimestamp>.csv, for example: AllGroups _AllParties_Concatenate_20150218132617.csv

Name	Format	Comment
Email Group	Char 50	Email group name

IN-CONFIDENCE: ORGANISATION

Email Contact Address List	Char Max	Email contact addresses, semi colon space delimited for all participants
Example: Download email group EIEP for all participants with no concatenation Participant, Name,Role(s),Email Group, Email Contact Address RETA, RETA Test Participant,RET/MEP,EIEP,nrgSupervisor@myNRG.com; helpdesk@myNRG.com; RETB, RETB Test Participant,RET,EIEP,helpdesk@RETA.com; helpDesk@RETC.com Example: Download email group for all participants with concatenation Email Group, Email Contact Address EIEP,nrgSupervisor@myNRG.com; helpdesk@myNRG.com; helpdesk@RETA.com; helpDesk@RETC.com		

Sub-process:	**SD-060 Maintain contact groups**
Process:	Maintain static data
Participants:	Participants, Registry Manager, Authority
Code references:	None
Dependencies:	SD-020
Criticality	Non-core

Description:

Contact group details contain names, phone numbers and email addresses. Each contact group is assigned to a predefined contact group category set up by the Registry Manager at the request of the Authority. Contact group categories are assigned an access policy – public or private - which determines who can see the associated contact group's details.

Contact group details related to a contact group category for a participant are maintained by the participant's supervisor.

Business requirements:

1. The Registry Manager, on instruction from the Authority, must be able to create, update and remove a contact group category for use by all participants. However, a contact group category cannot be removed if there are any contact details stored against it.
2. A participant supervisor must be able to create, update and remove contact group details for contact group categories with any access policy but only for their own organisation.
3. The Registry Manager must be able to create, update and remove contact group details for any contact group category with any access policy on behalf of any participant.
4. A participant must have no more than one contact group recorded against each contact group category.
5. Any Registry user must be able to view and download contact group details for any contact group category that has a public access policy, for any participant.
6. Any Registry user must be able to view and download contact group details for any contact group category with any access policy, for their own participant organisation.
7. The Registry Manager and the Authority must be able to view and download contact group details for any contact group category with any access policy, for any participant.
8. The Registry must maintain an audit trail of all changes to contact group details and categories.

IN-CONFIDENCE: ORGANISATION

Data inputs:			
Participant identifiers and roles (SD-020) Contact Group category.			
Attributes	Format	Mandatory/ optional	Comments
Category Name	Char 25	M	Descriptive name; for example • ICP Switching
Category Description	Char 50	M	Concise and relevant description of the category, for example: • Contact for information concerning Trader ICP Switching
Access Policy	Char 7	M	One of: • Public; or • Private
New or changed contact group details:			
Participant Identifier	Char 4	M	Participant Identifier
Contact group category	Char 25	M	Selected from predefined set. Unique to this contact group and this participant
Contact names	Char	M	Semi colon delimited list of Contact names. A generic name may be provided, for example • Switching Helpdesk
Phone Number	Char	M/O	Semi colon delimited list of Contact phone numbers. At least one of phone number or email address must be provided.
Email Address	Char	M/O	Semi colon delimited list of Contact email addresses. At least one of phone number or email address must be provided.
Additional Information	Char 250	O	Additional information provided by the participant, for example hours the contact group may be contacted (7:30am-9pm)

Processing:

System

1. Enables all users to view and download all contact group details for their own organisation.
2. Enables all users to view and download contact group details for other organisations but only for contact group categories with a public access policy.
3. Enables participant supervisors to maintain contact groups details for their own participant organisation for any contact group categories with any access policy.
4. Enables the Authority to view and download contact group details for any participant and for any contact group categories with any access policy.
5. Enables the Registry Manager to maintain contact groups on behalf of any participant supervisor.
6. Generates an audit trail for all maintenance.

Data outputs:

- New, updated or deleted Contact Group
- Audit record
- Displayed and downloaded contact group details

The display and download format for contact group details is filtered by:

- All or a selected participant; and
- All or a selected contact group category

Column name	Format	Comment
Participant Identifier	Char 4	Participant Identifier
Roles	Char	Semi colon delimited list of current roles performed by the participant
Contact Group Category	Char 25	Contact group category name
Contact name	Char	Semi colon delimited list of contact names
Contact Phone Number	Char	Semi colon delimited list of contact phone numbers
Contact Email Address	Char	Semi colon delimited list of contact email addresses
Additional Information	Char 250	Additional Information

Sub-process:	**SD-070 Maintain Audit compliance rule**
Process:	Audit compliance reporting
Participants:	Registry Manager
Code references:	
Dependencies:	Non-core

Description:
Audit Compliance rules are used to support and monitor compliance with clauses of the Code. The rules are maintained by the Registry Manager on instruction from the Authority.

Business requirements:
9. On approval from the Authority, the Registry Manager must be able to a. update existing Audit Compliance Rule; that is i. modify Trigger After period; or ii. modify the Start Date and/or End Date; or iii. mark the rule as discontinued b. create a version of an existing rule by copying an existing rule and providing a new Start and End Date 10. The Registry must maintain an audit for each insert/update/delete

Data inputs:			
New or modified Audit Compliance Rule			
Name	**Format**	**Mandatory /Optional**	**Comments**
Code Reference	Char 100	M	The code reference to which the rule relates; for example: • Clause 10 of Schedule 11.1 Note: There may be multiple compliance rules that refer to the same Code Reference
Description	Char 500	M	Free format. A description of the Compliance Rule and its purpose
Rule Name	Char 100	M	Identifies the Audit Compliance Rule in context of the Code Reference; for example: • Change to Active Status not new connection

Rule Identifier	Char 32	M	Uniquely identifies the rule. Used as the spreadsheet sheet name for output generated by the rule. (Cannot be maintained by the administrator)
Role	Char 1	M	The role to which the compliance rule is applied. Must be one of: • Trader • Distributor • MEP (Cannot be maintained by the administrator)
Start Date	Date	M	Effective start date of the rule. This may be future dated.
End Date	Date	O	Effective end date of the rule. Null indicates open ended. Must not be less than Rule Start Date.
Rule discontinued	Boolean	O	If true, the rule is discontinued. Default is false (rule active). If discontinued the rule must not be used in Audit Compliance reporting.
In conjunction the following attributes uniquely define a Compliance Rule: • Role • Rule Identifier • Start Date Multiple Compliance Rules for the same Rule identifier must not overlap Start and End Date ranges.			
Query Type	Char 9	M	Must be one of: • Timeliness • Accuracy (Cannot be maintained by the administrator)
Trigger After	Decimal [7:3]	O	If provided, this is the trigger variable against which a compliance rule is evaluated. (In most cases this will be days, however it can also be months, or a kWh figure. This is dependent on the rule).

Processing:

The system:

5. Validates all attributes and checks any dependencies
6. Updates Audit Compliance rules in the Registry accordingly
7. Generates an audit trail

Data outputs:

New, updated or deleted Audit Compliance Rule. Audit record

3.10 Security

Sub-process:	**SU-010 Add and maintain new users**
Process:	Supervise own users
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	
Dependencies:	

Description:
The participant supervisor for a participant organisation adds new users to the Registry and maintains the information associated with existing users. The information provided includes an initial one-time-use password, web services usage restrictions, access rights and an email address to which the system sends notifications when passwords are reset. N.B. The email address must be supplied when creating a new user. For existing users, it must be supplied when updating their details.

Business requirements:
1. A participant supervisor must be able to add and maintain user logons. 2. Each User Id must be unique within the set of User Ids of the user's company and passwords must conform to industry standards. (See Appendix 3). 3. Each User Id must have an associated email address where the Registry can send a one-time-use password when passwords are reset by the system (see SU-030). 4. A participant supervisor must be able to identify user logons that will only be able to access the Registry via web services. 5. A participant supervisor must be able to assign different access rights for different Registry functions (e.g. ICP maintenance, switching, submission of reports) to individual users as required.

Data Inputs:
• Valid participant supervisor logon. • New User Id, user name, user email address, required roles and access rights

Processing:
System: 1. Enables the participant supervisor to create a new user or update an existing user; and stores the associated user data, the new User Id, user name, one-time-use password, user e-mail address, web services only indicator, access rights and other required information. 2. Generates appropriate audit trail information.

Data outputs:
• New user information. • Audit trail information. • Confirmation of a successful addition of new user logon or update of an existing logon.

Sub-process:	**SU-020 Disable and re-enable logons**
Process:	Supervise own users
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	
Dependencies:	SU-010

Description:

An existing logon may be disabled in order to prevent the user's logon from being used to gain access to the system. When required, it must be possible to re-enable a disabled logon.

Business requirements:

1. The Registry must allow a participant supervisor to disable any of their participant company's logons when they are no longer required.
2. It must be possible to re-enable a user's logon once it has been disabled

The logon must only be re-enabled by the assigned participant supervisor responsible for the logon.

Data inputs:

- Logon User Id of the participant supervisor.
- Logon User Id to be disabled or re-enabled.

Processing:

The system:

1. Disables or re-enables the logon User Id selected by the logged-on supervisor.

Data outputs:

- Confirmation of successful disablement or re-enablement.

Sub-process:	**SU-030 Reset user password**
Process:	Supervise own users
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	
Dependencies:	SU-020, SU050

Description:
When a logon has been disabled by the system, the participant supervisor can reset (unlock) the user's password by updating it. . The new password will be a one-time-use password that the user must change after logging on with it.

Business requirements:
1. When a participant supervisor resets a user's password by updating it, the Registry must treat it as a one-time-use password for the user. 2. The Registry must ensure that the one-time-use password can only be used once.

Data inputs:
• Logon User Id of the participant supervisor. • Locked-out User Id. • New user password.

Processing:
The system: 1. Checks that the locked-out user being updated has an email address and, if missing, informs the participant supervisor that the user lacks an email address and it must be input. Checks that the password conforms to the password standard then, if valid, unlocks the User Id and stores the password with the User Id.

Data outputs:
• Confirmation of successful password reset • New one-time-use password assigned to the unlocked User Id.

Sub-process:	**SU-040 Assign agent**
Process:	Supervise own users
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	Clause 11.2A of the Code.
Dependencies:	SU010

Description:

The supervisor provides that a person who is acting as an agent for its participant organisation can access the system on behalf of the participant organisation, by assigning access rights to that agent. That agent will be able to create logons, which will be able to be used to perform maintenance, switching and reporting on behalf of the participant.

Business requirements:

1. Only users with supervisor privileges must be able to assign agency rights to another party's logon.
2. Logons that can access the Registry via web services only must not be assigned agency rights.

Processing:

System

1. Provides an online function to allow the supervisor to assign agency rights responsible for the logon.
2. Ensures that only supervisors can assign agency rights.
3. Ensures that Logons identified as web services only cannot act as agents.
4. Ensures that logons of acting agents cannot be modified to become web services only logons.

Data inputs:

- Logon of another company to be assigned agency rights.

Data outputs:

- Confirmation of successful assignment.

Sub-process:	**SU-050 Lockout logons**
Process:	Supervise own users
Participants:	Registry Manager
Code references:	
Dependencies:	SU-030

Description:

User's logons are locked out when:

1. There have been three attempts to logon with a valid logon code and invalid password. After the third failure the logon code is locked out and can't be used again until it is re-enabled by the supervisor responsible for the logon.
2. The logon has expired due to the password not being changed within the number of days for password expiration stated in Appendix 3; and after the 3 grace logons have been used up without a change of password.

When multiple lockouts occur for the same logon code within a specified period, the Registry Manager is alerted. By default, a maximum of 5 lockouts are allowed within any 4 hour period.

Business requirements:

1. The Registry must lock out a logon user Id after three failed attempts to log on.
2. The Registry must lock out logon user Id's that have expired due to the password not being changed within the number of days for password expiration stated in Appendix 3; and after the 3 grace logons have been used up without a change of password.
3. The Registry must maintain a lockout alert rule with the following parameters:
    a. maximum number of lockouts;
    b. lockout period i.e. the period of time, in minutes, during which the maximum number of lockouts can occur before a lockout alert is triggered.

    The default settings for the lockout alert rule parameters must be:
    i. maximum number of lockouts: 5,
    ii. lockout period: 240 minutes.
4. The Registry must be able to adjust the lockout alert rule parameters at any time when directed by the Authority.
5. The Registry must trigger a lockout alert whenever the maximum number of lockouts is exceeded in the lockout period.
6. The Registry must send a lockout alert email to the Registry Manager via the appropriate email group whenever a lockout alert is triggered. The information sent must include
    a. participant's identifier,

b. user Id,
c. date and time of alert,
d. number of lockouts and time period in which they occurred.

Data inputs:

- Logon user Id and password

Processing:

System:

1. Locks out a logon user Id whenever an incorrect password for that logon user Id is entered in the browser more than three times, or, when a logon has expired.
2. Records a password lockout against the logon user Id.
3. Compares the number of password lockouts against the lockout alert rule, and whenever the parameters of the rule are exceeded:
    - generates an email to the Registry Manager's *LockoutAlert* email group,
    - records the lockout information for reporting in monthly statistics;
    - resets password lockout count for the logon user Id to zero.

Data outputs:

- Password lockout count for logon user Id
- Lockout information for monthly statistics reporting
- Lockout alert email

Sample lockout alert email text

Heading: Electricity Registry – Password Max Lockouts Exceeded

Message text:

User <user Id> had <99> lockouts over a period of <x> minutes:
Lockouts occurred at the following times:
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>
<dd/mm/ccyy hh:mm:ss>

Please raise an issue and initiate an investigation

Sub-process:	**SU-060 Assign participant audit agent**
Process:	Maintain user parameters
Participants:	Traders, Metering Equipment Providers and Distributors
Code references:	
Dependencies:	

Description:
A user with supervisor privileges should be able to choose the Participant Audit Agent who may then perform Audit Compliance reporting on their behalf.

Business requirements:
1. Only a user with supervisor privileges will be able to perform this function. 2. Users must be able to choose a participant with the Role of Participant Audit Agent. 3. Once set, the Participant Audit Agent will be able to run the Audit Compliance report against the participant

Data inputs:
Participant Audit Agent

Processing:
System 1. Validates the selected participant currently performs the role of Participant Audit Agent 2. Updates Participant Audit Agent selection 3. Audits the change

Data outputs:
Confirmation of new settings on screen. Audit trail of changes

Sub-process:	**PW-010 Change user password**
Process:	Security
Participants:	All users
Code references:	
Dependencies:	SU-010

Description:

Users are required to change their passwords at least every certain number of days as stated in Appendix 3 to maintain security, except for web services only logons. A user is also able to change their password at any time.
Passwords of web services only logons can only be changed by participant supervisors as they do not have browser access to the Registry; and hence no access to this function.

Business requirements:

1. The Registry must ensure that users change their password at least every certain number of days as stated in Appendix 3, except in the case of password associated with web services only users, which do not expire.
2. Passwords must conform to the password standard (see Appendix 3).

Data inputs:

- User ID.
- Current password.
- New password.

Processing:

The system:

1. Accepts the new password if it conforms to the password standard.
2. Stores the new password as the user's password.

Data outputs:

- New password
- Confirmation of successful change

Sub-process:	**PW-020 Request new password**
Process:	Security
Participants:	All users
Code references:	
Dependencies:	SU-010

Description:
If a user forgets their password when they want to log on, they can request that a new one-time-use password is emailed to them. Logons used for web services only cannot request a new password.

Business requirements:
1. The Registry must be able to generate one-time-use passwords that conform to the password standards (see Appendix 3). 2. The Registry must send a one-time-use password to a user's email address when the user indicates they have forgotten their password at logon, unless the user is restricted to web services only. 3. The Registry must ensure that a one-time password can only be used once.

Data inputs:
• Password request

Processing:
The system: 1. If the logon is for web services only, informs the user that the request is invalid. 2. For non-web services user logons, checks that the system holds an appropriate email address for the user. If it does, the system generates a one-time-use password and emails it to that email address; otherwise, informs the user to contact their participant supervisor to reset their password. 3. Records an audit log of the reset request for monthly usage reporting.

Data outputs:
• New one-time password • Confirmation that an email has been sent to the user or message to the user to contact their participant supervisor • Audit log of password reset request • Email to user
Example Email

N.B. Suggested wording only

Heading: *Electricity Registry – Password Reset*

Message text:

We received a request to reset your password for your Electricity Registry User Id.

Your new one-time password is: <password>

You must change your password after logging on with the password above.

If you did not request a password reset or have any questions or issues, please contact your participant supervisor or the Registry Manager for assistance.

3.11 Terms of Use Acceptance

Sub-process:	**TU-010 Accept Registry Terms of Use**
Process:	Terms of Use Acceptance
Participants:	Traders, Distributors, Metering Equipment Providers, Authority
Code references:	
Dependencies:	SU-010

Description:

Each user who accesses the Registry via a web browser will be required to agree to the Authority's terms of use for the Registry before they can use the system. Users will only need to accept the terms of use once.

In the case of users with a *Web Services Only* logon, the assigned participant supervisor responsible for the logon will accept or decline the terms of use on behalf of the user.

Business requirements:

1. The Registry must allow users with a valid logon who access the Registry via a browser to accept or decline the Authority's Registry terms of use.
2. The Registry must allow supervisors of users with a *Web Services Only* logon to accept or decline the terms of use on behalf of their users.
3. The Registry must only allow logon users who have accepted the terms of use to access the Registry

Data inputs:

- Logon user id
- Authority's terms of use for the Registry

Processing:

The System:

1. The Registry must allow users with a valid logon who access the Registry via a browser to accept or decline the Authority's Registry terms of use.
2. The Registry must allow supervisors of users with a *Web Services Only* logon to accept or decline the terms of use on behalf of their users.
3. The Registry must only allow logon users who have accepted the terms of use to access the Registry

Data outputs:
• Logon user id. • Whether user has accepted the terms of use. • Date and time of user acceptance.

3.12 EIEP Transfer

Sub-process:	**EI-010 Configure EIEP Transfer Settings**
Process:	EIEP Transfer
Participants:	Participants (supervisor)
Code references:	None
Dependencies:	None
Criticality	Non core

Description:

The participant supervisor configures optional additional email parameters to receive acknowledgements of successful EIEP file uploads, confirmations of EIEP file deliveries to the recipient, and notifications when EIEP files have been received from another participant.

Where the options of receiving acknowledgements, confirmations or delivery notices by email have been selected, they will be sent to the email addresses listed in the participants EIEP email group, or to email addresses listed in an email group, if present, whose name matches the file type of the EIEP file. See SD-050 for further details.

Business requirements:

4. A participants supervisor must be able modify communication options to:
    a. receive by email from the Registry acknowledgements of the receipt of EIEP files;
    b. receive by file in the senders EIEP in box from the Registry acknowledgements of the receipt of EIEP files (set by default);
    c. receive by email from the Registry confirmations of successful transfers;
    d. receive by file in the senders EIEP in box from the Registry confirmations of successful transfers (set by default);
    e. receive by email from the Registry notifications of EIEP file deliveries.

5. Where a participant is a Third Party provider and does not have access to the configuration settings, the settings must be maintained by the Registry Manager on their behalf.

6. Changes to EIEP communication options must have an audit record.

Data inputs:

EIEP Communication Settings.

Processing:
System: 1. Validates EIEP communication settings. 2. Updates communication settings. 3. Generates audit records for each communication setting change.

Data outputs:
Updated EIEP communication option settings.

Sub-process:	**EI-020 Upload and Download EIEP via the browser**
Process:	EIEP Transfer
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	None
Dependencies:	None
Criticality	Non core

Description:

In addition to the SFTP facility to upload and download EIEP files and notices, a browser screen allows a participant to:

- View and download their EIEP files and notices from their EIEP inbox (EIEPin folder) that have been received.
- Upload EIEP files for delivery to another participant by selecting local computer files and uploading them into their EIEP outbox (EIEPout folder) for delivery to a recipient participant.

Business requirements:

1. Access to the EIEP Upload and Download screen is assigned to users by their participant's supervisor.

2. EIEP Directory Monitoring.

A user may view the contents of their EIEP inbox directory.
Search criteria may be applied when searching the EIEP inbox directory:

- Sender or All.
- File Creation Date From.

3. File Download.

A file from the EIEP inbox directory may be selected and downloaded to a local computer.
All downloads have audit records generated.

4. File Upload.

A user may search a local computer and upload a file into their EIEP outbox. The file will subsequently be picked up and delivered to the recipient participant.
Audit records are generated for successful uploads and deliveries.

5. Error processing.

If the Registry is unable to deliver the EIEP file, then an error message will be displayed, and the file will be moved to the sender's inbox with an appended error code.
Audit records are generated for all files with errors.

6. Notices

A user is able to view the progress of the transfer by monitoring their EIEP inbox for acknowledgements and confirmations.

Data inputs:
Uploaded file. EIEPin folder contents.

Processing:
For EIEP Downloads, system: 1. Applies search criteria to interrogate the EIEP Inbox directory 2. Displays results of the search. 3. Downloads the selected file to a local computer. 4. Generates audit records of the download of a file. For EIEP Uploads, system: 1. Loads the selected file into the EIEP out box inquiry criteria. 2. Validates the filename. 3. If valid, transfers the file to the recipients EIEP inbox. See process EI-030 for further details on the transfer process. 4. If invalid, transfers the file to the senders EIEP outbox directory with an appended error code. 5. Generates audit records of the online upload of a file.

Data outputs:
EIEP Audit w records. Downloaded file from EIEP inbox.

Sub-process:	**EI-030 Transfer EIEP Files**
Process:	EIEP Transfer
Participants:	Authority, Participants
Code references:	None
Dependencies:	None
Criticality	Non core

Description:

Participants are provided with an EIEP outbox (EIEPout folder) into which files are deposited for delivery to other participants, and an EIEP inbox (EIEPin folder) where files are received that have been delivered from other participants as well as acknowledgement and confirmation notices from the Registry.

Email confirmations of the successful delivery of files are also generated, using the email addresses stored in the email groups of the sending and receiving participants. To receive these email notifications, email addresses must be set up under the appropriate email group names for:

- The default email group with a name of ”EIEP”. The email addresses listed under this email group will be used to notify of file deliveries and receipts for all filetypes where there is no *specific* email group name set up for the participant.
- Optionally, the email group name matching a *specific* EIEP filetype, such as EIEP13C.

Business requirements:

1. EIEP file delivery must be via SFTP.
2. EIEP files must be retained for a period of one month before their deletion from the EIEP inbox.
3. In accordance with the set of participants with restrictions for sending or receiving files associated with the EIEP File Type code (EI-050), reject or accept the EIEP file submission.
4. In accordance with the Authority’s gained permissions via EIEP Transfer Permissions (EI-040), and the EIEP File Type code associated with the EIEP Transfer Permission, transfer a copy of the EIEP file to the Authority’s EIEP inbox and SFTP server.
5. In accordance with the Authority’s gained permissions via EIEP Transfer Permissions (EI-040), and the EIEP File Type code associated with the EIEP Transfer Permission, upload a copy of the EIEP file to the Authority’s cloud storage.
6. If the EIEP Unique ID attribute contains the text “SendToEAOnly” in any position, the file and the file type section of the file name corresponds to an EIEP file type (EI-040), the file must be transferred to the Authority’s EIEP inbox and SFTP server or the Authority’s cloud storage. The Recipient must not receive the file. Recipient communication settings must be substituted with those of the Authority.
7. Duplicate files (same file name) must not be transferred to the Authority’s data warehouse nor uploaded to the Authority’s cloud storage. If a file has 1 or more matching Authority’s gained permissions via EIEP Transfer Permissions and/or “SendToEAOnly” in Unique ID the Authority must receive the file once.

8. The Authority must not receive duplicate files. If a file has 1 or more matching Authority's EIEP Transfer Permissions and/or "SendToEAOnly" in Unique ID, the Authority must receive the file once. In accordance with the participants EIEP communication settings, an optional acknowledgment file notice must be generated (for delivery to the sender's inbox) when the file is put into the sender's outbox (ie. a successful upload).
9. In accordance with the participants EIEP communication settings, an optional acknowledgement email notice must be generated (for delivery to the sender's email address) when the file is put into the sender's outbox (ie. a successful upload).
10. In accordance with the participants EIEP communication settings, an optional confirmation file notice must be generated (for delivery to the sender's inbox) when the file is delivered to the recipient.
11. In accordance with the participants EIEP communication settings, an optional confirmation email notice must be generated (for delivery to the sender's email address) when the file is delivered to the recipient.
12. In accordance with the participants EIEP communication settings, an optional delivery notice email must be generated (for delivery to the recipient's email address) when the file is delivered to the recipient.
13. Where a filename does not conform to the file naming convention then the file must be rejected and placed in the sender's inbox with an appropriate error message attached to the filename.
14. All successful uploads, deliveries and file rejections must have associated audit records.

Data inputs:

- EIEP file to be delivered.
- EIEP Transfer Settings

An EIEP file must conform to the following file naming format:

Component	Format	Description
Sender	Char 4	Code of submitting participant
Utility Type	Char 1	
Recipient	Char 4	Code of recipient participant
File Type	Char 7	EIEP File Format
Report Month	yyyymm	
Report Run Date	yyyymmdd	
Unique ID	Char 60	e.g. hhmm run time, or ICP number but max 60 characters

Each component is underscore separated.
Example: RETA_E_NETA_EIEP13A_201503_20151203_myfile.zip

1. Sender must be a valid participant code and must also be the owner of the outbox into which the EIEP file has been placed.
2. The recipient must be a valid participant code.
3. The allowed character set for all components includes: "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789."

Processing:

System:

1. Picks up the file submitted to the participants EIEP outbox.
2. Determines, according to the EIEP communication settings, whether to generate the acknowledgments (by SFTP, email, both or neither). The format of the acknowledgement file name is the input file name with ".ake" appended.
3. Validates the filename. There is no validation of Utility Type, File Type, Unique ID or the file extension other than they conform to the defined format. There is no validation of the file data, not even headers, so as is the case with all EIEPs, it is the responsibility of the sending participant to ensure that the file information is complete and correct.
4. Validates the set of restrictions associated with the File Type if any; and accepts or rejects the submission accordingly.
5. If file is valid and the submission is valid, transfers the file and
    a. if Unique ID contains "SendToEAOnly" substitutes the Authority as the recipient of the file (the recipient section (the file name is changed to EMCO),and substitutes the Recipient communication settings with those of the Authority.
    b. moves it to the recipients EIEP inbox. The file being delivered to a recipient will not overwrite any existing file of the same name. The file name will be amended to create a unique filename by appending a numeric identifier.
    c. according to the Authority gained permissions and the EIEP File Type associated with the EIEP Transfer Permission transfers a copy to the Authority's EIEP inbox and SFTP server.
    d. according to the Authority EIEP Transfer Permission and the EIEP File Type associated with the EIEP Transfer Permission, uploads a copy to the Authority's cloud storage.
    e. according to the EIEP communication settings, generates the optional file confirmation to the sender (by SFTP, email, both or neither). The format of the confirmation file name is the input file name with ".confirm" appended.
    f. according to the EIEP communication settings, generates the optional email notification to recipient (by SFTP, email, both or neither).

