SEM Agreed Procedure

Title	Agreed Procedure 4: Transaction Submission and Validation
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DOCUMENT HISTORY

VERSION	DATE	AUTHOR	COMMENT
V2.0	03/11/06	SEM Implementation Team	Issued to the Regulatory Authorities
V2.1	23/11/06	SEM Implementation Team	Updates Included Based on Participant Workshop Feedback
V3.0	01/12/06	SEM Implementation Team	Updates Included Based on Participant Workshop Feedback Updates have not been reviewed by all affected parties on the SEM project.
V3.1	22/02/07	Regulatory Authorities	Updated with comments from review of Terminology across all APs and TSC
V3.2a	22/03/07	Regulatory Authorities	Updated with consistency check comments against System Baseline Code

RELATED DOCUMENTS

DOCUMENT TITLE	VERSION	DATE	BY
Trading and Settlement Code	V1.2a	09/03/07	Regulatory Authorities
Market Participant Interface User Guide	V1.0		SEMIT
Agreed Procedure 5 "Data Storage and IT Security"	2.0		Regulatory Authorities
Agreed Procedure 7 "Emergency Communications"	2.0		Regulatory Authorities

1. INTRODUCTION

1.1. BACKGROUND AND PURPOSE

This Agreed Procedure sets out the process for both Participant and Market Operator (MO) for the submission and issue of Data Transactions. It will also describe all defaulting rules for the submission of Offer Data as referred throughout the Trading and Settlement Code.

To achieve this, the following topics will be dealt with:
- Communication Channels supporting the Data Transactions
- Rules supporting the Data Transactions
- Submission and issue processes

1.2. SCOPE OF AGREED PROCEDURE

This Agreed Procedure is a definition of procedural steps to be followed by the Market Operator and Participants. It forms an annexe to, and is governed by the Code. This document is a statement of process and procedure. Parties' rights and obligations are set out in the Code.

This Agreed Procedure is not intended as a user guide. A user guide is provided through the "Market Participant Interface User Guide" document.

The following topics are out of scope of this agreed procedure:
- Authentication, non-repudiation of any data surrounding the communication of any Data Transaction over a Type 2 Channel or Type 3 Channel (refer to Agreed Procedure 5 "Data Storage and IT Security" for further information).
- Interconnector Administrator Data Transaction.

1.3. DEFINITIONS

Save as expressly defined, words and expressions defined in the Code shall have the same meanings when used in this Agreed Procedure.

References to particular sections relate internally to this Agreed Procedure unless specifically noted.

1.4. COMPLIANCE WITH AGREED PROCEDURE

Compliance with this Agreed Procedure is required under the terms as set out in paragraph 1.10 of the Code.

Note: During the development of this Agreed Procedure, terms under discussion and values that are not yet finalised are highlighted in yellow and put in brackets []

2.   DESCRIPTIVE OVERVIEW

The Data Transactions in scope are those submitted by the Participant to the Market Operator and the messages the Market Operator (MO) generates in response.

These Data Transactions are supported by:
- Communication channels;
- Validation rules;
- Submission and issue processes.

2.1. COMMUNICATION CHANNELS

The Market Operator will allow communication with the Participants via three distinct Communication Channel types:
- Type 1 Channel;
- Type 2 Channel;
- Type 3: Channel.

Each Participant must designate and qualify for at least one of either Type 2 Channel or Type 3 Channel as described in the Agreed Procedure 3 – Communication Channel Qualification.

The Data Transactions in scope of this Agreed Procedure are related to Type 2 Channel and Type 3 Channel.

2.1.1.   Type 1 Channel

Manual communication consists of paper-based communications that are mailed or hand-delivered to the Market Operator, as well as fax communications that will be tracked and audited by the Market Operator.

2.1.2.   Type 2 Channel

Assisted communication consists of a web-based application, referred to as Market Web Interface which supports the upload and download of files or the completion of web forms.

2.1.3.   Type 3 Channel

Automated communication consists of an XML-based programmatic interface referred to as Web Services.

2.2. PARTICIPANT DATA TRANSACTIONS

The Participant can perform the following:

- Data submission;
- Data query;
- Data cancellation (with the exception of Technical Offer Data and Commercial Offer Data);
- Report query.

There are three principal classes of Data Transaction:
- MI – Market Interface Data Transactions which cover market data such as Technical Offer Data, Commercial Offer Data, Interconnector Offer Data etc.;

- MPR – Market Participant Registration Data Transactions which cover additional Technical Offer Data not included in the MI class. This data will not change on a regular basis;
- STL – Settlement Report Data Transactions which cover Settlement Statements Invoices, etc.

Each of these classes is made up of the following elements:

Class	Element
MPR	Application Data
	Contacts Data
	Users Data
	Bank Data
	Unit (Resource) Data
	Trading Site Data
MI	Generator Offer Data
	Load Bid Data (for Demand Side Unit)
	Interconnector Offer Data
	Shared Energy Limit Data
	Settlement Reallocation Data
	Reports (except for Settlement Reports)
STL	Settlement Reports

Further information on the data that makes up each of these elements can be found in APPENDIX 2 – Business data contained in each element.

Where the Participant is submitting Data Transactions via Web Services (Type 3 Channel) it is possible to include multiple elements in the same Data Transaction. However each of these Data Transactions can only contain elements of the same Data Transaction type. Additional restrictions are outlined below.

A Data Transaction (or message) can contain one or many elements or one or many occurrence of these elements provided that:
- Elements all belong to the same class, e.g. Application Data is not included with Generator Offer Data in the same Data Transaction.

- Within each individual message, elements must occur in a defined order.
  - MPR Elements when submitted together, should be in the following sequence:
    1- Application Data
    2- Contacts Data
    3- Users Data
    4- Bank Data
    5- Unit (Resource) Data
    6- Trading Site Data
  - MI Elements submitted together, should be in the following sequence:
    1- Generator Offer Data
    2- Load Bid Data (for Demand Side Units)
    3- Interconnector Offer Data
    4- Shared Energy Limit Data
    5- Settlement Reallocation Data

In addition:
- There is no cancellation Data Transaction for MPR elements.

- Only one Settlement Reallocation Data occurrence is allowed per Data Transaction. For the avoidance of doubt, a Participant is capable of submitting more than one Settlement Reallocation per Trading Period. A Participant is also permitted to submit Settlement Reallocations between their own Supplier and Generator Units.

- In the case of Settlement Report Data Transactions it is possible to request a report (Settlement Statements, Invoices, etc.) or a list of all available reports (a directory listing).

- For standing data the following applies:
    - Data contained in the "Standing Offer Data" element and "Trading Offer Data" element is identical except for 3 fields which should appear for "Standing Offer Data":
        1. a "Standing Flag" will identify a "Trading Offer Data" from a "Standing Offer Data";
        2. a "Standing Type" will indicate if the Standing Offer Data is valid for a specific day of the week (Monday, Tuesday, etc) or all days of the week (when applicable);
        3. an "Expiry Date" is required for Standing Offer Data, for which Participants are expected to set to a date far into the future unless subsequently submitting further data to be effective from the expiry date of their current default Standing Offer Data.
    - There is no cancellation Data Transaction for Standing Offer Data.

- When submitting Data Transactions containing MI elements, (with the exception of MI Report requests), the Participant can submit an External ID.

The Market Operator will perform high level validations to ensure:
- The Data Transaction is valid with respect to the Market Timeline;
- The Participant is authorised to submit the Data Transaction;
- That all required data is present;
- The message is correctly formatted (technically).

Further details on the rules governing the format and makeup of market messages are available in the Market Participant Interface User Guide and associated toolkit.

The processing windows during which Data Transactions can be submitted are outlined in the table below:

Start Time	End Time	Market Window	Comments
06:00 AM on TD-29 (GC-28)	10:00 AM on TD-1	SEM – submit	The data submission window opens at 06:00 AM 28 days before Gate Closure (GC), and closes on Trading Day (TD) - 1 at 10:00 AM
06:00 AM on TD-29 (GC-28)	23:59 PM on TD+7	SEM – query	Data may be queried according to the SEM -submit timeline, with this functionality being available for an additional 7 days after the Trading Day (TD)
06:00 AM on TD-29 (GC-28)	10:00 AM on Invoice Due Date - 1	Settlement Re-allocation	The Settlement Re-allocation data submission window opens as above and closes one day before the issue of the Invoice on which the reallocation is to be included (Billing Period/Capacity Period plus 4 working days)1
N/A	N/A	Standing Data	The submission of standing data window is always open – albeit only to be used for Market Submission Windows to be opened in the future

Table 1: Market Interface – Market Windows

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[1] From Agreed Procedure 10 "Settlement Reallocation"

The table below describes the timelines associated with different Data Transactions and their elements.

