

SEM Agreed Procedure

Title	Agreed Procedure 16: Provision of Metered Data
Version	2.2
Date	28th March 2007

TABLE OF CONTENTS

1. INTRODUCTION	4
1.1. BACKGROUND & PURPOSE.....	4
1.2. SCOPE OF AGREED PROCEDURE	4
1.3. DEFINITIONS	4
1.4. COMPLIANCE WITH AGREED PROCEDURE	4
2. RELEVANT CODE REFERENCES.....	ERROR! BOOKMARK NOT DEFINED.
3. DESCRIPTIVE OVERVIEW	5
3.1. BUSINESS REQUIREMENTS FOR METER DATA	5
3.2. WHAT DATA ARE REQUIRED FOR EACH OF THESE BUSINESS PROCESSES.....	5
3.3. GROUPING INDIVIDUAL DATA RECORDS INTO DATA TRANSACTIONS.....	10
4. PROCEDURAL STEPS	13
5. SWIMLANE DIAGRAM.....	19
6. APPENDIX I – DEFINITIONS AND ABBREVIATIONS.....	22
6.1. DEFINITIONS	22
7. APPENDIX II. SEM MDP FILE FORMAT V 1.5	25

DOCUMENT HISTORY

VERSION	DATE	AUTHOR	COMMENT
0.1	31/08/2006	Regulatory Authorities	Initial Draft, based on documentation provided by SEMIT
0.2	12/09/2006	Regulatory Authorities	Draft for base-lining following clarification session on Tuesday 5 th September. Changes marked up.
0.3	12/09/2006	Regulatory Authorities	Certain typos discovered in the Glossary.
1.0	14/09/2006	SIMDRACS Board	Final Baselined Version
2.1	28/02/07	Regulatory Authorities	Updated with comments from review of Terminology across all APs and TSC
2.2	28/03/07	Regulatory Authorities	Updated aligning with Version 1.3 of the Code

RELATED DOCUMENTS

DOCUMENT TITLE	VERSION	DATE	BY
Trading and Settlement Code (T&SC)	V1.0	February 06	Regulatory Authorities
SEM-MDP Meter Data Format	V1.5	23 rd January 07	SEMIT Functional Specification
Regulatory Requirements	V0.9	31 st August 06	Regulatory Authorities
Agreed Procedure 1 "Participant & Unit Registration and Deregistration"			
Agreed Procedure 13 "Query Generation"			
Agreed Procedure 14 "Disputes"			
Agreed Procedure 4 "Transaction Submission and Validation"			
Agreed Procedure 7 "Emergency Communications"			

1. INTRODUCTION

1.1. BACKGROUND & PURPOSE

The Code contains certain provisions for the delivery of Meter Data to the Market Operator (MO). Meter Data Providers, who are Parties to the Code, are contractually bound to deliver Meter Data to the MO under the terms of the Code. This document expands on the high-level provisions in the Code in order to leave no ambiguity for the Meter Data Providers in the fulfillment of their contractual obligations.

1.2. SCOPE OF AGREED PROCEDURE

This Agreed Procedure deals with the provision of Meter Data for Supplier Units, Trading Site Supplier Units, Associated Supplier Units, Generator Units, Pumped Storage Units, Demand Side Units (collectively known as “Units” under the Code), and Net Inter Jurisdictional Import. This includes the high-level requirements to respond to Data Queries, Settlement Queries and Disputes, but not the timelines as these are detailed under Agreed Procedure 13 "Query Generation" and Agreed Procedure 14 "Disputes".

This Agreed Procedure does, in its background sections, provide a description of the meaning of the various Units’ Demand.

This Agreed Procedure specifically does not cover which Meter Data Provider is responsible for the delivery of what types of Meter Data in either Jurisdiction. This is set out in Appendix G. Furthermore, it does not cover the detail of any interaction or co-operation between the Meter Data Providers to provide that data.

This Agreed Procedure does not cover detail of the operation of any Interconnector connection with other markets, or the requirements for that data to be sent to the Market Operator.

The Agreed Procedure only refers to the requirements under the Code for Meter Data. Therefore it does not deal with any Meter Data that does not describe Active Power, or any agreement between the System Operators, Retail Market Operators, and any Meter Data Provider to provide data for the purposes of transmission or distribution use of system charging.

This Agreed Procedure 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.

1.3. DEFINITIONS

Save as expressly defined in the definitions section (Appendix I) , words and expressions defined in the Code shall have the same meanings when used in this Agreed Procedure.

1.4. COMPLIANCE WITH AGREED PROCEDURE

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

2. DESCRIPTIVE OVERVIEW

2.1. BUSINESS REQUIREMENTS FOR METER DATA

Meter Data Providers are required to send certain Unit Meter Data and/or Net Inter Jurisdictional Import (always grouped by Settlement Day, midnight to midnight) to facilitate the following time critical processes:

- Indicative Price Setting (Every Calendar Day + 1 Calendar Day after Settlement Day)
- Indicative Settlement (Every Week Day + 1 Week Day after Settlement Day)
- Initial Price Setting (Every Calendar Day + 3 Calendar Days after Settlement Day)
- Initial Settlement (Every Week Day + 4 Week Days after Settlement Day)
- First Resettlement (Every Week Day + 4 months)
- Second Resettlement (Every Week Day + 13 months)
- Query generation process (As under Agreed Procedure 13 “Query Generation”)
- Dispute process (As under Agreed Procedure 14 “Disputes”)

There are no requirements for a Settlement Day’s Meter Data before the end of the Settlement Day. All other requirements by the Market Operator for Meter Data, such as for the calculation of Capacity Payments and Charges, and updating Credit Cover, will be satisfied if timely delivery of Meter Data for the above business requirements is met.