    N.B. When emails are generated, if the filename (e.g EIEP13A) matches an email group they are sent to the email address(es) listed under the email group, otherwise they are sent to the email address of the default email group named "EIEP". If no email address can be found, no email is sent. See SD-050 for further details.
6. If file has an error, rejects by
    a. moving the file to the sender's EIEP inbox with a relevant error code appended. The rejected file is named by appending the error code of the first error encountered to the input file name.
    b. according to the EIEP communication settings, generating an optional file notification to the sender (by email)
7. Generates EIEP file tracking information for audit and compliance analysis that includes:
    - Sender
    - Recipient
    - Arrival time
    - File size
    - File name

- Delivery name
- Sent to Authority's SFTP server
- Uploaded to Authority storage
- Error number (if present)

Data outputs:
Email and/or file acknowledgement notice. Email and/or file confirmation notice. Email delivery notice. EIEP file - delivered to recipient. EIEP file is transferred to the Authority's SFTP server (when applicable) EIEP file uploaded to the Authority's cloud storage (when applicable) EIEP file with error code – delivered to sender. EIEP audit records.

Sub-process:	**EI-040 Maintain EIEP Transfer Permissions**
Process:	EIEP Transfer
Participants:	Authority
Code references:	None
Dependencies:	SD-020
Criticality	Non-core

Description:

The Authority gains authorisation from Participants to allow specific EIEP files, where the Participant is either the sender or recipient, to be transferred to the Authority. That is; they agree to share EIEP information they send or receive with the Authority.

The Authority instructs the Registry Administrator to actualise an appropriate EIEP Transfer Permission for use in the EIEP Transfer Process to transfer to the Authority a copy of an EIEP file.

Business requirements:

1. Entries in the EIEP Transfer Permission table must have the following information:
   - File Type*
   - Participant Identifier*
   - Authorisation to transfer files as Recipient
   - Authorisation to transfer files as Sender
   - Authorisation Active
2. Each entry in the EIEP Transfer Permission table must be unique for the fields above marked with an asterisk.
3. On instruction from the Authority the Registry Administrator must update EIEP Transfer Permission table entries.
4. The Registry Administrator must be able to insert, delete and activate (i.e. set Authorisation Active) Transfer Permission table entries.
5. The Registry must record audit information of changes.

Data inputs:			
New or changed EIEP Transfer Permission:			
Attributes input	Format	Mandatory / Optional	Description
File Type	Char 7	M	EIEP File Format On request of the Authority, EIEP file types are added by the Registry Administrator
Participant Identifier	Char 4	M	Participant identifier of Participant that has agreed to share EIEP files with the Authority
Authorisation to transfer files as Recipient	Boolean	O	Participant agrees to share files they receive
Authorisation to transfer files as Sender	Boolean	O	Participant agrees to share files they send
Authorisation Active	Boolean	O	True - EIEP Transfer Permission is active. May only be active if at least one of Authorisation to transfer files as Recipient or Authorisation to transfer files as Sender is true. False (the default) - EIEP Transfer Permission is not active

Processing:
System: 1. Validates all attributes and checks any dependencies 2. Updates the EIEP Transfer Permission table 3. Generates appropriate audit trail information

Data outputs:
• New or amended EIEP Transfer Permission • Audit trail information

Sub-process:	**EI-050 Maintain EIEP Transfer Restrictions**
Process:	EIEP Transfer
Participants:	Authority
Code references:	None
Dependencies:	EI 030 SD-020
Criticality	Non-core

Description:

The Authority instructs the Registry Manager to store an optional set of restrictions indicating which participants can send or receive files associated win an EIEP File Type code.

On authorisation from the Authority, the Registry Manager will maintain the set of participants (add or remove) for an EIEP File Type code.

Business requirements:

1. Entries in the EIEP Transfer Restriction table must have the following information:
   - File Type*
   - Participant Identifier*
   - Restriction to receive files associated with the EIEP File Type code (as a Recipient)
   - Restriction to transfer files associated with the EIEP File Type code (as a Sender)
   - Restriction Active
2. Each entry in the EIEP Transfer Restriction table must be unique for the fields above marked with an asterisk.
3. On instruction from the Authority the Registry Manager must update EIEP Transfer Restriction table entries.
4. The Registry Manager must be able to add, update or delete and activate (i.e. set Restriction Active) Transfer Restriction table entries.
5. The Registry must record audit information of changes.

Data inputs:

New or changed EIEP Transfer Restriction:

Attributes input	Format	Mandatory / Optional	Description
File Type	Char 7	M	EIEP File Format On request of the Authority, EIEP file types are added by the Registry Manager
Participant Identifier	Char 4	M	Participant identifier of Participant that has restriction as instructed by the Authority

Restriction to receive files as Recipient	Boolean	O	Participant has restriction to receive files sent to them.
Restriction to send files as Sender	Boolean	O	Participant has restriction for files they send
Restriction Active	Boolean	O	True - EIEP Transfer Restriction is active. May only be active if at least one of Restriction to receive files as Recipient or Restriction to send files as Sender is true. False (the default) - EIEP Transfer Restriction is not active

Processing:

System:

1. Validates all attributes and checks any dependencies
2. Updates the EIEP Transfer Restriction table
3. Generates appropriate audit trail information

Data outputs:

- New or amended EIEP Transfer Restriction
- Audit trail information

3.13 Trader Default

Sub-process:	**TD-010 Complete Switch Activity for Trader in Trader Default**
Process:	Switching
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	

Description:

On instruction from the Authority the Registry Manager will process in-progress Trader switch activity on behalf of a Trader in a Trader Default situation.

This process will locate all ICPs that have a Trader switch or switch withdrawal in progress and that involve the defaulting Trader. The registry will then generate the next switch messages in the switching cycle, required to be submitted by the defaulting Trader only, in order to switch ICPs to a responsible non-defaulting Trader i.e. a switch away or a withdrawal that reverts responsibility away from the defaulting Trader. This process will NOT generate switch messages on behalf of any non-defaulting Trader. It will generate a report for non-defaulting Traders detailing the next switch messages that the non-defaulting Trader may submit in order for the switch to complete.

This process:

- generates CS switch messages to complete all switches in progress where the defaulting Trader is the losing Trader and the switch type is not HH, and
- generates AN switch messages for switches in progress where the defaulting Trader is the losing Trader and the switch type is HH and only an NT has been submitted, and
- generates NW withdrawal messages for switches in progress where the defaulting Trader is the gaining Trader (to prevent the gain by the defaulter), and
- generates AW acceptance of withdrawal messages for withdrawals in progress where the result of the withdrawal would leave the ICP with a non-defaulting Trader or where both parties are defaulting Traders, and
- generates AW rejection of withdrawal messages for withdrawals in progress where the result of the withdrawal would leave the ICP with a defaulting Trader.

The switch messages generated by the registry will use exactly the same attributes and validation rules that the standard switch messages use (for AN, CS, NW and AW switch messages). This means that the same updates, outputs and notifications will be generated to all affected parties of the switch that are specified in the associated sub-processes for the AN (RS-020), CS (RS-050), NW (RW-010) and AW (RW-020), such as :

- delivery of switch messages to the 'other' Trader involved in the switch (in accordance with the 'other' Trader's switch notification parameters); and
- insertions, replacements and reversals of events as a result of completed switches or completed withdrawals; and
- any required updates to the switch statuses (Trader or MEP); and

- delivery of all notifications to all affected parties (to Traders, Distributors, MEPs) as a result of completed switches or completed switch withdrawals, in accordance with each party's notification parameters; and
- delivery of any snapshot version of the PR-030 report required to delivered to new Traders for completed switches, in accordance with that Trader's notification parameters; and
- creation of audit information where the participant submitting the messages will be recorded as the defaulting Trader but the creation user id will be set to "TD-010".

This process will run in either edit or update mode. In edit mode, the registry will generate the switch messages and submit them for validation checking but not commit the updates to the database. In update mode the updates to the database will be committed and all notifications will be generated.

A progress report is output for the Authority. A report is also generated for Traders to detail any switch messages they would need to submit to complete any switches or withdrawals away from the defaulting Trader. In edit mode the Traders' reports will not be delivered.

Business requirements:

1. The Registry Manager may only act to complete Trader switch activity (on behalf of a defaulting Trader) upon instruction from the Authority.
2. Only Traders in a Trader Default situation may have their Trader switches generated by the Registry Manager.
3. The Registry Manager must not perform switch activity on behalf of a non-defaulting Trader. Switch messages required to be submitted by a non-defaulting Trader must remain that Trader's responsibility.
4. The Registry Manager will only process ICPs which are switch in progress or withdrawal in progress, where the switch requires input from the defaulting Trader in order to proceed.
5. Where an ICP is being switched between 2 Traders, where both traders are in a Trader Default situation, the switch must be withdrawn. The ICP must remain with the current Trader and become available as part of the Tender process for that Trader. Only in this instance will the Registry Manager generate both the NW and the AW messages. The withdrawal message (NW) will have a withdrawal advisory code set to "TD". Both messages will have a User Reference of "Trader Default initiated".
6. Where dependencies exist switch messages must be processed in the correct order, for example submission of an AW before submission of a CS.
7. Where a switch has a Switch Type HH and is awaiting an AN message from the defaulting Trader, the Registry Manager must generate the AN with a Response Code of "TD" and a User Reference of "Trader Default initiated". The Expected Transfer Date will be taken from the NT, if provided, otherwise it will be set to the Actual Transfer Date parameter.
8. Where a switch is awaiting a CS from the defaulting Trader, the Registry Manager must generate a CS. The values for the CS attributes will be populated using the ICPs metering records as at the Actual Transfer Date as follows:
   For the Premises row:
   - Trader – Trader participant identifier of defaulting Trader.
   - Actual Transfer Date – date of the switch to be defined by the Authority and input as a run parameter.

- User Reference – set to “Trader Default initiated”.

Then for each Metering Installation that has channels requiring readings:

a) Metering Installation Number – obtained from the Metering information held on the Registry.
b) Average Daily Consumption – 0.
c) Key Held Indicator – “N”.

Then for each Metering Component in the installation with at least 1 Channel with an Accumulator Type of “C” and Settlement Indicator of “Y”:

d) Metering Installation Number – obtained from the Metering information held on the Registry.
e) Metering Component Serial Number – obtained from the Metering information held on the Registry.
f) Last Read Date – Actual Transfer Date.
g) Meter Reader Notes – null.

Then for each channel with an Accumulator Type of “C” and Settlement Indicator of “Y”:

h) Metering Installation Number – obtained from the Metering information held on the Registry.
i) Metering Component Serial Number – obtained from the Metering information held on the Registry.
j) Channel Number – obtained from the Metering information held on the Registry
k) Reading – 0.
l) Actual or Estimate – "D”.

N.B.

i. Where there are no channels with accumulator type = ‘C’ and a settlement indicator of ‘Y’, such as for an ICP with only unmetered load, there will only be a premises record type generated.
ii. No CS message for a switch type of HH will be generated as these are only input by gaining Traders. In this process a defaulting Trader cannot gain an ICP, also, a CS cannot be generated on behalf of a non-defaulting Trader.

9. Where a switch is being withdrawn and acceptance of the withdrawal would result in either
    a. the defaulting Trader losing ICP responsibility, or
    b. a non-defaulting Trader retaining responsibility,

   then an AW acceptance of the withdrawal must be generated. Otherwise, an AW must be generated rejecting the withdrawal. AWs must be generated with a User Reference of “Trader Default initiated”.
10. Where the Registry Manager has generated an AW rejection and the result of the AW leaves the ICP in a switch in progress state and completion of the switch would result in a non-defaulting Trader gaining responsibility, the Registry Manager must also generate the appropriate switch message to progress the switch away from the defaulting Trader (i.e. generate AN or CS).
11. The Registry Manager must withdraw a switch in progress by generating an NW switch message, where the completion of a switch would result in the defaulting Trader gaining the ICP. This means that all switches in progress where the NT was submitted by the defaulting Trader will be withdrawn, regardless of switch type. The withdrawal advisory code will be set to “TD” and the User Reference set to “Trader Default initiated”.

12. In general where the completion of ICP switch activity (Complete Switch (CS), or Acknowledge Withdrawal (AW)) would result in a gain or retention of responsibility by the defaulting Trader, the gain/retention must be prevented.
13. The Registry Manager must be able to interrogate resultant error messages, and provide or implement recommendations to allow switch activity to be completed. Any error must be referred to the Authority.
14. Switch activity requiring action by a non-defaulting Trader must be notified to that Trader immediately by delivery to the Traders SFTP directory.
15. It must be possible to run the processing of switch messages in edit or update mode, where:
    - edit mode will only validate the generated switch messages (NOTE: errors may occur where switch message dependencies exist) allowing the Registry Manager to investigate errors and generate reports to the Authority;
    - update mode will validate generated switch messages, apply all the standard process updates to the Registry where no error is reported and deliver all notifications and messages in the standard way (as defined in RS-020, RS-050, RW-010 and RW-020).
16. A report must be provided to the Authority giving details of those ICPs where switch activity has or will be performed on behalf of the defaulting Trader.
17. A report must be provided to the non-defaulting Traders giving details of the switch messages they should submit to complete ICP switches away from the defaulting Trader. These must not be delivered to Traders when run in edit mode.

Data inputs:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Participant identifier of defaulting Trader
Actual Transfer Date	Date	M	Determined by the Authority. Defaulted to today's date. N.B. Should not be before today's date but the system will not validate it to be so.
Run mode	Char 1	M	E – edit U - update

Processing:

System:

1. Verifies that the selected Trader is in a Trader Default situation.
2. Identifies all ICPs that have a Trader switch in progress (including switch withdrawals) where the defaulting Trader is involved in the switch and is required to provide the next switch message in the switch cycle.
3. Identifies dependencies and ensures switch messages are generated according to those dependencies i.e. follows the switching cycle according to the switch type of the NT.

4. If the switch is between 2 Traders, both of whom are in Trader Default, generates the appropriate switch messages to withdraw the switch.
5. Identifies ICPs where the completion of the switch activity (including withdrawals) will result in a loss of ICP responsibility by the defaulting Trader (switch away) and generates switch messages to facilitate the loss of responsibility.
6. Identifies ICPs where the completion of the switch activity will result in a gain of ICP responsibility by the defaulting Trader (switch gain) and generates NW withdrawal messages to prevent the gain of responsibility.
7. If run in edit mode, validates all updates reporting the result for each switch message but does not apply the updates.
8. If run in update mode, validates and where no errors are reported, performs all the updates and generates all the appropriate notifications in accordance with the standard process detailed in RS-020, RS-050, RW-010 and RW-020, for the switch message type. The audit trail records will be generated detailing the participant as the defaulting Trader but the creation user id will be set to "TD-010".
9. Generates the results file and delivers it to the Authority.
10. Generates the outstanding switch activity report that details the switch messages non-defaulting Traders must provide next. If run in update mode, delivers these reports to non-defaulting Traders.

Data outputs:

Each attribute on an output line is comma separated.

- **Results File** supplied to the Authority detailing the switch messages generated on behalf of the defaulting Trader.

  The file output name will be:

  "TD010_SwitchMessages_<timestamp>.csv where timestamp is format "yyyymmddhhmmss" and specifies the run time.

  The results file is delivered to the Authority by email.

Name	Format	Description
Run Mode	Char 17	"Run Mode" followed by one of • Edit or • Update
Defaulting Trader	Char 24	"Defaulting Trader" followed by Participant identifier of the defaulting Trader.

Header row:
"ICP Identifier, Switch Message, Recipient Trader, Result"

<table>
<tr><td colspan="3">A row for each ICP processed, in ICP Identifier then Switch Message Type order, containing:</td></tr>
<tr><td>ICP Identifier</td><td>Char 15</td><td>ICP Identifier</td></tr>
<tr><td>Switch Message Type</td><td>Char 9</td><td>One of:
AN
CS
NW
AW Accept if AW is an acceptance of the withdrawal
AW Reject if the AW is a rejection of the withdrawal</td></tr>
<tr><td>Recipient Trader</td><td>Char 4</td><td>Participant identifier of recipient Trader</td></tr>
<tr><td>Result</td><td>Numeric</td><td>Error code</td></tr>
<tr><td colspan="3">File example; performed where defaulting Trader is RETA:
Run Mode - Edit
Defaulting Trader - RETA
ICP Identifier, Switch Message, Recipient Trader, Result
1234567890AB123,AN,RETB,000
2345678901AB234,AN,RETB,000
3456789012AB345,NW,RETB,000
3456789012AB345,AW Accept,RETB,000
4567890123AB456,CS,RETC,000
5678901234AB56,AW Reject,RETC,000</td></tr>
<tr><td colspan="3">Outstanding Switch Activity File supplied to non-defaulting Trader SFTP directory advising of outstanding switch messages they are required to supply in Switch Message Type then ICP Identifier order.
The file output name will be:

““TD010_SuggestedSwitchMessages _<timestamp>.csv where timestamp is format “yyyymmddhhmmss” and specifies the run time.</td></tr>
<tr><td>ICP Identifier</td><td>Char 15</td><td>ICP Identifier</td></tr>
<tr><td>Switch Message Type</td><td>Char 2</td><td>Switch type required to be supplied</td></tr>
<tr><td>Switch Message</td><td>Char</td><td>Recommended switch message input line in order to progress the switch.
For a Switch Message of type CS, no recommended Switch Message is supplied as the required CS information resides with the Trader.</td></tr>
<tr><td colspan="3">File example
HDR,RSRQDSMSGS,RGST,RETB,06/03/2015,15:29:14,00000003,Trader default initiated
0000000102AA754,CS,
0000245007UN741,AW,P,0000245007UN741,RETB,R,Trader Default
348577122LLJEAB,AW,P,348577122LLJEAB,RETB,A,Trader Default</td></tr>
<tr><td colspan="3">AN switch messages. See RS-020 for details on the attributes and processing.</td></tr>
<tr><td colspan="3">CS switch messages. See RS-050 for details on the attributes and processing.</td></tr>
</table>

• **NW switch** messages. See RW-010 for details on the attributes and processing.
• **AW switch** messages. See RW-020 for details on the attributes and processing.

Sub-process:	**TD-020 Maintain Trader ICP Allocation Exclusion List**
Process:	Mandatory transfer of ICPs
Participants:	Traders, Authority
Code references:	Schedule 11.5
Dependencies:	

Description:

During a Trader Default situation the Registry may be required by the Authority to perform mandatory allocation of ICPs not allocated to Traders during the tender process.

In this process, Traders maintain an allocation exclusion list that contains filters that the Trader requires to be used to exclude ICPs from their mandatory allocation.

In the mandatory allocation process, before allocating an ICP to a Trader, the system will check the Traders allocation exclusion list. If there is an entry (row) where all the filters match, the ICP will be excluded from being allocated to the Trader. Where a filter allows multiple values, only one of these values is required to match.

An allocation exclusion list provides Traders with the ability to avoid ICPs they are unable to accept, or that would pose a serious threat to their financial viability.

Where ICPs are unable to be allocated due to Traders exclusion tables, the Authority may allocate remaining ICPs as necessary.

Business requirements:

1. Only Traders must be able to maintain allocation exclusion lists.
2. Traders must only be able to maintain their own allocation exclusion list.
3. Traders must be able to view and download their exclusion list online.
4. The Authority must be able to view and download exclusion lists for any Trader online.
5. Traders must only be able to update their exclusion list in batch mode.
6. When Traders update their exclusion list they must provide a complete set of exclusion criteria.

Data inputs:

Allocation exclusion list.
Each attribute on an input line is comma separated.

Attribute Name	Format	Mandatory /optional	Description
Record Type	Char 3	M	Must be “DET”
Reason Code	Char 3	M	Valid Trader Default Exclusion Code

Reason Description	Char 250	M/O	Free format text. Mandatory if Reason Code is “OTH”.
Distributor	Char 4	M	Distributor Participant identifier. Must be valid in the distributor role as at today’s date.
POC	Char 7	O	Valid POC. In combination with the Distributor must exist in the NSP Mapping table.
Meter Types	Char	O	Space separated. Any combination of HHR, NHH, PP or UML. HHR – Any meter installation type (installation row) within an ICP is HHR NHH - All meter installation types (installation row) within an ICP are NHH, NON or there is no metering installation (solely UML or MEP has not populated information). PP – the presence of a pre-pay Meter Type on Metering/Component Type within any of the metering installations of the ICP UML – Trader event UNM Flag = Y
Price Category Codes	Char	O	Space separated. Must be a valid Price Category Code for the Distributor.
Highest Meter Installation Category	Char	O	Space separated. Any combination of 1, 2, 3, 4, 5, 9.
Installation Type	Char	O	Space separated. Any combination of L, G, B.

File examples:
HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,1,maintain RETA exclusions
DET,DIA,,NETA
Meaning:
Do not allocate ICPs where current Distributor is NETA

HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,1,maintain RETA exclusions
DET,DIA,,NETB,ABC0011
Meaning:
Do not allocate ICP's where current Distributor is NETB ***AND*** POC is ABC0011

HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,6,maintain RETA exclusions
DET,MTR,,NETB,ABC0022,NHH PP,
Meaning:
Do not allocate ICPs where current Distributor is NETB ***AND*** POC is ABC0022 ***AND*** (ICP NHH flag = Y ***OR*** PP flag = Y)

HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,1,maintain RETA exclusions
DET,MTR,,NETB,ABC0022,HHR,,5
Meaning:
Do not allocate ICPs where current Distributor is NETB ***AND*** POC is ABC0022 ***AND*** ICP HHR flag = Y ***AND*** Highest Meter Category = 5

HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,1,maintain RETA exclusions
DET,PC,,NETB,ABC0033,,PCAT1 PCAT2
Meaning:
Do not allocate ICPs where current Distributor is NETB ***AND*** POC is ABC0033 ***AND*** (Price Category Code = PCAT1 ***OR*** Price Category Code = PCAT2)

HDR,RQEXCLTBL,RETA,RGST,16/06/2014,15:36:36,2,maintain RETA exclusions
DET,MTR,,NETB,ABC0044,NHH HHR PP,PCAT1 PCAT2,4 5 9
DET,INT,,NETB,,,PCAT9,,G B
Meaning:
Line1:
Do not allocate ICPs where current Distributor is NETB ***AND*** POC is ABC0044 ***AND*** (ICP NHH flag = Y **OR** ICP HHR flag = Y ***OR*** ICP PP flag = Y) ***AND*** (Price Category Code = PCAT1 ***OR*** Price Category Code = PCAT2) ***AND*** (Highest Meter Category = 4 ***OR*** Highest Meter Category Code = 5 ***OR*** Highest Meter Category = 9)
Line 2:
And do not allocate ICPs where current Distributor is NETB ***AND*** (Price Category Code = PCAT9) ***AND*** (ICP Installation Type = G ***OR*** ICP Installation Type = B)

Processing:

System:

1. Validates that the participant is a Trader (active in the role and not in default) as at today's date.
2. Validates the data inputs and if no errors are found, removes the participant's current exclusions, and creates a new set of exclusion rules.
3. Reports results to the participant.

Data outputs:

Updated allocation exclusion table.

Each attribute on an output line is comma separated. Multiple attribute values are space separated.

Name	Format	Description
Input line	Char	Input line as supplied by participant
Result code	Numeric	Result of update • 000 – successful update, else • error code

File example – based on the data inputs examples and as if they had been input in a single file:

```
HDR,RSEXCLTBL,RGST,RETA,16/06/2014,15:36:36,6,maintain RETA exclusions
DET,DIA,,NETA,000
DET,DIA,,NETB,ABC0011,000
DET,MTR,,NETB,ABC0022,NHH PP,000
DET,PC,,NETB,ABC0033,HHR PP,PCAT1,000
DET,INT,,NETB,ABC0044,NHH HHR PP,PCAT1 PCAT2,4 5 9,000
DET,PC,,NETB,,,PCAT9,,,000
```

Sub-process:	**TD-030 Create Tender Blocks**
Process:	ICP Tendering
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	TD-050

Description:

On instruction from the Authority the Registry Manager will open a Tender Round and generate Tender Blocks against a Trader in a Trader Default situation.

A Tender Block consists of a defaulting Trader's ICP's grouped together due to commonality of specific attributes according to shared characteristics.

Tender Blocks form the basis of tender documents forwarded to Traders who are not in a Trader Default situation.

Business requirements:

1. The Registry Manager must act to initiate a new Tender Round and create Tender Blocks upon instruction from the Authority.
2. Tender Blocks must only be created against a defaulting Trader.
3. By default there will be 2 Tender Rounds. However, if more rounds are required these must be authorised by the Authority in consultation with the Registry Manager (refer SD-020).
4. Tender Blocks for the first Tender Round must only be comprised of active, or inactive but not ready for decommissioning, ICPs for which the defaulting Trader has current responsibility. Subsequent Tender Blocks for subsequent rounds, must only be comprised of untendered ICPs remaining after the immediately prior round has closed that are still the responsibility of the defaulting Trader, together with any ICPs that have become available for tender since the last set of Tender Blocks were created.
5. Tender Blocks for a given round must be able to be re-created or removed provided that it is the latest tender and that no Traders have supplied bids against.
6. A report detailing Tender Blocks must be sent to the Authority.

Data inputs:

ICPs that the defaulting Trader has current responsibility for.

Trader bids (if applicable). TD-050.

Parameters:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Participant identifier of defaulting Trader
Allocation Identifier	Numeric	M	<x> where <x> refers to the Tender Round.
Action	Char 1	O	Blank – default. Create new, or replace existing, Tender Blocks. D – Delete existing Tender Blocks.

Processing:

System:

1. Verifies the Trader is in a Trader Default situation.
2. If a tender is being replaced or deleted, checks that it is the latest tender and that no Traders have tendered against it and, if valid, removes the Tender Blocks associated with the tender.
3. Creates new or replacement Tender Blocks by considering all the ICPs for which the defaulting Trader is currently responsible and:
    a. excludes those ICPs subject to a switch or switch withdrawal or with a Status other than Active or Inactive, or with a Status of Inactive and a Status Reason of Ready for Decommissioning.
    b. groups the rest into Tender Blocks according to the following characteristics:
        i. NSP
        ii. Distributor Price Category codes
        iii. MEP
        iv. Meter Types
        v. Highest Metering Category
        vi. Installation Type
        vii. Reconciliation Type.
    c. Calculates the number of ICPs in each Tender Block
    d. Subtracts the total number of ICPs bid on for the same Tender Block in any/all prior Tender Round(s), to obtain the number of ICPs for the current Tender Round.
4. Reports to the Authority the Tender Block information.

Data outputs:

Tender Blocks constructed from defaulting Trader's ICPs, where each item contains:

- Defaulting Trader

- Allocation Identifier
- NSP
- Distributor Price Codes
- MEP
- Meter Types
- Highest Metering Category
- Installation Type
- Reconciliation Type
- Number of ICPs available in the Tender Block

Tender Block information reported to the Authority, as follows:
The report will be in characteristics order. Report output name will be
"ICPTenderBlockTender<TenderNumber>_<DefaultTrader>_<timeStamp> where
TenderNumber = tender number
DefaultTrader = the Trader against whom the ICP Tender Blocks have been generated
timeStamp = creation time in yyyymmddhhmmss format
for example: ICPTenderBlockTender1_RETA_2014091511:15:21.csv

Name	Format	Description
Defaulting Trader	Char 4	Participant identifier of the defaulting Trader and selection parameter
Allocation Identifier	Char 1	<x> where <x> refers to the Tender Round.
NSP	Char 11	NSP Identifier
Distributor Price Category Codes	Char 2000	Comprises one or more unique price category code(s) space separated.
MEP	Char 4	Participant identifier of the MEP

Meter Types	Char 20	One or more of the following, space separated: • HHR – Any meter installation type (installation row) within an ICP is HHR • NHH - All meter installation types (installation row) within an ICP are NHH, NON or there is no metering installation (solely UML or MEP has not populated information). • PP – the presence of a pre-pay Meter Type on Metering/Component Type within any of the metering installations of the ICP • AMI – the presence of an advanced infrastructure metering device (AMI Flag = Y) on Metering/Component within any of the metering installations of the ICP • UML – Trader event UNM Flag = Y
Highest Metering Category	Numeric 1	1 through 5, or 9, null if not populated
Installation Type	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
Number of ICPs	Numeric 9	Number of ICPs in the Tender Block calculated as specified above
Report example: Trader,Allocation ID,NSP, Distributor Price Category Codes,MEP,Meter Types,Highest Metering Category,Installation Type,Reconciliation Type,Number of ICPs RETA,1,NETAABC0111,PC1,META,HHR,3,L,GN,1560 RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,778 RETA,1,NETAABC0111,PC1 PC3,META,HHR,4,L,GN,12		

Sub-process:	**TD-040 Send Tender Documentation**
Process:	ICP Tendering
Participants:	Authority, Traders
Code references:	Schedule 11.5
Dependencies:	MP-020, TD-030

Description:

On instruction from the Authority the Registry Manager transfers tender documentation to Traders that are not in a Trader Default situation.

