SP Services Ltd

IT Systems Development and Integration Project for SP Services Ltd's Participation in the Deregulated Electricity Market

Market Participant User Manual

2 September 2025

Version: 17.7

FOREWORD

The following document is aimed at EBT system participants and outlines the following in accordance with Section 9.4.1 of the Market Support Services Code:

(a) An overview of the general purpose of and functionality of the retail electronic business transaction system.

(b) An overview of the functionality that all EBT system participants must have in order to utilise the system.

(c) A detailed description of the transaction types supported by the system and business rules that applies to each transaction.

(d) A detailed description of all data that must be provided in conjunction with each transaction type and the data formats that are to be used for conveying the required information.

(e) Data formats for all messages that must be communicated between the Provider and an EBT system participant for all transaction types.

(f) A detailed description of response times required for each message and response.

DOCUMENT CONTROL SHEET

Version	Date	Author	Comment
1.03	01/08/01	1.5	• There is no longer a need for the Usage Frequency Change Request functionality. All relevant EBT's, system processes and interfaces have been modified or deleted as necessary. • Change pending notifications to the Market Company have been removed. It is no longer necessary for the Market Company to find out by such transactions. • A further exception has been added to the automated disconnection from an NMPR or MPR. This exception arises when the new disconnection date is not received within two business days. The transaction appears on the exception report and the error report. • Further validation has been added to Accept and Dispatch Invoice Data and Accept and Dispatch Usage Data. The validation checks that the mandatory attributes of transaction ID and receiving party ID have been provided. • Further validation has been added to Accept Consumer History Sent Confirmation and Accept Final Bill Sent Confirmation. The validation checks that a transaction ID has been provided. • A change date must now be provided when a billing option change request is submitted. • To clarify, the consumer's address is the physical address. • The dates in the interface definitions are now all called "Action Date". • "Action Type" has been replaced by "EBT Type" in the change pending interface definition. • The "Consumer Notification" field in the consumer notification interface is no longer required. • New fields are required for incoming messages. These are Sending Party Type which can be either (C)onsumer or (S)upplier and Sending Source which can be either (M)anual for web channel messages, (E)lectronic for EBT participant messages or (I)nternal for RSS or RMRDMS messages. All relevant system processes and interfaces have been updated. Additional validation has also been added to the system processes. • Consumer History Requests sent in by DMP's (ie have a sending party type of (C)onsumer) are now checked to ensure the sending party ID is the same as the consumer account number. • References to inbound and outbound transaction acknowledgments have been included within the description of each electronic business transaction. • Action dates for all requests have to be within three calendar months of the date on which the transaction is received. The system processes have been updated to include this validation for incoming requests.

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			• There is no longer a requirement to validate against meter ID's for a consumer account when a consumer transfer request has been received. Validation will be on consumer account number and postcode. Likewise, meter ID's do not need to be submitted or validated against for a disconnection request.
1.04	27/08/01	1.6	• There are now separate interfaces for dispatch of normal usage data and historical usage data. • All interfaces have been modified to indicate fields contained in the Message Header (message type, sending party ID and receiving party ID) and fields contained in the message body. • The values for billing option are now RCB for retailer consolidated billing and SB for split billing (not R and S). All relevant system processes and interfaces have been updated. • Inbound transaction acknowledgments will no longer contain a result field (or error code, error value and error attribute fields). This means inbound transaction acknowledgments now differ in content from outbound transaction acknowledgments (ValidationAcknowledgements). • There are now different alternative steps for the case when a party does not submit a sending party ID or the sending party ID is not valid. These alternative steps only apply for messages received from NMPR/MPR/DMP or EMC entities. In such instances a transaction acknowledgment will not be produced. • The change pending interface in Section 4.1.3 has been modified so that the Current Supplier ID field has been removed. Change pendings are now only sent to the current supplier, therefore this field is not required. • Consumer account number is no longer required for new date notices or new date required notifications. The validation associated with consumer account number is also not required. Associated interfaces in section 4 have also been updated. • All process and interfaces relating to consumer history requests, the dispatch of invoice data or the dispatch of usage data have been modified to refer to "intended recipient" instead of "receiving party ID". This is to distinguish the field from the "receiving party ID" field that is contained in all Message Headers. Thus, whenever another party is to be sent something and they are being referred to in the message body the term "intended recipient" is used. • Appendix B has been added as an overview of al market participants • The validation rules surrounding disconnection dates have been updated to help ensure the Transmission Licensee is notified of the