2.2. WHAT DATA ARE REQUIRED FOR EACH OF THESE BUSINESS PROCESSES

The table below sets out what Meter Data is required for each business process listed in Section 3.1. The Meter Data is grouped by Data Transaction. Data Transactions which contain the same Data Records but are sent under different timeframes are given the same identifier, which populates the TRANSMISSION_ID field in the SEM MDP Meter Data Format which is described in Appendix II. Each Data Transaction from a Meter Data Provider must be complete. Each Data Record in the Data Transaction describes the Unit Metered Generation or Net Inter Jurisdictional Import. Each Data Record name in this Agreed Procedure aligns directly with the definitions of Units and Net Inter Jurisdictional Import in the Code.

To summarise, in this Agreed Procedure:

Data Transaction = the file that must be complete when sent to the MO. Each Data Transaction will contain specific Data Records.

Data Record = a section of that file that describes a Unit or a Net Inter Jurisdictional Import

Data Transaction	Identifier	SEM Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Indicative Price Effecting Generation Metering	PEG	Indicative Price Setting & Indicative Settlement	Each Calendar Day, by 14:00 on the next Calendar Day (D+1)	Price Maker Generator Units and/or Price Taker Generator Units) ¹
Initial Price Effecting Generation Metering	PEG	Initial Price Setting & Initial Settlement	Each Calendar Day, by 14:00 on the third next Calendar Day (D+3)	Price Maker Generator Units and/or Price Taker Generator Units)
Revised Price Effecting Generation Metering	PEG	Query generation process & Dispute process	Ad-hoc, as material data changes are identified. Timelines under Agreed Procedure 13 “Query Generation” and Agreed Procedure 14 “Disputes”	Price Maker Generator Units and/or Price Taker Generator Units)
Indicative Non Price Effecting Generation Metering	NPEG	Indicative Settlement	Each Week Day, by 14:00 on the next Week Day (D+1)	Autonomous Generator Unit
Initial Non Price Effecting Generation Metering	NPEG	Initial Settlement	Each Week Day, by 17:00 on the fourth next Week Day (D+4)	Autonomous Generator Unit

¹ It is not necessary for Meter Data Providers to know the difference between a Price Maker or a Price Taker. It is important to be able, however, to identify Autonomous Generator Units from Price Makers and Price Takers.

Data Transaction	Identifier	SEM Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Revised Non Price Effecting Generation Metering	NPEG	Query generation process & Dispute process	Ad-hoc, as material data changes are identified. Timelines under Agreed Procedure 13 “Query Generation” and Agreed Procedure 14 “Disputes”	Autonomous Generator Unit
Resettlement 1 Non Price Effecting Generation Metering	NPEG	Resettlement 1	On a Week Day, by 14:00 in time for the M+4 Resettlement as defined in the Settlement Calendar	Distribution Connected Autonomous Generator Unit
Resettlement 2 Non Price Effecting Generation Metering	NPEG	Resettlement 2	On a Week Day, by 14:00 in time for the M+13 Resettlement as defined in the Settlement Calendar	Distribution Connected Autonomous Generator Unit
Indicative Aggregated Inter Jurisdiction Metering	CJF	Indicative Settlement	Each Week Day, by 14:00 on the next Week Day (D+1)	Net Inter Jurisdictional Flow
Initial Aggregated Inter Jurisdiction Metering	CJF	Initial Settlement	Each Week Day, by 17:00 on the fourth next Week Day (D+4)	Net Inter Jurisdictional Flow

Data Transaction	Identifier	SEM Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Revised Aggregated Inter Jurisdiction Metering	CJF	Query generation process & Dispute process	Ad-hoc, as material data changes are identified. Timelines under Agreed Procedure 13 “Query Generation” and Agreed Procedure 14 “Disputes”	Net Inter Jurisdictional Flow
Indicative Aggregated Demand Price Effecting Metering	PED	Indicative Price Setting & Indicative Settlement	Each Calendar Day, by 14:00 on the next Calendar Day (D+1)	Trading Site Supplier Unit (that relates to single Trading Site with Non-Firm access for its generation)
Initial Aggregated Demand Price Effecting Metering	PED	Initial Price Setting & Initial Settlement	Each Calendar Day, by 14:00 on the third next Calendar Day (D+3)	Trading Site Supplier Unit (that relates to single Trading Site with Non-Firm Access for its generation)
Revised Aggregated Demand Price Effecting Metering	PED	Query generation process & Dispute process	Ad-hoc, as material data changes are identified. Timelines under Agreed Procedure 13 “Query Generation” and Agreed Procedure 14 “Disputes”	Trading Site Supplier Unit (that relates to single Trading Site with Non-Firm Access for its generation)

Data Transaction	Identifier	SEM Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Indicative Aggregated Demand Metering	NPED	Indicative Settlement	Each Week Day, by 14:00 on the next Week Day (D+1)	Supplier Unit Demand Side Unit Associated Supplier Unit Trading Site Supplier Unit (that relates to single Trading Site with full Firm Access for its generation)
Initial Aggregated Demand Metering	NPED	Initial Settlement	Each Week Day, by 17:00 on the fourth next Week Day (D+4)	Supplier Unit Demand Side Unit Associated Supplier Unit Trading Site Supplier Unit (that relates to single Trading Site with full Firm Access for its generation)
Resettlement 1 Aggregated Demand Metering	NPED	Resettlement 1	Each Week Day, by 14:00 on the Week Day closest to four months away (M+4)	Supplier Unit Demand Side Unit Associated Supplier Unit Trading Site Supplier Unit (that relates to single Trading Site with full Firm Access for its generation)
Resettlement 2 Aggregated Demand Metering	NPED	Resettlement 2	Each Week Day, by 14:00 on the Week Day closest to thirteen months away (M+13)	Supplier Unit Demand Side Unit Associated Supplier Unit Trading Site Supplier Unit (that relates to single Trading Site with full Firm Access for its generation)