Transmission of tender documentation is via the EIEP hub.

The tender documentation includes the Tender Blocks created by the Registry and a prepared information sheet provided by the Authority.

Traders are notified of the availability of tender documentation via the email address previously notified to the Registry Manager (MP-020).

The Authority may, on an ad-hoc basis, supply the Registry Manager with further information to be transmitted via email or EIEP to Traders. This information may relate to tender closure or other information regarded by the Authority as required for completion of a successful tender.

Business requirements:

1. The Registry Manager must act to send tender documents for the latest unpublished open Tender Round to Traders on instruction from the Authority.
2. The Authority must instruct the Registry Manager of the open and close date/time of the tender. A tender open and close date must not overlap the open and close date of any other tender for the defaulting Trader.
3. Tender open date/time cannot be historical.
4. The Authority may instruct the Registry Manager to delay, extend or shorten a tender i.e. adjust the tender open or close date/time.
5. A tender open date must not change if Traders have tendered against any of the ICP Tender Blocks.
6. Tender documents must be sent to Traders via the EIEP hub (refer data outputs section for EIEP file name convention).
7. The Authority provided information sheet must be sent to Traders via the EIEP hub.
8. Traders must be notified via email (MP-020) that tender documents have been transferred to their EIEP inbox and are available for download.

9. The Authority must request the Registry Manager to advise Traders that the tender process has, or is due to close. The Registry Manager must convey this information to Traders via email (MP-020).
10. The Authority may be required to provide further clarity, or answer specific or general questions from Traders during the tender process. On instruction from the Authority the Registry Manager must send additional information provided by the Authority to Traders via email or to the Traders EIEP inbox.

Data inputs:

Tender Blocks.

Authority provided information sheet.

Authority provided additional information.

List of non-defaulting Traders and their email address and EIEP folder location.

Parameters:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Participant identifier of defaulting Trader

Processing:

System:

1. Extracts the Tender Block information for the latest unpublished Tender Round of the defaulting Trader into a file with the specific naming convention that includes information on which Tender Round the documentation relates.
2. Transfers the Tender Block documents, along with the Authority provided information sheet to each non-defaulting Trader's EIEP inbox.
3. Transmits via EIEP, specific or general tender information to Traders as required by the Authority.

Registry Manager:

4. Sends an email to Traders to inform them that tender documentation is available. The email address is the one specified for the delivery of Trader Default information.
5. Transmits via email, specific or general tender information to Traders as required by the Authority.

Data outputs:		
Authority provided information sheet sent to each Trader's EIEP inbox. An email sent to Trader's Trader Default email notification address. An email and/or EIEP file sent to Traders providing additional information as required. Tender Block information sent to each Trader's EIEP inbox:		
Tender Block information EIEP transfer file name. Each component of the file name is underscore delimited.		
Name	**Format**	**Description**
Sender	Char 3	RGST
Utility Type	Char 1	E
Recipient	Char 4	Recipient Trader participant identifier
File Type	Char 7	TDTTNDR (Trader Default Tender)
Report Month	YYYYMM	
Report Run Date	YYYYMMDD	
Unique ID	Char 60	Tender<x> where <x> refers to the Tender Round, for example: • Tender1
File example: RGST_E_RETB_TDTTNDR_201407_20140709_Tender1.csv		
The Tender Block information EIEP file contains a header line and the following comma separated Tender Block information		
Name	**Format**	**Description**
Defaulting Trader	Char 4	Participant identifier of defaulting Trader
Allocation Identifier	Char 1	<x> where <x> refers to the Tender Round.
NSP	Char 11	NSP Identifier
Distributor Price Category Codes	Char 2000	Comprises one or more unique price category code(s) space separated.
MEP	Char 4	Participant identifier of the MEP
Meter Types	Char 20	One or more of the following, space separated: • NHH • HHR • PP • AMI • UML

Highest Metering Category	Numeric 1	1 through 5, or 9, null if not populated
Installation Type	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
Number of ICPs Available	Numeric 9	Number of ICPs with the same characteristics.
ICPs tendered	Numeric 9	Null. Supplied by Trader in returned file as per the format specified by the Authority. The number of ICPs the Trader wishes to tender. Must be less than or equal to the Number of ICPs and >= 0.
Tariff	Numeric 6.6	Null. Supplied by Trader in returned file. Tariff against the ICPs tendered, in cents per kWh.
Trader	Char 4	Null. Supplied by Trader in returned file. Trader participant identifier submitting the tender.

File example:
Detail,Defaulting Trader,Allocation ID,NSP,Distributor Price Category Codes,MEP,Meter Types,Highest Metering Category,Installation Type,Reconciliation Type,Number of ICPs, ICPs tendered,Tariff,Trader
DET,RETA,1,NETAABC0111,PC1,META,HHR,3,L,GN,1560,,,
DET,RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,778,,,
DET,RETA,1,NETAABC0111,PC1 PC3,META,HHR,4,L,GN,12,,,

Authority information sheet EIEP transfer file name.

Name	**Format**	**Description**
Sender	Char 3	RGST
Utility Type	Cha 1	E
Recipient	Char 4	Recipient Trader Participant identifier
File Type	Char 7	TDTTNDR
Report Month	YYYYMM	
Report Run Date	YYYYMMDD	

Unique ID	Char 60	Tender<x>Information where <x> refers to the tender number, for example: • Tender1Information
File example: RGST_E_RETB_TDTTNDR_201407_20140709_Tender1Information.pdf (The file type will depend on the type of file supplied, e.g. docx, pdf)		
Additional Authority provided additional information EIEP transfer file name.		
Name	**Format**	**Description**
Sender	Char 3	RGST
Utility Type	Cha 1	E
Recipient	Char 4	Recipient Trader Participant identifier
File Type	Char 7	TDTTNDR
Report Month	YYYYMM	
Report Run Date	YYYYMMDD	
Unique ID	Char 60	Tender<x>AdditionalInformation<z> where <x> refers to the tender number and <z> is an ascending alpha identifier, for example: • Tender1AdditionalInformationA
File examples: RGST_E_RETB_TDTTNDR_201407_20140709_Tender1AdditionalInformationA.pdf RGST_E_RETB_TDTTNDR_201407_20140710_Tender1AdditionalInformationB.pdf RGST_E_RETB_TDTTNDR_201407_20140712_Tender2AdditionalInformationA.pdf (The file type will depend on the type of file supplied, e.g. docx, pdf)		
Email examples: N.B. Suggested wording only.		
Tender documentation:		
Heading: Trader Default Tender Documentation *Message text:* The following documents have been transferred to your EIEP inbox 1. ICP Tender documents for tender <*tender number*> 2. Information Sheet from the Authority Please familiarise yourself with the information sheet before responding with your bid. The tender is scheduled to open at <*dd/mm/ccyy hh:mm*>. The tender is scheduled to close at <*dd/mm/ccyy hh:mm*>. If you have any questions or issues please contact the Authority		

Additional information:
Heading: Trader Default Tender Additional Information *Message text:* *<free format text provided by the Authority, and/or attachment from the Authority>* *<example 1>* The Authority has provided additional information in the attached document. Please review this information as it may affect your bid. *<example 2>* The Authority has provided additional tender information which has been transferred to your EIEP in box with the following name: RGST_E_RETB_TDTTNDR_201407_20140709_Tender1AdditionalInformationA Please review this information as it may affect your bid. If you have any questions or issues please contact the Authority
Impending tender closure:
Heading: Trader Default Tender Closure information *Message text:* Tender <*tender number*> is due to close at <date/time>. Please ensure you have submitted your bids before this time. Tenders received after the above time will be rejected. If you have any questions or issues please contact the Authority
Tender closed:
Heading: Trader Default Tender Closure information *Message text:* Tender <*tender number*> is now closed. If you have any questions or issues please contact the Authority

Sub-process:	**TD-050 Load Trader Bids**
Process:	ICP Tendering
Participants:	Authority, Trader
Code references:	Schedule 11.5
Dependencies:	SD-020, MP-020, TD-040

Description:

Traders return tender documents containing their bids for each Tender Block of the latest open Tender Round containing:

- the number of ICPs tendered for
- the tariff to be applied
- Trader who is tendering.

The Registry validates and loads the Trader bids, reporting results to the Trader.

Business requirements:

1. Trader bid files must be submitted by file (placed in the SFTP toreg folder).
2. Only bids from the last successful file submitted will be stored for any Trader. Bids for different Tender Blocks cannot be input in separate files. Therefore a Trader's bid file must be considered a complete bid document. If a Trader wants to amend a bid, then the Trader must submit a complete new file with replacement bids and the header in the file marked 'Update'. The previous file and all its bids will be removed (deleted).
3. Traders must be able to remove bid information for the latest Tender Round at any time up to the time when the round closes by supplying a file with the header in the file marked 'Removal'.
4. All bid files that arrive while the current tender is open must be accepted even if they are not processed until after the tender is closed. For example:
    1. File arrives at 19:59
    2. Tender closes at 20:00
    3. File processing starts 20:01
    4. File is processed as arrival precedes tender closure
5. The Tariff must be checked against the Authority supplied minimum tariff (SD-020) to ensure (in the opinion of the Authority) it is not unfeasibly low. Where the tariff falls under the Authority defined minimum an email must be sent to the participant (MP-020) alerting of a potential issue. However, the file load process must still continue.
6. An email must be sent to the Traders tender email address (MP-020) stating the success or failure of the file load.
7. An acknowledgement file must be returned to the submitting Trader.

Data inputs:

Tender Blocks (TD-030)

Trader Bid File

The completed Tender Block information that was provided in the tender documentation EIEP file described in TD-040 Data Inputs section, for the latest open Tender Round.
It is not necessary to retain the Tender Block Information filename. Any valid filename is acceptable, e.g. TenderBids_RETA_Round1.txt.

If a Trader wants to load a file of initial bids, or replacement bids, a parameter must be included with a value of “Update”.

If a Trader wants to remove all previously submitted bids, a parameter must be included with a value of “Removal”, and with no following input lines.

File examples:
HDR,RQTENDER,RETB,RGST,16/09/2014,09:09:36,3,a tender
PRAM01,Update
PRAM02,RETA
RETA,1,NETAABC0111,PC1,META,HHR,3,L,GN,1560,1000,.35,RETB
RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,778,500,.30,RETB
RETA,1,NETAABC0111,PC1 PC3,META,HHR,4,L,GN,12,12,.55,RETB

HDR,RQTENDER,RETB,RGST,16/09/2014,09:09:36,3,a tender update
PRAM01,Update
PRAM02,RETA
RETA,1,NETAABC0111,PC1,META,HHR,3,L,GN,1560,500,.32,RETB
RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,778,500,.30,RETB
RETA,1,NETAABC0111,PC1 PC3,META,HHR,4,L,GN,12,12,.55,RETB

HDR,RQTENDER,RETB,RGST,16/09/2014,09:09:36,3,a tender removal
PRAM01,Removal
PRAM02,RETA

Processing:

System:

1. Verifies that the participant supplying the completed tender file is currently in the role of Trader.
2. Verifies that the Trader is not in a Trader Default situation.
3. Verifies that the Tender Round is open. If the Tender Round is closed the entire file is rejected.
4. Validates the submitted Trader bid file:
    a) If a removal is requested, checks that only the two parameter rows are input.
    b) If an update is requested, checks that there is at least one bid row following the parameter rows.
    c) Checks each bid file input row matches a Tender Block in the current Tender Round and that the Number of ICPs Available matches.
    d) Checks the bid file contains complete information including:
        - Number of ICPs tendered for
        - Tariff

- Trader Participant identifier.

e) Checks that the number of ICPs tendered for is not more than the Number of ICPs Available.

f) Checks that the tariff is not lower than the Authority supplied minimum tariff (SD-020). If it is, an email is sent to the participant (MP-020) alerting them of a potential issue but the validation still continues.

5. Accepts or rejects the bid file. If any input line fails validation the entire file is rejected.
6. If the validation succeeds, saves the Trader bid file information removing and/or replacing (as required by the parameter) any bids that already exist for the submitting Trader in the latest round. Additional audit information is stored with the bid file identifying:
   - date and time the bid file was received loaded; and
   - input file name of the bid file.
7. Supplies an acknowledgement file to the submitting Trader with the results of the Trader bid file validation.
8. Alerts the Trader who supplied the bid file via an email of the success or failure of the bid file load and any associated warnings.

Data outputs:

Email alert stating file load success or failure.

Updated trader bids for the submitting Trader for the Tender Round.

Acknowledgement file:

Name	Format	Description
Input line	Char	line as supplied in the Traders input file
Result Code	Numeric	• Error code, else • 000 – no error,

File example:
HDR,RSACK,RGST,RETB,08/07/2014,12:28:25,00000003,a tender update
PRAM01,Update,000
PRAM02,RETA,000
RETA,1,NETAABC0111,PC1,META,HHR,3,L,GN,1560,1000,.35,RETB,000
RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,778,500,.30,RETB,000
RETA,1,NETAABC0111,PC1 PC3,META,HHR,4,L,GN,12,12,.55,RETB,000

Example email – note:

- The subject line is fixed, and always contains the filename
- The message text has 3 alternative forms – which one is used depends on the outcome:
  - Success with no warning
  - Success with low tariff warning
  - Errors
- Each of the 3 forms consists of fixed text which is entered by the Registry Manager (for example when the tender documentation is sent out) and may be modified at any time.

There is no provision for substitution of data (e.g. tariff threshold, closing time, error codes) within the text.

Tender file load:

Subject: Trader Default Tender File Load – File: <filename>

Message text:
The above file has been processed by the Registry.

The file has been successfully loaded. You may view and download your tender information online.

If you have any questions or issues please contact the Authority
<or>
The above file has been processed by the Registry.

The file has been successfully loaded with the following warnings:
The tariff supplied for one or more tender blocks was less than the Authority defined threshold of 0.20.

The file has been successfully loaded. You may view and download your tender information online.

If you have any questions or issues please contact the Authority
<or>
The above file has been processed by the Registry.

Your tender file has not been loaded as it contained errors.

Please review the returned acknowledgement file in your SFTP (fromreg) directory, correct and re-submit.

Remember the tender is scheduled to close at 17:00 on 12/06/2015.

If you have any questions or issues please contact the Authority.

Sub-process:	**TD-060 View tender bids, tender and mandatory assignment allocation results**
Process:	ICP Tendering and Mandatory Assignment
Participants:	Authority, Traders
Code references:	Schedule 11.5
Dependencies:	TD-050, TD-070

Description:

A Trader may view and download tender bids they have supplied to the Registry (Trader bid files).

Once the allocation process has run a Trader may also view and download summarised results of any Tender Round and mandatory assignment.

The Authority may view or download tender bids and allocation results for any Trader.

Summarised allocation results include the number of ICPs allocated to a Trader in a Tender Block or Mandatory Assignment Block.

Business requirements:

1. A Trader must be able to view and download Trader bids supplied in a Trader Default situation, and the summarised results of the subsequent Tender Round and mandatory assignment allocation.
2. A Trader must only be able to view/download their own tender Trader bid files and summarised allocation results.
3. The Authority must be able to view and download the Trader bid files and summarised allocation results for any Trader.
4. The summarised allocation details must include the number of ICPs allocated to a Trader per Tender Round, and through the mandatory assignment process.

Data inputs:

All trader bids for all Traders relating to all Tender Rounds (TD-050).

Allocation results. (TD-070).

Parameters:

Parameter Name	Type	Mandatory /optional	Description
Defaulting Trader	Char 4	M	Participant identifier of Trader in a Trader Default situation.

Trader Identifier	Char 4	M	The participant identifier whose tender allocation or mandatory assignment results will be displayed. Defaults to Trader participant identifier. If Authority, presents a list of Trader participant identifiers for selection, otherwise the list contains only the Trader's own participant code.
Allocation Identifier	Char 1	M	List of tenders that have been opened for the Trader Default situation. • <x> where <x> refers to the Tender Round • M - Mandatory Assignment • Blank – no filter (show all available)

Processing:

System:

1. Validates the parameters.
2. Retrieves and displays the trader bids submitted by the Trader for the selected Tender Round.
3. If the ICP allocation process has been completed, displays the number of ICPs allocated to the Trader in each Tender Block or Mandatory Assignment Block.
4. Downloads the information for each Tender Block or Mandatory Assignment Block in csv format file.

Data outputs:

Additional audit information is displayed and downloaded identifying:

- date and time the Trader bids were received; and
- input file name in which the Trader bids were received

Trader bids and allocation results:

Information is displayed in characteristics then Allocation Identifier order.

Each attribute on an output line is comma separated.

Name	Format	Description
Defaulting Trader	Char 4	Defaulting Trader participant identifier
Allocation Identifier	Char 1	<x> where <x> is the Tender Round number M – mandatory assignment
NSP	Char 11	NSP Identifier
Price Category Codes	Char 2000	Space separated list of Price Category Codes
MEP	Char 4	Meter Equipment Provider participant identifier

Meter Types	Char 20	One or more of the following, space separated: • NHH • HHR • PP • AMI • UML
Highest Metering Category	Numeric 1	1 through 5, or 9, null if not reported
Installation Category	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
ICPs Available	Numeric 9	Number of ICPs available in the Tender Block or Mandatory Assignment Block
ICPs Tendered	Numeric 9	Number of ICPs tendered by the Trader. Blank for Mandatory Assignment.
Allocated Trader	Char 4	Trader participant identifier of trader allocated the ICPs. Null if allocation process not yet run for Tender Round.
Tariff	Numeric 6.6	Tariff supplied with bid. Blank for Mandatory Assignment.
ICPs Allocated	Numeric 9	Number of ICPs allocated. Populated only when the tender and mandatory allocation has been run.

Downloaded file example (before allocation):
Defaulting Trader,Allocation ID,NSP,Price Category Codes,MEP,Meter Types,Highest Metering Installation Category,Installation Category,Reconciliation Type,ICPs Available,ICPs Tendered,Allocated Trader,Tariff, ICPs Allocated
RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,12000,5000,RETB,0.29,5000

Downloaded file example (after allocation and including a mandatory allocation):
Defaulting Trader, Allocation ID,NSP,Price Category Codes,MEP,Meter Types,Highest Metering Installation Category,Installation Category,Reconciliation Type,ICPs Available,ICPs Tendered,Allocated Trader,Tariff, ICPs Allocated
RETA,1,NETAABC0111,PC1,META,NHH,1,L,GN,12000,5000,RETB,0.29,5000
RETA,M,NETZABC0111,PC1,META,PP,1,L,GN,1000,RETB,0,0,25

Sub-process:	**TD-070 Allocate ICPs**
Process:	ICP Tendering and Mandatory Assignment
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	TD-020, TD-050, PR-290

Description:

On instruction from the Authority the Registry Manager will allocate ICPs to Traders based on:

- the Trader bids returned by each Trader, and
- mandatory assignment (if applicable).

Allocation identifies and assigns individual ICPs that will be switched to the gaining Trader during the Trader Default switch process (TD-080).

The allocation process does not perform Trader Switching.

Business requirements:

1. The Registry Manager must be able to allocate ICPs to Traders based on Traders' bids and mandatory assignment (if applicable).
2. Any allocation must be able to be re-run and, if re-run, the results of the previous allocation must be removed and replaced by the new allocation.
3. Once an allocation has been run, there must be an audit trail to show in which Tender Round or mandatory assignment Traders were allocated specific ICPs.

Data inputs:

List of ICPs currently the responsibility of the defaulting Trader that are active, or inactive but not ready for decommissioning, and that are not in the process of being switched or withdrawn.

All trader bids for all Traders relating to all Tender Rounds (TD-050).

Traders' exclusion tables (TD-020).

Market share % of Traders at each NSP for mandatory assignment (PR-290).

Parameters:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Defaulting Trader participant identifier

Processing:

System:

1. Verifies that the selected Trader is in a Trader Default situation.
2. Verifies no tenders are open, and no tender files are currently being loaded.
3. Considers all the ICPs for which the defaulting Trader is currently responsible and excludes all ICPs that at run time:
    a. are subject to a switch in progress; or
    b. have a Status other than Active or Inactive; or
    c. have a Status of Inactive and a Status Reason of Ready for Decommissioning.
4. Performs the allocation of all bids in Tender Round sequence. If any ICPs remain unallocated following the final Tender Round, mandatory assignment is performed.
5. When allocating bids, first sorts the bids in ascending Tender Round and Tender Block sequence. Then for each Tender Round and Tender Block:
    a. Ranks Traders' bids by average cents/kWh (tariff).
    b. Sorts the defaulting Trader's ICPs (excluding those allocated by any previous Tender Rounds) related to the same Tender Block, by ICP identifier checksum to randomise the allocation.
    c. Allocates ICPs to Trader's bids with the lowest tariff:
        i. If the bid with the lowest tariff is allocated all of the available ICPs in a Tender Block, that Tender Block's processing is complete and the process moves to the next Tender Block.
        ii. If there are ICPs still to be allocated in a Tender Block, allocates these ICPs to the bid with the next lowest tariff. This process repeats until all ICPs in the Tender Block are allocated.
        iii. if there are bids with the same tariff, and there are insufficient ICPs remaining in the Tender Block to fulfil all their bid volumes, the remaining ICPs will be shared between those Traders pro rata according to their bid volumes.
        iv. if there are fewer bids than ICPs available for allocation of a Trader Block, the ICPs left over are allocated to bids that were loaded in the subsequent Tender Round for this Tender Block, if any exist.
6. For a mandatory assignment:
    a. For reporting purposes, the ICPs which were not allocated during the bid allocation process are grouped into "Mandatory Assignment Blocks", using the same characteristics as for Tender Blocks.
    b. For the purposes of the allocation algorithm which follows, the ICPs at each NSP are divided into the following groups:
        - highest metering category is one of 0, 1 or 2 and has submission type NHH but not HHR
        - highest metering category is one of 0, 1 or 2 and has submission type HHR
        - highest metering category is 3
        - highest metering category is 4
        - highest metering category is 5
        - highest metering category is 9

    The algorithm is applied to each group, to allocate the ICPs for that group.

c. Does not allocate an ICP to a Trader if that ICP is excluded based on the Trader's exclusions table. See the examples in TD-020 for the meaning of the attributes of an exclusion rule i.e. precisely which ICPs are excluded by the rule.
d. Sorts all Traders on the NSP/group into order based on their market share % of ICPs for the NSP/group (refer PR-290). E.g. for a particular NSP and the first group in the list above, the "Mass Market NHH" percentage for that NSP would be used.
e. If there are more Traders than ICPs then the smaller Traders (descending based on market share) receive no ICPs, otherwise allocates 1 ICP to each Trader.
f. Allocates the balance of ICPs pro-rata, based on Traders individual market share % of ICPs, with allocations always being rounded up to the next whole number. The Trader(s) with lowest market share, however, will be allocated the remaining ICPs (if any) after all other allocations have been made. This may represent less than their pro rata allocation due to rounding considerations. For example if 126 ICPs are to be allocated between two Traders who have 70% and 30% of the market share:
    - The first will receive 89 (126 * 0.70 rounded up)
    - The second will receive 37 (the rest)
g. If exclusion rules prevent one or more traders being allocated their full quota of ICPs as calculated above, then the remaining ICPs are allocated to other traders, pro-rata based on their market share, to the extent that their exclusion rules allow. This process continues until all ICPs which can be allocated are allocated

7. Stores the allocation details against each and every ICP of each Tender Block or Mandatory Assignment Block. The allocation details to include:
    - Allocated Trader
    - Allocation Identifier in which allocated.
    - Tariff supplied with bid.

    If an ICP is not allocated in any Tender Round or in mandatory assignment, the reason for non-allocation should be stored against the ICP. Currently the only possible reason is "No Trader Available"
8. Notifies Traders via email that the allocation(s) are complete and runs a PR-310 report on their behalf with the detail option selected, and Allocation Identifier = blank (all).
9. Reports results of allocation to the Authority and Traders.

Data outputs:

Report sent to Authority of allocation results (PR-300 with ICP detail).

Email to Traders informing that allocation has been run.

Reports sent to Traders of their allocation results (PR-310 detail).

Allocation results (stored in database):

Name	Format	Description
ICP Identifier	Char 15	ICP identifier
Defaulting Trader	Char 4	Participant identifier of defaulting Trader

Allocation Identifier	Char 1	<x> where <x> refers to the Tender Round of the bid or M – mandatory assignment.
NSP	Char 11	NSP Identifier
Distributor Price Category Codes	Char 2000	Comprises one or more unique price category code(s) space separated.
MEP	Char 4	Participant identifier of the MEP
Meter Types	Char 20	One or more of the following, space separated: • NHH • HHR • PP • AMI • UML
Highest Metering Category	Numeric 1	1 through 5, or 9, null if not populated
Installation Type	Char 1	One of: • L • G • B
Reconciliation Type	Char 2	One of: • GN grid connected network; • EN embedded network; • SB embedded network residual load.
Allocated Trader	Char 4	Trader participant identifier of trader allocated the ICP. Null if unallocated.
Tariff	Numeric 6.6	Tariff from the bid. Null for Mandatory Assignment.
Non-allocation Reason	Char 1	N – No Trader Available. Only applicable where Allocated Trader is null.
Name	**Format**	**Description**
Example Email N.B. Suggested wording only.		
Completion of tender allocations		

Heading: Trader Default Allocation is Complete

Message text:
The Trader Default allocation process has been run. Results of the allocation are available for review. Report PR-310 Report Trader Default Allocation Results is available in your fromreg directory.

The Registry is now awaiting approval from the Authority to commence switching of allocated ICPs to their new Traders.

If you have any questions or issues please contact the Authority

Sub-process:	**TD-080 Switch Trader Default Trader ICPs**
Process:	ICP Tendering and mandatory assignment
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	TD-070, TD-090

Description:

On instruction from the Authority the Registry Manager will initiate switching based on the results of the allocation process (TD-070) and ICP re-assignment process (TD-090).

ICPs under the responsibility of a defaulting Trader will be switched to a non defaulting Trader, the Registry will control all aspects of the switch, submitting switch messages on behalf of all Traders involved.

Note that due to the possibility of an ICP's characteristics changing since the allocation run (TD-070), an ICP may be switched to a Trader on the basis of a bid which was for a Tender Block with a different set of characteristics.

Business requirements:

1. On instruction from the Authority, the Registry Manager must initiate switching of ICPs from the defaulting Trader to non-defaulting Traders based on the results of the tender(s) and mandatory assignment.
2. The Registry Manager must report to the Authority the results of all the switch messages.

Data inputs:

Allocation results but only those with allocation details i.e. ignore ICPs with non-allocation reasons. (TD-070).