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			disconnection at least 10 business days in advance. When a disconnection is received, it is checked to ensure the date is after 23:59:59 on the 13th business day after the current system date. Just prior to updating CIA, the date is rechecked to ensure it is after 23:59:59 on the 11th business day after the current system date. • Multiple transaction rules have been defined. Therefore, extra validation has been added to some incoming requests (transfers, disconnections and billing option changes). • The DMP can now submit their own disconnections as well as having the EMC submit disconnections on their behalf. • When an EBT electronically sends a request for a new date for a transfer or disconnection, the receiving party must send back a transaction acknowledgment indicating receipt of this notice. • The field Sending Source is no longer required and all references and validation associated with this field have been removed. • The field Sending Party Type is required for all inbound messages. The options for this field are now CE (consumer electronic), CU (consumer user interface), SE (supplier electronic), MU (MSSL user interface) and ME (MSSL electronic). The interfaces have also been updated. • A new EBT has been added called Dispatch Pricing Data. This involves receiving pricing data from the Market Company .There are also new interfaces. • Cancellation rules have been enhanced. For transfers and disconnections the MSSL and the end consumer should always have the opportunity to cancel. Also, the Initiating Party Termination Notice & Post Objection Termination Notice is now the Termination Notice. Relevant interfaces in Section 4 reflect this name change. • The consumer's full physical address is no longer required for a consumer transfer request, only the consumer's physical postcode is required. • The consumer's full physical address is no longer required for a disconnection request, only the consumer's physical postcode is required. The postcode submitted in the request must also be matched against the consumer's postcode so extra validation is required • Consumer account number is not required for objection notices, change complete notifications or transaction terminated notifications. • The interfaces in section 4 have been updated to be logically consistent with the latest DTD's in Section 5.
	03/09/01	1.7	• A new interface, Consumer History Data has been added to the system participant interfaces.

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			• The consumer name is now a mandatory attribute for Post Objection Termination Notices and Termination Notices. • The field's content format and compression are required for all interfaces where data files are being transmitted. • Mandatory attribute validation for data files has also been enhanced to validate that the data field is provided. • To clarify, when a termination request is received, the original transaction's action date must be after 00:00:00 on the third business day after the current system date. • Additional validation has been added to itransaction acknowledgments. This validation ensures that the right party submits the acknowledgment based on the current state of the transaction. • The consumer's physical address is now known as the premises address. The consumer's billing address is now known as the correspondence address. • A new type of consumer transfer has been added. This enables the MSSL to initiate the transfer of consumers from NMPR/MPR supply to MSSL supply (for when the retailer defaults). • Transfers to the MSSL or to a DMP must have a billing option of SB for split billing. • The functionality surrounding disconnections has been significantly modified. Instead, there are now Account Closures and Temporary Disconnections. As a result of the changes, there is no longer a need to ask for a new disconnection date, so references and interfaces to this function have been removed. • Date validation for transfers and billing option changes has been modified to ensure the date is at least on the next business day after the current system date. • The multiple transaction rules have been updated to reflect the new account closure and temporary disconnection functionality. Also, the multiple transaction rules now ensure that when acceptance of the second transaction causes the first transaction to be terminated, the termination date validation rules must still be passed. If terminating the first transaction violates the termination date rules, it will not be terminated and the second transaction will be rejected. • The rules surrounding cancellations and who gets notified of cancellations have been updated due to the modified transfer and disconnection functionality. Validation on cancellation has also been updated to allow cancellations of any transaction up until the CIA has been updated. After the CIA has been updated, the transaction that is to be cancelled must have an action date