Data Transaction	Identifier	SEM Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Revised Aggregated Demand Metering	NPED	Query generation process & dispute process	Ad-hoc, as material data changes are identified. Timelines under Agreed Procedure 13 “Query Generation” and Agreed Procedure 14 “Disputes”.	Supplier Unit Demand Side Unit Associated Supplier Unit Trading Site Supplier Unit (that relates to single Trading Site with full Firm Access for its generation)

2.3. GROUPING INDIVIDUAL DATA RECORDS INTO DATA TRANSACTIONS

As described above, Units’ data (and Net Inter Jurisdictional Import) are required under different timeframes to fulfil certain SEM business processes. SEM MDP Meter Data Format version 1.5 (see Appendix II) indicates how each of these Unit records and the Net Inter Jurisdictional Import Data Record are to be “bundled” into a single file, or Data Transaction.

Each Meter Data Provider is uniquely responsible for the final delivery of certain Unit Meter Data and the Net Inter Jurisdictional Import to the MO as described in Appendix G.

The following process will apply:

1. Each Meter Data Provider will be registered with the Market Operator as described in Agreed Procedure 1, to be responsible for the delivery of Meter Data for particular Units;
2. Each Meter Data Provider, may, if it so chooses, combine Data Transactions that fulfil the same business process into a single Data Transaction with agreement with the Market Operator, as long as:
 - a. The Data Transaction is delivered under the most stringent of the timeframes if a Data Transaction fulfils more than one business requirement.
 - b. A Data Transaction identifier of “ALL” is used in the TRANSMISSION_ID in the file format specified in SEM MDP File Format Version 1.5 in Appendix II.

For example, a Meter Data Provider is responsible for the following three Data Transactions, all related to the same business requirement – Indicative Settlement.

Data Transaction	Identifier	Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
Indicative Price Effecting Generation Metering	PEG	Indicative Price Setting & Indicative Settlement	Each Calendar Day, by 14:00 on the next Calendar Day (D+1)	Price Maker Generator Units Price Taker Generator Units
Indicative Non Price Effecting Generation Metering	NPEG	Indicative Settlement	Each Week Day, by 14:00 on the next Week Day (D+1)	Autonomous Generator Unit
Indicative Aggregated Inter Jurisdiction Metering	CJF	Indicative Settlement	Each Week Day, by 14:00 on the next Week Day (D+1)	Net Inter Jurisdictional Import

Through suitable registration with the Market Operator, the Meter Data Provider may compress these three Data Transactions (each a different file send) into one file to support Indicative Settlement (and Indicative Price Setting as a consequence) as follows:

Data Transaction	Identifier	Business Process Supported	Frequency, including latest time of delivery	Data Records containing best available data (Data Record names shared with Code terminology)
All data required from Meter Data Provider	ALL	Indicative Price Setting & Indicative Settlement	Each Calendar Day, by 14:00 on the next Calendar Day (D+1)	Price Maker Generator Units Price Taker Generator Units Autonomous Generator Unit Net Inter Jurisdictional Import

3. Subject to how they are grouped in step 2, Data Transactions will be required to be complete with regard to:
 - a. All Data Records for Units or for Net Inter Jurisdictional Import for which the Meter Data Provider is uniquely responsible; and
 - b. Data Records containing all fields as required in the SEM MDP Meter Data Format version 1.5 (see Appendix II)
4. There will be a unique relationship between a Meter Data Provider and the specific Unit Demand or Net Inter Jurisdictional Imports;

- a. For example, if the wrong Meter Data Provider sends an Indicative Non Price Effecting Generation Data Transaction, and it contains an Autonomous Generator Unit which is not registered as that specific Meter Data Provider's responsibility, that entire file will be rejected.
 - b. If one Meter Data Provider agrees to act as "back-up" for a Data Record of Meter Data, e.g. Net Inter Jurisdictional Import, then the registration process must allow quick re-registration of that Data Record of Meter Data to the "back-up" Meter Data Provider if necessary.
5. Once a Meter Data Provider sends in Transactions with aggregated Meter Data in respect to a Settlement Day, both the Units contained within those Transactions, and the number of Transactions, i.e. (PEG / NPEG / CJF / or (ALL)), must be identical when submitting Data Transactions for any other Settlement Day for all other relevant processes listed in Section 3.1.

3. PROCEDURAL STEPS

#	Procedural Step	Timing	Auto/Manual	Who	Linkage
1	Determine what Data Records (Unit, Net Inter Jurisdictional Import, etc.) are due to be included in Data Transaction(s) to MO for that Settlement Day, with reference to previously submitted Transactions for that settlement Day	Every Working Day: 10 Working Days before the relevant Settlement Day	Manual	Meter Data Provider	PRECEDING: Agreed Procedure 1 “Participant & Unit Registration and Deregistration” (Where updates to Unit or Jurisdictional Flow market registration are communicated) FOLLOWING: 2
2	Determine the division of Data Records among the Data Transactions, with reference to previously submitted Transactions for that settlement Day	Every Working Day: 10 Working Days the relevant Settlement Day	Manual	Meter Data Provider	PRECEDING: Agreed Procedure 1 “Participant & Unit Registration and Deregistration” (Where the Meter Data Provider updates their own registration with the MO for the Data Records in the Data Transaction (ALL or PEG / NPEG / CJF / PED / NPED)) FOLLOWING: 3, 4, 5, 6, 7, 8, 9, 10
3	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Indicative Price Setting for the Trading Day?	Every Working Day: 10 Working Days the relevant Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 1,2 FOLLOWING: 3.1, 3.2
3.1	If yes, create the appropriate Data Records over the Settlement Data containing Price Setting Data determined in steps 1 and 2	By 14:00 the Calendar Day after the Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 3 FOLLOWING: 4
3.2	If no, do nothing				PRECEDING: 3 FOLLOWING: 4