Parameters:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Defaulting Trader participant identifier

Processing:

System:

1. Verifies the Trader is in Trader Default.

2. Verifies the allocation process has been run.
3. Stops attempting to switch an allocated ICP if the ICP has been updated since the allocation process has been run and the ICPs trader responsibility or status has changed to any of:
    a) Switch in progress – a customer has requested a switch between days 15-18;
    b) ICP decommissioned – network has decommissioned a previously inactive ICP.
    c) ICP already switched away from the defaulting Trader between days 15 and 18.
4. Creates and submits switch NT messages on behalf of the gaining Trader for the ICPs allocated to them using the following default values:
    a) Requesting Trader – the gaining Trader participant identifier, the Trader who has been allocated the ICP.
    b) Confirmation address details – optional fields, left null.
    c) Proposed Transfer Date – optional field, left null.
    d) Switch Type – one of:
        i. TA – Tender 1
        ii. TB – Tender 2
        iii. MA – Mandatory Assignment.
    e) Proposed Profiles – if there is a standard profile(s) at the ICP that profile(s) will be used. If a non standard profile(s) exists, profile RPS will be used unless RPS already exists. A standard profile is one of RPS, PV1, EG1, UML or HHR.
    f) Proposed ANZSIC – optional field, left null
    g) User Reference – "TDT 'x' allocation" where 'x' refers to the switch type. For example TDT TA allocation
5. Supplies a report of all NT message rejections to the Authority that are not benign.
6. Generates and submits switch CS messages for each valid NT generated using the following default values:
    a) For the Premises row:
        i. Trader – Trader participant identifier of defaulting Trader
        ii. Actual Transfer Date – date of the switch i.e. day 18 of the Trader Default situation
        iii. User Reference – "TDT 'x' allocation" where 'x' refers to the switch type e.g. TDT MA allocation.
    b) For each Metering Installation that has channels requiring readings:
        i. Metering Installation Number – obtained from the Metering information held on the Registry
        ii. Average Daily Consumption – 0
        iii. Key Held Indicator – N
    c) For each Metering Component in the installation with at least 1 Channel with an Accumulator Type of "C" and Settlement Indicator of "Y":
        i. Metering Installation Number – obtained from the Metering information held on the Registry

   ii. Metering Component Serial Number – obtained from the Metering information held on the Registry
   iii. Last Read Date – Trader Default start date minus 1 day
   iv. Meter Reader Notes – null
- ***d)*** For each channel with an Accumulator Type of "C" and Settlement Indicator of "Y":
   i. Metering Installation Number – obtained from the Metering information held on the Registry
   ii. Metering Component Serial Number – obtained from the Metering information held on the Registry
   iii. Channel Number – obtained from the Metering information held on the Registry
   iv. Reading – 1
   v. Actual or Estimate - E

7. Forwards CS file to the gaining Trader that is identical to the standard file definition (as per RS-050) with the following difference:
   a) File Type definition of RSTDTCS, e.g. HDR,RSTDTCS,RGST,RETB,<standard convention>
8. Considers the CS as a normal switch and performs all appropriate and necessary activities as defined in RS-050 including:
   a) Generation of PR-030 to the gaining Trader;
   b) Forwarding of the CS switch message to the gaining Trader, current Distributor and current MEP.
9. Supplies report of CS message rejections to the Authority.

Data outputs:

- NT switch messages
- A Report detailing NT switch message that have been rejected by Registry validation
- CS switch messages forwarded to gaining Trader, Distributor and Metering Equipment Provider. Trader CS message file contains amended header File Type identifier
- ICP updated to no longer switch in progress.
- Trader event.
- Possible Trader and Status event reversals.
- Snapshot Event Detail report (PR-030) for each ICP switched, to the new Trader.
- Notifications.
- Acknowledgements.
- A Report detailing CS switch message that have been rejected by Registry validation.

Report sent to the Authority detail switch messages rejected by Registry validation (of NT and CS messages generated and processed):

The output file name will be TD080_SwitchMessageRejections<timestamp>.csv where timestamp is format “yyyymmddhhmmss” and specifies the run date of the update.

Name	Format	Description
ICP Identifier	Char 15	ICP identifier
Switch Message	Char	Switch message submitted
Error Code	Char 3	Error code
Description	Char	Error code description

File contains header followed by output lines.

Example from submission of switch NT message
ICP Identifier,Switch Message,Error Code,Description
1234567999ABC13,NT,677,ICP Status invalid for switch
1234567666ABC14,NT,229,Switch in progress

Example from submission of switch CS message
ICP Identifier,Switch Message,Error Code,Description
1234567999ABC13,CS,677,ICP Status invalid for switch
1234567666ABC14,CS,229,Switch in progress

Sub-process:	**TD-090 ICP re-assignment process**
Process:	ICP Tendering and mandatory assignment
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	TD-070

Description:

After ICP allocation is complete, and prior to the start of ICP switching, the Authority may adjust ICP allocations for mandatory assignment by re-assigning individual ICPs to Traders, in batch mode only.

Allocation maintenance may be due to:

- Requests from individual Traders where ICP allocation through mandatory assignment would pose a serious threat to the financial viability of the recipient Trader, or
- Traders unable to cater for ICPs with specific characteristics, or
- Assignment of unallocated ICPs remaining after the mandatory assignment process completed.

Business requirements:

1. The Allocate ICPs process (TD-070) for a defaulting Trader must be complete and switching of ICPs (TD-080) not started.
2. The Authority must be able to select one or more ICPs by ICP identifier, and allocate each ICP to a new Trader.
3. The Trader allocated to each ICP must not be in a Trader Default situation, and must currently fulfil the role of Trader.
4. Only ICPs which were not allocated or were allocated by mandatory assignment are able to be adjusted.

Data inputs:

Allocation results. (TD-070). Only select results where Allocation Identifier = M (mandatory assignment) or where there is a non-allocation reason.

Allocation results extract:

Attributes input	Format	Mandatory /optional	Comments
Record Type	Char 3	M	Must be “DET”
Defaulting Trader	Char 4	M	Participant identifier of Trader in a Trader Default situation
ICP Identifier	Char 15	M	ICP to be allocated to the Gaining Trader

Gaining Trader	Char 4	M	Participant identifier of Trader who is being allocated the ICP

Example:
HDR,RQTDTICPMT,EMCO,RGST,09/12/2013,13:57:59,3,transfer ICP Allocations
DET,RETA,0001234569AB123,RETZ
DET,RETA,0002341237BB490,RETZ
DET,RETA,0000045540BC333,RETX

Processing:

System:

1. Verifies the Defaulting Trader is in a Trader Default situation.
2. Verifies that the Allocation process (TD-070) for the Defaulting Trader has been run, and Switch Trader Default Trader ICP (TD-080) has not been run.
3. For each ICP in the input file, checks that:
    a. The ICP currently belongs to the Defaulting Trader.
    b. The ICP has either not been allocated, or was allocated during Mandatory Assignment (ICPs allocated as a result of tender bids are excluded).
    c. The gaining Trader is not in a Trader Default situation.
    d. The gaining Trader is currently active in the role of Trader.
4. Allocates the ICP to the Gaining Trader.
5. Notifies Traders via email that the allocation(s) are complete and runs a PR-310 report on their behalf with the detail option selected for this allocation.
6. Reports results of allocation to the Authority and Traders.

Data outputs:

Updated allocation results.

Acknowledgement file.

Name	Format	Description
Input line	Char	line as supplied in the input file
Result Code	Numeric	• Error code, else • 000 – no error
Result Code Description	Char	If Result Code is not 000 this contains a brief description of the error

Example:
HDR,RSACK,RGST,EMCO,09/12/2013,13:57:59,3,transfer ICP Allocations
DET,RETZ,0001234569AB123,RETZ,776,Trader is not in default
DET,RETA,0002341237BB490,RETB,777,Gaining Trader is in default
DET,RETA,0000045540BC333,RETX,778,ICP does not belong to Defaulting Trader

Email to Traders (those who have either lost or gained ICPs during the adjustment) informing them that adjustments have been made. Reports sent to Traders (those who have either lost or gained ICPs during the adjustment) of their allocation results (PR-310 detail) with the Allocation Identifier parameter set to M.
Example Email N.B. Suggested wording only.
Adjustment to mandatory assignment allocations
Heading: Trader Default Allocation Adjustment is Complete *Message text:* Adjustments have been made to the Mandatory Assignment allocations from the Trader Default allocation process previously notified. Results of the adjusted Mandatory Assignment allocation are available for review. Report PR-310 Report Trader Default Allocation Results is available in your fromreg directory. This does not include tender allocations. The Registry is now awaiting approval from the Electricity Authority to commence switching of allocated ICPs to their new Traders. If you have any questions or issues please contact the Authority

Sub-process:	**TD-100 Create Switch Template File**
Process:	Trader Default
Participants:	Authority
Code references:	Schedule 11.5
Dependencies:	

Description:

On instruction from the Authority the Registry Manager will generate a CS switch template that may be used in construction of a switch CS file.

This process will locate all ICPs for which a Trader is responsible and generate a template in CS file format containing all installations and sub-components that require metering readings to be supplied.

Business requirements:

1. The Registry Manager may only act to generate a template CS switch file (on behalf of a defaulting Trader) upon instruction from the Authority.
2. The Registry must only process ICPs which are Status active or inactive; that is status Decommissioned must be excluded.
3. Delivers output file to the Registry Manager
    i.

Data inputs:

Parameter Name	Type	Mandatory /optional	Description
Trader	Char 4	M	Participant identifier of defaulting Trader
Actual Transfer Date	Date	O	Determined by the Authority. If not supplied defaulted to today's date.

Processing:

System:

1. Identifies all ICPs that are Status Active or Inactive and require a CS switch message to be delivered by the defaulting trader.
2. For each ICP, generates switch CS template message lines as follows:
    - for the Premises row:
        - Trader – Trader participant identifier of defaulting Trader.
        - Actual Transfer Date – date of the switch to be defined by the Authority and input as a run parameter.

- User Reference – set to “CS Switch”.

- then for each Metering Installation that has channels requiring readings:
  - Metering Installation Number – obtained from the Metering information held on the Registry.
  - Average Daily Consumption – “[Average Daily Consumption - Numeric 6]”.
  - Key Held Indicator – “N”.
- then for each Metering Component in the installation with at least one Channel with an Accumulator Type of “C” and Settlement Indicator of “Y”:
  - Metering Installation Number – obtained from the Metering information held on the Registry.
  - Metering Component Serial Number – obtained from the Metering information held on the Registry.
  - Last Read Date – Actual Transfer Date.
  - Meter Reader Notes – null.
- then for each channel with an Accumulator Type of “C” and Settlement Indicator of “Y”:
  - Metering Installation Number – obtained from the Metering information held on the Registry.
  - Metering Component Serial Number – obtained from the Metering information held on the Registry.
  - Channel Number – obtained from the Metering information held on the Registry
  - Reading – “[Reading - numeric 12]”
  - Actual or Estimate – "A”.

N.B.

a) Where there are no channels with accumulator type = ‘C’ and a settlement indicator of ‘Y’, such as for an ICP with only unmetered load, there will only be a premises record type generated.
b) No CS message for a switch type of HH will be generated as these are only input by gaining Traders. In this process a defaulting Trader cannot gain an ICP, also, a CS cannot be generated on behalf of a non-defaulting Trader.

3. Formats the template lines in CSV format and outputs them to a file for delivery to the Registry Manager.

Data outputs:

File in Switch CS file format

CS template file supplied to the Authority detailing the switch messages generated on behalf of the defaulting Trader.

The file output name will be:

“TD100_ CSFileTemplate_<Participant Identifier>_<timestamp>.csv where timestamp is format “yyyymmddhhmmss” and specifies the run time. For example:

- TD100_CSTemplateFile_RETA_20181204113521.txt

The CS template file is delivered to the Authority by email.

3.14 Publish Information

Sub-process:	**PI-010 Publish information**
Process:	Publish information
Participants:	Public, Participants, Authority
Code references:	
Dependencies:	

Description:
The Registry provides open access to any member of the public, via the Internet, to all documents relating to the Registry, such as the Functional Specification and User Guide.

Business requirements:

1. The Registry must allow open access to the following documents:
    - The latest copy of the Registry Functional Specification
    - The Registry User Guide.
    - Error codes used in the Registry and data hub.
    - Registry Access Policy.
    - Participant Identifier list.
    - ICP Checksum calculator
    - Registry News
    - Web Services guide
    - FAQ where the FAQ is not considered internal or commercially sensitive
    - Trouble Shooting guide where the Trouble Shooting is not considered internal or commercially sensitive.
    - Training Data Generator Guide
    - Switch Technical Paper
2. The Registry must maintain a set of FAQ and a Trouble Shooting guide. A FAQ or Trouble Shooting issue must be either:
    a. publicly available (public), or
    b. available only to registered users of the Registry (internal or commercially sensitive).
3. Internal or commercially sensitive FAQ and Trouble Shooting must be at the discretion of the Authority.
4. The Registry must publish the Registry helpdesk contact details.
5. The Registry must allow access by the Authority to the User Business Continuity Plan.

Data inputs:
• Document request.

Processing:
System: 1. Depending on the type of user, displays the name of the permitted documents for selection. 2. Either permits the document to be opened/downloaded or navigates the requester to the destination page if the document is a link to a web page. 3. Displays the helpdesk contact details.

Data outputs:
• Requested document or web page. • Helpdesk contact details.

3.15 ICP Planned Service Interruption Information

Sub-process:	**SI-010 maintain ICP Planned service interruption notification parameters**
Process:	ICP planned service interruptions
Participants:	Traders, Metering Equipment Providers
Code references:	
Dependencies:	

Description:
A Registry user with supervisor privileges will be able to select whether and where notifications of ICP planned service interruptions are sent from the Registry. By default, if no ICP service interruption notification parameters have been setup a trader participant will receive notification of all ICP identifiers in the planned service interruption file supplied by a distributor, provide they have at least 1 affected ICP. If a trader participant wishes to limit the notifications to their own ICP identifiers they must explicitly set the appropriate option. An MEP will only receive notifications for those ICPs for which the MEP is currently the responsible participant. A participant will be able to vary the file output format to suit back-office systems; for example, a participant may select whether an ICP service interruption file includes a description (DES) line or not (the default). A participant will be able to elect to have planned service interruption information delivered to the participant's EIEPOut folder (the default for traders) or fromreg folder on the Registry SFTP server (the default for MEPs) or both.

Business requirements:

1. Only a Registry user with supervisor privileges must be able to perform this function.
2. A supervisor must be able to select to receive ICP planned service interruption notifications.
3. Files must be delivered to the participant's EIEPOut (the default for traders) or fromreg folder (the default for MEPs), or both.
4. Where a participant has multiple roles (for example, is both Trader and MEP) and uses the same participant identifier for both roles, the settings must apply to all roles.
5. Once set the parameter settings must apply immediately to all ICP planned service interruption output sent to the participant.
6. A MEP participant must be able to elect to:
    a) not receive planned service interruption information (the default); or
    b) receive planned service interruption information, in which case the files will contain only ICPs it is responsible for. The MEP will also receive additional files where it is the gaining MEP involved in a MEP switch which has a completion date between the date of the initial notification and start date of the planned service interruption (i.e., start date or alternate date (whichever is later) of interruption 1 if the event includes a single service interruption, or of the final interruption if the event includes multiple service interruptions).
7. A Trader participant must be able to elect to:
    a) receive planned service interruption files containing all ICPs provided it is responsible for at least one ICP in the file (the default); or
    b) receive planned service interruption files containing only ICPs it is responsible for, in which case the Trader will also receive additional files where it is the gaining Trader involved in a Trader switch (including backdated switches and switch withdrawals) which has a completion date between the date of the initial notification and start date of the planned service interruption (i.e. start date or alternate date (whichever is later) of interruption 1 if the event includes a single service interruption, or of the final interruption if the event includes multiple service interruptions)
8. Trader and MEP participants must be able to select parameter settings to receive ICP planned service interruption files with either:
    a) a description (DES) line. If selected the DES line must appear after the EIEP5A HDR line; or
    b) no description (DES) line (the default)
9. Trader and MEP participants must be able to request service interruption files be delivered to their EIEPOut folder (the default for traders) or fromreg folder (the default for MEPs) or both. If delivery to the EIEPOut folder is selected a participant may select to receive the file in:
    a) Registry format (with standard batch file HDR record); or
    b) EIEP5A format (no standard batch file HDR record)

Data inputs:
ICP planned service interruption settings for each participant role.

Processing:

System:

1. Validates ICP planned service interruption notification options.
2. Updates selected options

Data outputs:
Confirmation of options on screen Audit trail of changes

Sub-process:	**SI-020 Maintain ICP planned service interruption**
Process:	ICP planned service interruptions
Participants:	Traders, Distributors, Metering Equipment Providers
Code references:	
Dependencies:	SI-010

Description:

Distributors must notify Traders of planned service interruptions and provide planned service interruption information that enables traders to record details in their customer information systems and notify affected customers where required to do so.

Planned service interruption information includes the ICPs and description of the area affected, interruption reason, Distributor Event Number, and off/on dates and times.

The EIEP5A Planned Service Interruption Protocol defines Distributor Event Number as an identifier provided by the distributor to uniquely identify a planned service interruption. To provide continuity this term is used in the Registry, it is unrelated to the Event term (in section 1.6 and throughout the functional specification).

Many distributors have built systems to transfer planned service interruption information through the EIEP hub to traders using the EIEP5A format. This delivery mechanism will continue to be available as an option for both distributors and traders.

MEPs may also elect to receive planned service interruption files containing the ICPs they are responsible for.

Distributors may choose to upload EIEP5A files to the EIEPOut folder with the Registry recipient code RGST, and the Registry will deliver EIEP5A files to affected participants via the EIEPIn folder (the default for traders, option for MEPs) or Registry SFTP (option for traders, the default for MEPs) with customised outputs reflecting the recipient's preferences (or defaults). Files uploaded using EIEPOut folder will use the general facilities described in process EI-040.

Distributors may also choose to submit files to the EIEPOut folder with the Registry recipient code RGST in Registry file format (that is including the standard Registry header (HDR) line).

The Registry acknowledges receipt of the file and confirms delivery (refer EI-040). In addition, a response file containing the results of the upload of planned service interruption information is returned to the EIEPIn folder; for clarity the files delivered to the submitting participant include:

- .ake – acknowledging receipt of file
- .confirm – confirming delivery of the file to the recipient (RGST)
- .ack – acknowledgement (refer section 1.10)

Distributors may choose instead to upload a batch file containing similar information as EIEP5A (EIEP5A but with the addition of a standard Registry header (HDR) line) to the registry SFTP server. With this option the Registry will:

- generate notification files (in the same format as EIEP5A but with the addition of a standard registry header) to the affected participant's fromreg folder (option for traders, the default for MEPs); and/or
- if required by the affected participants, provide an
    - EIEP5A format file to the participant's EIEPIn folder (the default for traders, option for MEPs); or
    - Registry format file to the participant's EIEPIn folder (option for both traders and MEPs).

Traders and MEPs may also choose to receive files via both the EIEPIn and fromreg folder.

Where the distributor chooses to upload a batch file using the Registry SFTP server, the file must conform to standard Registry header conventions (i.e., contain a standard Registry header (HDR) record) as the HDR record in the EIEP5A format does not conform to the Registry HDR.

Where the distributor uploads a planned service interruption file using the EIEPOut folder, the Registry will (if necessary) construct and insert a valid standard Registry header (HDR) record as the first line of the file before processing the file.

The EIEP5A Planned Service Interruption Protocol involves an agent who can supply data on behalf of a distributor. The term 'agent' is defined in the Registry functional specifications under processes SU-040 and SU-060. To enhance clarity, we will refer to the 'agent' in this process as a 'Distributor Agent'.

Where a file is submitted by a Distributor Agent on behalf of the distributor, acknowledgements and notifications will be returned to the Distributor Agent (as 'Sender' in the EIEP5A file name) provided the Distributor Agent has used a valid participant identifier or non-participant identifier that is known to the Registry, and to the distributor (as owner of information in the file with the distributor's network participant identifier used in the 'Sent on behalf of participant' field).

The Registry must use the EIEP5A header (HDR) to determine if a file has been submitted by a distributor or Distributor Agent, and, if applicable, who the distributor is and who the Distributor Agent is in order to send acknowledgements and notifications to the correct party. There may be additional acknowledgements and notifications sent depending on the header information.

The Registry will validate the file and advise affected participants of the ICP planned service interruptions. Results of the file validation will be returned to the distributor's fromreg folder (and Distributor Agent's fromreg folder if sender is an Distributor Agent with a valid participant identifier or non-participant identifier that is known to the Registry), or where a file point of origin is the EIEPOut folder the file validation results will also be delivered to the distributor's EIEPIn folder directory (and Distributor Agent's EIEPIn folder directory if sender is a Distributor Agent with a valid participant identifier or non-participant identifier that is known to the Registry).

Where the distributor wishes to revise planned service interruption information supplied in a previous file the distributor (or Distributor Agent if applicable) will provide an updated file (with communication type

PLR) that will be used as a complete replacement for the previously supplied planned service interruption information.

Where the distributor wishes to entirely cancel a planned service interruption supplied in a previous file the distributor (or Distributor Agent if applicable) will provide a file with communication type code PLC in the EIEP5A HDR line and may supply detail (DET) lines for all ICPs affected. The Registry will ignore any detail lines included in a cancellation file. Once cancelled a Distributor Event Number cannot be reused.

A MEP may also elect to receive (the default), or not receive, planned service interruption files.

Business requirements:

1. Maintenance of ICP planned service interruptions must only be performed by a Distributor (or Distributor Agent).
2. A file submitted via the Registry SFTP server requires the inclusion of all mandatory elements of the Registry Planned Service Interruption file definition.
3. The file naming convention of a file submitted via the EIEPOut folder must:
    a. have a Recipient code of the Registry (RGST); and
    b. use a EIEP File Type of EIEP5A.
4. The file must be confirmed and acknowledged in accordance with the participant identifier's EIEP communication settings; and if the file does not contain the standard Registry HDR line the Registry must
    a. Construct a valid and standard Registry HDR record; and
    b. Insert the constructed HDR record as the first line of the file
5. The file must be transferred to the Registry SFTP server for validation and processing by the Registry.
6. If the file's point of origin is the EIEPOut folder, results of file validation must be returned to the distributor's EIEPIn folder (and Distributor Agent's EIEPIn folder if sender is a Distributor Agent with a valid participant identifier or non-participant identifier that is known to the Registry). If the file's point of origin is the Registry SFTP server, results of file validation must be returned to the distributor's fromreg folder (and Distributor Agent's fromreg folder if sender is a Distributor Agent with a valid participant identifier or non-participant identifier that is known to the Registry).
7. The Registry must record a unique ICP planned service interruption by a combination of the distributor's network participant identifier and the Distributor Event Number.
8. Maintenance of an existing ICP planned service interruption must be performed by matching the file's Distribution Event Number against an existing ICP planned service interruption Distribution Event Number for the distributor's network participant identifier. If maintenance of an existing ICP planned service interruption is performed:
    a. ICP identifiers in the replacement file must replace matching ICP identifiers from the previous maintenance; and
    b. ICP identifiers that are not already present in the Registry must be treated as additions to the planned service interruption; and
    c. ICP identifiers that are not present in the replacement file must be treated as cancellations; that is, they are removed from the planned service interruption

9. The Registry must record non-overlapping outage occurrences for the same ICP Identifier as separate and discrete outages
10. The Registry must notify affected participants of ICP planned service interruptions (communication type codes PLS, PLI), revisions (PLR) and cancellations (PLC).
11. Subject to the notification settings (or defaults) for each participant identifier, an affected participant must include:
    a. Current Trader
    b. Current MEP
    c. If the ICP identifier is involved in a Trader switch completing between the initial notification and start date of the planned service interruption, the gaining Trader
    d. If the ICP identifier is involved in a MEP switch completing between the initial notification and start date of the planned service interruption, the gaining MEP
12. Where an ICP planned service interruption is a cancellation, the Registry must notify participants of the cancellation only if they have been previously notified.
13. Where an affected participant performs multiple roles on an ICP as a responsible participant and uses the same participant identifier for both roles; that is, both trader and MEP have a common participant identifier, and as Trader they wish to receive all ICPs, they must receive only 1 planned service interruption notification for the ICP. For the avoidance of doubt:
    a. If a MEP and trader use the same participant identifier, and the trader has elected to receive a file containing all the ICPs in the planned service interruption they will receive a single file containing all ICPs
    b. If a MEP and trader use the same participant identifier, and the trader has elected to receive a file containing only the ICPs for which it is responsible in the role of trader, they will receive two files. One file containing the ICP's where they perform the role of trader, and one file containing ICPs where they perform the role of MEP only.
14. Registry must validate that:
    a. if 'Sent on behalf of participant' is Null (i.e. where sender is the distributor) then 'Sender' must be a valid network participant identifier
    b. if 'Sent on behalf of participant' has a participant identifier (i.e. where sender is a Distributor Agent) it must be a valid network participant identifier
15. Planned Service Interruption Retention Period:

    a. The Registry must retain planned service interruption information for a configurable number of working days after:
    - The final planned service interruption period end date, or
    - The creation date of the planned service interruption if no interruption periods have been provided.
16. The Registry must retain the Distributor Event number of a configurable number of days after which it may be reused.

Data inputs:
Distributor provided planned service interruption information. Each attribute on an input line is comma separated.

Attribute Input	Format	Mandatory /Optional	Comments
Record Type	Char 3	M	Must be one of • HDR – indicates the row contains planned service interruption specific header information DES - indicates the row contains description information. The DES row is optional, a maximum of 1 DES row may be supplied. • DET - indicates the row contains detail planned service interruption information. A minimum of 1 DET row must be supplied (unless the communication type is PLC (cancellation) where DET lines are optional)
HDR record type followed by			
File Type	Char 7	M	Must be PLINT
Version of EIEP	Numeric 3.1	M	Version of the EIEP protocol being used for this file. For example, 10.1
Sender	Char 20	M	Name of sending party. May be the distributor or Distributor Agent. Valid participant identifier to be used if the sender is a participant, or valid non-participant identifier if sender is a Distributor Agent with a non-participant identifier.
Sent on behalf of Participant identifier	Char 4	O	Valid participant identifier of party on whose behalf data is provided. Must be a valid network participant identifier if sender is a Distributor Agent, otherwise Null. Validated by the Registry to ensure either the 'Sender" or 'Sent on behalf of participant' is a valid network participant identifier The Registry must validate that: (i) if 'Sent on behalf of participant' is Null (i.e., distributor has submitted the file to the registry) then 'Sender' must be a valid network participant identifier; (ii) (ii) if 'Sent on behalf of participant' has a participant identifier (i.e., where Sender is a Distributor Agent) it must be a valid network participant identifier
Recipient participant identifier	Char 4	M	Valid recipient participant identifier. Not validated by the Registry
Report run date	DD/MM/YYYY	M	Valid date.
Report run time	HH:MM:SS	M	Valid time, 24-hour format
Unique File identifier	Char 15	M	Number that uniquely identifies the file. Not validated by the Registry
Number of detail records	Numeric 8	M	Number of DET records
Communication Type Code	Char 3	M	Must be a valid Communication Type Code as per static data table.

