Retail Market Message Guide

Market Gateway Activity

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Table of Contents

1   INTRODUCTION

1.1   Purpose of the Message Implementation Guide

This document is a Message Implementation Guide to assist Suppliers in:

- The construction of market messages to be sent to DSO and MRSO; and

- The interpretation of messages received from DSO and MRSO.

The Message Implementation Guides are organized into separate **Message Groups** documents based around key business processes.   These are:

- Registration, including Change of Supplier
- Customer Data and Agreements
- Data Processing
- Data Aggregation
- DUoS and Transaction Payments
- Meter Works
- SSA
- Un-metered
- Market Gateway Activity

This document is the **Market Gateway Activity** Implementation Guide.

1.2   Message Groups

Each Message Group section contains:

- An introduction outlining the scope and business context for the message group

- A Message Usage Summary with a description of when each message is used

- A list of Related Business Documents that govern the process

- A message directory with a section for each separate message which includes:

  - A description of each message and when it should be used

  - An overview diagram of the structure of the message.

  - For messages sent by Suppliers:

    o A table containing composition instructions on how to populate each segment and field

    o A table describing how the message will be validated

    o A description of the responses that can be expected

  - For messages sent by ESB Networks:

    o A table containing a description of how each segment and field will be populated.

The same type of data is often provided in several messages and, irrespective of the message type, this data is subject to common rules for population.   An example is the Meter Point Address.

A separate document exists to describe the population rules for these types of data, providing:

- An overview of the structure of the segment

- Instructions relating to how to populate each segment and field.

This document is the Common Data Segments Implementation Guide.

1.3 Technical Overview

Messages are exchanged in XML format between the Market Gateway operated by ESB and the Market Participant Communication Component (MPCC) software.

1.4 Message Version

This Message Guide refers to and is consistent with the Discussion Request (DR 176) which is based on Market Design version 8 and the 131 market message from MCR0171.

1.5   Scope

The scope of this document covers the following messages:

- 601 Rejection of Invalid Message
- 602 Daily Summary Reconciliation Count

1.6   Validation

The document provides notes on how ESB Networks will validate the messages received.   The purpose of these notes is to aid the Supplier in the population of each message and is intended to avoid instances where messages are rejected due to the incorrect population of a message field.   The validation described is therefore limited to field specific validations.

Syntax validation is excluded from the validation notes.   This is performed by using standard XML Schema validation against the ieXML schema provided that defines the data structures of all market messages in scope.   Syntax validation includes:

- Checks that the structure of the message is correct

- Checks that all mandatory fields are provided.   Mandatory fields are, however, indicated in the instructions for populations.

- Checks that any data code is selected from the list of data codes issued in the ROI Market Design.

In cases where the segment on a message fails on any of these reasons, a negative acknowledgement is sent back as a market message to the message sender containing the following information:

- The Transaction Reference Number supplied on the inbound message
- A copy of the message contents as received by ESB Networks
- A description of the error or category of error.

General market process validations that are not specific to individual market message fields are excluded.   These are described in the appropriate Market Procedure Documents (MPD) referenced in each section.

Market Message Implementation Guide – Market Gateway Activity

Notes

In this document, the references to segment and field levels should be interpreted as follows:

- The level number indicated against the segment refers to the level of the data items and segments <u>within</u> that segment.   Therefore, for example, in message 010 where 'MPRN Level Information -Level 2' is stated it is the data items and segments that comprise 'MPRN Level Information' that are level 2 items (e.g. MPRN field, Market Participant Business Reference field, Meter Point Address segment). Accordingly, within this document, MPRN Level Information segment is shown as a Level 1 segment.

- Message Header is a Level 1 segment and is a child of Header Level Information.

1.7   Market Message introduction

The grouping of messages in this guide relate to the following:

- Notification that a Market Message has failed validation at XML Schema level – 601 Rejection of Invalid Message

- The details of how many Market Messages have been received by and sent from the ESB Hub from / to a given Market Participant – 602 Daily Summary Reconciliation Count

The following table provides a trigger list for each message described in this document, detailing when it is used.

Message	Title	Sender	Recipient	Trigger	Predecessor	MPD Ref.
601	Rejection of Invalid Message	ESB Hub	Market Participant	Receipt of an invalid message in the ESB Hub	Invalid message	Not applicable
602	Daily Summary Reconciliation Count	ESB Hub	Market Participant	On a daily basis to each Market Participant	None	Not applicable

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2 MARKET MESSAGES

2.1 601 Rejection of Invalid Message

Purpose / Description of message

The 601 Rejection of Invalid Message is sent by the ESB Market Message Hub to Market Participants to notify them that a Market Message sent by them has failed XML Schema validation.