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			that is after 00:00:00 on the third business day after the current system date. • The EBT descriptions for consumer transfers from NMPR's or MPR's have been combined, as the functionality for these was the same.
1.05	4/9/01	DTDs Benjamin McCartney	Updates to termination notification
	19/09/01	DTDs Ben Walsh	Updates to synchronise with interface documents
	20/09/01		• The Data Format section outlining XML DTDs has been combined with the System Participants Interface Definitions and reflects Version 1.7 of the Requirements. • Additional information has been included for each message type 1) What constitutes a valid message field, field values and field lengths 2) The error messages and what they mean have been included in the transaction acknowledgement Interface definitions 3) Sending Party Type details are defined for each market participant where appropriate to a message type • 4) SoniqMQ Header for each message and XML DTDs for each message • Technical requirements regarding compression, decompression, encoding, decoding and the characterisitics of XML messages have been included in new section 5 – Data File Formats Section 6- Messages has been redesigned to show all messages relevant for a transaction. These are classed by Market participant and indicate direction of message (inbound/outbound), the required response time and any pre-conditions pertaining to receipt of or response to.
1.06	3/10/01	1.8	• Temporary Disconnection request has been split into two transactions – Involuntary Temporary Disconnection and Voluntary Temporary Disconnection. An Involuntary Disconnection cannot be initiated by a Market Participant other than the MSSL. • A new type of transaction acknowledgment has been added. This is called a termination transaction acknowledgment and is submitted when a system participant is responding to the receipt of a transaction terminated notification • All terminations must now relate to transactions that have an action date that is equal to or after 00:00:00 on the third business day after the current system date. • Objection codes and termination codes have been removed from objection and termination notifications. • When transaction requests are received electronically, EBT used to have a different process for dealing with the situation when the

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			sending party ID is not provided or is not valid. This is no longer necessary and all validation failures are treated in the same manner i.e. a transaction acknowledgment is dispatched and the error report is written to. • A description on how to generate a transaction ID has been added. See Section 4.
	12/11/01	DTDs	• Additional interface definition and DTD added for Termination Transaction Acknowledgement • DTDs updated as follows: – Objection Reason code field removed from Objection Notification DTD – Disconnection Type field removed from Change Pending DTD and values added to Action Type field – Termination code field removed from Transaction Terminated Notification DTD and Termination Notification DTD – Consumer Name field added to Termination Notification DTD and Consumer History Usage Data – Content Format, Compressed fields added to Raw Price DTD – UserId field added to all messages incoming from market participants.
	16/11/01	1.9	• Validation for accepting termination requests has been enhanced to ensure that the transaction ID on the termination notice matches the transaction ID of the transaction that can be terminated. • Validation has been enhanced to ensure the right types of participants submit requests. • Termination notices now check that the consumer exists. • References to a consumer account being “closed” have been updated to refer to the account as “inactive” instead.
	16/11/01	1.10	• There are now three possible states that a consumer can be in “pending”, “active” or “inactive”. “Pending” means that the consumer has been set up in CIA but their contract has not started yet. Most transactions require the consumer to be in an “active” state. Only transfers from the MSSL can be accepted when a consumer is in a “pending” state. • Details of validation around account status have been updated in Section 3 for account closures, billing option changes, consumer history requests and consumer transfer requests • Validation of user Id has been included in the mandatory attributes of incoming messages in Section 3
2.0	18/03/02	1.11	• Post objection termination notices are only valid if the action date is at least after 00:00:00 on the third business day after the current system date. See section 3.1 Consumer Transfer Request. .

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			• Validation added to ensure that a new billing option is not the same as the current billing option. See section 3.4 Billing Option Change Request.
2.0	22/04/02	1.12	• Additional validation has been added to transaction terminations to ensure that only one valid termination notice can be accepted for each transaction.
2.0	02/08/02	1.13	• Additional validation has been added to all incoming messages to ensure that retailer accounts are active before they can send messages, receive invoices or receive history data. See section 3.
2.0	02/08/02		• Updated the Invoice DTD to include two new elements, Invoice Number and MSSL GST Number. This update applies to both retailer and consumer invoices. See section 6.2 Invoice Data.
2.0	08/08/02		• Updated Usage data File format to reflect the correct header line information of "Meter ID:" • Updated consumer history data file format to reflect the correct header line information for "Meter ID:"
3.0	23/08/02	Rebecca Watson	• Update to v3.0 for delivery to PSL
3.1	12/09/02	Rebecca Watson	• The consumer transfer transaction ID element in the DTD has been changed from "TransactionID" to "TransactionId". See section 4.3.1 Consumer Transfer Request Interface .