Distributor Event Number	Char 15	M	Distributor's unique reference number for the planned servicer interruption.
"spare"		O	Reserved for future use. Any value provided in this field must be discarded
Utility type	Char 1	M	G (Gas) or E (Electricity)
DES record type. The DES line may be provided but is not validated nor loaded into the Registry. The intention is to minimise change for participants with pre-existing systems that currently generate a DES line			
DET record type followed by			
ICP Identifier	Char 15	M	Must be a valid ICP identifier
Feeder	Char 20	O	Transformer and feeder number. Not validated by the Registry
Street/area affected	Char 255	M	Free format text description of locality affected.
Interruption reason	Char 255	M	Free format text description of interruption reason
Number of interruptions	Num 1	M	Number of planned service interruption occurrences. There must be a minimum of 1 interruption and maximum of 5. This must match the number of Interruption periods provided.
Distributor Event Number	Char 15	M	Distributors unique reference number for the planned service interruption. Must be identical to the Distributor Event Number defined in the HDR record
Distributor may specify up to 5 interruption periods numbered 1 through 5, 1 being the first interruption and 5 being the last. The following interruption date and time fields are repeated maximum 5 times. As a minimum, the first set of interruption information must be provided.			
Interruption "x" Start Date	DD/MM/YYYY	O	Commencement date of interruption "x". Mandatory for interruption 1.
Interruption "x" Restore Date	DD/MM/YYYY	M/O	Most accurate indication of date when power will be restored for interruption "x". Mandatory if Interruption Start Date is provided
Interruption "x" Start Time	HH:MM	M/O	Start time for first interruption. 24-hour format for example 21:00 (aka 9pm). Mandatory if Interruption Start Date is provided
Interruption "x" expected or actual restore time	HH:MM	M/O	Restore time for interruption. 24-hour format for example 21:00(aka 9pm). Mandatory if Interruption Start Time is provided. Must be after Interruption Start Time.
Interruption "x" alternative date	DD/MM/YYYY	O	Alternative Interruption Start Date if first planned service interruption cannot proceed on Interruption "x" Start Date.
Revision reason	Char 50	O	Free format. Reason for revision of planned service interruption (only if communication type code is PLR).

URL	Char 50	O	URL for updated or additional information if available from distributor's website
Identifier "x" represents the interruption period 1 through 5.			
A distributor provides a planned service interruption file HDR,RQPLINT,NETA,RGST,14/01/2018,11:13:12,00000003,service interruption in Oxford HDR,PLINT,1.0,NETA,,RGST,14/01/2018,11:10:00,6677991,2,PLS,OX-88713,,E DET,0000000491AA176,,Oxford area school bay road,Building Demolition,.... DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....			

Processing:

System

1. Verifies that if the 'Sent on behalf of participant' is other than Null it must be a valid network participant identifier (and 'Sender' will identify the Distributor Agent), and if it is Null then the 'Sender' must be a valid network participant identifier,
2. Validates the submitted ICP planned service interruption file
3. If the PLINT HDR row fails validation the entire file is rejected.
4. Adds, updates, or cancels ICP planned service interrupt information
5. Supplies an acknowledgement file to the distributor's EIEPIn folder or fromreg folder on the Registry SFTP directory (and Distributor Agent's EIEPIn folder or fromreg folder on the Registry SFTP directory if sender is a Distributor Agent with a valid participant identifier or non-participant identifier that is known to the Registry), aligned with file's point of origin, with the results of the ICP planned service interruption file validation.
6. Alerts affected participants of ICP planned service interruptions, revisions or cancellations considering the participant's ICP planned service interruption notification parameters.
7. Deletes planned service interruption information after a configurable number of working days after:

   - the final planned service interruption period end date, or

   - the creation date of the planned service interruption if no interruption periods have been provided.
8. Deletes Distributor Event Number after a configurable number of days.

Data outputs:

Acknowledgement file(s) delivered to:

- Distributor's fromreg folder on the Registry SFTP directory (and Distributor Agent's fromreg folder on the Registry SFTP directory if applicable); or
- Distributor's EIEPIn folder directory (and Distributor Agent's EIEPIn folder if applicable) with following EIEP file naming convention:
  - Sender – RGST
  - Recipient – distributor's network participant identifier (and Distributor Agent's participant identifier or non-participant identifier if provided by the Distributor Agent)

- File Type – EIEP5A
- Unique Id - Distributor Event Number and “validationResults”

For example:

RGST_E_NETA_EIEP5A_201503_20151203_ OX-88713.validationResults

- If a Distributor Agent has submitted a file, the acknowledgement file will only be delivered to the Distributor Agent if the Distributor Agent has used a valid participant identifier or non-participant identifier that is known to the Registry in the file name.

Updated ICP planned service interruptions for the submitting distributor for the unique Distributor Event Number.

Notification to affected trader/MEP participants of ICP service interruptions in accordance with the participant’s notification preferences (or defaults) via:

- Batch File; and/or

- EIEPIn folder with following EIEP file naming convention:
  - Sender – Registry Participant identifier
  - Recipient – Participant identifier
  - File Type – EIEP5A
  - Unique Id - Distributor Event Number and “ServiceInterruption”

  For example:

  RGST_E_RETA_EIEP5A_201503_20151203_ OX-88713ServiceInterruption

Name	Format	Description
Input line	Char	Line as supplied in the distributor’s input file
Result Code	Numeric	• Error code, else • 000 – no error

Acknowledgement file examples:

1. HDR line error with invalid Communication Type Code, HDR and all DET lines rejected:

HDR,RSACK,RGST,NETA,08/06/2018,14:27:12,00000003,service interuption in Oxford
HDR,PLINT,1.0,NETA,,RGST,08/06/2018,14:22:00,6677991,2,**PZZ**,OX-88713,,E,815
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....815
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....815

2. HDR line error with invalid number of detail lines, HDR and all DET lines rejected:

HDR,RSACK,RGST,NETA,08/06/2018,14:27:12,00000003,service interuption in Oxford
HDR,PLINT,1.0,NETA,,RGST,08/06/2018,14:22:00,6677991,**5**,PLR,OX-88713,,E,816
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....816
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....816

3. DET line rejected with ICP not found:

HDR,RSACK,RGST,NETA,08/06/2018,14:27:12,00000003,service interuption in Oxford
HDR,PLINT,1.0,NETA,,RGST,08/06/2018,14:22:00,6677991,2,PLR,OX-88713,,E,000
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....000
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....103

ICP planned service interruption file delivered to participant’s EIEPIn folder and/or fromreg folder on the Registry SFTP directory in accordance with the participant’s notification preferences (or defaults).

A Description line (DES) is provided according to a participant's ICP service interruption notification parameters		
DET		
ICP Identifier		
Feeder		
Street/Area Affected		
Interruption Reason		
Number of Interruptions Notified		
Distributor Event Number		
Distributor may specify up to 5 interruption periods numbered 1 through 5, 1 being the first interruption and 5 being the last. The following literal fields are repeated 5 times with "x" representing the interruption period.		
Interruption "x" Start Date		
Interruption "x" Restore Date		
Interruption "x" Start Time		
Interruption "x" Expected or Actual Restore Time		
Interruption "x" Alternative Date		
Detail lines as provided in the distributor's ICP planned service interruption file		
Input line	Char	Line as supplied in the distributor input file

File example with a description (DES) line:

HDR,RSPLINT,RGST,RETA,14/01/2018,11:13:12,00000004,service interuption in Oxford
DES,ICP Identifier, Feeder, Street/Area Affected.Interruption Reason...
HDR,PLINT,1.0,NETA,,RETA,08/06/2018,14:22:00,6677991,2,PLR,OX-88713,,E
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....

File example with no description (DES) line:

HDR,RSPLINT,RGST,RETA,14/01/2018,11:13:12,00000003,service interuption in Oxford
HDR,PLINT,1.0,NETA,,RETA,08/06/2018,14:22:00,6677991,2,PLR,OX-88713,,E
DET,0000000491AA176,,Oxford area school bay road,Building Demolition,....
DET,0000000493AA1F3,,Oxford area school bay road,Building Demolition,....

Appendix 1: Calculation of the ICP checksum

Retail competition committee

27 January 1999

Approach to generating checksums for unique IDs v1.1

Executive summary

This paper considers the requirements for the checksum to be used with the Unique ID. Based on the requirements outlined in this paper an approach to generating the checksum is prescribed. This approach should be used by networks to generate Unique IDs initially and all parties to validate the Unique IDs.

Version control

Version	Date amended	Comments
1.0	19/1/1999	Original version issued to industry.
1.1	27/1/1999	Revised test data.
2.0	27/01/2012	Updated to reflect transition to the Electricity Authority and updates to parts 11 and 15 of the Code.
2.1	12/12/2018	JIRA-ER 855 - ICP checksum generator available from the GitHub/ElecticityAuthority page

Introduction

Background

To facilitate the switching of customers from one Trader to another, every Installation Control Point (ICP)[1] in New Zealand has a unique ICP identifier.

The unique ICP identifier consists of a numerical sequence provided by the Distributor who is creating the ICP Identifier, a code assigned by the Authority, and a checksum. Each ICP Identifier has a maximum of 10 numbers followed by two letters (the code assigned by the Authority).

The numbering scheme adopted across the industry is set out in the Unique ID – Installation Control Point v1.2 paper dated 12 January 1999.

Each ICP Identifier must be created in accordance with the following format:

ICP Identifier = (numerical sequence + Authority-assigned code + checksum) where:

ICP Identifier = yyyyyyyyyyxx-checksum,

And:

ICP {numerical sequence (yyyyyyyyyy) + Authority generated Code (xx)} = yyyyyyyyyyxx.

The purpose of this paper is to outline the approach for generating and validating the checksum.

Introduction

The paper is divided into two main sections. The first section considers the requirements for the checksum. The second section prescribes in detail the method to generate and validate the checksums based on this requirement.

[1] ICP is defined as being 1 of more of the following: (a) a point of connection at which a customer installation is connected to a network other than the grid, or (b) a point of connection between a network and an embedded network, or (c) a point of connection between a network and shared unmetered load.

Checksum requirements

Factors to consider

A checksum is used to help ensure that a number has been correctly transmitted without corruption. The checksum provides additional information that can be used to validate the number provided and with some level of confidence indicate whether an error has been introduced into the number. No checksum can guarantee that an error has not been introduced but depending on the complexity of the checksum, varying degrees of certainty can be provided. When considering the type of checksum to use, the degree of confidence that is required in the number and the implications if the number is wrong should be considered.

The checksum must be capable of being printed and should be kept as short as possible.

Implications if the ICP Identifier ID is incorrect

The ICP Identifier is the sole mechanism for identifying a record in relation to an ICP in the registry. The registry does not contain any other field specific to ICP (such as name or address) that could be used to check information about the ICP. Therefore, the ICP Identifier provided to the registry must be correct.

Every time a registry record is accessed or modified, the ICP Identifier must be quoted. The worst possible result of an ICP Identifier being used incorrectly relates to the Trader switching process. A gaining Trader will obtain the ICP Identifier from a customer they have signed up and will advise the registry of this change. If the wrong ICP Identifier is provided to the registry (either because it was incorrectly given by the customer or incorrectly entered by the Trader), the record for the Trader will be amended incorrectly. This will result in the losing Trader not being given incorrect information as to which ICP it no longer supplies. The net result to the customers will be that the customer whose ICP Identifier number was incorrectly given to the registry as being the ICP Identifier of the ICP being switched will receive a closing account notification, despite never asking to change Trader, and the customer that has changed Traders will receive two bills.

A Trader quoting the incorrect ICP Identifier when switching an ICP will also eventually affect the reconciliation process, although the error but may go undetected for some time.

These scenarios are just two examples of the potential impact on customers and companies if an ICP Identifier provided to the registry is incorrect.

Level of confidence required

When the registry is fully populated there will be approximately 2.04 million ICP Identifiers. If we assume that 5 percent of customers change Traders each year, there will be 80,000 change of Trader requests. A prudent assumption is that in 10 percent of these cases some form of error may be introduced in the communication of the ICP Identifier from the customer to Trader and then to the registry. This will result in 8,000 incorrect transactions.

If the checksum is capable of spotting 99 percent of errors this would still mean that each year 80 people would receive incorrect account closures and a further 80 people would receive two bills. If the checksum is capable of spotting 99.9 percent of errors this number falls to 8 each year. These errors would be additional to any other errors currently occurring in the system.

The above example is only one type of possible errors, and it is likely that there will be a much larger number of other types of transactions, including enquiries, changes of Profile, changes of Meter Owner, addition or deletion of ICPs etc. All these transactions will have some adverse impact on customers or companies if the ICP Identifier is entered incorrectly.

The number of errors each year is greatly dependent on the number of transactions and the number of times that a number is entered incorrectly. As there is no other way of cross checking an ICP Identifier in the registry it is clear that ideally the checksum should be able to detect as many errors as possible.

Specifying the checksum

Expert advice

The approach outlined below has been developed through discussions between the Implementation Team and Dr Anand Venkataraman, lecturer in computer science at Massey University.

Overall approach

The ideal scenario is one in which the space of ICP Identifier is designed with a specified Hamming distance.[2] However, there are two constraints which limit the way in which this issue can be addressed.

The checksum needs to consist of printable characters.

The checksum needs to be small, preferably no bigger than 3 characters.

Since the total number of possible customer IDs is approximately $6.76*10^{12}$ (all possible numbers between 0 and 10^{10} followed by all possible combinations of two letters), which is greater than the number of allowable checksums, it is inevitable that more than one valid ICP Identifier will end up sharing the same checksum. Thus, the aim is not to detect all errors, but to minimise the likelihood of errors going undetected.

It is proposed that a polynomial code (Cyclic Redundancy Check or CRC)[3] is used to generate the checksum. The theory behind such a scheme can be found described in such works as Data and Computer Communications[4]. A two-digit decimal checksum would spot about 98.4 percent of all errors. However, by using a three three-digit hexadecimal checksum it will detect more than 99.9 percent of all errors. In order to maximise the error detection based on the requirements outlined above it has been decided that a three-digit hexadecimal checksum will be used.

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2 Hamming, R. W. (1980). Coding and Information Theory, 2nd ed., Prentice-Hall, Englewood Cliffs, NJ.

3 Peterson W. W. and D. T. Brown. (1961). Cyclic Codes for Error Detection, Proc. IRE, v.49, pp.228-235, Jan 1961.

4 Stallings, W. (1997). Data and Computer Communications, 5th ed., Prentice-Hall, Englewood Cliffs, NJ.

Calculating the checksum

The 15 characters comprising the ICP Identifier are viewed as a stream of 96 bits where each character of the ID is simply treated as an ASCII bit string regardless of its type (numeric or alpha).

The bits can be imagined to represent a polynomial in x of the 95th degree where their values represent the co-efficients of the corresponding powers of x. (Eg 101101 represents x5 + x3 + x2 +1). Let this polynomial be the Message polynomial M.

We choose a generator polynomial of degree n, where n is the number of bits desired in the checksum. Call this polynomial G.

We divide G into M*2n to get remainder R using modulo-2 long division.

This remainder R is then subtracted from M*2n again using modulo-2. This gives a polynomial that is guaranteed to be divisible by G.

M*2n - R is the complete frame (message including checksum).

If either the message or the checksum is corrupted in transit, then the checking procedure will find that M'*2n-R' is not divisible by R' and so can report an error.

A wise choice of the generator polynomial can guarantee to catch most errors. The international standard polynomial CRC-12 which is x12 + x11 + x3 + x2 + x + 1 (180F HEX) is proposed. Some advantages of this choice are:

It has been shown that G should ideally have at least three 1s in it. CRC-12 has six.

It has (x+1) as a prime factor. It has been shown that this property enables it to catch all odd numbers of bit errors as well.

Algorithm to calculate the checksum

Initialise a 2-byte register R to zero.

Initialise a 2-byte divisor D to 180F hex (00011000 00001111)

Append 12 bits all equal to zero to the end of the ICP

FOR each bit of the ICP (left to right): DO

Shift that bit into the 20-bit position of R

IF the 21-bit position of R is 1 THEN

R = R XOR D

ENDIF

END

Append R as 3-digit hexadecimal integer to the ICP.

Algorithm to validate the checksum	Remove the last three (hexadecimal) digits of a given ICP Identifier
	
	Compute and append checksum using Algorithm above.
	
	IF result is equal to given ICP Identifier THEN
	
	Given customer ID was valid.
	
	ELSE
	
	Given customer ID was invalid.
	
	ENDIF

Intellectual property rights	The method described in this document does not infringe on any Intellectual Property Rights.
Code available	Software is available from the Implementation Team (free of charge) to calculate and validate checksums. The code is available in C / C++ and Unix Command / Perl languages.
Printing the checksum	The checksum should be separated from the ICP by a dash to improve the readability of the number. The format of the Unique ID is to be as follows: The UI = (ICP + Checksum) Where: UI = yyyyyyyyyyxx-ccc, And: ICP {Existing code (yyyyyyyyyy) + network ID (xx)} = yyyyyyyyyyxx.

Code available: Software is available (free of charge) to calculate and validate checksums. Contact registry.engineer@jadeworld.com to receive the code in C / C++ and Unix Command /Perl languages.
The Authority also publishes four sets of code for generating an ICP checksum. More information, along with the code sets, is available from the Authority at https://github.com/ElectricityAuthority/ICP-checksum-generator.

Sample ICP Identifiers

The following sample ICP Identifiers have been produced using the approach outlined in this paper:

0230994598FDDF1	0230994599FD1B4	0230994600FD301	0230994601FDF44	0230994602FD384
0230994603FDFC1	0230994604FD20B	0230994605FDE4E	0230994606FD28E	0230994607FDECB
0230994608FD115	0230994609FDD50	0230994610FD9AC	0230994611FD5E9	0230994612FD929
0230994613FD56C	0230994614FD8A6	0230994615FD4E3	0230994616FD823	0230994617FD466
0230994618FDBB8	0230994619FD7FD	0230994620FDE54	0230994621FD211	0230994622FDED1
0230994623FD294	0230994624FDF5E	0230994625FD31B	0230994626FDFDB	0230994627FD39E
0230994628FDC40	0230994629FD005	0230994630FD4F9	0230994631FD8BC	0230994632FD47C
0230994633FD839	0230994634FD5F3	0230994635FD9B6	0230994636FD576	0230994637FD933
0230994638FD6ED	0230994639FDAA8	0230994640FD1A4	0230994641FDDE1	0230994642FD121
0230994643FDD64	0230994644FD0AE	0230994645FDCEB	0230994646FD02B	0230994647FDC6E
0230994648FD3B0	0230994649FDFF5	0230994650FDB09	0230994651FD74C	0230994652FDB8C
0230994653FD7C9	0230994654FDA03	0230994655FD646	0230994656FDA86	0230994657FD6C3
0230994658FD91D	0230994659FD558	0230994660FDCF1	0230994661FD0B4	0230994662FDC74
0230994663FD031	0230994664FDDFB	0230994665FD1BE	0230994666FDD7E	0230994667FD13B
0230994668FDEE5	0230994669FD2A0	0230994670FD65C	0230994671FDA19	0230994672FD6D9
0230994673FDA9C	0230994674FD756	0230994675FDB13	0230994676FD7D3	0230994677FDB96
0230994678FD448	0230994679FD80D	0230994680FD64B	0230994681FDA0E	0230994682FD6CE
0230994683FDA8B	0230994684FD741	0230994685FDB04	0230994686FD7C4	0230994687FDB81
0230994688FD45F	0230994689FD81A	0230994690FDCE6	0230994691FD0A3	0230994692FDC63
0230994693FD026	0230994694FDDEC	0230994695FD1A9	0230994696FDD69	0230994697FD12C
0230994698FDEF2	0230994699FD2B7	0230994700FDA05	0230994701FD640	0230994702FDA80
0230994703FD6C5	0230994704FDB0F	0230994705FD74A	0230994706FDB8A	0230994707FD7CF
0230994708FD811	0230994709FD454	0230994710FD0A8	0230994711FDCED	0230994712FD02D
0230994713FDC68	0230994714FD1A2	0230994715FDDE7	0230994716FD127	0230994717FDD62
0230994718FD2BC	0230994719FDEF9	0230994720FD750	0230994721FDB15	0230994722FD7D5
0230994723FDB90	0230994724FD65A	0230994725FDA1F	0230994726FD6DF	0230994727FDA9A
0230994728FD544	0230994729FD901	0230994730FDDFD	0230994731FD1B8	0230994732FDD78
0230994733FD13D	0230994734FDCF7	0230994735FD0B2	0230994736FDC72	0230994737FD037

0230994738FDFE9	0230994739FD3AC	0230994740FD8A0	0230994741FD4E5	0230994742FD825
0230994743FD460	0230994744FD9AA	0230994745FD5EF	0230994746FD92F	0230994747FD56A
0230994748FDAB4	0230994749FD6F1	0230994750FD20D	0230994751FDE48	0230994752FD288
0230994753FDECD	0230994754FD307	0230994755FDF42	0230994756FD382	0230994757FDFC7
0230994758FD019	0230994759FDC5C	0230994760FD5F5	0230994761FD9B0	0230994762FD570
0230994763FD935	0230994764FD4FF	0230994765FD8BA	0230994766FD47A	0230994767FD83F
0230994768FD7E1	0230994769FDBA4	0230994770FDF58	0230994771FD31D	0230994772FDFDD
0230994773FD398	0230994774FDE52	0230994775FD217	0230994776FDED7	0230994777FD292
0230994778FDD4C	0230994779FD109	0230994780FDF4F	0230994781FD30A	0230994782FDFCA
0230994783FD38F	0230994784FDE45			

Appendix 2: Address population standards

Registry project

Address population guidelines

Version number	Release date	Description
1.0	4 Feb	Draft for comment
1.1		Updated for comments received
1.2	8 Mar 2002	Issued to all participants
2.0	21 Jun 2002	Total rewrite based on A/NZ addressing standards
3.0	27 Jan 2012	Updated to reflect transition to the Electricity Authority and updates to parts 11 and 15 of the Code
3.0	22 November 2013	Formatting updated to include numbering
3.1	23/04/2020	Removal of personal details

Introduction

About this document

This document is a rewrite of the “address population guidelines” based on the A/NZ addressing standards.

Purpose

The purpose of this document is to provide Distributors with guidelines on how they should populate the address fields on the registry. The outcome we are seeking to achieve is the consistent population of the fields so that we maximise the chance that users will correctly locate an ICP via the registry address search function.

A/NZ addressing standard

To obtain a full copy and the background of the standards please go to www.anzlic.org.au.

LINZ, who is the facilitator of these standards in New Zealand, has informed us that many of the councils have been active in the development of the standard and that they are eagerly awaiting the standard, and intend including them in contracts they let. Submissions from NZ Post have also been considered in developing the standards.

Changes to the registry address format and validations

The adoption of these new guidelines has meant that the following changes have been made to the registry address format:

(a) Property name field size has been increased to 75 characters.

(b) Validation rules modified to make it mandatory to populate the Street name field and/or the Property Name field.

Best efforts

It expected that Distributors will, on a best endeavours’ basis and where practical, attempt to align their address data with these guidelines over time.

The following sections

The document is broken into three sections:

(a) A/NZ addressing standard for street addressing – this section details the component parts of an address per the A/NZ addressing standards and a definition of each component.

(b) Guidelines for Population of Registry Address structure – this section details the rules for population of the registry Address fields.

(c) Address population examples.

A/NZ addressing standard for street addressing

The definitions below are not extracted directly from the standards document. The standards provide a concise definition for some of the component parts, whereas other parts have an entire section detailing with the component part definition. Where there was a concise definition it has been included, and where not we have attempted to distil the essence of the standard.

The reader should refer to the full version of the A/NZ addressing standards where they require a fuller explanation of an address component. A copy of the standards can be obtained from http://www.anzlic.org.au/icsm/street/

Urban addressing

Components of urban addresses

The A/NZ addressing standard dissects an urban address into the following component parts:

(a) **Address number or address number range** = a number issued by government agency or local government authority that identifies a point or location on a street.

(b) **Road name** = official road name issued by government agency or local government authority.

(c) **Suburb/locality name** = a bounded locality within a city, town or shire principally of urban character and usually with a focus of a shopping centre, schools or transport facility.

(d) **Nearest service town/city** = an officially recognised and named population centre, defined within a geographic boundary.

Optional:

(a) **Sub dwelling number** = identifier for sub dwelling, eg A, 1, Flat 1, Unit 1, Unit G Apartment 1, etc.

(b) **Level of sub dwelling** = spatial reference to the sub-dwelling, eg basement, first floor etc.

(c) **Property/building name** = name given to the property or building by the owner or party with legal naming rights.

(d) **Complex name** = name given to the development by the owner of the development, eg “Central Park” office park in Greenlane.

(e) **Private street name** = is a made up address by a body other than that responsible for the definition of official street names (a corner address is made up of two official street names & therefore by definition a private street name).

(f) **Utility** = this is a description of something useful, eg traffic lights, street lights, barbecue, fountain.

(g) **Postcode** = official postal postcode.

Presentation order rules

For presentation purposes, the components of an urban address must be ordered as follows:

(a) Sub dwelling number;

(b) Level of sub dwelling;

(c) Utility;

(d) Property/building name;

(e) Private street name;

(f) Complex name;

(g) Address number or address number range, road name; and

(h) Suburb/locality name, nearest service town/city, postcode.

Rural addresses

Rural addressing applies to the addressing of sites which lie outside the limits of an urban numbering system.

Components of rural addresses

The A/NZ proposed standard dissects a rural address into the following parts:

(a) **Rural address number** = a number derived from the distance between a datum point and a property access point eg RAPID No.

(b) **Road name** = official road name issued by government agency or local authority.

(c) **Locality**.

(d) **Nearest service town/city**.

Optional:

(a) **Postcode**.

(b) **Rural delivery number**.

(c) **Property name (habitation name)**.

(d) **GPS**_Easting.

(e) **GPS**_Northing.

Presentation order rules

For presentation purposes, the components of a rural address must be ordered as follows:

(a) Property name (habitation name);

(b) Rural address number & road name;

(c) Locality;

(d) Rural delivery number; and

(e) Town/city, postcode.

Guidelines for population of registry address structure

The address should uniquely identify the property/installation or device to which electricity is or can be supplied. The address is not intended to be a postal address; where possible the address held on the registry should be formatted to comply with the A/NZ addressing standards. This will improve address search results and matching exercises between various participants' databases.

The acid test to be applied when determining whether the address is adequate is…

Can you precisely locate, without ambiguity, the property/device or installation that is being supplied electricity? This means no two commissioned ICPs should have the same address, though in practice this may be difficult to achieve at times, e.g. two pumps in a paddock. ICP addresses that fail this test should ideally be cleansed prior to population of the registry; however,

recognising that this is not a small task and not always possible we suggest that you (where possible) flag these ICPs on the registry as having an “ambiguous address”.

It is recognised that when a user finds the address is ambiguous they will need to contact the Distributor who may have additional information that will assist in the identification of the ICP, eg neighbours’ names and details, network plans and maps, and importantly, faultsmen/ staff with good memories.

Components of registry Address

The ICP Address held on the registry has the following attributes:

Registry address attribute	Characteristics	Optional / Mandatory
Unit	Text box 20A	Optional
Property name	Text box 75A	Mandatory if Street not entered
Number	Text box 25A	Optional
Street	Drop down combo 30A	Mandatory if Property Name not entered
Suburb	Drop down combo 30A	Mandatory if Town not entered
Town	Drop down combo 30A	Mandatory if Suburb not entered
Region	20A	Mandatory. Must be a valid Region, see list below.
Post Code	Text box 4N	Optional
GPS_Easting	Numeric 7.3	Optional unless GPS_Northing input
GPS_Northing	Numeric 7.3	Optional unless GPS_Easting input

Registry Address population rules

The table below details how each component part, as defined by the A/NZ addressing standard, of an address should be populated in the registry.

Note: The order that data is entered in the fields is important.