Data hierarchy diagram
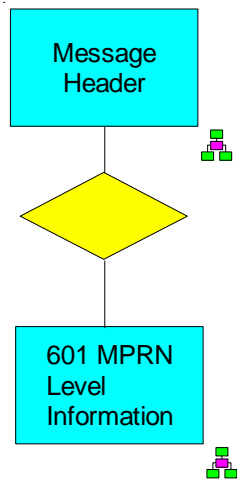
```
┌──────────────┐
│   Message    │
│   Header     │
└──────────────┘
        │
        ◆ (yellow diamond)
        │
┌──────────────┐
│  601 MPRN    │
│  Level       │
│  Information │
└──────────────┘
```

Message Structure

This section describes the structure of the 601 message. The purpose of the message segments and data items are explained and any rules for composition outlined.

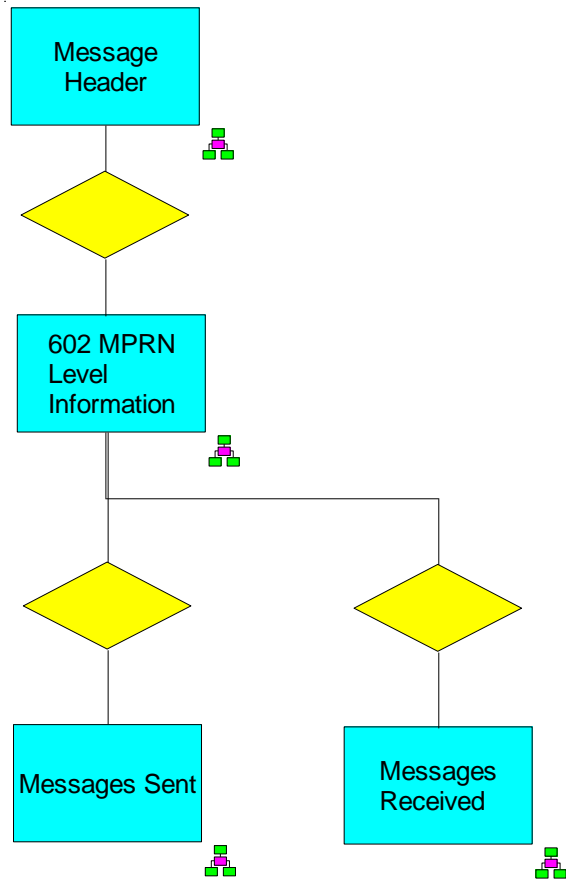| Segment and Field Level Identifier – 601 Message			Rpt	Optionality	Description / Purpose and composition instructions
1	Message Header		1	Mandatory	*Refer to common data segments document*
1	Meter Point Details		1	Mandatory	
2	FLD	MPRN	1	See instructions	The unique identifying reference number for the Meter Point. The MPRN provided on the rejected message is referenced here where it was provided and could be read.
2	FLD	Original Transaction Reference Number	1	See instructions	This is the Transaction Reference Number data item provided in the message header segment of Market Messages. This item is populated here where it was provided on the message that is being rejected and could be read.
2	FLD	Original Message	1	Mandatory	This is a copy of the original message that is being rejected. This is a Base 64 XML Data type. Base64 encoding is required to cater for scenarios where the incoming message may contain invalid XML characters.
2	FLD	Error Category Code	1	Mandatory	This is a code that defines the type of error that was found on the incoming message. The following are valid entries for Error Category Code: **NRE –** Not readable **REV –** Readable but validation failure
2	FLD	Error Description	1	See instructions	This is the Technical description of the error where one was provided / possible.

2.2   602 Daily Summary Reconciliation Count

Purpose / Description of message

The 602 Daily Summary Reconciliation Count message is sent by the ESB Hub to Market Participants to provide them with a summary of the following:

• Market Messages they have been sent by the ESB Hub over a given time period

• Market Messages that have been received by the ESB Hub from the Market Participant over the same time period.

Data hierarchy diagram

Message Structure

This section describes the structure of the 602 message. The purpose of the message segments and data items is explained and any rules for composition outlined.