#	Procedural Step	Timing	Auto/Manual	Who	Linkage
4	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Indicative Settlement for the Settlement Day that have not been covered by Step 3.1?	Every Working Day: 10 Working Days the relevant Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 3.1, 3.2 FOLLOWING: 4.1, 4.2
4.1	If yes, create the appropriate Data Records for the Settlement Data containing Non-Price Effecting Data determined in steps 1 and 2	If Price Effecting Data included in step 3.1, by 14:00 the Calendar Day after the Settlement Day, otherwise by 14:00 the Week Day after the Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 4 FOLLOWING: 5
4.2	If no, do nothing				PRECEDING: 4 FOLLOWING: 5
5	If Data Records created in step 3.1 or step 4.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	If Price Effecting Data included, by 14:00 the Calendar Day after the Settlement Day, otherwise by 14:00 the Week Day after the Settlement Day	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 4.1, 4.2 FOLLOWING: 6, 17
6	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Initial Price Setting for the Settlement Day?	Every Working Day: 10 Working Days the relevant Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 5 FOLLOWING: 6.1, 6.2

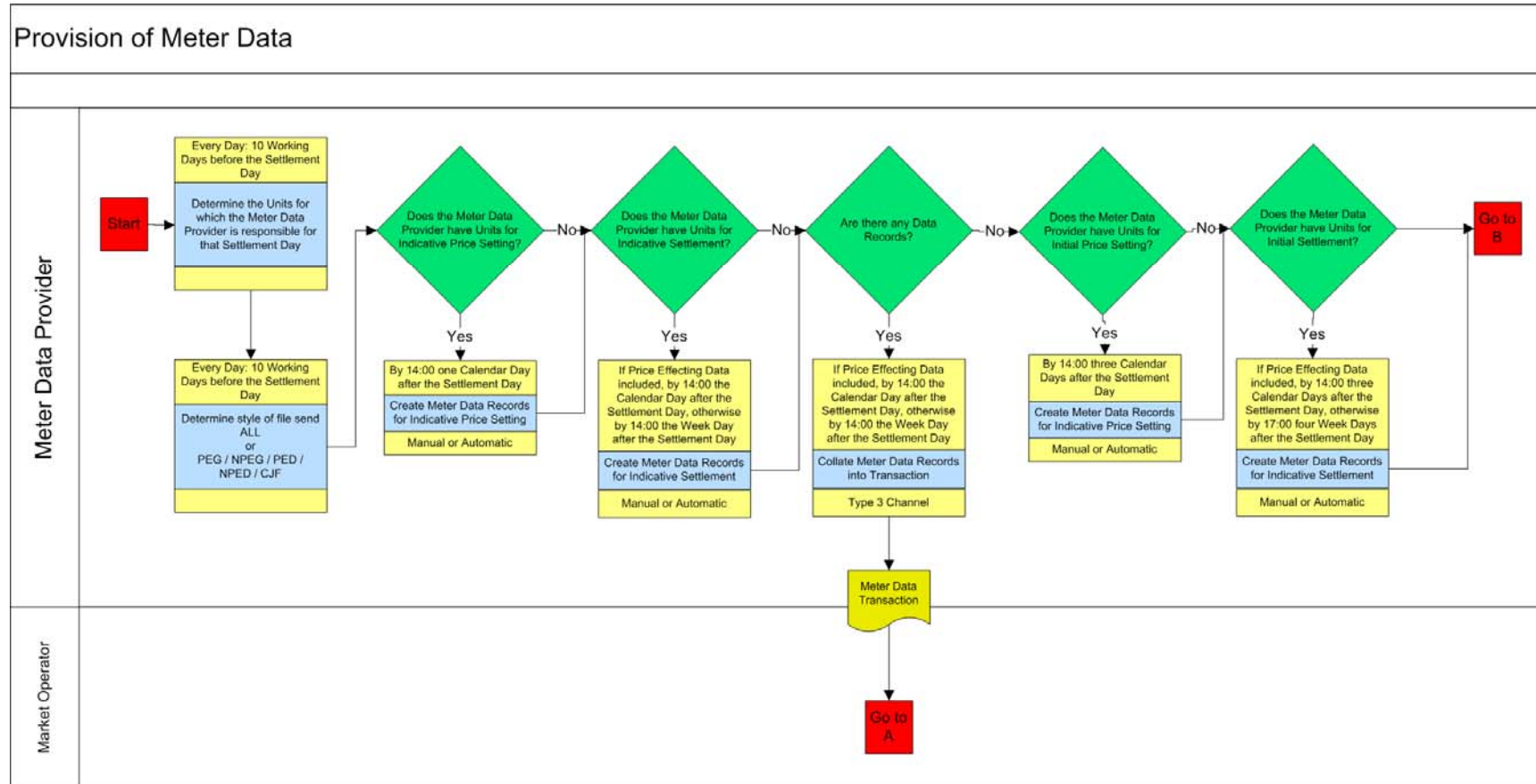
#	Procedural Step	Timing	Auto/Manual	Who	Linkage
6.1	If yes, update the appropriate Data Records for the Settlement Data containing Price Effecting Data determined in steps 1 and 2	By 14:00 three Calendar Days after the Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 6 FOLLOWING: 7
6.2	If no, do nothing				PRECEDING: 6 FOLLOWING: 7
7	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Initial Settlement for the Settlement Day?	Every Working Day: 10 Working Days the relevant Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 1,2 FOLLOWING: 6.1, 6.2
7.1	If yes, update the appropriate Data Records for the Settlement Data containing Non-Price Effecting Data determined in steps 1 and 2	If Price Effecting Data included, by 14:00 three Calendar Days after the Settlement Day, otherwise by 17:00 four Week Days after the Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 7 FOLLOWING: 8
7.2	If no, do nothing				PRECEDING: 7 FOLLOWING: 8