4.0	22/11/02	Momoko Fujieda	• Updated the Invoice DTD to include the following tags (See Section 6.2):
			  • The words "Tax Invoice"
			  • Invoice Date
			  • Name & Address of PSL
			  • Name & Address of Consumer/Retailer
			  • Fax number
			  • Email address
			  • Overall Current Charges/Total Current Charges
			  • Start and End Billing dates to the Consumer element of the Retailer's Invoice
			• Renamed Retailer Address to Consumer Address on the Consumer Invoice

4.1	10/3/03	Momoko Fujieda	• Fixed spelling error in tag (CustomerAccountNumber) in Consumer's invoice
4.2	30/11/03	Hareesh Karra	• Updated to include references to the changes required as part of PNS project (TTP3445)
5.0	6/01/04	Momoko Fujieda	• Updated to include changes to the Data File Interface Definitions of Pricing Data
6.0	21/11/06	Gavin Barfield	• Updated after CR7006, changes to Account Closure Dates
7.0	26/05/09	Rajesh Sumra	• Updated for MDA related changes.

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8.0	03/01/12	Chan Wai Xin	• Updated for MSSL Upgrading project to improve clarity of descriptions and generalise design details.
9.0	19/04/13	Jean Ho	• Amend the earliest action date for CTR and BOC from next business day to the day after the next business day.
10.0	25/09/13	Jean Ho	• Amend retailer hotline number.
11.0	29/01/14	Myla Carrido Kelvin Cheng	• Amend the xml tag for the "New Required date" message. (ITSM Change Request C0002076) • Update MDA Adjusted Usage Data in Section 4.8.1
12.0	25/09/14	Ong Hui Peng	• Update special character handling for XML
13.0	17/10/14	Tay Elin	• Update clause 8 under Electronic Business Transactions – Description to reflect "This excludes Consumer Transfer Requests submitted for new contestable accounts which are pending activation."
14.0	15/01/15	Tay Elin	• Amend second waiting period for CTR objection from 10 business days to 3 business days under: 3.1 Electronic Business Transactions – Description – Consumer Transfer Request 7 Messages – Consumer Transfer Request
15.0	17/02/15	Ada Yip	• Updated to include section on Demand Response Scheme
15.1	23/03/15	Ada Yip	• Updated energy quantity types in usage data file to market company in Section 6.6 and 6.7 • Added Section 9.5 for DRS Data File Interface Definitions
16.0	08/04/15	Tay Elin	• Updated Account Closure and TDV Initiation Period from 12 to 7 Business Days under 3.2 and 3.3
16.1	28/04/15	Ada Yip	• DRS: Updated wording for Account Closure (DRS) and Closure of Load Registered Facility
16.2	15/05/15	Ada Yip	• DRS: Update to include DR Registration Transfer in Action Type for Change Pending Notification interface definition
16.3	17/05/16	Myla Mendoza Carrido	• Updated the request type value in the Demand Response Registration Transfer message section
16.4	30/05/16	Sanat Jha	Updates for FRC project
16.5	01/07/16	Pratik Vora	Updated to incorporate following changes. - Enabling consumer transfer and Meter option change in one business day for consumer having AMI meters - Consumer Self-read option for consumer transfer process for consumers having Mechanical meters - Enabling Non market to market consumer transfer to be performed earlier then original action date for early remediated AMI meters

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16.6	21/01/17	Pratik Vora	Updated document to incorporate following changes. - Review and alignment of XML DTDs - Modification within the document for Consumer Self-read option to be available for consumers under SRLP Metering option instead of consumer having mechanical meters. Following sections have been updated to incorporate above mentioned changes. 3.1, 3.5, 3.6, 4.3, 4.7, 4.10, 6.2, 7.1, 8, 9.2, 9.3, 9.4
16.7	01/03/17	Pratik Vora	Following changes have been incorporated. - Updated SPgroup logo. - Changed the contact details under Contact Information.
16.8	23/03/17	Pratik Vora	Updated Contact Information (Section 8) after Organizational changes.
16.9	20/07/2017	Pratik Vora	Following amendments have been incorporated in document. - Validation of correct postal code for MOC and Special Read Request (Section 3.8 and 3.9)
17.0	29/08/2017	Pratik Vora	Following amendments have been incorporated in document. - Validation of Action date for consumer transfer (Section 3.1) - Validation of action date for New action date notice (Section 4.3.8) - Validation of Consumer account number for Termination Notice (Section 4.4.6) - Correction in Messages (Section 7)
17.1	26/01/2018	Pratik Vora	Following amendments have been incorporated in the document - For Consumer transfer with Self read flag, action date can be on non-business day (Section 3.1) - Amendment for Account closure request for NDR and NDN (Section 3.2, 4.4) - Manual Submission of De-registration of DRS request (Section 9.6.4, 9.4.4) - Submission of Mass CTR request cannot be performed by EMC (Section 4.10.1)
17.2	20/03/2018	Pratik Vora	Following amendments have been incorporated in the document. - Modification in validation for consumer transfer request (Section 3.1) to specify Non market to market and Market to Non market can send self-read flag
17.3	13/07/2021	Jasmine Kuan	Updated the Retailer Invoice DTD (See Section 6.2.1) and DRA Invoice DTD (See Section 9.5.1) to include the following tags:

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			- TotalConsumerCharges - OverallCurrentChargesExclusiveofGST - OverallGSTInfo1 - OverallGSTInfo2 Remove Fax from Invoice DTD.
17.4	09/11/2021	Lek Hang Peng	- Remove “” from all [Message Header]; - Replace the Field Name “X-JMS-TYPE” with “X-JMS-TYPE”.
17.5	17/8/2022	Jasmine Kuan	- Remove xml tags <OverallGSTRate> and <TotalGSTRate> from 6.2.1 Retailer Invoice DTD and 9.5.1 DRA Invoice DTD - Remove xml tag <TotalGSTRate> from 6.2.2 Customer Invoice DTD and 9.5.2 DDRA Invoice DTD
17.6	31/8/2022	Jasmine Kuan	Cosmetic change to Element Description in sections: - 6.2.1 Retailer Invoice DTD - 6.2.2 Customer Invoice DTD - 9.5.1 DRA Invoice DTD - 9.5.2 DDRA Invoice DTD
17.7	02/9/2025	Siti Faizah	- 9.4.4 Remove “-“ from DR Deregistration for action type in Change Pending Notification interface definition

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1. RETAIL EBT - OVERVIEW

1.1 PURPOSE OF THE EBT SYSTEM

External EBT participants will use the EBT system to facilitate the following types of business transactions:

- A change in electricity supply arrangements requested by contestable consumers through an NMPR, MPR, the MSSL, the EMC or the end consumer themselves.
- Account closure of a consumer requested by an NMPR, MPR, EMC, the MSSL or the end consumer themselves.
- Voluntary temporary disconnection of a consumer initiated by an NMPR, MPR, EMC, the MSSL or the end consumer themselves.
- A change in billing arrangements for a non residential end-user consumer served by a NMPR or MPR.
- A request for historical consumption information for a non residential end-user consumer from an NMPR, MPR, DMP, the EMC or the end consumer.
- The conveyance of invoices to NMPRs for all energy-related services (including grid charges, metering services and other charges as is deemed appropriate) billed through the MSSL.
- The conveyance of invoices for vesting credits, grid charges and all services provided by MSSL to MPRs and DMPs.
- The conveyance of half-hourly usage data to DMPs, MPRs, NMPRs and the EMC.
- The cancellation of a consumer transfer, account closure, voluntary temporary disconnection or billing option change request.
- The submission of pricing data from the EMC.
- Transportation of the vesting contract data, and delivery of any response from the EMC.

A complete listing of the specific business transactions that must be managed by the retail EBT system is detailed under Section 3: Electronic Business transactions - Descriptions. The EBT system will receive electronic transaction request information from system participants who will be certified to interface with the system. The group of system participants will consist of NMPRs, MPRs, DMPs, the EMC and the MSSL. Information will be conveyed using standard formats but each system participant will have flexibility concerning the process they use to produce the necessary information in the common formats (ie. there will be no mandatory input screens supplied to system participants). The EBT system will, in turn, communicate back to system participants with a variety of message types that will vary with the nature of the transaction and the various contingencies that may occur. The interface definitions between the system participants and the EBT are provided in Section 4: System Participant Interface Definitions.

The EBT system is also used to provide the messaging integration between the EMC and the VCC. A complete list of all changes required within EBT to cater for the transportation of these new contract data message, have been documented in the VCC requirements documentation titled “TTP3445 – EBT VCC Config v3.0 – for SPS.doc”.

1.2 TERMINOLOGY

This paragraph provides a brief description of the terminology used in this document. There are a number of terms that have a specific meaning within the context of the EBT system.