Data Transaction	Class	Element of Data Transaction	Timeline
Data submission			
	MPR	Application Data	Anytime before Gate Closure Performed initially during Participant Registration using Type 1 Channel
	MPR	Contacts Data	Anytime before Gate Closure Performed the first time at Participant Registration using Type 1 Channel
	MPR	Users Data	Anytime before Gate Closure Performed initially during Participant Registration using Type 1 Channel
	MPR	Bank Data	Anytime before Gate Closure Performed initially during Participant Registration using Type 1 Channel
	MPR	Unit (Resource) Data	Priority dispatch can be submitted at anytime, with at least 28 Trading Days notice Other resource information should be submitted at anytime before Gate Closure Performed initially during Unit Registration using Type 1 Channel
	MPR	Trading Site Data	Anytime before Gate Closure Performed initially during Unit Registration using Type 1 Channel
	MI	Generator Offer Data	Anytime before Gate Closure Performed initially during Unit Registration to register the Standing Offer Data using Type 1 Channel Refer to section 2.4 of this document related to default rules
	MI	Load Bid Data (for Demand Side Unit)	Anytime before Gate Closure Performed initially during Unit Registration to register the Standing Offer Data using Type 1 Channel Refer to section 2.4 of this document related to default rules
	MI	Interconnector Offer Data	Anytime before Gate Closure Performed initially during Unit Registration to register the Standing Offer Data using Type 1 Channel Refer to section 2.4 of this document related to default rules
	MI	Shared Energy Limit Data	Anytime before Gate Closure Performed initially during Unit Registration to register the Standing Offer Data using Type 1 Channel Refer to section 2.4 of this document related to default rules
	MI	Settlement Reallocation Data	1 Working Day before Invoice date

Data Transaction	Class	Element of Data Transaction	Timeline
Data query			
	MPR	Application Data	Anytime
	MPR	Contacts Data	Anytime
	MPR	Users Data	Anytime
	MPR	Bank Data	Anytime
	MPR	Unit (Resource) Data	Anytime
	MPR	Trading Site Data	Anytime
	MI	Generator Offer Data	Anytime but limited to 1 months worth of data in the past
	MI	Load Bid Data (for Demand Side Unit)	Anytime but limited to 1 months worth of data in the past
	MI	Interconnector Offer Data	Anytime but limited to 1 months worth of data in the past
	MI	Shared Energy Limit Data	Anytime but limited to 1 months worth of data in the past
	MI	Settlement Reallocation Data	Anytime but limited to limited to 2 years worth of data in the past
Report query			
	STL	Settlement Reports	Anytime, but limited to 1 month in the past for daily and weekly reports and limited to 2 years in the past for monthly and annual reports
	MI	All reports (except Settlement Reports)	Anytime, but limited to 1 month in the past for daily and weekly reports and limited to 2 years in the past for monthly and annual reports

2.3. RESPONSE MESSAGE FROM THE MO

For all Type 3 Channel communications and for all Type 2 Channel communications that involve uploading Data Transactions to the MO, the sender will receive a response message from the Market Operator's Isolated Market System. The response consists of:

- **Processing Statistics which detail:** Number of valid data sets, Number of invalid data sets, duration of data processing, Received time, Transaction ID.

- **Messages**: The messages indicate any information or errors based on data validation per element. The actual return codes are listed in the "Market Participant Interface User Guide".

- **Original data**: The response message for submission or cancellation of Data Transactions will have the original data from the requesting Data Transaction. This will include the External ID provided by the Participant where applicable.

The response message is synchronous with the Data Transaction and the target response time is [2 seconds]. However, this is dependant on the volume of data to be downloaded and the capacity of the Participant's internet connection. If the expected response is not received within an acceptable timeframe the Participant should check their internet connection and systems. If this does not reveal an issue the Participant should contact the Help Desk.

Agreed Procedure 7 "Emergency Communications" details emergency communications and the required notification processes.

2.4. DEFAULT RULES RELATED TO OFFER DATA SUBMISSION

2.4.1. Introduction

As an introduction to the terminology used below, Technical Offer Data (**TOD**) and Commercial Offer Data (**COD**) are categories of Offer Data as set out in the Code.

Default rules for TOD and COD are applied in order to ensure that at a valid TOD or COD will be available at Gate Closure.

The rules the Participant must follow, and the MO will apply to ensure valid Offer Data are available, are supported by rules around the submission and validation timelines of Offer Data. These rules are described in the following sections.

Definitions of Offer Data types:

- **Registration Default TOD:** refers to TOD (submitted using the Unit (Resource) Data element[2]) which must be submitted by Participants during Unit Registration to apply from the first Trading Day of participation. Any future updates to this Registration Default TOD, must be provided by the Participants at least before Gate Closure.

- **Standing Offer Data:** refers to TOD and COD (submitted using the appropriate[3] elements) which must be submitted by Participants during Unit Registration to apply from the first Trading Day of participation. For any future updates to this Standing Offer Data, Participants must submit Standing Offer Data prior to the opening of the Market Submission Window.

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[2] Refer to section 2.2
[3] 'Generator Offer Data', 'Load Bid Data', 'Interconnector Offer Data', or 'Shared Energy Limit Data'

- **Trading Offer Data:** refers to the daily submission of TOD and COD from Participants which can occur within the Market Submission Window (i.e. from 28 Trading Days before Gate Closure to Gate Closure) and will be applicable for the Trading Day specified in the Data Transaction.

For the avoidance of doubt, all COD inclusive of Default Data will be submitted via the Standing Offer Data and Trading Offer Data channels. There will be two subsets of TOD submitted, some via the Registration Default TOD message and some via the Standing Offer Data and Trading Offer Data channels. Details of which interface TOD are submitted is provided in Appendix B of this Agreed Procedure.

The high level validations mentioned in section 2.2 apply to Offer Data at the point of submission.

The submission timeline rules applying to the different types of Offer Data are described in the following sections and are summarised in the Default Rules Diagram below.

The following sections outline how the Default Data for Commercial Offer Data and Technical Offer Data, as defined in the Code, is supported in the Market Operator's Isolated Market System through a combination of functionality called Registration Default TOD, Standing Offer Data and Trading Offer Data.