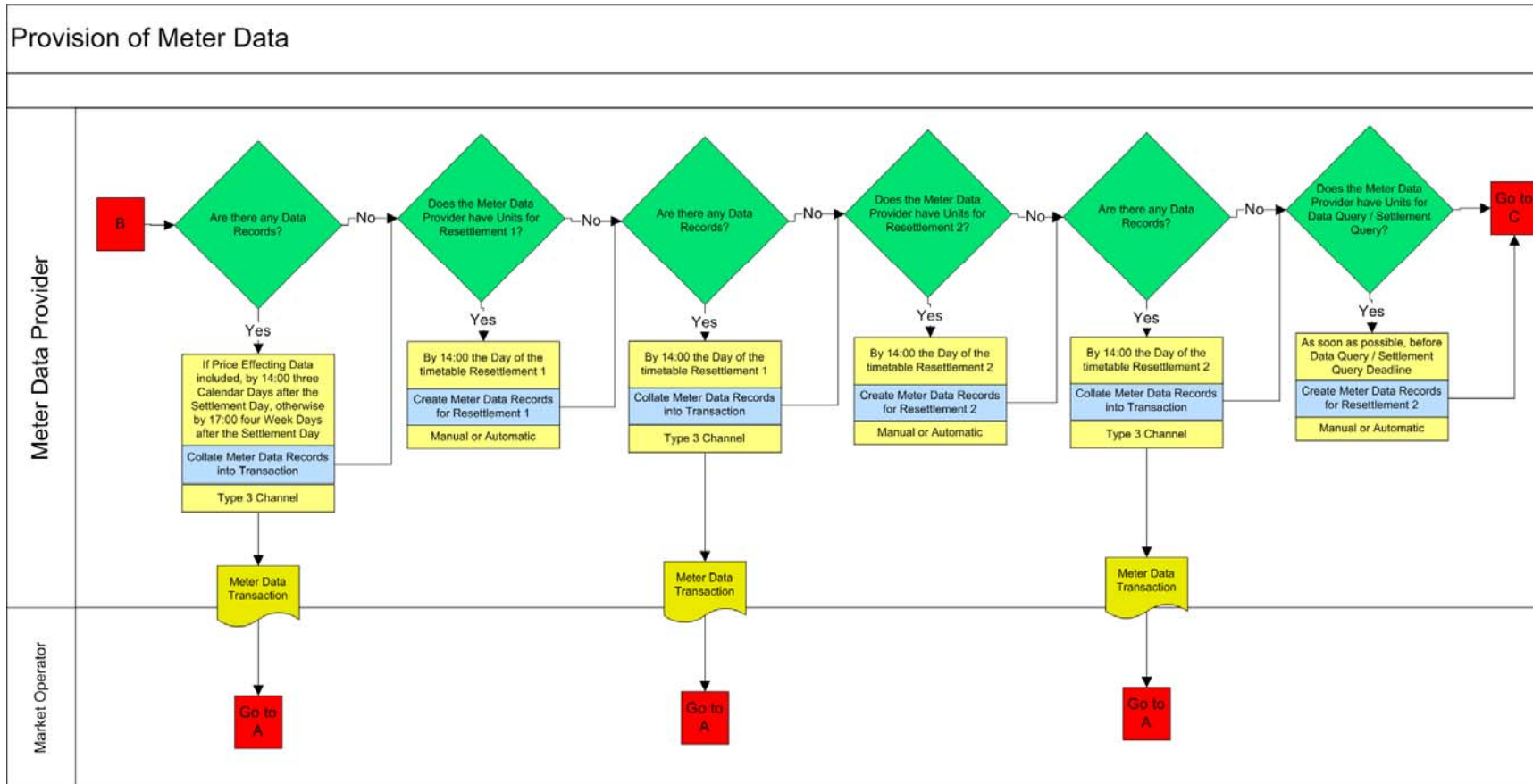
#	Procedural Step	Timing	Auto/Manual	Who	Linkage
8	If Data Records created in step 6.1 or step 7.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	If Price Effecting Data included, by 14:00 three Calendar Days after the Settlement, otherwise by 17:00 four Week Days after the Settlement Day	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 7.1, 7.2 FOLLOWING: 9, 17
9	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Resettlement 1 for the Settlement Day?	Before deadline for the first Data Transaction submission to MO for that Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 8 FOLLOWING: 9.1, 9.2
9.1	If yes, update the appropriate Data Records for the Resettlement 1 containing Non-Price Effecting Data determined in steps 1 and 2	Before deadline for the first Data Transaction submission to MO for that Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 9 FOLLOWING: 10
9.2	If no, do nothing				PRECEDING: 9 FOLLOWING: 10
10	If Data Records created in step 9.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	By 14:00 on the Day of the Resettlement 1 indicated in the Settlement Calendar	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 9.1, 9.2 FOLLOWING: 11, 17
11	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support Resettlement 2 for the Settlement Day?	Before deadline for the first Data Transaction submission to MO for that Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 10 FOLLOWING: 11.1, 11.2