- **Electronic Business Transaction (EBT):** means a set of steps that must be followed in order to achieve a goal of a system participant. An example of a goal is the transfer of a consumer to receive services provided by one system participant instead of a different system participant. An EBT also represents the context within which messages will be exchanged between the EBT system, MSSL systems and the system participants.
- **Request:** means a message that is sent by a system participant to the EBT system in order to initiate an EBT.
- **Notices and Notifications:** are messages that request or provide information relevant to a "Request" as identified above (for example, a notice that is sent to the current supplier to notify that a valid Consumer Transfer Request had been received). In this context, the notice is subordinate to the request.
- **Acknowledgments:** are sent by either the EBT system or a system participant to confirm the receipt of a message. Errors encountered with the message sent by a system participant will be included in the acknowledgments to that transaction sent by the EBT system.

1.3 SYSTEM CONTEXT

Appendix A provides a conceptual view of the context within which the EBT system will operate. The system will reside with the operating environment of the MSSL. Within that environment, the EBT system will receive Requests, Notices and Acknowledgments from system participants and will also generate Acknowledgments and transfer data to system participants.

2. EBT FUNCTIONAL OVERVIEW

2.1 FUNCTIONAL OVERVIEW FOR EACH PARTICIPANT

The following matrix outlines which EBTs each market participant must be able to conduct via the EBT system.

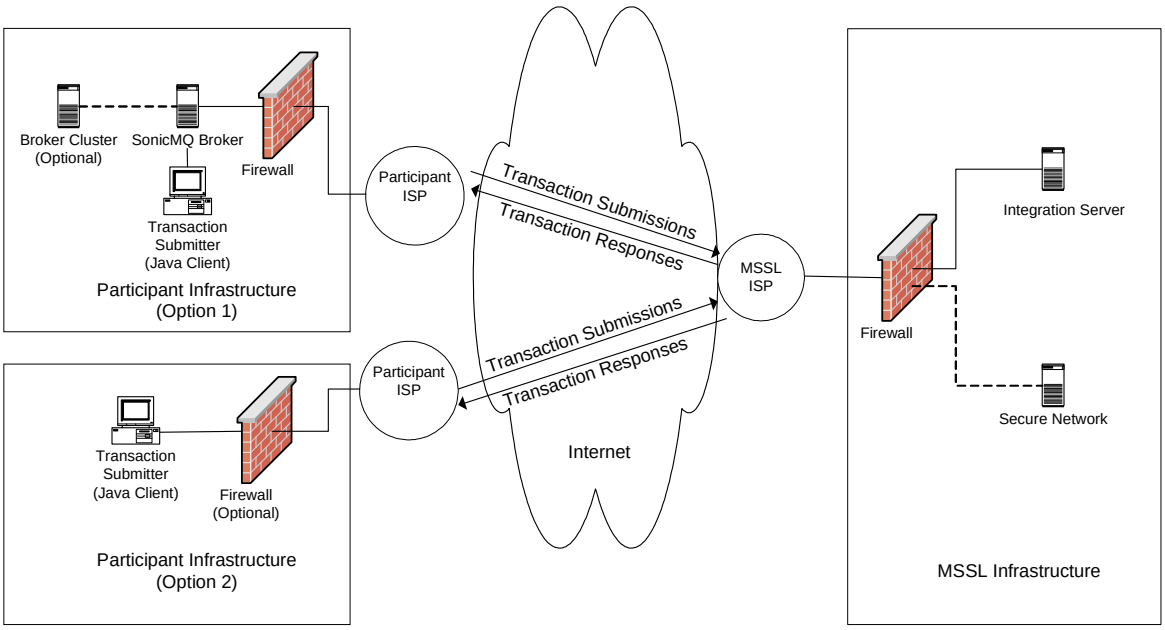
	Transaction	Market Company	Market Participant Retailer	Non Market Participant Retailer	Direct Market Participant
1	Consumer Transfer	✓	✓	✓	
2	Non Market to Market Customer Transfer		✓	✓	
3	Voluntary Temporary Disconnection	✓	✓	✓	✓
4	Account Closure	✓	✓	✓	✓
5	Billing Option Change		✓	✓	
6	Consumer History Request	✓	✓	✓	✓
7	Receive Invoices		✓	✓	✓
8	Receive Usage Data	✓	✓	✓	✓
9	Cancel Transaction	✓	✓	✓	✓
10	Dispatch Pricing Data	✓			
11	Special Read Request		✓	✓	
12	Meter Option Change		✓	✓	
13	Mass Consumer Transfer		✓	✓	
14	Receive SRLP Usage Data		✓	✓	

2.2 TECHNICAL ARCHITECTURE

2.2.1 Connectivity

For a market participant to connect to the EBT system they need a hardware platform and they will need to implement a Java Client capable of transmitting and receiving transactions. If the participant already has a role in the wholesale market, such as a Market Participant Retailer (MPR), a Direct Market Participant (DMP), or the Energy Market Company (EMC) they will already possess a Market Participant Server that they may choose to use for connection to the EBT system. For Non Market Participant Retailers (NMPR), who do not participate in the wholesale market, they will not possess a hardware platform for connection to the wholesale market and must purchase hardware for connection to the EBT system as well as write the Java Client. Figure 2.2 describes the two options for connection to the EBT system.