2.4.2. Default Rules Diagram
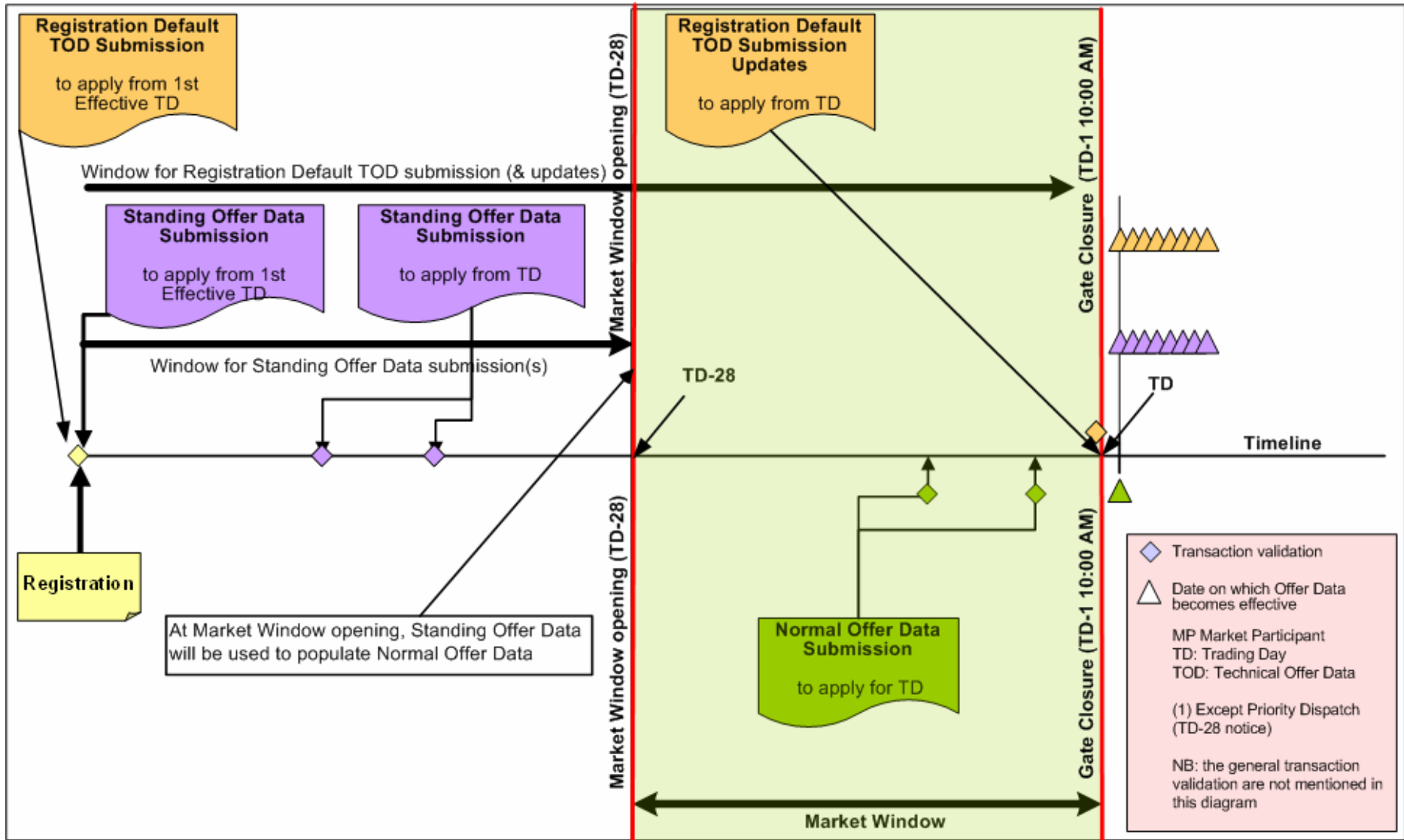
2.4.3.   Registration Default TOD

Registration Default TOD refers to business data, in the Unit (Resource) Data element (as detailed in Appendix 2 – Business Data Contained In Each Element). It is not anticipated that Registration Default TOD will change on a regular basis and is considered similar to static data.

Submissions at Unit Registration

Registration Default TOD must be submitted during Unit Registration This data will apply from the first Trading Day of participation and will continue to be effective indefinitely, or until updates are submitted.

Submissions of Updates Prior to Gate Closure

Registration Default TOD can be updated at anytime by submitting new Registration Default TOD applicable from an 'Effective From' date specified in the Data Transaction.

Participants must submit the Registration Default TOD before Gate Closure. An exception to this rule is with Generic Settlement Class updates for Priority Dispatch Units which requires 28 Trading Days notice to the MO.

At Gate Closure the Registration Default TOD is utilised for the appropriate Trading Day.

2.4.4.   Standing Offer Data

Standing Offer Data refers to Offer Data in the Generator Offer Data, Load Bid Data, Interconnector Offer Data or Shared Energy Limit Data elements (as detailed in the Appendix 2 – Business Data Contained In Each Element). Standing Offer Data comprises of COD and TOD items. TOD items submitted as part of Standing Offer Data are different from those included in the Registration Default TOD.

Standing Offer Data represents the Default Data for those items submitted in this Data Transaction.

- Standing Offer Data can be created at any time
- It is automatically used to create Trading Offer Data immediately after the opening of the appropriate market submission window (28 days in advance of Gate Closure)
- As part of Unit Registration, one set of data is manually submitted and is entered by the Market Operator onto the system with a parameter of "ALL" (valid for all days). There is no expiry for this, as Default Data (see below) is always required on the system
- After Communication Channel Qualification – i.e. once access to the system is granted – Participants may update the Standing Offer Data (type "ALL")
- Participants may also submit Standing Offer Data for specific day types (SUN, MON, ..., SAT). These may optionally have an expiration date
- If an expiration date is used, the Standing Offer Data will be used daily and automatically cancelled after the expiration date
- If no expiration date is given, the Standing Offer Data will be used indefinitely, or until the Participant cancels or supersedes the specific day type data
- The latest Standing Offer Data available is used at Gate Closure where no valid Trading Offer Data has been submitted.
- The use of Standing Offer Data, ensures that there is always valid Offer Data available for a unit

- The effective date must be greater than the date for which the specific day type Standing Offer Data will be processed by Standing Offer Data Conversion. The earliest effective date for a Standing Offer Data submission is Current Day + 29 days, based on a Market Submission Window of 28 days.

- At Market Submission Window opening, if for a given Trading Day there is Standing Offer Data for both a specific day type and "ALL", the system will only use the specific day type.

- There are some circumstances whereby it is possible that Standing Offer Data Conversion could fail. In this case the Market Operator will contact the Participant to submit Trading Offer Data and update Standing Offer Data, if appropriate. Although there are 28 days before this data will be used, it is expected that the situation should be resolved within 5 working days[4]

2.4.5.   Trading Offer Data

Trading Offer Data refers to any Offer Data in the Generator Offer Data, Load Bid Data, Interconnector Offer Data, or Shared Energy Limit Data elements (as detailed in the Appendix 2 – Business Data Contained In Each Element). Trading Offer Data applies for a given Trading Day.

Trading Offer Data comprises of COD and TOD items. TOD items submitted as part of Trading Offer Data are different from those included in the Registration Default TOD.

- As Standing Offer Data will be converted to Trading Offer Data at Market Submission Window opening, submissions of Trading Offer Data will always be an update to Offer Data.

- Trading Offer Data submissions will be validated and processed upon receipt, and the Participant will be informed of the results of validation and processing

- The communication mechanism during data submission is synchronous, that is the Participant submits the data and waits for the response from the web server

- Participants have the ability to revise Trading Offer Data as many times as necessary within the appropriate Market Submission Window (28 days)

Data Transactions within Market Submission Window Opening

Trading Offer Data can be submitted at anytime within the Market Submission Window, (i.e. from TD-28 up to Gate Closure) and will be applicable for the Trading Day specified in the Data Transaction.

At Gate Closure the last successfully submitted Trading Offer Data will be used for the Trading Day.

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[4] Business process required to identify and resolve failed Data Conversion – Standing to Trading

3.   PROCEDURE DEFINITION

3.1. PROCESS FOR DATA SUBMISSION, QUERY AND CANCELLATION

3.1.1.   Through Web Services

- The Participant's system, subject to the associated access rules, establishes a connection with Web Services.
- The Participant's system selects the appropriate Data Transaction file and submits a Web Services request using the established connection. This file is built using the appropriate schema and contains Data Transactions for submission, query or cancellation.
- The Participant's system then receives an xml response message from the MO in a folder specified during the Web Services connection set-up.
- If the xml response message indicates that there is no error in the Data Transaction, the Data Transaction and all the elements included have been stored in the Market Operator's Isolated Market System.
- If the xml response message indicates that there is an error in the Data Transaction for a given element, this particular element is rejected and not stored in the Market Operator's Isolated Market System. The Participant will have to build a new Data Transaction file with the correct element and submit it as described in the previous steps. The other elements included in the original Data Transaction which have no errors are successfully stored in the system.

3.1.2.   Through Market Web Interfaces – by Upload or Download

- The User, subject to the associated access rules, connects to the Market Web Interface through the Market Website
- The User selects 'Filexchg' from the 'Main Menu' dropdown menu.
- From this window, the User selects the appropriate Data Transaction file from the Upload File field.
- The Status File field is used to specify the folder where the xml response message should be sent.
- The User clicks the 'Submit' button to complete the operation.
- The User can then check the folder indicated previously for the xml response message in order to identify if the submission was successful.
- If the xml response message indicates that there is no error in the Data Transaction, the Data Transaction has been successful and all elements have been stored in the Market Operator's Isolated Market System.
- If the xml response message indicates that there is an error in the Data Transaction for a given element, this particular element is rejected and not stored in the Market Operator's Isolated Market System. The Participant will have to build a new Data Transaction file with the correct element and submit it as described in the previous steps. The other elements included in the original Data Transaction which have no errors are successfully stored in the system.

3.1.3.   Through Market Web Interfaces - using Web Form

- The User, subject to the associated access rules, connects to the Market Web Interface through the Market Website
- The User selects one of the following options from the 'Main Menu':
  - "Registration" for elements of a Data Transaction related to elements with an MPR extension (refer to section 2.2 of this document)
  - "Trading" for elements of a Data Transaction related to elements with an MI extension (refer to section 2.2 of this document)

- From this window, the User then selects the following sub-menu options in order to retrieve the appropriate web form:
    - From the "**Registration"** menu, the tab:
        1. **"Application"** for the Application Data element.
        2. **"Contacts"** for the Contacts Data element.
        3. **"Users"** for the Users Data element.
        4. **"Financials"** for the Bank Data element.
        5. **"Facilities"** for the Unit (Resource) Data element.
    - From the "**Trading"** menu , the data type:
        1. **"Generator Offers"** for the Generator Offer Data element.
        2. **"Demand Offer"** for the Load Bid Data (for Demand Side Unit) element.
        3. **"Interconnector Offers"** for the Interconnector Offer Data element
        4. **"Settlement Reallocation"** for the Settlement Reallocation Data element.
        5. **"Trading Site Data"** for the Shared Energy Limit Data element.
- The User can then select one of Submit, Query or Cancel.
- The User clicks the Submit button to complete the operation.
- A success or error message will be displayed at the top of the window
- If the web form submitted is incorrect, the User will have to correct the required information and re-submit the web form as previously described.