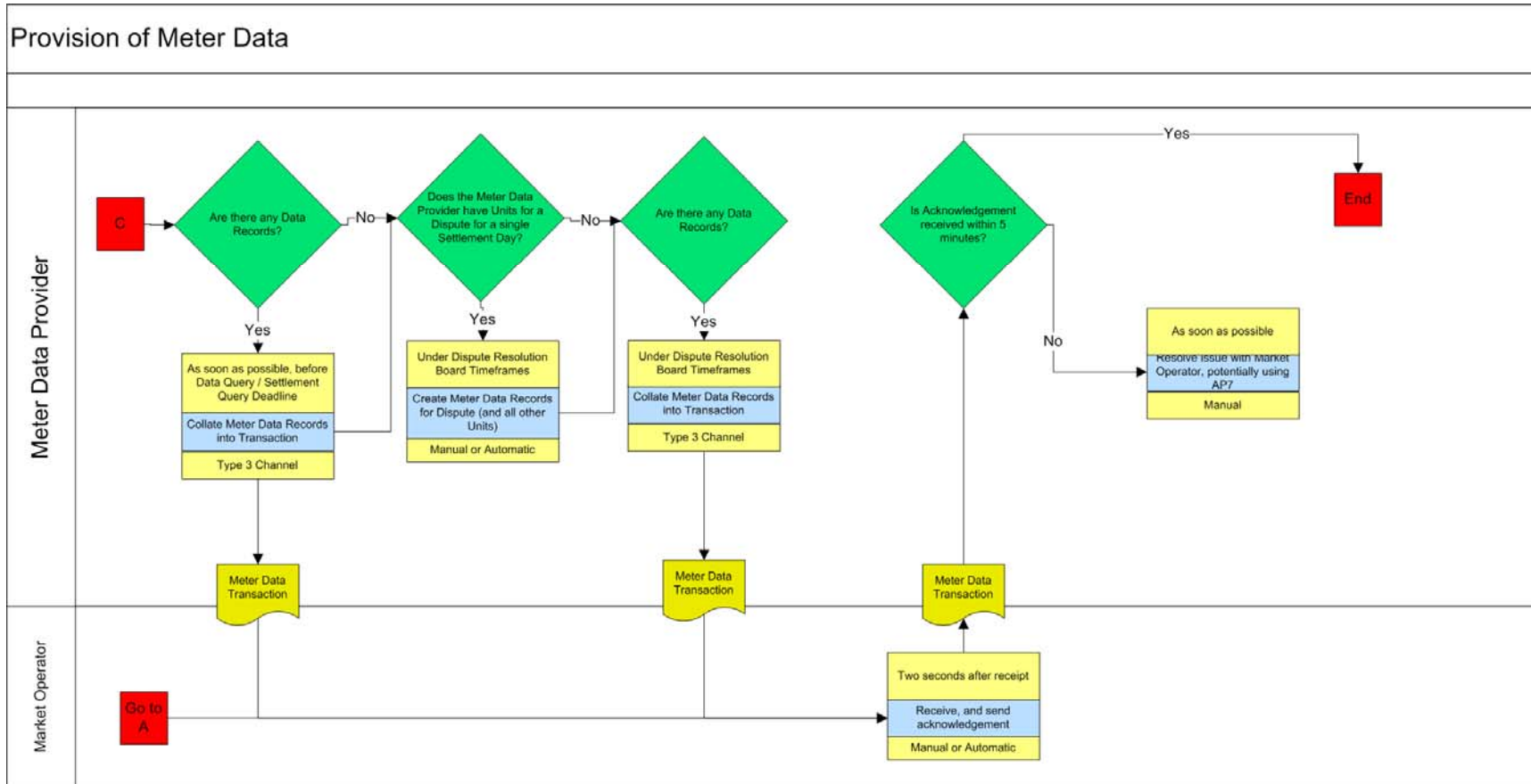
#	Procedural Step	Timing	Auto/Manual	Who	Linkage
11.1	If yes, update the appropriate Data Records for the Resettlement 2 containing Non-Price Effecting Data determined in steps 1 and 2	Before deadline for the first Data Transaction submission to MO for that Settlement Day	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 11 FOLLOWING: 12
11.2	If no, do nothing				PRECEDING: 11 FOLLOWING: 12
12	If Data Records created in step 11.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	By 14:00 on the Day of the Resettlement 2 indicated in the Settlement Calendar	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 11.1, 11.2 FOLLOWING: 13, 17
13	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support a Data Query or Settlement Query for the Settlement Day?	As soon as possible, within the timelines for a data query	Automatic	Meter Data Provider	PRECEDING: 12 FOLLOWING: 13.1, 13.2
13.1	If yes, update the appropriate Data Records for the Data Query or Settlement Query containing Non-Price Effecting Data determined in steps 1 and 2	As soon as possible, within the timelines for a data query	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 13 FOLLOWING: 14
13.2	If no, do nothing				PRECEDING: 13 FOLLOWING: 14
14	If Data Records created in step 13.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	As soon as possible, within the timelines for a data query	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 13.1, 13.2 FOLLOWING: 15, 17
15	Does the Meter Data Provider have a responsibility to deliver a Data Transaction to support a Dispute for a single Settlement Day?	As soon as possible, within the timelines for a data query	Automatic	Meter Data Provider	PRECEDING: 14 FOLLOWING: 15.1, 15.2

#	Procedural Step	Timing	Auto/Manual	Who	Linkage
15.1	If yes, update the appropriate Data Records for the Data Query or Settlement Query containing Non-Price Effecting Data determined in steps 1 and 2	As soon as possible, within the timelines for a data query	Automatic or manual (at the discretion of the Meter Data Provider)	Meter Data Provider	PRECEDING: 15 FOLLOWING: 16
15.2	If no, do nothing				PRECEDING: 15 FOLLOWING: 16
16	If Data Records created in step 15.1 send the collated Data Records in the Transaction(s) determined in step 1 to the Market Operator	As soon as possible, within the timelines determined by the Dispute Resolution Board	Automatic Type 3 Channel	Meter Data Provider	PRECEDING: 15.1, 15.2 FOLLOWING: 17
17	In all cases, check that the Transaction has been received, otherwise call Market Operator to resolve problem	Before 2 seconds following submission	Automatic Type 3 Channel	Market Operator	PRECEDING: 5, 8, 10, 12, 14, 16 FOLLOWING: 18
18	If acknowledgement received, end. If not, resolve issue, potentially utilising AP7	5 minutes after submission	Type 1 Channel	Meter Data Provider	PRECEDING: 17 FOLLOWING: Potentially AP7