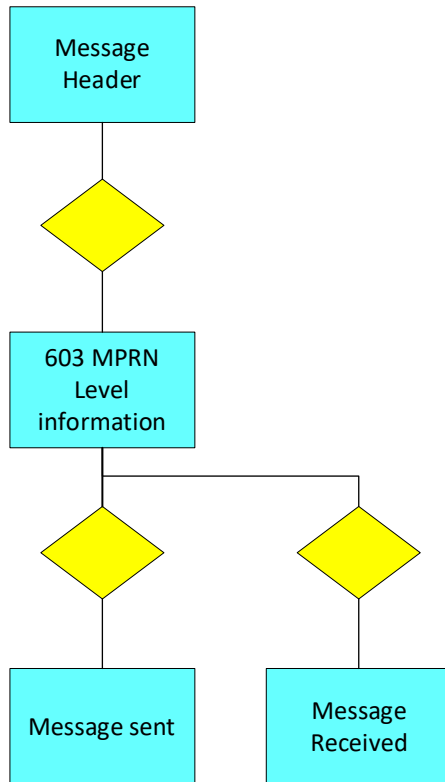| Segment and Field Level Identifier – 602 Message				Rpt	Optionality	Description / Purpose and composition instructions
1 Message Header				1	Mandatory	*Refer to common data segments document*
2	SEG	Time Period		1	Mandatory	This segment contains information relating to the date and time that the Reconciliation Count is applicable.
	3	FLD	Start Time	1	Mandatory	This is the point in time from which the reconciliation count started counting messages sent to and received from a particular Market Participant.
	3	FLD	End Time	1	Mandatory	This is the point in time from which the reconciliation count stopped counting messages sent to and received from a particular Market Participant.
2	SEG	Messages Sent		1..N	See instructions	This segment contains information relating to the number and type of messages sent to the Market Participant for the time period indicated.
	3	FLD	Message Type Code	1	Mandatory	This is the message number being reported on.
	3	FLD	Record Count	1	Mandatory	This is the total number of messages of a given message number that were sent to the Market Participant in the time period indicated.
2	SEG	Message Received		1..N	See instructions	This segment contains information relating to the number and type of messages received from the Market Participant for the time period indicated.
	3	FLD	Message Type Code	1	Mandatory	This is the message number being reported on.
	3	FLD	Record Count	1	Mandatory	This is the total number of messages of a given message number that were received from the Market Participant in the time period indicated.

2.3   **603 Daily Summary Transaction Details**

Purpose / Description of message

The 603 Daily Summary Transaction Details message is sent by the ESB Hub to Market Participants to provide them with a list of the following:

- Market Messages they have been sent by the ESB Hub over a given time period to include the Transaction Reference Number for each market message type contained in the overall 602MM count and also for convenience the count of message type will also be included.

- Market Messages that have been received by the ESB Hub from the Market Participant over the same time period to include the Transaction Reference Number for each market message type contained in the overall 602MM count and also for convenience the count of message type will also be included.

Data hierarchy diagram

```
┌─────────────┐
│   Message   │
│   Header    │
└──────┬──────┘
       │
      ◇
       │
┌─────────────┐
│  603 MPRN   │
│    Level    │
│ information │
└──────┬──────┘
       ├───────────────┐
      ◇               ◇
       │               │
┌─────────────┐ ┌─────────────┐
│Message sent │ │  Message    │
│             │ │  Received   │
└─────────────┘ └─────────────┘
```

Message Structure

This section describes the structure of the 603 message. The purpose of the message segments and data items is explained and any rules for composition outlined.

Segment and Field Level Identifier – 603 Message			Rpt	Optionality	Description / Purpose and composition instructions
1 Message Header			1	Mandatory	*Refer to common data segments document*
2	SEG	Top Level Segment	1	Mandatory	This segment contains information relating to the date and time that the Reconciliation Count is applicable and also the multiple file identifier.
	3	FLD Start Time	1	Mandatory	This is the point in time from which the reconciliation count started counting messages sent to and received from a particular Market Participant.
	3	FLD End Time	1	Mandatory	This is the point in time from which the reconciliation count stopped counting messages sent to and received from a particular Market Participant.
	3	FLD Multiple File Identifier	1	Mandatory	<mark>This is the total number of MM603 sent within the time period for each Market Participant. E.g. 1 of 2, 2 of 2 etc. Multiple files will only be required if 603MM size becomes problematic for the Retail Market Hub to process</mark>
2	SEG	Messages Sent	1..N	See instructions	This segment contains information relating to the number and type of messages sent to the Market Participant for the time period indicated.
	3	FLD Message Type Code	1	Mandatory	This is the message number being reported on. Where there are no messages sent then this field will contain the value '999', the record count will be '0' and Transaction Reference Number will be 'Null'.
	3	FLD Record Count	1	Mandatory	This is the total number of messages of a given message number that were sent to the Market Participant in the time period indicated.

Segment and Field Level Identifier – 603 Message				Rpt	Optionality	Description / Purpose and composition instructions
	3	SEG	Transaction Reference Numbers	1.. N	Mandatory	This segment contains the list of transaction reference numbers
		4	FLD	Transaction Reference Number	1	Mandatory	This field contains the transaction reference number of the Market Message that was sent successfully by the hub to the Market Participant.
2	SEG		Message Received	1.. N	See instructions	This segment contains information relating to the number and type of messages received from the Market Participant for the time period indicated.
	3	FLD	Message Type Code	1	Mandatory	This is the message number being reported on. Where there are no messages received then this field will contain the value '999', the Record count will be '0' and Transaction Reference Number will be 'Null'.
	3	FLD	Record Count	1	Mandatory	This is the total number of messages of a given message number that were received from the Market Participant in the time period indicated.
	3	SEG	Transaction Reference Numbers	1.. N	Mandatory	This segment contains the list of transaction reference numbers
		4	FLD	Transaction Reference Number	1	Mandatory	This field contains the transaction reference number of the Market Message that was received successfully by the hub from the Market Participant.