3.2. REPORT REQUEST PROCESS

3.2.1. Through Web Services

- The Participant's system, subject to the associated access rules, establishes a connection to Web Services.
- The Participant's system requests the appropriate report and submits the Web Services request utilising the established connection
- The Participant's system then receives the xml response message from the MO.
- If the xml response message indicates an error in the Data Transaction for a given element, no report will be returned.
- If the Data Transaction is successful, the xml report is delivered either in the xml response message or as a specific xml attachment deposited in the specified folder.

3.2.2. Through Market Web Interfaces

- The User, subject to the associated access rules, connects to the Market Web Interface through the Market Website
- The User selects 'Reports' from the 'Main Menu' dropdown menu.
- From this window, the User selects the appropriate 'Trading Date', 'Report Type', and 'Report Sub Type' from the dropdown menus.
- Then the User clicks the 'Fetch Report List' button.
- A success or error message will be displayed at the top of the window.
- This window will display a list of available reports, including the following details: Report Type, Report Name, Report Description, File Name, and File Type.
- The User selects a report by clicking on the required report's details.
- From this window the User may either view the report in the browser window or download the report.

- To view the report in the browser window, the User clicks the 'Fetch On-Screen' button.
- To download the report, the User indicates the file folder in the field and clicks the 'Download to File' button.

3.3. SETTLEMENT REPORT QUERY SUBMISSION PROCESS

3.3.1. Through Web Services

- Subject to the associated access rules, the Participant's system, establishes a connection to Web Services.
- The Participant's system requests the appropriate report and submits a Web Services request utilising the established connection.
- The Participant's system then receives an xml response message from the MO.
- If the xml response message indicates an error in the Data Transaction for a given element, no report will be returned.
- If the Data Transaction is successful, the report is returned and written to the specified folder.

3.3.2. Through Market Web Interfaces

- The User, subject to the associated access rules, connects to the Market Web Interface through the Market Website
- The User selects the Weblink menu from the 'Main Menu'.
- From this window, the User selects the required reports menu: 'Statements', 'Report', or 'Invoices'.
- The User can then select the exact report by selecting the type of report and specifying the "from date" and "to date" for this report
- The reports details will appear on the screen
- From this window the User may view, print or download the report.

4. APPENDIX 1 – DEFINITIONS AND ABBREVIATIONS

4.1. DEINITIONS

Application Data	
Autonomous Generator Unit	As defined in the Code
Bank Data	Means data relating to banking details first submitted at Party registration
Billing Period	As defined in the Code
Capacity Period	As defined in the Code
Code	As defined in the Code
Commercial Offer Data	As defined in the Code
Communication Channel	As defined in the Code
Connection Agreement	As defined in the Code
Contacts Data	Means data relating to Party contact for certain functions as submitted by the Party
Credited Participant	As defined in the Code
Data Transaction	As defined in the Code
Debited Participant	As defined in the Code
Default Data	As defined in the Code
Demand	As defined in the Code
Demand Side Unit	As defined in the Code
Digital Certificate	As defined in Agreed Procedure 1 "Participant Registration and Unit Registration and Deregistration"
Element	An element is a set of business data. The 12 elements in scope are listed below: • Application Data – MPR • Contacts Data – MPR • Users Data – MPR • Bank Data – MPR • Unit (Resource) Data – MPR • Generator Offer Data – MI • Load Bid Data (for Demand Side Unit) – MI • Interconnector Offer Data – MI • Shared Energy Limit Data – MI • Settlement Reallocation Data – MI • Reports (except settlement Reports) – MI • Settlement Reports – STL
Energy Limit	As defined in the Code
Energy Limited Generator Unit	As defined in the Code
External ID	For submission of Data Transactions, the schema will allow the Participant to provide an optional Data Transaction ID, called External ID
Framework Agreement	As defined in the Code
Gate Closure	As defined in the Code
Generator	As defined in the Code
Generator Unit	As defined in the Code
Help Desk	As defined in Agreed Procedure 11 "Market System Operation, Testing, Upgrading and Support"

Interconnector Administrator	As defined in the Code
Invoice Due Date	As defined in the Code
Isolated Market System	As defined in the Code
Load Bid Data	Unit bid data provided by a Participant
Market Interface	Data Transactions that cover market related data submitted by Participants
Market Operator	As defined in the Code
Market Participant Registration	Data Transactions that cover additional Technical Offer Data not included in the Market Interface class
Market Submission Window	The period in which Trading Offer Data can be submitted by Participants. The window is open at 06:00 28 days prior to Trading Day and is closed at Gate Closure for that Trading Day
Market Timeline	A period of time at which certain actions are taken or recorded that begins when at Unit Registration and ends at Trading Day
Market Web Interface	The mechanism through which Participants can send and receive Data Transactions through Type 2 Channel communication
Market Website	As defined in the Code
Offer Data	As defined in the Code
Participant Registration	As defined in the Code
Party	As defined in the Code
Predictable Price Maker Generator Unit	As defined in the Code
Predictable Price Taker Generator Unit	As defined in the Code
Price Taker Generator Unit	As defined in the Code
Regulatory Authorities	As defined in the Code
Generic Settlement Class	As defined in the Code
Settlement Reallocation	As defined in the Code
Settlement Reallocation Data	Means the data that is submitted by Participants to the Market Operator providing details of the Settlement Reallocation Agreement
Settlement Report	Means reports arising from Settlement
Shared Energy Limit Data	Means data relating to the Energy Limit of an Energy Limited Generator Unit
Standing Offer Data	Is as defined in section 2.1.12.4.4
Standing Offer Data Conversion	Means the process of converting Standing Offer Data to Offer Data at the opening of the Market Submission Window
Supplier	As defined in the Code
Technical Offer Data	As defined in the Code
Trading Offer Data	Is as defined in section 2.1.12.4.42.4.5
Trading Day	As defined in the Code
Trading Period	As defined in the Code
Trading Site	As defined in the Code
Trading Site Data	Means data relating to a Trading Site
Type 1 Channel	As defined in the Code
Type 2 Channel	As defined in the Code
Type 3 Channel	As defined in the Code
Unit	As defined in the Code
Unit (Resource) Data	Means data relating to a Unit
Unit Registration	As defined in the Code
User	Means a person who interfaces with a system
Users Data	Means data relating to Participant User that has access

	to elements of the system
Variable Price Maker Generator Unit	As defined in the Code
Variable Price Taker Generator Unit	As defined in the Code
Web Services	Means the automated communication consisting of an XML-based programmatic interface
Working Day	As defined in the Code

4.2. ABBREVIATIONS

APTG	Autonomous Generator Unit
COD	Commercial Offer Data
GC	Gate Closure
MO	Market Operator
MPR	Market Participant Registration
PPMG	Predictable Price Maker Generator Unit
PPTG	Predictable Price Taker Generator Unit
SEM	Single Electricity Market
SO	System Operators
TD	Trading Day
TOD	Technical Offer Data
VPMG	Variable Price Maker Generator Unit
VPTG	Variable Price Taker Generator Unit

5.   APPENDIX 2 – BUSINESS DATA CONTAINED IN EACH ELEMENT

This appendix describes the business data contained in each category of data. Any additional information needed to build the message is described in the Market Participant Interface User Guide.