4. SWIMLANE DIAGRAM







5. APPENDIX I – DEFINITIONS AND ABBREVIATIONS

5.1. DEFINITIONS

Active Power	As defined in the Code
Agreed Procedure	As defined in the Code
Associated Supplier Unit	As defined in the Code
Autonomous Generator Unit	As defined in the Code
Availability Profile	As defined in the Code
Calendar Day	Every day of every year, including bank holidays, from the start of the wholesale Single Electricity Market.
Code	As defined in the Code
Commercial Offer Data	As defined in the Code
Connection Agreement	As defined in the Code
Credit Cover	As defined in the Code
Data Query	As defined in the Code
Data Record	As defined in the Code
Data Transaction	As defined in the Code
Demand	As defined in the Code
Demand Side Unit	As defined in the Code
Dispatch Instruction	As defined in the Code
Dispatch Profile	AP16
Dispatch Quantity	As defined in the Code
Dispatchable	As defined in the Code
Dispute	As defined in the Code
Dispute Resolution Board	As defined in the Code
Distribution System	As defined in the Code
Firm Access	As defined in the Code
Generator	As defined in the Code
Generator Unit	As defined in the Code
Indicative Aggregated Demand Metering	A complete set of Supplier Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator by 1400 on the next Week Day after the Settlement Day in question.
Indicative Aggregated Demand Price Effecting Metering	A complete set of Price Effecting Demand Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator by 1400 on the next Calendar Day after the Settlement Day in question.
Indicative Aggregated Inter Jurisdiction Metering	AP16
Indicative Non Price Effecting Generation Metering	AP16
Indicative Non Price Effecting Generation Transaction	AP16

Indicative Price Effecting Generation Metering	(AP DEFINITION HIGHLIGHTED FOR SEMIT REVIEW) The complete set of Price Taker Generator Unit Metered Generation and Price Maker Generator Unit Metered Generation for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator by 1400 on the next Calendar Day after the Settlement Day in question.	
Indicative Settlement		As defined in AP6
Initial Aggregated Demand Metering	(AP DEFINITION HIGHLIGHTED FOR SEMIT REVIEW) A complete set of Supplier Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator by 1700 on the fourth next Week Day after the Settlement Day in question.	
Initial Aggregated Demand Price Effecting Metering	A complete set of Price Effecting Demand Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator by 1400 on the third next Calendar Day after the Settlement Day in question.	
Initial Price Effecting Generation Metering		AP16
Initial Price Setting		AP16
Initial Settlement	As defined in the AP6	
Interconnector	As defined in the Code	
Interval Metering	Interval Metering refers to a time-of-use meter which can deliver actual physical readings on a Trading Period, or a time-resolution which is an integer multiple greater than the Trading Period duration.	
Jurisdiction		As defined in the Code
Jurisdictional Boundary	The boundary agreed between the Transmission System in Northern Ireland and the Transmission System in Ireland by the System Operators.	
Jurisdictional Flow		AP16
Market Operator		As defined in the Code
Market Schedule Quantity		As defined in the Code
Meter Data Provider		As defined in the Code
Meter Data Demand		As defined in the Code
Metered Generation		As defined in the Code
Net Inter Jurisdictional Import		As defined in the Code
Non-Firm Access		As defined in the Code
Participant		As defined in the Code
Party		As defined in the Code
Price Effecting Demand Unit	Any Demand, contained in a Demand Side Unit, Supplier Unit, or Generator Unit whose Demand (and specifically not its Availability Profile or Dispatch Profile) is required for the calculation of Price. These Price Effecting Demand Units include: Trading Site Supplier Units; Demand Side Units; and Associated Supplier Units with Firm Access/ Non-Firm Access calculations.	
Price Maker	(Code Definition) A Generator Unit that is Dispatchable and bid into the market with the intention of actively influencing the market price	
Price Setting		AP16

Price Taker	(Code Definition) A Generator Unit that enters the market without attempting to influence the market price on the understanding that it will take whatever price is fixed by the market. The Price Taker is not required to submit Commercial Offer Data, only Quantity Offer Data[8]	
Pumped Storage Unit		As defined in the Code
Regulatory Authorities		As defined in the Code
Resettlement		As defined in the Code
Resettlement 1		AP16
Resettlement 1 Aggregated Demand Metering	A complete set of Supplier Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in a Settlement Day, sent by that Meter Data Provider to the Market Operator by 14:00 on a Week Day as close to within four months of that Settlement Day as practically possible, the exact Week Day of delivery to be determined by the Settlement Calendar.	
Resettlement 2		AP16
Resettlement 2 Aggregated Demand Metering		AP16
Retail Market Operator		AP1
Revised Aggregated Demand Metering	A complete set of Supplier Unit Demand for which a Meter Data Provider is responsible, for all Trading Periods in the Settlement Day, sent by that Meter Data Provider to the Market Operator ad hoc as required by the Market Operator following the output of the Data Query (Agreed Procedure 12) or dispute process (Agreed Procedure 13).	
Revised Aggregated Demand Price Effecting Metering		AP16
Revised Aggregated Inter Jurisdiction Metering Settlement		AP16
Settlement Day		As defined in the Code
Settlement Calendar		As defined in the Code
Single Electricity Market		As defined in the Code
Supplier Unit		As defined in the Code
System Operators		As defined in the Code
Trading Period		As defined in the Code
Trading Site		As defined in the Code
Trading Site Supplier Unit		As defined in the Code
Transmission System		As defined in the Code
Type 1 Channel		As defined in the Code
Type 3 Channel		As defined in the Code
Unit		As defined in the Code
Week Day		As defined in the Code
Working Day		As defined in the Code

6. APPENDIX II. SEM MDP FILE FORMAT V 1.5

6.1. INTRODUCTION

This document describes the file format to be used in exchanging data between the Meter Data Providers and the SEM systems.