Registry address attribute	A/NZ standard for street addressing
Unit	Sub dwelling number; Level of sub dwelling
Property Name	Utility; Property/building name; Private street name; Complex name
Street Number	Address number or address number range; rural address Number
Street name	Road name
Suburb	Suburb/locality name; Rural delivery number

Town	Nearest service town/city
Region	
Postcode	Postcode
GPS_Easting	New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections)
GPS_Northing	New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections)

See below for some examples

Appellation

Not included in the A/NZ standard but another component that needs to be handled is the legal description of a parcel of land, ie appellation. The appellation is a textual legal description of the parcel of land, eg Lot 66.

Where only the legal description of the property is known this should be populated in the Property Name field, as the property/building name.

Field delineators

Ideally where multiple address components are entered into one field they should be delineated by a delineator such as a ";" Commas must not be used in addresses due to the use of CSV files.

Dairy numbers

Dairy farms are often assigned a number by the local dairy company. Where this number is available it should be populated in the "street number" field.

Regions

The purpose of the inclusion of region is to provide an extra segmentation of the country so that a search on an awkward street (eg Main Road) or one with only a loose association with a town or suburb will return a manageable number of matching records.

While the list of regions could be larger, the list will be restricted to the list below because the more regions the more boundaries and thus the more ambiguous situations.

The regions are based on phone book areas that are generally known by callers.

(a) Auckland

(b) Bay of Plenty

(c) Canterbury

(d) Gisborne

(e) Hawkes Bay

(f) Manawatu

(g) Marlborough

(h) Nelson & Bays

(i) Northland

(j) Otago

(k) Southland

(l) Taranaki

(m) Timaru & Oamaru

(n) Waikato

(o) Wairarapa

(p) Wanganui

(q) Wellington

(r) West Coast

Case insensitive

The registry address search function is case insensitive, so Distributors are free to populate the address fields as all upper case or a mixture or upper and lower.

Change address process

In recognising that the addresses held by Distributors are sometimes ambiguous it is critical that Distributors establish and clearly communicate the processes that the Trader should follow to obtain clarification of an address and, if need be, a change of the address details on the registry. It will be equally important that the Traders then communicate and train their staff in these processes.

Examples of address

Below are a few examples of how various addresses should be populated in the registry.

Shed 4

Ansett Terminal
Auckland Airport
200 Hope Road
Otara 1234

Unit	Shed 4
Property name	Ansett Terminal; Auckland Airport
Street number	200
Street name	Hope Road
Suburb	
Town	Otara
Region	Auckland
Postcode	1234

Site 10
Outer Road
Paradise Caravan Park
45–67 Smith Street
French Bay

Unit	Site 10
Property name	Outer Road; Paradise Caravan Park
Street number	45–67
Street name	Smith Street
Suburb	
Town	FRENCH BAY
Region	Timaru & Oamaru
Postcode	

Marine Berth 15
Westhaven Marina
36–38 Westhaven Drive
Auckland

Unit	Marine Berth 15
Property name	Westhaven Marina
Street number	36–38
Street name	Westhaven Drive

Suburb	
Town	Auckland
Region	Auckland
Postcode	

Office 2
Graphic Arts Building
O'Briens Walk
Auckland University
55-78 Symonds Street
Auckland

Unit	Office 2
Property name	Graphic Arts Building; O'Briens Walk; Auckland University
Street number	55-78
Street name	Symonds Street
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Suite 16
Level 5
Burnett Building
Park Alley
Northern Private Hospital
580–780 Plenty Road
Auckland

Unit	Suite 16; Level 5
Property name	Burnett Building; Park Alley; Northern Private Hospital
Street number	580–780
Street name	Plenty Road
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Corner address:

Unit	
Property name	
Street number	232
Street name	Stafford Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Or where not a street but more a location:

Unit	
Property name	Irrigation Pump; Corner of Highway 1 & Lower Hook Rd
Street number	
Street name	Lower Hook Rd *(select the minor of the two roads as it will be easier to find. This field could be left blank if it was deemed of no benefit given the Property Name description)*
Suburb	
Town	Waimate
Region	Timaru & Oamaru
Postcode	

Unit	
Property name	Timaru Railway Station
Street number	
Street name	Sophia Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Unit	Shop 6; Level 2
Property name	Westfield Shopping Centre
Street number	

Street name	Albert Street
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Unit	Shop W
Property name	Lynnmall Shopping Centre
Street number	
Street name	
Suburb	New Lynn
Town	Auckland
Region	Auckland
Postcode	

Unit	Shop 8
Property name	Royale Arcade
Street number	253
Street name	Stafford Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Addresses with no street:

Unit	
Property name	Hut 54; MT Cook National Park
Street number	
Street name	
Suburb	
Town	Mt Cook
Region	West Coast

Postcode	

Unit	
Property name	Streetlighting; Cnr State Highways 1 & 82
Street number	
Street name	
Suburb	
Town	Studholme
Region	Timaru & Oamaru
Postcode	

Appendix 3: Password standards

Password standards for the registry are set out below:

(a) Minimum ten characters (*).

(b) Maximum sixty-four characters (*).

(c) Must include at least three of the following character sets (*)

(i) Lower case alphabetic character

(ii) Upper case alphabetic character

(iii) Numeric digit

(iv) Non-alphanumeric (from the list of valid characters

(d) Cannot be part of logon ID. This is implemented as ‘Not case sensitive and no 3 consecutive characters of the password must match 3 consecutive characters in the User Id

(e) Must be composed of any of the following characters:

!$#%&'()+./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcd efghijklmnopqrstuvwxy z{|}éÉ

Note: The list of characters above is the same used for the User Reference field on ICP event histories. A space must be accepted (it has been inserted between two printable characters ‘y’ and ‘z’).

(f) Must be composed of any of the following characters:

!$#%&'()+./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcd efghijklmnopqrstuvwxy z{|}éÉ

Note: The list of characters above is the same used for the User Reference field on ICP event histories. A space must be accepted (it has been inserted between two printable characters ‘y’ and ‘z’).

(g) Is case sensitive.

(h) Must not contain any sequence of three characters that are in ascending or descending sequence (eg abc, zxy, 123).

(i) Must not contain any three consecutive characters that are part of a common sequence. The implementation defines ‘common sequence’ as being the strings which form keyboard sequences (ie keys next to each other), for example, qwe, asd, ghj, p[], etc, and the string ‘password’ (eg ‘pas’ is not allowed to be part of the password).

(j) The password will expire after 90 (*) days unless it is for a logon that is identified as being for use with web services only.

(k) Cannot be one of the last ten passwords used by the User Id.

(l) Initial or reset passwords, unless for a logon that is identified as being for use with web services only, must be a one-time password. Users must change it after login on with the one-time password (*).

(m) Initial passwords or passwords provided for requests from the Forgot Password form (i.e. direct request to the system) must be pseudo-random generated (*).

(n) A User Id must be locked out after three failed attempts to log on (*)

(o) The number of password changes a User can perform daily is limited to three.

* These items are in line with GCSBs New Zealand Information Security Manual (NZISM).

Appendix 4: Batch file standards and file processing

This appendix provides the specification for batch file processing.

The format for the header record is:

Field	Format	Mandatory/ Optional	Description
Record Type	Char 3	M	"HDR"
Process Identifier	Char 10	M	The Input or Output header
Sender	Char 4	M	For files sent to the Registry this is the Participant Identifier. For files sent from the Registry is "RGST"
Recipient	Char 4	M	For files sent to the Registry this is "RGST". For files sent from the Registry is the Participant Identifier to whom the file is sent.
Creation Date	DD/MM/YYYY	M	
Creation Time	HH:MM:SS	M	
Number of detail records	Numeric	M	Number of records in the file excluding the Header record
User Reference	Char 32	O	When supplied for an input file is carried through onto the User Reference of the header of the returned output file
Input Request Example: HDR,RQRETMAINT,RETA,RGST,27/11/2011,11:34:12,5,RETA Update ICPs Output Example: HDR,RSACK,RGST,RETA,27/11/2011,11:34:12,5,RETA Update ICPs			

Batch interface cross reference map

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
Event and other maintenance interfaces						
DC-010 Create an ICP	RQNETMAINT	RSACK	DIS19990523152530.txt	DIS19990523152530.ack		**Same filename except for suffix**
DC-020 Make a new ICP ready						
DC-030 Make a new ICP distributor						
DM-020 Add additional Distributor information						
DM-030 Correct Distributor information						
DM-040 Reverse Distributor information						
DM-010 Change initial ICP creation date	RQDATECHQ	RSACK	DCH19990523152530.txt	DCH19990523152530.ack		**Same filename except for suffix**
RA-010 Trader becomes	RQRETMAINT	RSACK	TRM19990523152530.txt	TRM19990523152530.ack		**Same filename except for suffix**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
responsible for an ICP						
RM-010 Reverse initial assignment						
RM-020 Add new Trader information						
RM-030 Correct Trader information						
RM-040 Reverse Trader information						
MM-010 Add new metering information	RQMEPMAINT	RSACK	MEP19990523152530.txt	MEP19990523152530.ack		**Same filename except for suffix**
MM-010 Correct metering information						
MM-030 Reverse metering information						
DS-010 Transfer ICPs between Distributors	N/A	RSACK	DTS19990523152530.txt	DTS19990523152530.ack		**Same filename except for suffix**
SD-010 Maintain NSP data	RQMACNSP	RSACK	MNP19990523152530.txt	MNP19990523152530.ack		**Same filename except for suffix**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
SD-030 Maintain loss category codes*	RQMAINTLF	RSACK	LCS19990523152530.txt	LCS19990523152530.ack		**Same filename except for suffix**
SD-040 Maintain price category codes*	RQPRICECAT	RSACK	PCS19990523152530.txt	PCS19990523152530.ack		**Same filename except for suffix**
*SD-030 and SD-040 Price and Loss Category code notification file (output overnight only)	N/A	RSOTHERNT			NON19990523152530.txt	**NON<date/time>.txt**
Switch interfaces						
RS-010 Make switch request (NT)	RQSWITCHNT	RSACK to submitting Trader RSSWITCHNT to other Trader RSEVENTDTL to submitting Trader but only if this accords with the Trader's notification parameters. This is the PR-030 snapshot.	SWITCH_NT.txt	SWITCH_NT.ack	NT20121129091427.txt NT20121129091427.eda (snapshot)	**Acknowledgement: Same filename except for suffix** **Switch file to other party format: NT<date/time>.txt** **Snapshot: Same filename except for suffix of .eda**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
RS-020 Acknowledge switch request (AN)	RQSWITCHAN	RSACK to submitting Trader RSSWITCHAN to other Trader	SWITCH_AN19990523152530.txt	SWITCH_AN19990523152530.ack	AN19990523152855.txt	**Acknowledgement: Same filename except for suffix** **Switch file to other party format: AN<date/time>.txt**
RS-030 Complete non half-hour switch (TN) (to be discontinued)	RQSWITCHTN	RSACK to submitting Trader RSSWITCHTN to other Trader	SWITCH_TN19990523152530.txt	SWITCH_TN19990523152530.ack	TN19990523152855.txt	**Acknowledgement: Same filename except for suffix** **Switch file to other party format: TN<date/time>.txt**
RS-040 Complete half-hour switch (TT) (to be discontinued)	RQSWITCHTT	RSACK to submitting Trader RSSWITCHTT to other Trader	SWITCH_TT19990523152530.txt	SWITCH_TT19990523152530.ack	TT19990523152855.txt	**Acknowledgement: Same filename except for suffix** **Switch file to other party format: TT<date/time>.txt**
RS-050 Complete switch (CS)	RQSWITCHCS	RSACK to submitting Trader RSSWITCHCS to other Trader, MEP and Distributor RSEVENTDTL to other Trader if submitted by current (old) Trader but only if this accords with the other Trader's notification parameters. This	SWITCH_CS19990523152530.txt	SWITCH_CS19990523152530.ack	CS19990523152855.txt CS19990523152855.eda (snapshot)	**Acknowledgement: Same filename except for suffix** **Switch file to other party format: CS<date/time>.txt** **Snapshot: Same filename except for suffix of .eda**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
		is the PR-030 snapshot.				
RS-050 Replace switch reading (RR)	RQSWITCHRR	RSACK to submitting Trader RSSWITCHRR to other Trader	SWITCH_RR19990523152530.txt	SWITCH_RR19990523152530.ack	RR19990523152855.txt	**Acknowledgement: Same filename except for suffixSwitch file to other party format: RR<date/time>.txt**
RW-010 Make withdrawal request (NW)	RQSWITCHNW	RSACK to submitting Trader RSSWITCHNW to other Trader	SWITCH_NW19990523152530.txt	SWITCH_NW19990523152530.ack	NW19990523152855.txt	**Acknowledgement: Same filename except for suffix Switch file to other party format: NW<date/time>.txt**
RW-020 Acknowledge withdrawal request (AW)	RQSWITCHAW	RSACK to submitting Trader RSSWITCHAW to other Trader and MEP	SWITCH_AW19990523152530.txt	SWITCH_AW19990523152530.ack	AW19990523152855.txt	**Acknowledgement: Same filename except for suffix Switch file to other party format: AW<date/time>.txt**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
RC-010 Request switch read change (NC) (to be discontinued)	RQSWITCHNC	RSACK to submitting Trader RSSWITCHNC to other Trader	SWITCH_NC19990523152530.txt	SWITCH_NC19990523152530.ack	NC19990523152530.txt	**Acknowledgement: Same filename except for suffix Switch file to other party format: NC<date/time>.txt**
RC-020 Acknowledge switch read change (AC)	RQSWITCHAC	RSACK to submitting Trader RSSWITCHAC to other Trader, MEP and Distributor	SWITCH_AC19990523152530.txt	SWITCH_AC19990523152530.ack	AC19990523152530.txt	**Acknowledgement: Same filename except for suffix Switch file to other party format: AC<date/time>.txt**
MN-010 Accept or decline responsibility (MN)	RQSWITCHMN	RSACK to submitting MEP RSSWITCHMN to other Trader, (current) MEP and Distributor	SWITCH_MN19990523152530.txt	SWITCH_MN19990523152530.ack	MN19990523152530.txt	**Acknowledgement: Same filename except for suffix Switch file to other party format: MN<date/time>.txt**
Reports and Notifications						
PR-010 Produce ICP list	RQICPLIST	RSICPLIST	REQ19990523152530.txt		LIS19990523152530.txt	**Same filename except first 3 character replaced**
PR-015 Current details report	Online submit only	RSCDLIST	N/A		CD19990523152530.txt	**CD<date/time>.txt**
PR-020 Produce monthly Trader ICP reports	Automatic Distribution* delivered on 1st business day of month to Traders	RSICPLIST	N/A		RES19990523152530_RETA.txt	**LIS<date/time>_<participant Identifier>.txt.txt**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-030 Produce ICP event detail report	RQEVENTDTL	RSEVENTDTL	RQA19990523152530.txt		EDA19990523152530.txt	**Same filename except first 3 character replaced**
PR-035 Produce ICP attribute report	Automatic Distribution*	RSPR035ATT	N/A		ICPEventFile_20121106001235.csv	**ICPEventFile_<date/time>.csv**
PR-040 Produce switch compliance report (current breach option)	RQCUSWBR	RSSWBRCURD if detail option selected.	BREACH_REQUEST.txt		SCDACH_REQUEST.txt	**Same filename except first 3 character replaced**
		RSSWBRCURS if summary option selected	BREACH_REQUEST.txt		SCSACH_REQUEST.txt	**Same filename except first 3 character replaced**
PR-040 Produce switch compliance report (historical breach option)	RQSWBRHIST and Automatic Distribution*	RSSWBRHSTD if detail option selected.	BREACH_REQUEST.txt		SHDACH_REQUEST.txt SHD20121129145216.txt (Automatic)	**Same filename except first 3 character replaced** **SHD<date/time>.csv (Automatic)**
		RSSWBRHSTS if summary option selected	BREACH_REQUEST.txt		SHSACH_REQUEST.txt SHS20121129145216.txt (Automatic)	**Same filename except first 3 character replaced** **SHS<date/time>.csv (Automatic)**
PR-050 Produce ICP days report	RQMICPDAYS and Automatic Distribution*	RSMICPDAYS	ICPDAYS_REQUEST.txt		RSMICPDAYS20121129145216.txt	**RSMICPDAYS<date/time>.csv**
PR-060 Produce audit log	RQAUDIT	RSAUDIT	FILEAUDITNETA.txt		FALEAUDITNETA.txt	**Same filename except first 3 character replaced**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-065 Request file handler status	RQFHSTATUS	RSFHSTATUS	HANDLER.txt		FHSDLER.txt	**Same filename except first 3 character replaced**
PR-070 Produce monthly statistics	Automatic Distribution*	5 files produced: • RMSTATR2 • RMSTATR4 • RMSTATR1 • RMSTATR5 • RMSTATR3	N/A		RetailerStats2012110803.csv NSPTotals2012110803.csv MonthlyStatistics201211.csv ICPByRetailerNSP2012110803.csv DistributorTotals2012110803.csv	**RetailerStats<YYYYMMDDHH>.csv** **NSPTotals<YYYYMMDDHH>.csv** **MonthlyStatistics<YYYYMM>.csv** **ICPByRetailerNSP<YYYYMMDDHH>.csv** **DistributorTotals<YYYYMMDDHH>.csv**
PR-080 Produce monthly HHR ICP list	Automatic Distribution*	RSMHHRLIST	N/A		RSMHHRLIST20121129145216.txt	**RSMHHRLIST<date/time>.csv**
PR-090 Produce active NSPs report	RQMACTNSP and Automatic Distribution*	RSMACNSP	ACTIVENSP_REQUEST.txt		RSMACNSP _REQUEST.txt RSMACNSP20121129145216.txt (Automatic)	**Same filename except first 8 characters replaced with RSMACNSP** **RSMACNSP <date/time>.csv (Automatic)**
PR-100 Produce loss factors report	RQMLOSSFS and Automatic Distribution*	RSMLOSSFS	LossFactorREP_REQ.txt N/A		RSMLOSSFSrREP_REQ.txt RSMLOSSFS20121122135711.txt (Automatic)	**Same filename except first 9 characters replaced with RSMLOSSFS** **RSMLOSSFS<date/time>.csv (Automatic)**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-110 Produce maintenance compliance report	RQMMAINTCP and Automatic Distribution*	RSMMAINTCP	Maint_Compliance_REQ.txt N/A		PR110_Compliance_REQ.txt RSMMAINTCPDET20121101000236.txt (Automatic - detail) RSMMAINTCPSUM20121101000236.txt (Automatic - summary)	**Same filename except first 5 characters replaced with PR110 RSMMAINTCP<DET or SUM><date/time>.csv**
PR-120 Produce NSP mapping table report	RQMNSPMAP and Automatic Distribution*	RSNMNSPMAP	NSPMappingTable_REQ.txt N/A		RSMNSPMAPgTable_REQ.txt RSMNSPMAP20121122135922.txt (Automatic)	**Same filename except first 9 characters replaced with RSMNSPMAP RSMNSPMAP <date/time>.csv (Automatic)**
PR-130 Produce monthly activity and status summary report	Automatic Distribution*	RSPR130STA	N/A		PR-130_EA_Statistics_2012_11.csv (Automatic)	**PR-130_EA_Statistics_<YYY>_<MM>.csv**
PR-140 Produce monthly switch completion report	Automatic Distribution*	RSSWCOMPLT	N/A		AverageSwitchCompletion20121106000735.csv	**AverageSwitchCompletion<date/time>.csv**
PR-145 Produce daily switch report	Automatic Distribution*	RSSWIDAILY	N/A		DailyAverageSwitchCompletion20121106000735.csv	**DailyAverageSwitchCompletion<date/time>.csv**
PR-160 Automated Trade Notification	RQATRADE and Automatic Distribution*	RSMATRADE	N/A		RSMATRADE20121106000735.csv	**RSMATRADE<date/time>.csv**
PR-170 Produce monthly report	Automatic Distribution*	none	N/A		ICPsOwned0622012.csv	**ICPsOwned<month><year>.csv**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-180 Produce ICP switching trend report	Automatic Distribution*	RSPR180STA	N/A		PR-180_EA20121101000236.csv	**PR-180_EA<date/time>.csv**
PR-190 EIEP statistics	Automatic Distribution*	RMSTATEIEP	N/A		EIEPMonthlyStatistics20121101044246.csv	**EIEPMonthlyStatistics<date/time>.csv**
PR-210 Missing Metering Data	Automatic Distribution*	RSMISSMETR	N/A		PR210_MissingMetering20140102001530.csv	PR210_MissingMetering<date/time>.csv
PR-220 Uncertified Metering Installations	Automatic Distribution*	RSUNCERMTR	N/A		PR220_UncertifiedMetering20140102001530.csv	PR220_UncertifiedMetering<date/time>.csv
PR-230 Electrical Connection Misalignment	Automatic Distribution*	RS230NRG	N/A		PR230_ElectricalConnectionAlign_20140102001530.csv	PR230_ElectricalConnectionAlign_<date/time>.csv
PR-240 Profile Misalignment (produces 3 report outputs)	Automatic Distribution*	RSUNCERTDV RSNOMTRHHR RSHHRMISMA	N/A		PR240_UncertifiedControlDevice20140102001530.csv PR240_NoMeterForHHR20140102001530.csv PR240_SubmissionHHRMisMatch20140102001530.csv	PR240_UncertifiedControlDevice<date/time>.csv PR240_NoMeterForHHR<date/time>.csv PR240_SubmissionHHRMisMatch<date/time>.csv
PR-250 Trader Default General Information	RQDTGENERL	RSDTGENERL	DefaultDataRequest.txt		PR250_DefaultGeneral_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time. For example:	

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
					PR250_DefaultGeneral_20141117092501.csv	
PR-270 Trader by NSP in the event of a Trader Default situation	RQDTNSPTR	RSDTNSPTR	TraderByNSPRequest.txt		PR270_NSPTraders _<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time. For example: PR270_NSPTraders_20141117092501.csv	
PR-280 Responsibility Outside Participant Role	RQPARTYROL	RSPARTYROL	PARTYROLEEXPIRY.txt		PR280_PartyRole_<timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time. For example: PR280_PartyRole_20141117092501.csv	
PR-290 Trader Default Market Share	RQMKTSHARE	RSMKTSHARE	TraderMarketShare.Requesttxt		PR290_RetailerDefault_timestamp>.csv" where timestamp is format "yyyymmddhhmmss" and specifies the report run time. For example:	

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
					PR290_RetailerDefault_20140610111824.csv	
PR-320 Monitor switch saving protection scheme	RQSWSVPRSC	RSWDLSAVWB	PR320_SaveProtectionSchemeRequest.csv		PR320_SaveProtectionScheme_<timestamp>.csv where timestamp is format “yyyymmddhhmmss” aqnd specidfies the report run time. For example: PR320_SaveProtectionScheme_20150505113214.csv	
PR-330 Produce Distributor annual levy report	RQDISTLEVY	RSDISTLEVY	N/A		ICPsOwnedDistributor20142015.csv	ICPsOwnedDistributor<previous year><current year>.csv
PR-340 Produce Trader annual levy report	RQTRADLEVY	RSTRADLEVY	N/A		ICPsOwnedTrader20142016.csv	ICPsOwnedTrader<previous year><current year>.csv
PR-350 Trader default status	RQTDSTATUS	RSTDSTATUS	N/A		TDS20220728.csv	TDS<timestamp>,csv
PR-360	RQMETERDTL	RSMETERDTL	N/A		PR360_20220412112637_ATH PR360_20220412112637_MEO	ATH file: • PR360_<timestamp>_ATH MEO file: • PR360_<timestamp>_MEO

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-370 Resend ICP planned service interruption	RQPLINTLIS	RSPLINTLIS	SendMyPLINTRecords.txt		Depending on request parameters and the participants EIEP5A notification settings (SI-010) one or multiple files may be returned. The file name(s) is determined during the request processing	
NP-010 Acknowledge event change	Automatic Distribution* for online event maintenance (Trader, Distributor and MEP) delivered overnight	RSACK	N/A		RSACK20121101044246.csv	**RSACK<date/time>.csv**
	This interface is also output as a result of event and other maintenance functions performed via SFTP (see above)					
NP-020 Send switch messages	**This interface is one of the outputs of the switch interfaces (see above)**					
NP-030 Notify of event change (standard or NOT file)	Automatic Distribution* delivered daily overnight	RSAUNOTIFY	N/A		NOT19990523152530.txt	**NOT<date/time>.txt**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
NP-030 Notify of event change (metering or NMR file)	Automatic Distribution* delivered daily overnight	RSMENOTIFY	N/A		NMR19990523152530.txt	**NMR<date/time>.txt**
NP-040 Re-send switching messages	RQRSSWFLS	Depending on the message being resent one of:	RESEND_SWITCH_REQ.txt		Depending on the message being resent one of:	
		RSSWITCHNT			NT19990523152530.txt	**Switch file to other party format: NT<date/time>.txt**
		RSSWITCHAN			AN19990523152530.txt	**Switch file to other party format: AN<date/time>.txt**
		RSSWITCHTN*			TN19990523152530.txt*	**Switch file to other party format: TN<date/time>.txt**
		RSSWITCHTT*			TT19990523152530.txt*	**Switch file to other party format: TT<date/time>.txt**
		RSSWITCHCS			CS19990523152530.txt	**Switch file to other party format: CS<date/time>.txt**
		RSSWITCHRR			RR19990523152530.txt	**Switch file to other party format: RR<date/time>.txt**
		RSSWITCHNW			NW19990523152530.txt	**Switch file to other party format: NW<date/time>.txt**
		RSSWITCHAW			AW19990523152530.txt	**Switch file to other party format: AW<date/time>.txt**

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
		RSSWITCHNC*			NC19990523152530.txt*	**Switch file to other party format: NC<date/time>.txt**
		RSSWITCHAC			AC19990523152530.txt	**Switch file to other party format: AC<date/time>.txt**
		RSSWITCHMN			MN19990523152530.txt	**Switch file to other party format: MN<date/time>.txt**
		*To be discontinued			*To be discontinued	
NP-050 re-send notifications (standard or NOT file)	RQRSNOTIFY	RSAUNOTIFY	RESEND_NOT_REQ.txt		NOT19990523152530.txt	**NOT<date/time>.txt**
NP-050 re-send notifications (metering or NMR file)	RQMTNOTIFY	RSMENOTIFY	RESEND_NMR_REQ.txt		NMR19990523152530.txt	**NMR<date/time>.txt**
NP-060	Automatic Distribution* daily overnight	RSPALERT	N/A		RSPALERT19990523152530.txt	**RSPALERT<date/time>.txt**
EIEP Interface						

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
EI-020 and EI-030	N/A	N/A	RETA_E_NETA_201112_20111201_myfile.zip	RETA_E_NETA_201112_20111201_myfile.ake	RETA_E_NETA_201112_20111201_myfile.zip RETA_E_NETA_201112_20111201_myfile.confirm	**No change to filename to recipient** **Same filename except suffix of .confirm for the confirmation of delivery to sender**
Trader Default Interfaces						
TD-020 Maintain Trader ICP Allocation Exclusion List	RQEXCLTBL	RSACK	Exclusions.txt	Exclusions.ack		
TD-050 Load Trader Bids	RQTENDER	RSACK	Tender1.txt	Tender1.ack		
TD-090 ICP re-assignment process	RQTDTICPMT	RSACK to submitter (EA). RSTDTALLOC to Traders	Reassign.txt	Reassign.ack	PR310_ICPAllocation20150204160148.csv	
PR-300 Report Trader Default tender and mandatory assignment	RQTNDRLIST	RSTNDRLIST	TenderList.txt		PR300_TenderResults20150204160148.csv	

Process	Input Header	Output Header	Input Filename Example	Maintenance Acknowledgement Filename Example (if applicable)	Report Output Filename or delivered switch file (if applicable)	File naming Convention
PR-310 Report Trader Default allocation results	RQTDTALLOC	RSTDTALLOC	AllocResults.txt		PR310_ICPAllocation20150204160148.csv	
Automatic Distribution* - the batch interface is initiated automatically, no header is defined.						