APPLICATION DATA

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Address 1	Party Address	Characters (60)
Address 2	Party Address (following)	Characters (60)
City	Party City	Characters (20)
County	Party County	Characters (20)
Postal Code	Party Postal Code	Characters (15)
Country	Party Country	Characters (20)
Phone	Party Phone	Characters (20)
Fax	Party Fax	Characters (20)
email	Party Email	Characters (50)
URL	Party URL	Characters (100)
Name	Corporate name of the Participant.	Characters (50)
Short Name or Participant Name	Participant Short Name – will be used as the Participant Name in all Data Transactions	Characters (12)
Notification Comment	Used by the Market Operator and Participant to exchange notes with respect to that registration data.	Characters (250)
Business President	Person authorised to sign Framework Agreement	Characters (20)
Was Participant flag	Was Previously a Participant? {'Y'/'N'}	Character (1)
OLD_MPID	Old Business Associate ID (in the previous	NUMBER(15)
OLD_MPDATE	Old Registration Date.	YYYY-MM-DD
Represent Party	Name of the Party that is represented by the registering Participant.	Characters (32)
Account Manager	Name of MO personnel who will manage the Participant's account.	Characters (50)
Doc Signatory Tracking	Tracking of Participant signatures or agreement on the following: Framework Agreement to Trading and Settlement Code Transmission Use of System Agreement (TUoS)	Characters (50)
Initial Credit Cover	Amount of initial credit cover required at registration.	NUMBER(15,2)

Data	Comment	Format
Credit cover Type	Type of Credit cover, whether Cash or Letter of Credit.	Character (1)
Billing Address	Address to which all invoices for the Participant will be sent.	Characters (60)
Billing City	City to which all invoices for the Participant will be sent.	Characters (20)
Billing County	County to which all invoices for the Participant will be sent.	Characters (20)
Billing Code Postal	Postal code to which all invoices for the Participant will be sent.	Characters (15)
VAT Jurisdiction	ROI or NI.	Characters (4)
Vat Status	VAT Exempt or Non-Exempt, for each jurisdiction. 0 - Non-Exempt 1 – Exempt	NUMBER(1)
VAT number		Characters (32)

CONTACTS DATA

Please refer to the Market Participant Update Document V1.0

Data	Description	Format
Effective date	Contact Effective Date.	YYYY-MM-DD
Name	Contact name for settlement related business or Primary contact for market scheduling related business or Contact name for financial business functions, including credit cover or Contact name for other functional areas.	Characters (50)
Position	Contact Person Position	Characters (50)
Contact type	Contact Type: FullUser: Full Access Contact. MainContact: Main Organisation Contact. Invoicing: Financial, Invoicing and Banking Contact. Settlement: Settlement and Billing Contact. Trading: Scheduling Contact. Other: Contact for other functional areas.	Characters (20)
Address 1	Contact address 1	Characters (60)
Address 2	Contact address 2	Characters (60)
City	Contact City	Characters (20)
County	Contact County	Characters (20)

Data	Description	Format
Postal Code	Contact Postal Code	Characters (15)
Country	Contact Country	Characters (20)
Phone	Contact Phone number	Characters (20)
Fax	Contact Fax number	Characters (20)
email	Contact Email	Characters (50)
mobile	Mobile Phone Number	Characters (20)
Pager	Contact Pager Number	Characters (20)
URL	Contact URL	Characters (100)
Comments	Comments on contact	Characters (250)
Notification Comment	Used by the operator and Participant to exchange notes with respect to that registration data.	Characters (250)

USERS DATA

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Login	Unique User Login ID	Characters (12)
Effective date	User Effective Date	YYYY-MM-DD
Expiry date	User Expiration Date	YYYY-MM-DD
Name	Name of user within organisation (multiple users may be entered)	Characters (50)
Position	User Person Position	Characters (50)
User type	User Type: Selection of pre-defined roles with corresponding market system access information by functional area, including read-write, read-only and administrative access, as required. The value must be: **"FullUser"** - Full Access User **"Registration"** - Registration User **"Trading"** - Trading User **"Invoicing"** - Invoicing User **"Settlement"** - Settlement Statements User **"Other"** - Other User Type	Characters (20)
Address 1	User Address 1	Characters (60)
Address 2	User Address 2	Characters (60)
City	User City	Characters (20)
County	User County	Characters (20)
Postal Code	User Postal Code	Characters (15)
Country	User Country	Characters (20)

Data	Comment	Format
Phone	User Phone Number	Characters (20)
Fax	User Fax Number	Character (20)
email	User Email ID	Character (50)
mobile	User Mobile Phone ID	Character (20)
Pager	User Pager ID	Character (20)
URL	User URL	Character (100)
comments	User Comments	Character (250)
Notification Comment	Used by the operator and Participant to exchange notes with respect to that registration data.	Character (250)

BANK DATA

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Bank Account Number		Character (30)
Bank Account Effective Start Date		YYYY-MM-DD
Bank Account Expiration Date		YYYY-MM-DD
Bank Account Name		Character (30)
Bank Account Description		Character (50)
Bank Name		Character (20)
Bank Number		NUMBER(20)
Bank Branch Type		Character (15)
Bank Branch Name		Character (30)
Bank Branch Number of Sort Code		Character (32)
Bank Branch Transit ID		NUMBER(25)
Bank Branch Description		Character (50)
Bank Branch Address line 1		Character (50)
Bank Branch Address line 2		Character (50)
Bank Branch City		Character (20)
Bank Branch County		Character (20)
Bank Branch Postal Code		Character (15)
Bank Branch Country		Character (20)
Bank Branch Phone		Character (20)
Bank Branch Fax		Character (20)
SWIFT_BIC		Character (32)
IBAN	International Bank Account Number (if applicable).	Character (30)

Data	Comment	Format
Bank Account Currency jurisdiction	(ROI or NI).	Character (4)
Notification Comment	Used by the operator and Participant to exchange notes with respect to that registration data.	Character (250)

UNIT (RESOURCE) DATA

Generator parameters

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Resource Type	Indicates the type of resource for which data is being submitted - for example this will indicate if a resource is predictable or variable and whether it is a price taker or price maker. Permitted values include: PRED_PR_MAKER_GEN, PRED_PR_TAKER_GEN, VAR_PR_MAKER_GEN, VAR_PR_TAKER_GEN, AUTO_PR_TAKER_GEN.	VARCHAR2(32)
Resource Name	The name of the resource in question (e.g. the name of the Generator Unit, Supplier Unit, Demand Side Unit, Interconnector Unit or Interconnector for which data is being submitted).	Character (32)
IM Resource Name	Reference ID to the unit's injection point to the transmission system referenced in the Connection Agreement	VARCHAR2(32)
Connection Point	Identifier of the Unit connection point (provided by the Transmission System Operators).	Character (32)
Connection Type	Will be "TRNS" if transmission system connected and "DIST" if distribution system connected.	Character (4)
Connection Agreement	Reference ID to the unit's and/or Participant's connection agreement.	Character (32)
Fuel type	May be Oil (OIL), Gas (GAS), Coal (COAL), Multiple Fuel (MULTI), Wind (WIND), Hydro (HYDRO), Biomass (BIO), Combined Heat and Power (CHP), Pumped Storage (PUMP) Demand Side Unit (DEM)	Character (5)
Minimum Time Sync Cold	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(5,2)
Minimum Time Sync Warm	The duration in hours off load that indicates the standby status change of the unit from Warm to Cold.	NUMBER(5,2)
Minimum Time Sync Hot	The duration in hours off load that indicates the standby status change of the unit from Hot to Warm.	NUMBER(5,2)

Data	Comment	Format
Minimum Output	Minimum Output of Generator Unit. The lowest value to which a unit can be scheduled. (e.g. Pump Storage = Negative value for Pumping Units, all thermal units = 0, Interconnector Units = Maximum Export Capability)	NUMBER(9,3)
Minimum Stable Generation	Registered Minimum Stable Generation level in MW.	NUMBER(9,3)
Maximum Generation	Maximum Generation level, in MW. Registered Maximum Generation level in MW.	NUMBER(9,3)
Number of Hours elapsed for Cold Sync time.	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(5,2)
Number of Hours elapsed for Warm Sync time.	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(5,2)
Number of Hours elapsed for Hot Sync time.	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(5,2)
Pumped Storage flag	May be Y, N or NULL - it will only be Y if the Unit is a pumped storage unit.	Character (1)
Energy Limit Flag	May be Y, N or NULL - it will only be Y if the Unit is a pumped storage unit.	Character (1)
Netting Generator Flag	Only applicable to PPMG, PPTG, VPMG, VPTG, APTG. It is a Y/N/Null field. Null for supplier, demand and interconnector.	Character (1)
Short Term Maximisation Capacity above MAXGEN	Capacity above MAXGEN that can be sustained for a finite period of time (MW).	NUMBER(8,3)
Short Term Maximisation time	The duration in hours representing the length of time that Short-Term Maximisation can be sustained.	NUMBER(4)
Minimum On-time	The minimum time that must elapse from the time a Generator Unit Starts-Up before it can be Shut-Down	NUMBER(4)
Maximum On-time	The maximum time that must elapse from the time a Generator Unit Starts-Up before it can be Shut-Down	NUMBER(4)
Minimum Off-time	The minimum time that a Generator Unit must remain producing no Active Power or Reactive Power commencing at the time when it stops producing Active Power or Reactive Power.	NUMBER(4)
Start Forbidden Range 1	MW level where restricted loading range (1) starts. Unit must move through this range as quickly as possible	NUMBER(15,3)