6.2. GENERAL DESCRIPTION OF THE SEM-MDP MESSAGE FORMAT

The message format includes the following types of data:

1. Header details, containing the username and password and other security details from the digital certificate
2. Unit level information, including the Unit name
3. Time period meter readings at a half-hourly resolution
4. Trailer details, including a checksum to verify the integrity of the file

The following principles apply to the SEM-MDP format:

- The message is formatted via XML
- Full stop is used in fractional numbers, e.g. 12.34 or 0.34.
- Negative numbers should be prefixed by a minus sign, e.g. -12.34 or -0.34.
- Numbers (for meter readings) should be expressed to a maximum of three decimal places
- Meter Data for energy entering the Transmission System (i.e. generation) should be signed positive, and Meter Data for energy exiting the Transmission System (i.e. demand) should be signed negative. Please note that this is a file-transfer convention only. Demand variables in the Code algebra, for example, Metered Demand MDvh are positive for the purposes of the Code algebra.

Data Elements Descriptions:

Column Name	Description	Required / Optional
TRANSMISSION_ID	Could be name of the data transmission or other identification of the transmission	R
PARTICIPANT_NAME	This is the name of the sender of the information	R
START_PERIOD_TIME	Start of the first Trading Period where reported metered values are measured	R
END_PERIOD_TIME	End of the last Trading Period where reported metered values are measured	R
TIME_CREATED	Creation time of the file	R
UNIT_ID	Identifier for the unit for which the meter readings relate	R
EXTERNAL_ID	Sender's identification field limited to max. 20 characters (This can hold SSAC, MPID, transmission node, etc.)	O
START_TIME	Local start time for an individual reading (an hour or half-hour value)	R
END_TIME	Local end time for an individual reading (a half-hour or hour value, a half hour after the start time)	R
MEASURED_QUANTITY	Quantity according to unit on series record. Period is used in fractional numbers, e.g. 12.34 or 0.34. Negative numbers should be prefixed by minus sign, e.g. -12.34 or -0.34.	R
QUERY_FLAG	Set to 0 normally, or 1 if the reading is the subject of a Data Query	R
READING_STATUS	This can hold details on whether it was an estimate or actual reading. The meaning of "Actual" and "Estimated" will be defined later in the Grid Codes for use in the Settlement Statements. A code of 0 denotes Estimated readings while a code of 1 denotes Actual readings.	R
TOTAL_UNIT_ROWS	Total number of Units (rows) included in the data feed	R
TOTAL_QUANTITIES	Sum of all the MEASURED_QUANTITY amounts in the file. It will be used as part of the validation of the file	R
Other XML items	Description	
<i>ROW</i>	<i>For each Units there will be a Row included in the data feed</i>	*
<i>READING</i>	<i>For each meter reading, there will be a reading entry (46, 48, or 50 in total depending on short, normal or long day) The READING num= value will correspond to the relative period in the day</i>	*

The XML representation of the data set is shown below.

```
<METER_DATA_PROVIDER_DATA_TRANSFER>
  <TRANSMISSION_ID></TRANSMISSION_ID>
  <!-- Transmission identifier-->
  <PARTICIPANT_NAME></PARTICIPANT_NAME>
  <!--Participant Name identifier (This is the Short Name)-->
  <START_PERIOD_TIME></START_PERIOD_TIME>
  <!--The 'Start Period Time' date and time stamp format is 'YYYY-
MM-DDThh:mmTZD'.-->
  <END_PERIOD_TIME></END_PERIOD_TIME>
  <!--The 'End Period Time' date and time stamp format is 'YYYY-MM-
DDThh:mmTZD'.-->
  <TIME_CREATED></TIME_CREATED>
  <!--The 'Time Created' date and time stamp format is 'YYYY-MM-
DDThh:mm:ssTZD'.-->
  <ROW num="1">
    <!--One row for each unit-->
    <UNIT_ID></UNIT_ID>
    <!--Unit identifier-->
    <EXTERNAL_ID></EXTERNAL_ID>
    <!--The External identifier is an optional unit reference that
can be set by the sender of the data-->
    <READING num="1">
      <START_TIME></START_TIME>
      <!--The 'Start Time' date and time stamp format is 'YYYY-MM-
DDThh:mmTZD'.-->
      <END_TIME></END_TIME>
      <!--The 'End Time' date and time stamp format is 'YYYY-MM-
DDThh:mmTZD'.-->
      <MEASURED_QUANTITY></MEASURED_QUANTITY>
      <!--The Measured Quantity in MWh-->
      <QUERY_FLAG></QUERY_FLAG>
      <!--The Query Flag. Valid values are 1,0-->
      <READING_STATUS></READING_STATUS>
      <!--The Reading Status is to be set by the sender of the
data as per Meter and Grid Code-->
    </READING>
  </ROW>
  <TOTAL_UNIT_ROWS></TOTAL_UNIT_ROWS>
  <!--The Total number of Unit Rows-->
  <TOTAL_QUANTITIES></TOTAL_QUANTITIES>
  <!--The sum of all the Measured Quantity values in the file-->
</METER_DATA_PROVIDER_DATA_TRANSFER>
```