1. The conventions for processing files for input and output are:

   In the main,

   - Acknowledgement files are given the same filename as the related maintenance file except the suffix is changed to .ack.
   - Most reports will be given the same name by the Registry but in some cases the first 3 or more characters are changed. For example, a request for a list file contained in a file called REQ19991005123542.txt will produce an output file with a filename of LIS19991005123542.txt - the timestamp will be the same as the request file for ease of matching requests with lists.

2. File delivery mechanism
   - Files are delivered to and received from the registry via SFTP.

3. For non-EIEP files, there are 4 directories or folders that are used for the following purposes:
   - **toreg** - this is where users transfer their files for the Registry to process
   - **fromreg** – this is where the Registry delivers outputs from processing (acknowledgements, notifications, reports, etc.)
   - **processed –** files are moved to this directory from the toreg directory once they have been processed by the Registry
   - **reject –** files that have errors in the header line are moved to this directory from the toreg directory.

4. For EIEP files, there are 2 additional directories or folders (only visible when using SFTP) that are used as follows:
   - **EIEPout** - this is where users transfer their files for the Registry to process (deliver to another participant
   - **EIEPin** – this is where the Registry delivers EIEPs sent by other participants.

The Registry has the facility to apply zip compression to outgoing non-EIEP files for individual users - the naming conventions above still stand, but the zipped file is suffixed with '.zip' instead of '.txt', and the original file is removed from the outgoing directory.

The naming conventions here are suggested conventions only. Any filename can be used for files sent to the Registry, with the following provisos:

- File extension (.txt in the above examples) cannot be longer than 100 characters
- File name (e.g. ICP19990523152530) cannot be longer than 125 characters
- Overriding both these allowances, the total filename (comprising your SFTP usercode, incoming directory name, file name and file extension) cannot be longer than 100 characters e.g. marftp01\toreg\REQ20000405123445.txt

The registry will cope with processing files with the same name, if submitted the identical file has 001(002…) appended prior to processing, likewise output files have 001(002…) appended.

For example, repeated submission of a file named UIS19990523152530.csv would result in output files
UIS19990523152530.ack
UIS19990523152530.ack.001
UIS19990523152530.ack.002
etc

The registry does not reject a file that has been previously submitted (currently a very common occurrence especially when requesting ICP Lists). Records are subject to validation appropriate to the file submitted so for example if an identical AN file is submitted twice the second AN records would be rejected as an AN cannot follow an AN, likewise if a NT file is submitted twice the second NT would be rejected as ICP's would already be switch in progress.

Appendix 5 – Period of availability and mapping of customised to generic register content codes

Period of availability

1. Period of availability is the minimum number of hours within a day that supply is available (or the controlled part of the supply is available for an inclusive channel) and must be <=24.

2. The following is provided for guidance and clarity:

   (a) For single channel uncontrolled configurations, the period of availability must be 24.

   (b) For single channel controlled or inclusive configurations, the period of availability must be the minimum number of hours in any day that supply is available (or the controlled part of the supply is available for an inclusive channel).

   (c) For multi-channel uncontrolled configurations, the period of availability is the actual period for which each channel is active, and must add to 24 in any day for register content codes that need to work together.

   (d) For multi-channel controlled or inclusive configurations, the period of availability must be the minimum number of hours in any day that supply is available (or the controlled part is available for an inclusive channel):

      (i) where the distributor's load control policy does not differentiate between time-blocks, the period of availability for each channel must be identical and reflect the minimum number of hours that supply is available to the controlled load; or

      (ii) where the distributor's load control policy differentiates between time-blocks, the period of availability for each channel must reflect the minimum number of hours for the channel that supply is available to the controlled load.

3. Period of availability must reflect the physical or programmed configuration of metering installations, and not pricing or virtual channels.

4. Where the active period for a multi-channel configuration is for an odd number of trading periods, the period of availability is to be rounded up or down to a whole number for each channel such that the sum of all periods of availability in any day does not exceed 24.

5. Distributors are encouraged to always specify minimum service levels for each controlled or inclusive delivery price in their pricing information. However, if the distributor does not specify a minimum service level, the period of availability should default to 0 or 24 (depending on the scenario), as follows:

   (a) period of availability should default to '0' where the distributor specifies "no maximum hours of control" or the equivalent, or does not specify any load control policy

   (b) period of availability should default to '24' where the distributor specifies it does not actively control the load.

6. Where time-blocks are different between weekdays/workdays and weekend/non-workdays, the period of availability must reflect the weekdays/workdays time-blocks.

Mapping of customised to generic register content codes

7. The table below shows the extent to which existing customised register content codes are used, and mapping to new generic register content codes.

8. The SRWDPK and WRWDPH customised register content codes are specific to a closed price category which is to be grandfathered for existing ICPs.

Generic codes >>	POA	ICPs	PK – Peak	OP – Off-peak	SH – Shoulder	SRWDPK – Summer weekday peak	WRWDPK – Winter weekday peak
Use of existing customised codes as at 22/11/17							
DWD – Day of weekdays 0700-2100	14	0	x				
NWD – Night of weekdays 2100-0700	10	0			x		
WE - Weekend	24	0		x			
Electra Triple Saver (now TOU)							
DOP – Triple Saver off peak 1100-1700, 2100-2300 (Shoulder)	8	740			x		
DPK – Triple Saver peak 0700-1100, 1700-2100	8	740	x				
N - Night 2300-0700 (Off peak)	8	740		x			
Orion							
SEPK – Weekdays 0700-1100, 1700-1930 (Peak)	6[6] or 7	1887	x				
SEOP – Weekdays 1100-1700, 1930-2100 (Shoulder)	7 or 8	1887			x		
SENW – Nights 2100-0700 + Weekend Fri 2100-Mon 0700 (Off peak)	10	1887		x			
Vector (when it initially offered 3 rate TOU)							
OPKOOA - Any day 2200-0600 (Off peak)	8	0		x			

[6] Where the time block for a channel is an odd number of trading periods and rounded up or down, the sum of all periods of availability for any day must not exceed 24

PKOOA - Weekdays 0730-0930, 1730-1930 (Peak)	4	0	x				
SPKOOA - Weekdays 0600-0730, 0930-1730, 1930-2200 + Weekend 0600-2200 (Shoulder)	12	0			x		
Vector, Unison, Counties Power							
OPKOOB - Off peak - Weekdays 1100-1700, 2100-0700 + All Weekend 0000-2400	16	0		x			
PKOOB - Peak - Weekdays 0700-1100, 1700-2100	8	0	x				
WEL Networks							
PKOOC – Workdays peak 0700-0930, 1730-2000	5	30	x				
SPKOOC – Workdays shoulder 0930-1730, 2000-2200 + Weekends/public holidays 0700-2200 (Shoulder)	10	30			x		
OPKOOC – Off peak 2200-0700 (Off peak)	9	30		x			
Top Energy							
OPKOOD - Off peak 2300-0700	8	0		x			
PKOOD - Peak 0700-0930, 1730-2000	5	0	x				
SPKOOD - Shoulder 0930-1730, 2000-2300	11	0			x		
Waipa Networks							
OPKOOD - Off peak 2300-0700	8	0		x			
PKOOE - Peak 0700-1000, 1600-2100	8	0	x				
SPKOOE - Shoulder 1000-1600, 2100-2300	8	0			x		
Counties Power GEN 3 RATE (closed)							
SWDPK – Summer weekday peak 0700-1100, 1700-2100	8	123				x	
WWDPK – Winter weekday peak 0700-1100, 1700-2100	8	123					x
WDOP – Weekday shoulder 1100-1700, 2100-2300 + Weekend 0700-2300 (Shoulder)	8	123			x		
N- Night 2300-0700 (Off peak)	8	123		x			

Appendix 6 – XML format of PR-030 ICP information

An example of the XML snapshot output is shown below.

Notes:

(a) It is necessary to have a single root element – in this case <PR-030>

(b) XML tag names are based on the "Output Event Type" defined in the PR-030 data output format, e.g. "Address".

(c) XML attribute names are derived from the field names defined in section 1.4 of this document, with spaces removed from attribute names e.g. physicalAddressStreet is the XML attribute name for Physical Address Street.

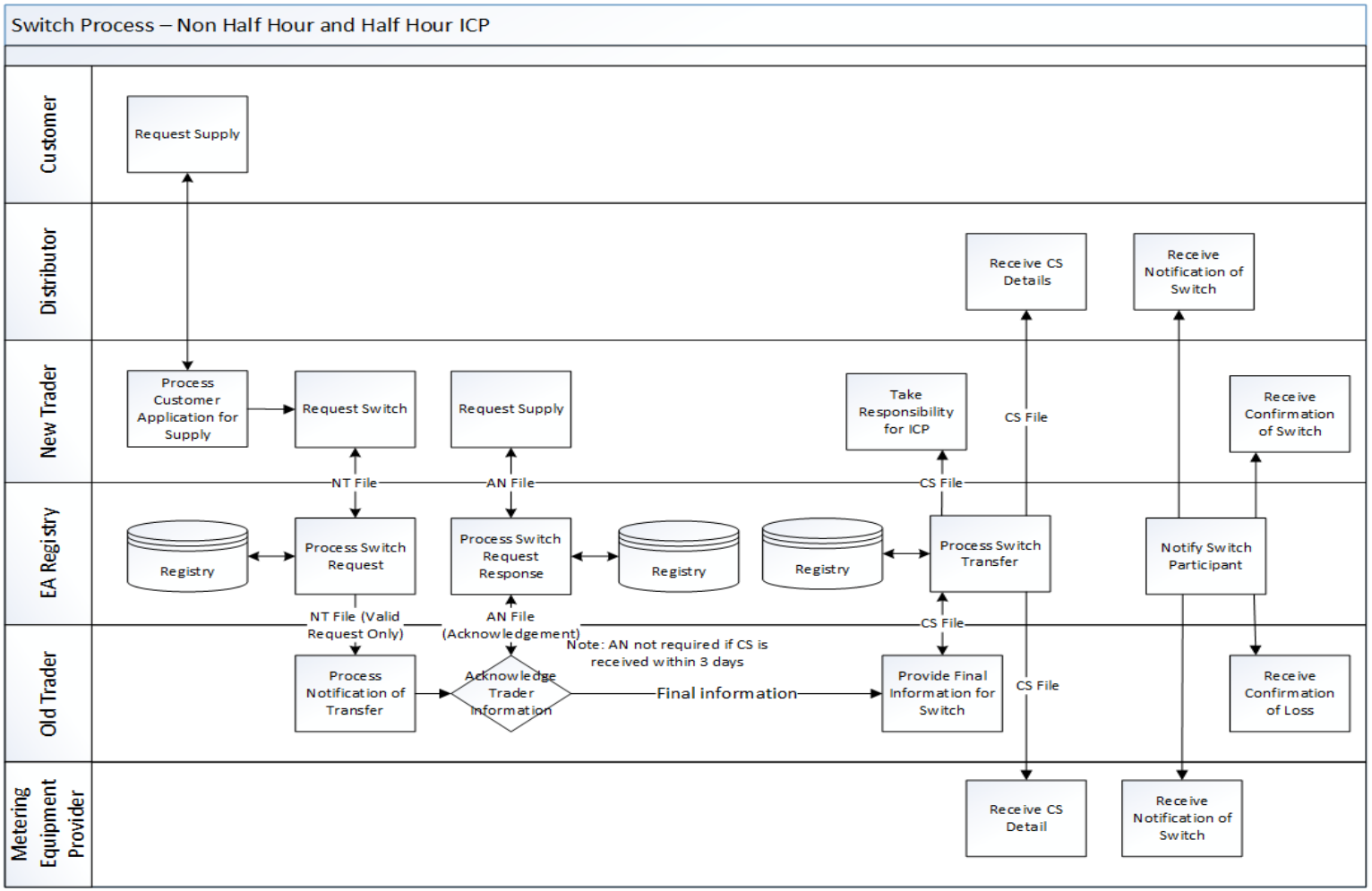
```
<?xml version="1.0"?>
<PR-030>
<Header processIdentifier="RQEVENTDTL" sender="RGST" recipient="RETA" creationDate="18/09/2012"
                creationTime="14:41:42" numberOfDetailRecords="6"
                userReference="runValidTests(2)"/>
<Address iCPIdentifier="0000000216AAFF0" eventType="Address" auditNumber="ADD-120154"
                eventDate="01/02/2001" changedDate="18/09/2012 14:41:39"
                userIdentifier="NETB" fileName="" eventState="Active"
                reversalReplacedDateTime="" reversalReplacedBy=""
                reversalReplacementFileName="" replacementEventAuditNumber=""
                physicalAddressUnit="A" physicalAddressNumber="109"
                physicalAddressRegion="Canterbury" physicalAddressStreet="High"
                physicalAddressSuburb="West Belt" physicalAddressTown="Rangiora"
                physicalAddressPostCode="7733" physicalAddressPropertyName="My Place"
                gPS_Easting="1234567.123" gPS_Northing="100008.21"
                addressUserReference="UserRef"/>
<MeterSummary iCPIdentifier="0000000216AAFF0" eventType="MeterSummary" auditNumber="MET-
                144580" eventDate="01/03/2010" changedDate="18/09/2012 14:41:40"
                userIdentifier="META" fileName="" eventState="Active"
                reversalReplacedDateTime="" reversalReplacedBy=""
                reversalReplacementFileName="" replacementEventAuditNumber=""
                mEPParticipantIdentifier="META" highestMeteringCategory="9" hHRFlag="N"
                nHHFlag="N" pPFlag="N" aMIFlag="N" meterChannelCount="0"
                meterMultiplierFlag="N" meteringUserReference="Myref">
    <MeterInstall meteringInstallationNumber="1" highestMeteringCategory="9"
                meteringInstallationLocationCode="BA" aTHParticipantIdentifier="ATH1"
                meteringInstallationType="NHH" meteringInstallationCertificationType="F"
                meteringInstallationCertificationDate="03/12/2000"
                meteringInstallationCertificationExpiryDate="03/12/2015"
```

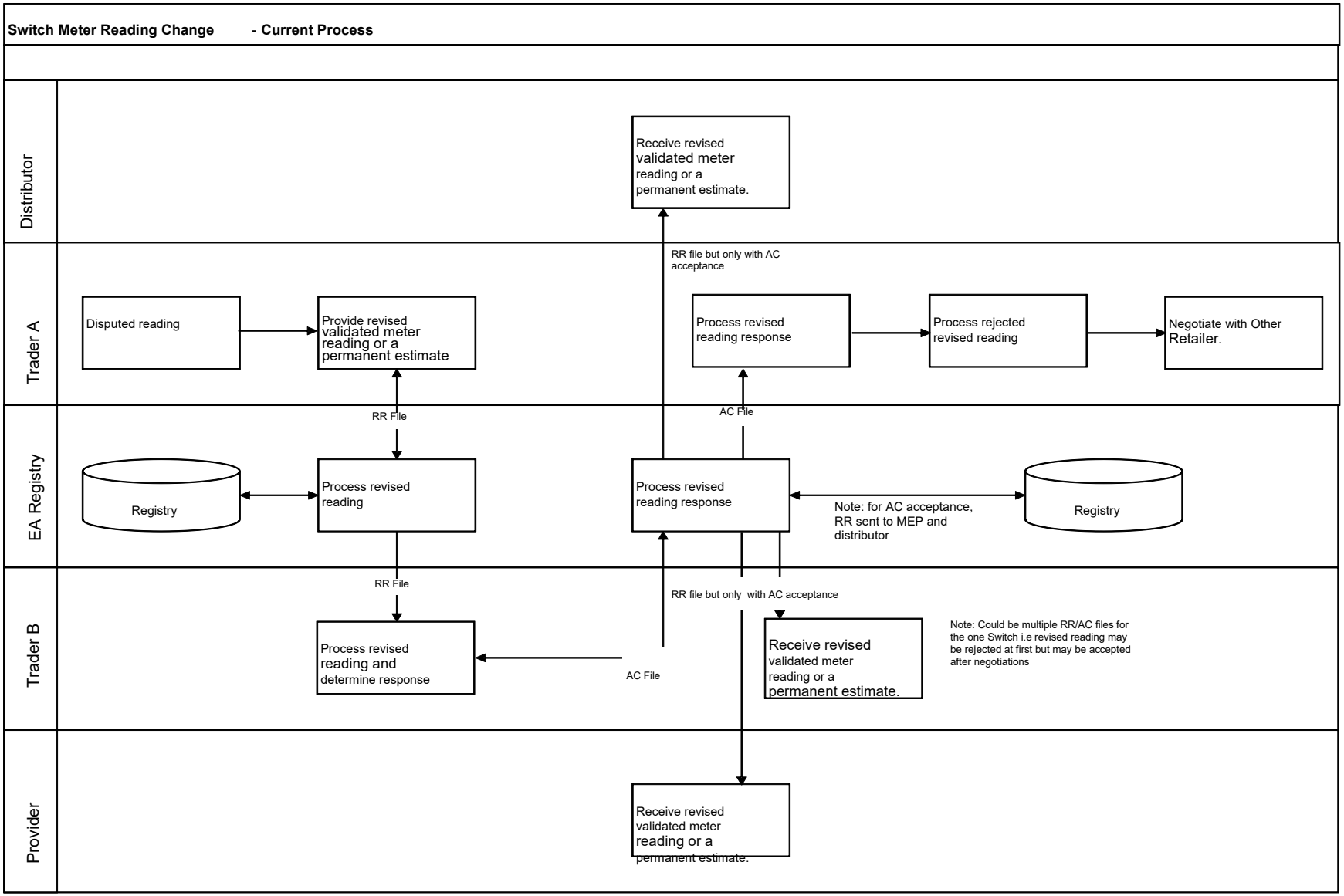
controlDeviceCertificationFlag="N" certificationVariations="X"
certificationVariationsExpiryDate="31/01/2017" certificationNumber="123456B"
maximumInterrogationCycle="180" leasePriceCode="Lease">
<MeterComp meteringInstallationNumber="1" meteringComponentSerialNumber="44455Cv"
meteringComponentType="M" meterType="NHH" aMIFlag="N"
meteringCategory="1" compensationFactor="1" owner="METB"
removalDate="01/03/2010">
<MeterChannel meteringInstallationNumber="1" meteringComponentSerialNumber="44455Cv"
channelNumber="1" numberOfDials="5" registerContentCode="UN"
periodOfAvailability="24" unitOfMeasurement="KWH" energyFlowDirection="X"
accumulatorType="C" settlementIndicator="Y" eventReading="65431"/>
</MeterComp>
</MeterInstall>
</MeterSummary>
<Network iCPIdentifier="0000000216AAFF0" eventType="Network" auditNumber="NET-339556"
eventDate="01/02/2012" changedDate="18/09/2012 14:41:39"
userIdentifier="NETB" fileName="" eventState="Active"
reversalReplacedDateTime="" reversalReplacedBy=""
reversalReplacementFileName="" replacementEventAuditNumber=""
networkParticipantIdentifier="NETB" pOC="NETB001" reconciliationType="GN"
dedicatedNSP="N" installationType="B" proposedTrader="RETB"
unmeteredLoadDetails-Distributor="Unmetered Load" sharedICPList=""
generationCapacity="123.12" fuelType="wind" initialEnergisationDate=""
directBilledStatus="Retailer" directBilledDetails="Direct Billed"
networkUserReference="UserRef"/>
<Pricing iCPIdentifier="0000000216AAFF0" eventType="Pricing" auditNumber="PRI-310587"
eventDate="01/02/2001" changedDate="18/09/2012 14:41:39"
userIdentifier="NETB" fileName="" eventState="Active"
reversalReplacedDateTime="" reversalReplacedBy=""
reversalReplacementFileName="" replacementEventAuditNumber=""
distributorPriceCategoryCode="PCAT1" distributorLossCategoryCode="LFC1"
chargeableCapacity="112.20" distributorInstallationDetails="Inst details"
pricingUserReference="UserRef"/>
<Status iCPIdentifier="0000000216AAFF0" eventType="Status" auditNumber="STA-237970"
eventDate="22/02/2002" changedDate="18/09/2012 14:41:39"
userIdentifier="RETA" fileName="" eventState="Active"
reversalReplacedDateTime="" reversalReplacedBy=""
reversalReplacementFileName="" replacementEventAuditNumber=""
iCPStatus="2" statusReason="0" statusUserReference="UserRef"/>
<Trader iCPIdentifier="0000000216AAFF0" eventType="Trader" auditNumber="REC-170214"
eventDate="22/02/2002" changedDate="18/09/2012 14:41:39"
userIdentifier="RETA" fileName="" eventState="Active"
reversalReplacedDateTime="" reversalReplacedBy=""

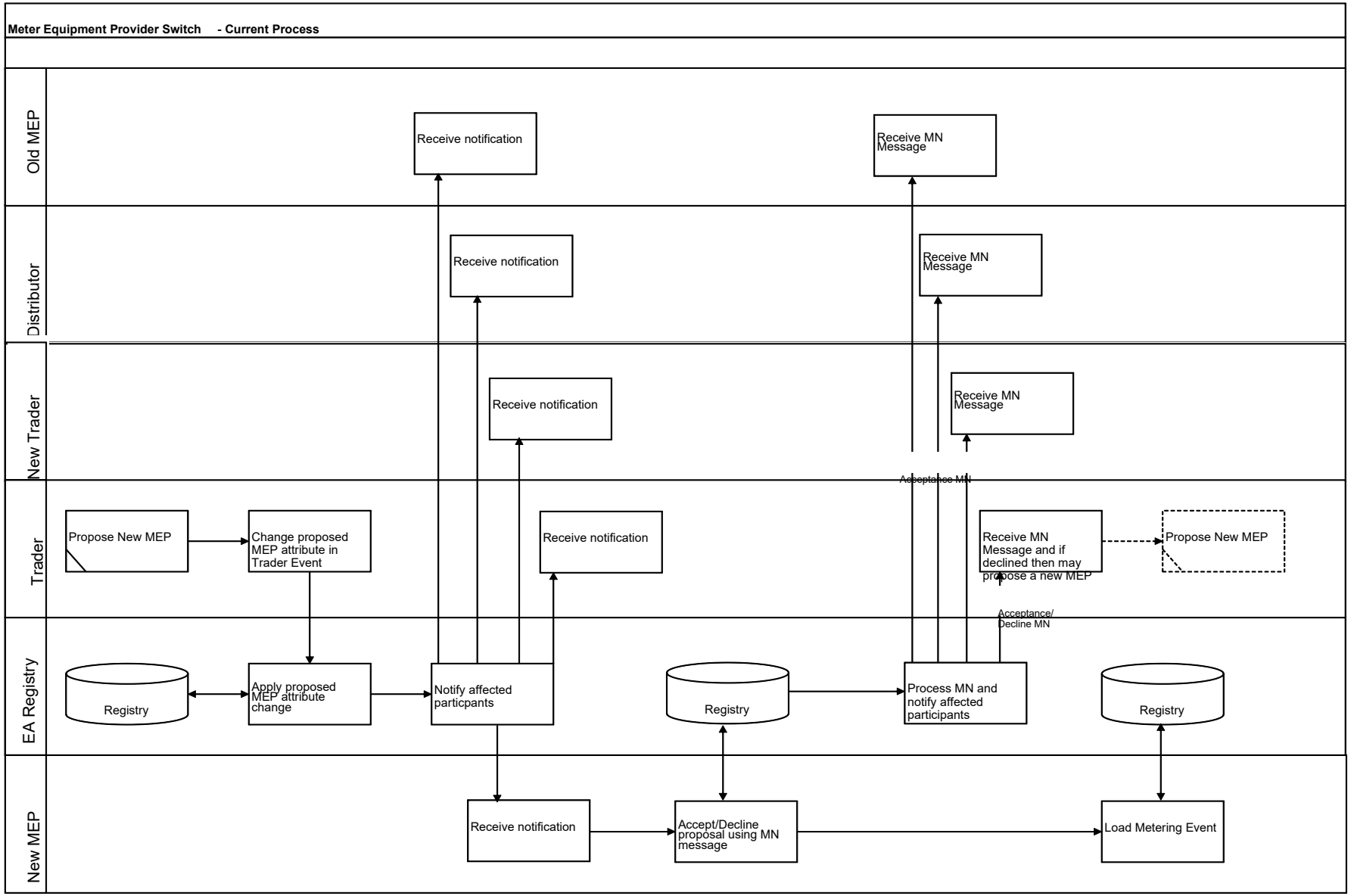
reversalReplacementFileName="" replacementEventAuditNumber=""
traderParticipantIdentifier="RETA" profile="RPS" submissionTypeHHR="N"
submissionTypeNHH="Y" aNZSIC="A01" proposedMEP="META" uNMFlag="Y"
unmeteredLoadDetails-Trader="UnMeteredLoadDetsTrader"
dailyUnmeteredKWh="1.1" traderUserReference="UserRef"/>

</PR-030>

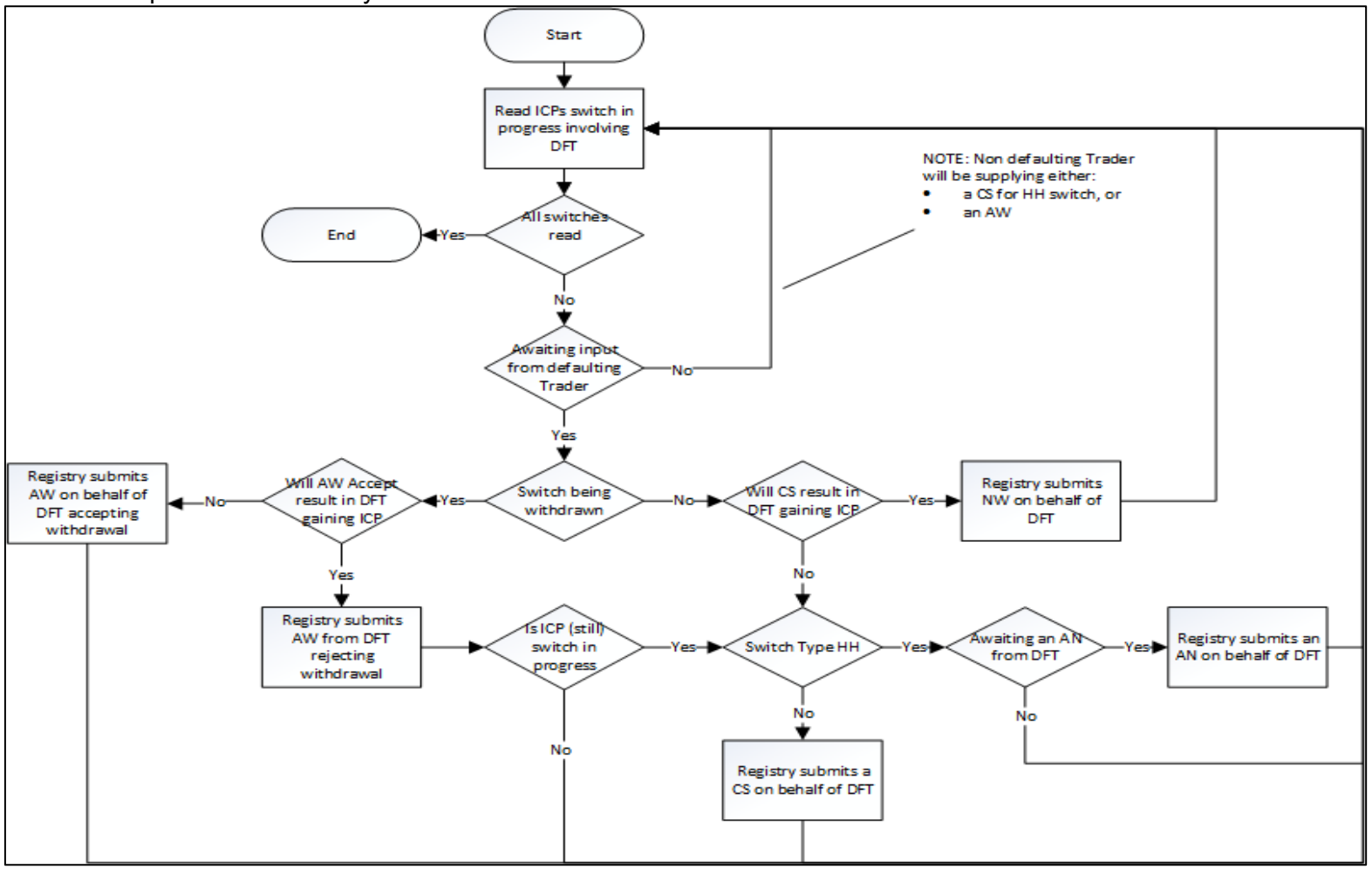
Appendix 7 – Switch Process Flow Diagrams




Switch Meter Reading Change - Current Process
Distributor
Trader A
EA Registry
Trader B
Provider
Receive revised validated meter reading or a permanent estimate.
RR file but only with AC acceptance
Disputed reading
Provide revised validated meter reading or a permanent estimate
Process revised reading response
Process rejected revised reading
Negotiate with Other Retailer.
RR File
AC File
Registry
Process revised reading
Process revised reading response
Note: for AC acceptance, RR sent to MEP and distributor
Registry
RR File
RR file but only with AC acceptance
Process revised reading and determine response
AC File
Receive revised validated meter reading or a permanent estimate.
Note: Could be multiple RR/AC files for the one Switch i.e revised reading may be rejected at first but may be accepted after negotiations
Receive revised validated meter reading or a permanent estimate.