Data	Comment	Format
End Forbidden Range 1	MW level where restricted loading range (1) ends. Unit must move through this range as quickly as possible.	NUMBER(15,3)
Start Forbidden Range 2	MW level where restricted loading range (2) starts. Unit must move through this range as quickly as possible.	NUMBER(15,3)
End Forbidden Range 2	MW level where restricted loading range (2) ends. Unit must move through this range as quickly as possible.	NUMBER(15,3)
Fixed Unit Load	Fixed linear factor used to calculate net output from a Generator Unit. Fixed Unit Load (FUL) ≥ 0	NUMBER(15,3)
Unit Load Scalar	Scalar quantity which approximates physical losses associated with a Generator Unit Transformer. Unit Load Scalar (ULS). 0 < ULS ≤ 1.	NUMBER(15,3)
Start-up Time Cold	Notification/Start-up times in hours for a unit considered to be in a cold state.	NUMBER(4)
Start-up Time warm	Notification/Start-up times in hours for a unit considered to be in a warm state.	NUMBER(4)
Start-up Time Hot	Notification/Start-up times in hours for a unit considered to be in a hot state.	NUMBER(4)
Block load Flag	Will be "Yes" or "No", depending on whether the Unit has block loading characteristics.	Character (1)
Block Load Cold	Block Load in MW when the unit is in a cold state.	NUMBER(15,3)
Block Load Warm	Block Load in MW when the unit is in a warm state.	NUMBER(15,3)
Block Load Hot	Block Load in MW when the unit is in a hot state.	NUMBER(15,3)
Loading Rate Cold 1	Loading Up Rate in MW/min when a Unit is in a cold state that applies until LOADING_UP_BREAK_PT_COLD_1.	NUMBER(15,3)
Loading Rate Cold 2	Loading Up Rate in MW/min when a Unit is in a cold state that applies from LOADING_UP_BREAK_PT_COLD_1 to LOADING_UP_BREAK_PT_COLD_2.	NUMBER(15,3)
Loading Rate Cold 3	Loading Up Rate in MW/min when a Unit is in a cold state that applies above LOADING_UP_BREAK_PT_COLD_2.	NUMBER(15,3)
Loading Rate Warm 1	Loading Up Rate in MW/min when a Unit is in a warm state that applies until LOADING_UP_BREAK_PT_WARM_1	NUMBER(15,3)

Data	Comment	Format
Loading Rate Warm 2	Loading Up Rate in MW/min when a Unit is in a warm state that applies from LOADING_UP_BREAK_PT_WARM_1 to LOADING_UP_BREAK_PT_WARM_2	NUMBER(15,3)
Loading Rate Warm 3	Loading Up Rate in MW/min when a Unit is in a warm state that applies above LOADING_UP_BREAK_PT_WARM_2	NUMBER(15,3)
Loading Rate Hot 1	Loading Up Rate in MW/min when a Unit is in a hot state that applies until LOADING_UP_BREAK_PT_HOT_1.	NUMBER(15,3)
Loading Rate Hot 2	Loading Up Rate in MW/min when a Unit is in a hot state that applies from LOADING_UP_BREAK_PT_HOT_1 to LOADING_UP_BREAK_PT_HOT_2.	NUMBER(15,3)
Loading Rate Hot 3	Loading Up Rate in MW/min when a Unit is in a hot state that applies above LOADING_UP_BREAK_PT_HOT_2.	NUMBER(15,3)
Loading Up Breakpoint Cold 1	MW level from which the cold loading up rate will change from Loading Rate 1 to Loading Rate 2.	NUMBER(15,3)
Loading Up Breakpoint Cold 2	MW level from which the cold loading up rate will change from Loading Rate 2 to Loading Rate 3.	NUMBER(15,3)
Loading Up Breakpoint Warm 1	MW level from which the warm loading up rate will change from Loading Rate 1 to Loading Rate 2.	NUMBER(15,3)
Loading Up Breakpoint Warm 2	MW level from which the warm loading up rate will change from Loading Rate 2 to Loading Rate 3.	NUMBER(15,3)
Loading Up Breakpoint Hot 1	MW level from which the hot loading up rate will change from Loading Rate 1 to Loading Rate 2.	NUMBER(15,3)
Loading Up Breakpoint Hot 2	MW level from which the hot loading up rate will change from Loading Rate 2 to Loading Rate 3.	NUMBER(15,3)
Soak Time Hot 1	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a hot state before continuing to increase or decrease output.	NUMBER(4)
Soak Time Hot 2	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a hot state before continuing to increase or decrease output.	NUMBER(4)
Soak Time Warm 1	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a warm state before continuing to increase or decrease output.	NUMBER(4)

Data	Comment	Format
Soak Time Warm 2	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a warm state before continuing to increase or decrease output.	NUMBER(4)
Soak Time Cold 1	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a cold state before continuing to increase or decrease output.	NUMBER(4)
Soak Time Cold 2	Time below Minimum Stable Generation for which a Unit remains at a constant MW level whilst in a cold state before continuing to increase or decrease output.	NUMBER(4)
Trigger Point Hot 1	MW level at which TRIGGER_PT_HOT_1 should be observed before output can further increase or decrease.	NUMBER(15,3)
Trigger Point Hot 2	MW level at which TRIGGER_PT_HOT_2 should be observed before output can further increase or decrease.	NUMBER(15,3)
Trigger Point Warm 1	MW level at which TRIGGER_PT_WARM_1 should be observed before output can further increase or decrease.	NUMBER(15,3)
Trigger Point Warm 2	MW level at which TRIGGER_PT_WARM_2 should be observed before output can further increase or decrease.	NUMBER(15,3)
Trigger Point Cold 1	MW level at which TRIGGER_PT_COLD_1 should be observed before output can further increase or decrease.	NUMBER(15,3)
Trigger Point Cold 2	MW level at which TRIGGER_PT_COLD_2 should be observed before output can further increase or decrease.	NUMBER(15,3)
Start-up End Point	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(15,3)
Ramp Up Rate 1	Ramp Up Rate in MW/min that applies until RAMP_UP_BREAK_PT_1.	NUMBER(15,3)
Ramp Up Rate 2	Ramp Up Rate in MW/min that applies from RAMP_UP_BREAK_PT_1 until RAMP_UP_BREAK_PT_2.	NUMBER(15,3)
Ramp Up Rate 3	Ramp Up Rate in MW/min that applies from RAMP_UP_BREAK_PT_2 until RAMP_UP_BREAK_PT_3.	NUMBER(15,3)
Ramp Up Rate 4	Ramp Up Rate in MW/min that applies from RAMP_UP_BREAK_PT_3 until RAMP_UP_BREAK_PT_4.	NUMBER(15,3)

Data	Comment	Format
Ramp Up Rate 5	Ramp Up Rate in MW/min that applies from RAMP_UP_BREAK_PT_5.	NUMBER(15,3)
Ramp Up Breakpoint 1	MW level from which the ramp rate will change from Ramp Rate 1 to Ramp Rate 2.	NUMBER(15,3)
Ramp Up Breakpoint 2	MW level from which the ramp rate will change from Ramp Rate 2 to Ramp Rate 3.	NUMBER(15,3)
Ramp Up Breakpoint 3	MW level from which the ramp rate will change from Ramp Rate 3 to Ramp Rate 4.	NUMBER(15,3)
Ramp Up Breakpoint 4	MW level from which the ramp rate will change to Ramp Rate 5.	NUMBER(15,3)
Ramp Down Rate 1	Ramp Down Rate in MW/min that applies until RAMP_DOWN_BREAK_PT_1.	NUMBER(15,3)
Ramp Down Rate 2	Ramp Down Rate in MW/min that applies from RAMP_DOWN_BREAK_PT_1 until RAMP_DOWN_BREAK_PT_2.	NUMBER(15,3)
Ramp Down Rate 3	Ramp Down Rate in MW/min that applies from RAMP_DOWN_BREAK_PT_2 until RAMP_DOWN_BREAK_PT_3.	NUMBER(15,3)
Ramp Down Rate 4	Ramp Down Rate in MW/min that applies from RAMP_DOWN_BREAK_PT_3 until RAMP_DOWN_BREAK_PT_4.	NUMBER(15,3)
Ramp Down Rate 5	Ramp Up Rate in MW/min that applies from RAMP_UP_BREAK_PT_5.	NUMBER(15,3)
Ramp Down Breakpoint 1	MW level from which the ramp rate will change from Ramp Rate 1 to Ramp Rate 2.	NUMBER(15,3)
Ramp Down Breakpoint 2	MW level from which the ramp rate will change from Ramp Rate 2 to Ramp Rate 3.	NUMBER(15,3)
Ramp Down Breakpoint 3	MW level from which the ramp rate will change from Ramp Rate 3 to Ramp Rate 4.	NUMBER(15,3)
Ramp Down Breakpoint 4	MW level from which the ramp rate will change to Ramp Down Rate 5.	NUMBER(15,3)
Deloading Rate 1	Deloading Rate in MW/min that applies for a Unit below Minimum Stable Generation until DELOAD_BREAK_PT.	NUMBER(15,3)
Deloading Rate 2	Deloading Rate in MW/min that applies for a Unit below Minimum Stable Generation beyond DELOAD_BREAK_PT.	NUMBER(15,3)