Meter Equipment Provider Switch - Current Process
Old MEP
Distributor
New Trader
Trader
EA Registry
New MEP
Receive notification
Receive MN Message
Receive notification
Receive MN Message
Receive notification
Receive MN Message
Aceptance MN
Propose New MEP
Change proposed MEP attribute in Trader Event
Receive notification
Receive MN Message and if declined then may propose a new MEP
Propose New MEP
Acceptance/ Decline MN
Registry
Apply proposed MEP attribute change
Notify affected particpants
Registry
Process MN and notify affected participants
Registry
Receive notification
Accept/Decline proposal using MN message
Load Metering Event

TD-010 Complete Switch Activity for Trader in Trader Default



Appendix 8 – Use of MNON and MREM

The Authority sent a memo to participants on 3 September 2013 (from Ron Beatty Principal Adviser Market Services) describing the use of the Metering Equipment Provider (MEP) Codes MNON and MREM in the Registry.

In the memo, the Authority noted that the MEP identifiers MNON and MREM:

1. were created to provide a primary metering contact in the "pre-Part 10" registry, and indicated that either an ICP was solely unmetered load (MNON) or the ICP was inactive and meters had been removed (MREM)

2. will eventually be end dated but have been left as active for a time to allow historical ICP maintenance to be carried out.

The Authority also noted that some participants have selected MREM as an MEP, probably because an ICP was made inactive and metering was removed (either long term inactive or waiting for decommissioning). While this was the practice in the pre Part 10 registry, the new Part and amended Part 11 of the Code requires the following:

Solely unmetered load

If the ICP has never had an MEP nominated, there is no need to nominate an MEP. The field may be left blank

ICP accepted from "Ready" but no MEP nominated yet

(a) ICP should be "Inactive" on the registry i.e. electrically disconnected until a metering installation is installed. The retailer must not authorise the electrical connection of the ICP until the electrical installation is safe, has been authorised for electrical connection by the distributor, and a metering installation is in place to measure all electricity conveyed at the ICP

(b) If the metering installation is installed prior to ICP acceptance, then the ICP status may go directly to "Active" on the registry and be electrically connected provided that the electrical installation is safe and has been authorised for electrical connection by the distributor

(c) The MEP field may in any case be left blank until the MEP is nominated (for clarity, this nomination could be after the installation date with the MEP event backdated)

All metering removed from an existing ICP

(a). ICP should be inactive until a metering installation is re-installed. The retailer must not authorise the electrical connection of the ICP until the electrical installation is safe and a metering installation is in place to measure all electricity conveyed at the ICP

(b). The registry should automatically change the metering category to “9” indicating that there is no metering installation at the ICP

(c). MEP remains as the MEP that was previously nominated. As there is no metering equipment and the site is inactive, there are no compliance obligations for the MEP

(d). When re-energising such an ICP, the retailer may elect to use the current MEP in the registry or propose a new MEP.

Participants should not select MNON or MREM to become the MEP going forward. However, in the event that a trader has selected MNON or MREM since 29 August 2013, the following occurs:

(a). the MEP proposal will not be accepted, and the MEP that is shown on the registry for the ICP will remain the responsible MEP

(b). the warning that an MEP switch is in progress will show on the registry screens. Note that this will not prevent the switching of an ICP between traders, or the replacement of an MEP switch proposal with a new MEP switch proposal.

Appendix 9 – Authority's Data Warehouse

The Authority maintains its own data warehouse. On authorisation from the Authority, the Registry must automatically transfer selected files that are processed or produced by the Registry to the Authority's data warehouse.

This Appendix provides the specification for the source of the files to be transferred; and their destinations to the different storage options within the Authority's data warehouse.

1. Transfer to the Authority SFTP Server - discontinued

1.1 Batch Files

Where the Authority is (one of) the intended recipients of a scheduled report, the Authority may request the resulting batch file is transferred directly to the Authority SFTP server, or request an existing transfer is stopped. Delivery to the Authority's SFTP server must be in addition to the standard delivery of batch files to the Authority's directory on the Registry SFTP server.

If the transfer is unable to complete, the Registry must retry the transfer a maximum of 5 times. On the final failed transfer, the Registry must:

(a) Raise an alert to the 24-hour help desk and supply the following information (indicative):
"SFTP transfer failure, <*environment name*> was unable to complete file transfer using <*secure transfer software name e.g. WinSCP*> via SFTP. The process will pause for 30 minutes before retrying the file transfer. Please refer to SLA support documentation. Exit code: <*transfer error code*>"

(b) Pause for 30 minutes before reattempting the transfer.

On request the Registry Manager must be able to manually send or resend files to the Authority's SFTP server.

1.2 EIEP Files

Where the Authority has gained permission from a participant to access specific EIEP formatted files from the EIEP hub (EI-040), the Authority may request the Registry Administrator to transfer the EIEP files to the Authority's SFTP server.

The Authority will notify the Registry Administrator to request an EIEP Transfer Permission is created, notification must include:

- Participant identifier
- EIEP file format

- Indication whether the participant is sharing the information as the EIEP file sender or recipient (or both).

New Participants, when requesting access to the Registry and EIEP hub, can also provide consent to allow selected EIEP formats to be automatically transferred to the Authority's SFTP server.

A Participant, who does not currently supply EIEP files to another Participant or selected Participant, may provide EIEP files directly to the Authority's SFTP server by using one of the following options:

(a) Supply an EIEP file with a Recipient of EMCO. This will utilise existing functionality and transfer the EIEP file to the Authority directory. An EIEP Transfer Permission must exist for the sender; or

(b) Supply an EIEP file where the recipient is not EMCO. An EIEP Transfer Permission must exist for one or both participants (sender/receiver). The file must be placed in the EIEPin folder of the intended recipient and the EIEPin folder of EMCO. The file name will not be changed, the EMCO EIEPin folder will have files where EMCO is not the recipient; or

(c) Supply an EIEP file with the Unique ID component of the file name containing anywhere in the text wording of "SendToEAOnly". The Recipient will be ignored, and the file transferred instead to the Authority's EIEP directory. The recipient section of the file name will be changed to EMCO. There is no need of an EIEP Transfer Permission for this option.

In all options above, according to the EIEP File Format settings (see Item 4 below), the file must be transferred from the Authority's EIEP directory to the Authority's SFTP server.

2. Upload to the Authority Cloud Storage

2.1 Batch Files

Where the Authority is (one of) the intended recipients of a scheduled report, the Authority may request the resulting batch file is uploaded to the Authority's cloud storage, or request that an existing upload is stopped. Uploading to the Authority's cloud storage must be in addition to the standard delivery of batch files to the Authority's directory on the Registry SFTP server.

2.2 EIEP Files

Where the Authority has gained permission from a participant to access specific EIEP formatted files from the EIEP hub (EI-040), the Authority may request the Registry Administrator to upload the EIEP file to the Authority's cloud storage, or request that an existing upload is stopped.

The Authority will notify the Registry Administrator to request an EIEP Transfer Permission is created, notification must include:

- Participant identifier
- EIEP file format
- Indication whether the participant is sharing the information as the EIEP file sender or recipient (or both).

New Participants, when requesting access to the Registry and EIEP hub, can also provide consent to allow selected EIEP formats to be automatically transferred to the Authority's Cloud Storage.

A Participant, who does not currently supply EIEP files to another Participant or selected Participant, may provide EIEP files directly to the Authority's Cloud Storage by using one of the following options:

(a) Supply an EIEP file with a Recipient of EMCO. This will utilise existing functionality and transfer the EIEP file to the Authority directory. An EIEP Transfer Permission must exist for the sender; or

(b) Supply an EIEP file where the recipient is not EMCO. An EIEP Transfer Permission must exist for one or both participants (sender/receiver). The file must be placed in the EIEPin folder of the intended recipient and the EIEPin folder of EMCO. The file name will not be changed, the EMCO EIEPin folder will have files where EMCO is not the recipient; or

(c) Supply an EIEP file with the Unique ID component of the file name containing anywhere in the text wording of "SendToEAOnly". The Recipient will be ignored, and the file transferred instead to the Authority's EIEP directory. The recipient section of the file name will be changed to EMCO. There is no need of an EIEP Transfer Permission for this option.

In all options above, according to the EIEP File Format settings (see Item 4 below), the file must be transferred from the Authority's Cloud Storage .

2.2 Batch and EIEP Files

If the upload is unable to complete, the Registry must retry the transfer a maximum of 5 times. On the final failed upload, the Registry must:

(a). raise an alert to the 24-hour help desk and supply the following information (indicative): "EA cloud storage file upload failure, <*environment name*> was unable to complete file upload. The process will pause for 30 minutes before retrying uploading the file. Please refer to SLA support documentation. Status code: <*uploading error code*>"

(b) Pause for 30 minutes before reattempting the upload of the failed file.

On request the Registry Manager must be able to manually upload or resend files to the Authority's cloud storage.

3. Batch Files Transferred/Uploaded to the Authority's Data Warehouse

Process Id	Report Description
PR 035	ICP Attributes
PR 050	Report - ICP Days
PR-070	Monthly Statistics
PR 100	Loss Factor Codes
PR 110	Maintenance Breach
PR 130	Monthly Activity Statistics
PR 140	Switch Completion
PR-170	Produce Monthly Report
PR 180	Switch Trends Statistics
PR 190	EIEP Statistics
PR 210	Missing Metering Data

Process Id	Report Description
PR 220	Uncertified Meter Installations
PR 230	Electrical Connection Misalignment
PR 240	Profiles Misalignment
PR250	Trader Default General Information
PR-330	Distributor Annual Levy Report
PR-340	Trader Annual Levy Report

4. EIEP Files Transferred/Uploaded to the Authority's Data Warehouse

EIEP Transfer Permissions are associated with an EIEP File Type Code. Files related to transfer permissions, which in turn are related to the following codes will be transferred/uploaded to the Authority's Azure Storage:

Code	Description
EIEP1	Detailed ICP billing and volume information
EIEP5A	ICP planned service interruption
EIEP12	Delivery price change notification
EIEP13A	Electricity conveyed information for consumers (HH and Non-HH detailed)
EIEP13B	Summary consumption information
EIEP13C	Request file for EIEP13A and EIEP13B
ICPCONS	Electricity conveyed information for consumers (HH and Non-HH detailed) ICPCONS
ICPHHAB	Detailed ICP billing and volume information ICPHHAB
ICPMMAB	Detailed ICP billing and volume information ICPMMAB
ICPMMNM	Detailed ICP billing and volume information ICPMMNM
ICPMMRM	Detailed ICP billing and volume information ICPMMRM
ICPMMSP	Detailed ICP billing and volume information ICPMMSP
ICPSUMM	Summary consumption information ICPSUMM

Code	Description
PRICE	Delivery price change notification PRICE
REQCONS	Request file for EIEP13A and EIEP13B REQCONS

Appendix 10 – Version Control History

Version	Release Date	Section	Description
1 to 21.	September 2006 to October 2012		Pre-Part10 Registry Functional Specifications. Revision history retained in the respective versions.
19A.8	August 2013		Development version of the Part10 Registry upgrade containing details of all the changes required to the Functional Specification and contains the full revision history.
22	29 August 2013		Clean copy of version 19A.8. Part 10 Registry upgrade.
22.1	4 September 2013	Appx. 7 RS-050 PR-040, PR-110 NP-060 RA-010, RM-020 NP-010 MM-010	Use of MNON and MREM. BR12 .eda filename clarification Days overdue calculation for irregular event updates BR1 amendment to use the most recent metering event when generating a metering alert Notation added to reference appendix 8 when using participant identifier of MNON and MREM Event date field is optional not mandatory as no date is returned if an MN is declined Metering certification date, if entered, cannot be greater than today's date.
22.2	28 January 2014	PR-210 Appendices 2 to 7 PR-220 PR-230 PR-240 NP-060 Appendix 4	Addition of Missing Metering Data Report Formatted to include numbering Addition of Uncertified Metering Installations Report Addition of Energisation Misalignment Report Addition of Profiles Report Alerts Type C applicable to ICPs where the Status is Active Appendix 4 updated with PR-210/220/230/240

Version	Release Date	Section	Description
22.3	18 February 2014 24 February 2014 04 March 2014 05 March 2014 07 March 2014 13 March 2014 09 May 2014 11 June 2014	Appendix 6 MM-030 Appendix 6 PR-230 PR-030 PR-210 PR-240 1.14.2, RS-010, RS-020, RW-010, RW-020, DS-010	Remove old (pre part 10) switch process diagrams Correct MM-030 data inputs example Swim lane diagrams left side lane identifier had shrunk to font size 1. Modify back to 5. Modifications to business rules used to identify ICP's being reported Expand description of parameter usage when PR-030 report submitted by the Authority Correct the example under data outputs Rename Profiles Report to Profiles Misalignment Report
22.4	11 June 2014	PR-250, PR-270, PR-280, PR-290, Batch interface cross reference map	Addition of new reports in the even to of a trader default situation (trader default change requests CR1134/42/44/45) Addition of the ability to configure participant roles with start and end dates (change request CR-1132)

Version	Release Date	Section	Description
22.5	25 June 2014	RA-010 RS-010 RS-050 RW-010 RW-020	Inhibit Traders in Trader Default from acquiring responsibility for ICPs (CR1134)
22.6	21 July 2014 30 July 2014	SD-020 SU-030	Addition of new Register Content Codes Supervisor ability to disable logons (existing functionality - documentation update only)
22.7	15 October 2014 15 October 2014 17 November 2014 17 November 2014	PR-010 PR-030 RS-050 PR-230	Clarification to End date parameter (document change only) Business rule 8 wording change (document change only) CR-1157 Manage setting of submission type during a trader switch using profile codes supplied on the NT CR-1158 Amendments to the energisation misalignment report rules identifying ICPs not aligned with their Initial Energisation Date.
22.8	21 December 2015 21 December 2015	PR-255 SD-020	CR-1153 Metering installation information report CR-1161 Introduction of switch saves-protection table for recording participating Trader
22.9	2 February 2015	1.14 1.19 MP-020 SD-020 TD-010 TD-020 TD-030 TD-040 TD-050 TD-060 TD-070 TD-080	CR-1149 Trader Default Exclusions Table CR-1150 Complete Switch Activity CR-1151 Tender Allocation and Mandatory Assignment CR-1165 Change Retailer Default to Trader Default

Version	Release Date	Section	Description
	11 March 2015 13 March 2015	TD-090 PR-300 PR-310 RS-020 RS-050 RW-010 RW-020 PR-250 PR-270 PR-290 PR-300 TD-030 TD-070 TD-010 TD-040 TD-050 TD-060 TD-080 PR-300	CR-1167 Add fields to PR-300 CR-1168 Exclude ICPs which are inactive and ready for decommissioning from the Trader Default Tender and Allocation processes Miscellaneous clarifications and corrections following Trader Default simulation exercise.
22.10	30 March 2015 29 April 2015	PR-300 RA-010 RS-010 Section 1.4.7	Correct file example CR-1170 NHH meter using H profile
22.11	05 May 2015 16 June 2015	PR-320 SD-050 QU-040 EI-010 MP-020 NP-060 Section 1.19	CR-1162 switch type codes (CE and CX) CR-1164 Email Addresses

Version	Release Date	Section	Description
22.12	26 July 2015 26 July 2015	1.14 EI-010 PR-330 PR-340 Appendix 4	CR-1160 Third Party Provider access to the Registry CR-1172 Annual Levy reports
22.13	07 August 2015	PR-010 RS-050	Documentation - correct example. Verify the CS actual transfer date is greater than the ICPs initial assignment date
22.14	18 September 2015 27 September 2015 13 October 2015 13 October 2015	RS-050 RS-010 EI-010, EI-030 RW-020	Noted by auditor in review of CR-1176: Remove meaningless business rule 9. Correct grammar in processing rule 19 Implementation of CR-1176 amending rules where switch type MI, TR and HH may be used CR-1178 to allow participants to receive email notices, delivered from the EIEP hub, to an Email group matching the name of the EIEP file type Refer to static data table for latest switch withdrawal codes
22.15	21 October 2015 11 December 2015 14 December 2015	Section 1.17 QU-020 1.20	Documentation change only, EIEP table missing a reference to report PR-190 Documentation change only Documentation change, expansion of Email Group functions and recommended practice

Version	Release Date	Section	Description
22.16	02 March 2016 04 March 2016 01 April 2016 01 April 2016 05 April 2016 15/04/2016 15/04/2016	PR-030 SD-040 MM-010 and 1.4.1 SD-020 PR-050 PR-080 SD-050 NP-060 Appx 6	Documentation change only. Correction to PR-030 input file example. Clarify when end date may be set on Distributor Price Category Code CR-1186 phase 1: metering installation certification type of interim date limit applied. Interim metering may be used for metering events dated prior 01 April 2016 provided all interim certified metering components are removed. Addition of new register Content Codes CR-1171 – improve accuracy of consumption data interfaced to the RM by performing additional NSP level validation. Addition of email group to the EMCO participant to report results of NSP level validation CR-1186 phase 2: report to the Authority, in the monthly report, where an ICP has a metering event with a Metering Installation Certification Type of Interim after the effective end date of the interim certification type. Spelling errors in Switch Meter Reading Change diagram
22.17	13/05/2016	NP-060	CR-1189: an alert sent to participants for the same ICP and situation must be sent to the Authority once in the monthly alert report
22.18	08/06/2016 10/06/2016 10/06/2016 14/06/2016 23/06/2016	DS-010 QU-020 1.4.14 QU-010 Metering Attributes 1.4.9	ER-126: extend shared ICP list to max 500 characters CR-1152: provide greater clarity on the type of metering used by an ICP CR-1193 – include hyphenated street in street name index CR-1190 – Derive HHR and NHH flag values from Metering Installation Type within any metering installation of the ICP

Version	Release Date	Section	Description
	23/06/2016	PI-010 SU-010	Addition of Publish information process and PI-010 sub process Documentation clarifications to Add new user process
22.19	28/06/2016 23/10/2016

Version	Release Date	Section	Description
	1 6/06/2017 27/07/2017	PW-010 PW-020 Appendix 3Various Security Section 1.16 Fig 6 Process SU-010 SU-040 PW-010 PW-020 Appendix 3	 Consistency of terminology, Registry Administrator term now consistent as Registry Manager CR-1205 User Web Services Access Only
22.21	08/08/2017 16/08/2017 20/09/2017	Security Section 1.16 Appendix A Calculation of the ICP checksum 1.4.13 SD-020 RS-020 Appendix 7 PR-230	JIRA ER-702 ER-646, correct typo in checksum wording ER-714/ER-716 revised terminology for energised and de-energised ICP state, including energisation (due to Code amendment)
22.22	14/12/2017	1.11 1.14.18 1.18 NP-030 NP-070	CR-1202 Smart notifications. Notifications for ATH/MEO. Notification web service.

Version	Release Date	Section	Description
22.23	31/01/2018	1.15.4 1.17 1.20 1.21 1.22 Process Map – Fig 8 PR-100 EI-030 EI-040 Current Valid Codes	CR-1201 Transfer EIEP files to the Authority For EIEP File Type codes As per Auditor suggestion - Remove FTP references (use SFTP instead) Removal of references to 'Market Administrator' as it longer exists in the Code.
22.24	27/03/2018	Process map fig 9 SD-020 Appendix 5	ER-390 Addition of Process Map 9 Trader Default Authority adjustments to Register Content Codes (based on the decisions paper released 20 March 2018) • new register content codes DIN/NIN, INEM, NB, NO, SL • several code combinations grandfathered • several codes discontinued. New appendix 5: supporting information: • register content codes period of availability • mapping of customised to generic codes.
22.25	24/07/2018	PR-040 Appendix 1	ER-779 remove requirement to send summary report to the Authority on 1st day of the month Additional information on where ICP checksum may be obtained

Version	Release Date	Section	Description
		1.23 SD-060	CR-1068 Addition of Contact Group Register
22.26	15/10/2018 24/10/2018 02/11/2018 11/12/2018 25/01/2019	NP-030 PR-250 RS-050 TD-100 RS-050 Appendix 1	Correct the description in “Metering Event Notification file format” ER-837 remove restriction that a trader must be in Trader Default in order to be reported Minor format and data corrections to provided examples CR-1219 Trader Default - Create Switch Template file CR-1223 RR Amendment to Trader Default Additional information on where the checksum code can be obtained.
22.27	05/03/2019 14/03/2019 09/03/2019 09/05/2019 06/06/2019	NP-040 1.3.2 PR-030 CR-1227 CR-1227 SD-020	Correct example Correct out of date link to Electricity Authority for the Code Expand to inform zero meter reads reported as null. Appendix 9 (new) Authority’s Data Warehouse - Move sections 1.21 and 1.22 related to the Authority’s SFTP server to the new appendix - Include specification for CR-1217 related to uploading files to the Authority’s cloud storage. Replace references to the Authority’s (own) SFTP server with Authority’s data warehouse Switch Withdrawal code “CR” marked as discontinued

Version	Release Date	Section	Description
22.28	28/07/2019	RS-050	CR-1228 Remove the browser interface restriction whereby a re-read (RR) message may only be posted against the most recently completed switch. Correct business rule 12.
		PR-250	CR-1219 amend sub-process name for PR-250 to conform to standard naming convention.
		TD-100	Modify processing section as per audit recommendation
	26/08/2019	AC-020 SU-060 SD-070	CR1192 Audit compliance reporting
22.29	03/03/2020	EI-030	Correction to wording in processing section to match approved wording from CR-1217
	22/04/2020	1.22 MP-030	CR-1220 Report Scheduler process added
	23/04/2020	Appendix 2 Page 19	Removal of personal details Change “An indicator (Y/N) that the channel must be included within the Trader’s submission information” to “An indicator (Y/N) selected in accordance to the Code”
		MM-010	Change “Y/N” to “An indicator (Y/N) selected in accordance to the Code”
22.30	15/06/2020	SD-050	CR1239 Include participant company name and role(s) in the Registry Email Group downloads.
	24/06/2020	SD-020	Registry no longer required to record participants using the switch saves table (discontinued)
	26/06/2020	1.17 Process Map Fig 8 EI-030 EI-050	CR-1238 Discontinue EIEP Access
	29/06/2020	PR-040	ER-1030 MN Delivery switch breach incorrectly identified as allowing 11 days for MEP delivery of MN acceptance. Changed to 10

Version	Release Date	Section	Description
22.31	27/07/2020 31/07/2020 07/08/2020	1.4.5 RS-050, PR-040, PR-042 Appendix 9	Network Attributes, example added of the maximum Generation Capacity that may be supplied. CR-1180 Switch Breach Reporting ER-1081 Include distributor and trader annual levy reports (PR-330 and PR-340) amongst those sent to Authority Cloud storage
22.32	06/10/2020 25/10/2020	Appendix 9 Process Maps. PR-350	Add PR-170 to reports uploaded to Authority data warehouse. Authority SFTP transfer is discontinued , removed Upload column from table of files transferred CR-1242 Produce Trader Default Status
22.33	28/02/2021	PR-080	CR-1244 Monthly HHR ICP List report for the Reconciliation Manager amended to split output file into a separate file per period being reported
22.34	31/03/2021 31/03/2021	All 1.2.1(m), 1.4.4, 1.4.6, 1.4.11	CR-1243 Code to Functional Specification audit. Review Code against functional specification and vice versa to ensure code references are current and correct. Fix formatting errors. ER-1105 Describe the notation used when describing decimal. Addition of maximum value examples
22.35	05/05/2021 05/05/2021 11/06/2021 24/06/2021	DC-010 PI-010 TD-050 SD-020 SD-030	CR-1254: verify ICP Identifier format Addition of Switch Technical paper and Training Data Generator guide as downloadable documents ER-1136 Correction to file format for example acknowledgment CR-1253: A Loss Category Code must not be a reserved entity code

Version	Release Date	Section	Description
22.36	28/10/2021 24/11/2021	Table of contents Appendix 3: Password Standards PW-010; SU-050 Section 1.16 Process Map – Figure 6 TU-010 Accept Registry Terms of Use	ER-1166: PW-020 not appearing in table of contents due to heading with incorrect styling applied. CR-1263 JIRA ER-1192 Password Amendments 2021 CR-1264 JIRA ER-1103 Terms of Use Acceptance
22.37	28/07/2022 08/08/2022	PR-360 All	CR-1206 addition of ATH and MEO metering report PR-360 ER-1208 PR-130 Data outputs section – Definition of Status Active/Inactive not correct. Review FS document for any references to ICP Status code definitions.
22.38	05/01/2023	MM-010 RA-010 & DM-040 Version control	CR-1265 change to validation rule for ATH to be active as at the metering installation certification date. CR-1266 omnibus changes Item 1:allow updating of a profile code where the event date of the trader event pre-dates the MEP initial assignment. Item 2: A distributor update cannot be reversed where the result of the reversal is a change in Distributor responsibility that is, the event being reversed was created by a distributor switch which is controlled by the Registry Administrator. Historical version control moved into appendix 10
22.39		SD-010 EI-030 RS-010	CR-1270 NSP Table Mapping Allow an inferred delete to be accepted whether the NSP entry start date is historic or not. States the EIEP outbox is cleared of files more than 30 days old, changed to EIEP inbox Example format for NT missing a comma

Version	Release Date	Section	Description
		Process Maps, Web Services, SI-010, SI-020, NP-080, PR-370, QU-020, RS-010, RW-020, RM-020, MM-010, SD-020, Batch interface cross reference map	CR-1208: EIEP5A Registry Format. Addition of the EIEP5A format and Registry distribution of planned service interruption.
22.40		SD-020	CR-1273 (Config) New Fuel Type codes CR-1208 Planned outage communication codes