Data	Comment	Format
Deload Break Point	MW level from which the deloading rate will change from DELOADING_RATE_1 to DELOADING_RATE_2.	NUMBER(15,3)
Dwell Time 1	Time above Minimum Stable Generation for which a Unit remains at a constant MW level before continuing to increase or decrease output.	NUMBER(15,3)
Dwell Time 2	Time above Minimum Stable Generation for which a Unit remains at a constant MW level before continuing to increase or decrease output.	NUMBER(15,3)
Dwell Time 3	Time above Minimum Stable Generation for which a Unit remains at a constant MW level before continuing to increase or decrease output.	NUMBER(15,3)
Dwell Time Trigger Point 1	MW level at which DWELL_TIMES_1 should be observed before output can further increase or decrease.	NUMBER(15,3)
Dwell Time Trigger Point 2	MW level at which DWELL_TIMES_2 should be observed before output can further increase or decrease.	NUMBER(15,3)
Dwell Time Trigger Point 3	MW level at which DWELL_TIMES_3 should be observed before output can further increase or decrease.	NUMBER(15,3)
Droop	In relation to the operation of the governor of a Generator Unit, the percentage drop in System Frequency which would cause the Generator Unit under free governor action to change its output from zero to Full Load. (in %)	NUMBER(7,4)
Number of Starts	Number of Starts available before maintenance of the unit when < 30 starts Note: this value will be provided by Participants as part of their technical offer data. There will be no requirement to consider it in the optimization runs.	NUMBER(4)
Number of Run Hours	Number of run hours available for a unit before maintenance when < 200 hours Note: this value will be provided by Participants as part of their technical offer data. There will be no requirement to consider it in the optimization runs.	NUMBER(4)
Modes of Operation	This is not utilised in the systems. This can be left as NULL in the Data Transaction	NUMBER(1)

Data	Comment	Format
Minimum Reservoir Capacity	For Pumped Storage. Minimum possible capacity for the reservoir (MWh). Reservoir levels must be the same for submissions from all Units Sharing the Reservoir. The value for the first unit by alphabetical order of the unit's name will be selected if the reservoir capacities differ.	NUMBER(15,3)
Maximum Reservoir Capacity	For Pumped Storage, reservoir levels must be the same for submissions from all Units Sharing the Reservoir. The value for the first unit by alphabetical order of the unit's name will be selected if the reservoir capacities differ.	NUMBER(15,3)
Pumping Load Capacity	For Pumped Storage, the load consumed by unit during pumping phase (MW).	NUMBER(15,3)
Pumped Storage Cycle Efficiency	(PSCEuh) The ratio between the gross electrical energy consumed to pump a given quantity of water from the lower reservoir to the upper reservoir and the net electrical energy sent out through the release of that quantity of water from the upper reservoir	NUMBER(7,4)
Name of Unit location on grid.	Name of unit location on the transmission system.	Character (32)
Identification of Unit location on grid.	Unique identifier of unit location. Multiple Unit IDs can exist for each Physical Location (e.g. Supplier Unit and Generator Unit).	Character (32)
Name of station or site where unit is located (multiple units per station).	Name of station or site where unit is located (there can be multiple units per station).	Character (8)
Identification of the Station	Station ID defined by the Transmission System Operators.	Character (32)
Station address line 1	Station Address line 1.	Character (128)
Station address line 2	Station Address line 2.	Character (128)
Unit under test start date	Date when the Unit is proposed to be under test. This will be approved by the Market Operator in conjunction with the Transmission System Operator(s).	YYYY-MM-DD
Unit under test end date	Date when the Unit is proposed to complete its test. This will be approved by the Market Operator in conjunction with the Transmission System Operator(s).	YYYY-MM-DD
Registered Firm Capacity Outstanding Issue to ABB	Total deep connected capacity designation for the unit.	NUMBER(15,3)

Data	Comment	Format
Non-Firm Access Quantity	Non-firm capacity for a unit in MW, i.e. part of a Generator Unit's Availability that does not have Firm Access.	NUMBER(15,3)
Notification Comment	Used by the Market Operator and Participant to exchange notes with respect to that registration data.	Characters (250)
Commission Test Certificate	Acceptance of commission test for data and generation communication requirements.	Characters (32)
Old Resource Flag	To indicate if this is an old resource whose ownership is being changed/ or is being re-registered.	Character (1)
Old Resource Name	In case of a previously registered resource, this is to provide its previous registered resource identification.	Character (32)
Old Participant Name	Participant ID of the previous Participant (if applicable). Can be left NULL if not relevant.	Character (12)
Old Participant User ID	Unique User Login ID for the previous Participant, which will have been provided as part of the Digital Certificate process.	Character (12)
Priority Dispatch flag	Indication of a Unit's priority in the physical market schedule if in a tie to serve marginal demand. Will be Y or N and will be set in conjunction with the Transmission System Operator(s).	Character (1)
Qualified Communication Channel	Indicator of the communication channels the unit has been qualified to utilise.	Character (32)
Jurisdiction	Jurisdiction for the resource - will be "ROI" or "NI".	Character (4)
EB Licence number	Regulatory licence id number for the Participant based on type of unit owned (e.g. Wind Generation, Demand-side, etc.).	Characters (24)
Effective Date	Proposed date and time when Participant will become eligible to participate in the market.	YYYY-MM-DD
Electricity Commission License Expiration Date	Electricity Commission License Expiration Date.	YYYY-MM-DD
External ID	Optional External ID text field that can be used to track submissions by Participants. This can be non-unique and cannot be queried.	VARCHAR2(32)
Effective Date for Active Status	Effective date for the resource (from which it will be active in the market).	YYYY-MM-DD
Expiry Date for Active Status	Expiry date for the resource (from which it will be inactive in the market).	YYYY-MM-DD
Trading Site Name	Name of the Trading Site to which the Generator Unit is associated.	VARCHAR2(32)

Data	Comment	Format
Target Reservoir Level Percentage	Target Reservoir Level Percentage, applied to the Target Reservoir Level to calculate the target for the end of the Optimisation Horizon. The Regulatory Authorities reserve the right to set this value.	NUMBER(5,2)
Maximum Ramp Up Rate for Demand Side Unit	Maximum Ramp Up Rate for Demand Side Units.	NUMBER(15,3)
Maximum Ramp Down Rate for Demand Side Units	Maximum Ramp Down Rate for Demand Side Units.	NUMBER(15,3)

Load Parameters

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Resource Type	Demand Side Unit(DU) Supplier Unit (SU)	Character (12)
Resource Name	The name of the resource in question (e.g. the name of the Generator Unit, Supplier Unit, Demand Side Unit, Interconnector Unit or Interconnector for which data is being submitted).	Character (32)
Connection Point	Identifier of the Unit (provided by the system operators).	Character (32)
Connection Type	Transmission or Distribution Connected. Transmission: (TRNS) Distribution: (DIST)	Character (4)
Connection Agreement	Reference ID to the unit's and/or Participant's connection agreement.	Character (32)
Old resource Flag	To indicate if this is an old resource whose ownership is being changed/ or is being re-registered.	Character (1)
Old resource Name	In case of a previously registered resource, this is to provide its previous registered resource identification.	Character (32)
Old Participant Name	In case of a previously registered resource, this is to provide its previous registered Participant identification.	Character (12)
Priority Dispatch flag	Indication of unit's priority in the physical market schedule if in a tie to serve marginal demand. (Y/N)	Character (1)
Qualified Communication channel	Indicator of the communication channels the unit has been qualified to utilize.	Character (32)
Jurisdiction	ROI or NI.	Character (4)
Notification Comment	Used by the operator and Participant to exchange notes with respect to that registration data.	Character (250)
Effective Date		YYYY-MM-DD
Expiry Date		YYYY-MM-DD
Max Ramp Up	Rate of load increase. Rate of decreasing demand (MW/min).	NUMBER(15,3)
Max Ramp Down	Rate of load reduction. Rate of increasing demand (MW/min).	NUMBER(15,3)
Dispatchable capacity	MWs available for curtailment.	NUMBER(15,3)
Non Dispatchable capacity	Portion of total demand not available for curtailment.	NUMBER(15,3)
Minimum Down Time	Minimum amount of time the demand-side unit can be curtailed.(in Hours)	NUMBER(4)

Data	Comment	Format
Maximum Down Time	Maximum amount of time the demand-side unit can be curtailed.(in Hours)	NUMBER(4)
Associated Supplier Flag	(Y/N)	Character (1)
Trading Site Supplier Flag	Trading Site Supplier Flag (Y/N)	Character (1)
Station Name	Name of station or site where unit is located (multiple units per station).	Character (8)
Station ID	Station ID created by the system operators.	Character (32)
Station Address line 1	Address of Station for informational purposes.	Character (128)
Station Address line 2	Address of Station for informational purposes. (following)	Character (128)
Unit under test start date	When applicable	YYYY-MM-DD
Unit under test end date	When applicable	YYYY-MM-DD
EB Licence number	Regulatory licence id number for the Participant based on type of unit owned (e.g. Wind Generation, Demand-side, etc.).	Character (24)
Effective Date	Proposed date and time when Participant will become eligible to participate in the market.	YYYY-MM-DD
Electricity Commission License Expiration Date		YYYY-MM-DD

Trading Site Parameters

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Trading Site Registration ID	Registration ID of the trading site given by SO. This ID will be used by Participant.	NUMBER(15)

TRADING SITE DATA

Please refer to the Market Participant Update Document V1.0

Data Field	Comment	Format
Trading site Registration ID	Registration ID of the trading site given by SO. This ID will be used by Participant.	NUMBER(15)
Trading site name		Character (32)

Data Field	Comment	Format
Address of Trading Site – line 1		Character (128)
Address of Trading Site – line 2		Character (128)
Firm Access Quantity	Firm Access Quantity of a Trading Site in a Trading Period is the Maximum Export Capacity as determined in a Connection Agreement.(MW)	NUMBER(15,3)
Effective date		YYYY-MM-DD
Expiry date		YYYY-MM-DD

GENERATOR OFFER DATA

Please refer to the Market Participant Update Document V1.0

Data	Comments	Format
Participant Name		Character (12)
Resource Name	The name of the Unit	Character (12)
Resource Type	PPMG, PPTG, VPMG, VPTG, APTG	Character (32)
Trading Date	The trading date	YYYY-MM-DD
Hours and Intervals range in forecast and PQ curves and Nomination profile	It contains the start and end trading hours (between 1 to 25) and the start and end trading interval (values are 1 or 2)	hour: NUMBER(2) interval: NUMBER(2)
Forecast Availability Profile	Maximum Stable Generation for each Trading Period in the Optimization Time Horizon	NUMBER(8,3)
Forecast Minimum Stable Generation profile	Forecast of average level of Minimum Stable Generation per Trading Period in the Optimization Time Horizon	NUMBER(8,3)
Forecast Minimum Output Profile	Forecast of minimum quantity output per Trading Period in the Optimisation Time Horizon.	NUMBER(8,3)
Target Reservoir Level	For pumped storage, Target Reservoir Level at end of Current Trading Day (06:00 on D+1). Target Reservoir Levels must be the same for submissions from all Units Sharing the Reservoir. The value for the first unit by alphabetical order of the unit's name will be selected if the reservoir levels differ.	NUMBER(8,3)
Operational Reservoir Capacity (MWh) Energy Limit	MWh output limit of pumped storage unit, based on capacity of reservoir. Reservoir levels must be the same for submissions from all Units Sharing the Reservoir.	NUMBER(8,3)

Data	Comments	Format
End Reservoir Level (MWh)	For pumped storage, End Reservoir Level from Prior Trading Day Reservoir levels must be the same for submissions from all Units Sharing the Reservoir. The value for the first unit by alphabetical order of the unit's name will be selected if the reservoir levels differ.	NUMBER(8,3)
Percentage Reservoir Level	For pumped storage, a % Target Reservoir level for calculating the end of Optimization Horizon. The Regulatory Authorities reserve the right to set this value.	NUMBER(7,4)
Energy Limit	The maximum limit for the accumulated MWh energy output for an Energy Limited Generator Unit in a Trading Day based on limitation of fuel source.	NUMBER(8,3)
Energy Limit Period	The Energy Limit Period per Trading Day which applies in respect of an Energy Limited Generator Unit. This will require start and stop times to be submitted with the bid/offer data to define the period within which that Energy Limited Unit is eligible to run.	
Energy Limit Factor	Factor to compute Shared Energy Limit (MWh) for last 6 hours of UC Horizon at a Trading Site.	NUMBER(4,3)
Nomination Profile	For Price Taker only	NUMBER(8,3)
Decremental price	Price for Price Taking Units to decrease output level per Trading Day The Decremental Price for Price Taker Generator Units will be forced to zero by the systems. Hence the Generator should submit zero for this value.	NUMBER(8,2)
Start-up Cost Hot		NUMBER(8,2)
Start-up Cost Warm		NUMBER(8,2)
Start-up Cost Cold		NUMBER(8,2)
Price Quantity pairs (1 to 10)		NUMBER(8,2) for Price NUMBER(8,3) for Quantity
No load Cost		NUMBER(8,2)

LOAD BID DATA

Please refer to the Market Participant Update Document V1.0

Data Field	Comments	Format
Participant Name		Character (12)
Trading Date	The trading date	YYYY-MM-DD
Resource Name	The name of the Unit	Character (12)
Resource type	Type of the resource: Demand Side Unit	Character (32)
Hours and Intervals range in forecasts, PQ pairs and Nomination profile	Start and end trading hours (between 1 to 25) and the start and end trading interval (values are 1 or 2)	hour: NUMBER(2) interval: NUMBER(2)
Forecast Availability Profile	Maximum Stable Generation for each Trading Period in the Optimization Time Horizon	NUMBER(8,3)
Forecast Minimum Stable Generation Profile	Forecast of average level of Minimum Stable Generation per Trading Period in the Optimization Time Horizon	NUMBER(8,3)
Forecast Minimum Output Profile	Forecast of minimum quantity output per Trading Period in the Optimization Time Horizon.	NUMBER(8,3)
Start-up Cost		NUMBER(8,2)
Price Quantity pairs (up to 10)		NUMBER(8,2) for Price NUMBER(8,3) for Quantity
No Load Cost		NUMBER(8,2)
Decremental Price	Set to zero	NUMBER(8,2)
Nomination Profile		NUMBER(8,3)

INTERCONNECTOR OFFER DATA

Please refer to the Market Participant Update Document V1.0

Data	Comment	Format
Participant Name		Character (12)
Resource Name	The name of the Unit	Character (12)
Resource type	Type of the resource: Demand Side Unit	Character (32)
Trading Date	The trading day	YYYY-MM-DD
Hours and Intervals range in Interconnector_capacity and pq_curve	It contains the start and end trading hours (between 1 to 25) and the start and end trading interval (values are 1 or 2)	hour: NUMBER(2) interval: NUMBER(2)
Maximum Import Capacity	Maximum import capacity offered to the Interconnector unit for each Trading Period during the Trading Day.	NUMBER(15,3)

Data	Comment	Format
Maximum Export Capacity	Maximum export capacity offered to the Interconnector Unit for each Trading Period during the Trading Day.	NUMBER(15,3)
Price Quantity pairs (1 to 10)		NUMBER(8,2) for Price NUMBER(8,3) for Quantity

SHARED ENERGY LIMIT DATA

Please refer to the Market Participant Update Document V1.0

Data	Comments	Format
Participant name		Character (12)
Trading site name		
Trading Date	The trading day	YYYY-MM-DD
Shared Energy Limit	The maximum limit for the accumulated MWh energy output for an Energy Limited Generator Unit in a Trading Day based on limitation of fuel source.	NUMBER(8,3)
Shared Limit Factor		NUMBER(4,3)
Shared Energy Limit Active Flag		Character (1)

SETTLEMENT REALLOCATION DATA

Please refer to the Market Participant Update Document V1.0

Data	Comments	Format
Debited Participant name	The Participant who submit the Settlement Reallocation	Character (12)
Credited Participant name	The name of the Participant to be credited who is a party to the agreement.	Character (12)
Reallocation Type	E for Energy or C for Capacity	Character (1)
Trading Date	The trading day	YYYY-MM-DD

Data	Comments	Format
Trading Period	The nominated trading period in conjunction with the nominated Reallocation Type will denote which Invoice the Settlement Reallocation is to be executed against. It contains the trading date, the start and end trading hours (between 1 to 25) and the start and end trading interval (values are 1 or 2)	hour: NUMBER(2) interval: NUMBER(2)
Agreement Name	The Text agreement.	Character (32)
Trading amount	This is the monetary value of the reallocation, in the registered currency of the debited Participant.	NUMBER(8,2)