Figure 2.2



A. CONNECTION OPTION 1

Market Participant option 1 shows a local SonicMQ broker. It also shows a SonicMQ broker cluster that may be used for automatic failover of SonicMQ for the highest levels of availability. This configuration is the platform that is used for wholesale market participants (MPR, DMP or EMC). The Java Client needs to be implemented according to the XML specifications referred to in Section 4 of this manual. Section 4 specifies the format of each XML message that is transmitted to the EBT system (for example a Consumer Transfer) and specifies the format of each XML message that is returned to the participant system (for example consumer usage information, or invoices).

B. CONNECTION OPTION 2

Market Participant option 2 is applicable to NMPR, although they may choose option 1. Option 2 does not use a local SonicMQ broker cluster and thus requires a considerably more complex implementation of the java client. The local broker of option 1 provides guaranteed delivery of messages to the EBT system through middleware collaboration with the integration server existing in the EBT system of the MSSL. Under option 2 the java application must handle recovery of message transmission over the internet. The internet is a relatively unreliable link thus message transmission to the MSSL EBT system is not guaranteed. Under option 2, investment in SonicMQ licensing is not required but the development effort of the java client is more complex.

2.2.2 Security

Each participant shall purchase their own digital certificate, from a commercial CA, to authenticate transactions and to ensure non-repudiation of their transmissions. Both SonicMQ and the integration server utilise Secure Socket Layer (SSL) protocol for message transmission ensuring the content of each message will be encrypted during transmission.

2.2.3 EBT System

As mentioned above, the EBT system in the MSSL, contains integration server that accepts inbound messages from participants and transmits outbound messages to participants. After accepting an inbound message (such as a Consumer Transfer Request from an MPR) it will forward the CTR to the EBT processing engine that exists in the secure network of the MSSL. A response message from the EBT system that is destined for an external participant, for example an invoice, will be routed out of the EBT processing engine to the integration server of the MSSL, across the Internet, and finally arrive at the participant site. Once at the participant's site the java client must interpret the XML data and trigger the appropriate business functionality to handle the response.

3. ELECTRONIC BUSINESS TRANSACTIONS – DESCRIPTION

3.1 CONSUMER TRANSFER REQUEST

1. The following table specifies the cases in which a particular EBT system participant submits an automated consumer transfer request.

Table 3.1: Submission of Consumer Transfer Requests

Description	Transfer type	Sending Party
For transfers to a retailer (MPR or NMPR) or to a DMP, the new supplier is responsible for submitting the Consumer Transfer Request to the EBT system on behalf of the consumer. (Note: the EMC is the supplier for the DMP).	MSSL – MPR MSSL – NMPR NMPR – NMPR NMPR – MPR MPR – NMPR MPR – MPR DMP – NMPR DMP – MPR MSSL – DMP MPR – DMP NMPR – DMP	New Supplier (NMPR, MPR or EMC)
For transfers to a retailer (MPR or NMPR) from EBS (Regulated supply), the new supplier is responsible for submitting the Consumer Transfer Request to the EBT system on behalf of the consumer. The customer transfer will be from regulated tariff to MPR or NMPR	EBS* – MPR EBS – NMPR	New Supplier (NMPR or MPR)
Where the current supplier wishes its consumer to be transferred to MSSL supply, the current supplier submits the request on behalf of the consumer.	NMPR – MSSL MPR – MSSL DMP – MSSL	Current supplier (NMPR, MPR or EMC for transferring from DMP)
Where the current supplier wishes its consumer to be transferred to EBS (Regulated supply), the current supplier submits the request on behalf of the consumer.	NMPR – EBS MPR – EBS DMP – EBS	Current supplier (NMPR, MPR or EMC for transferring from DMP)

* EBS refers to regulated tariff environment of SPS

2. The system captures and validates the request. EBT must verify the following:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, consumer's premises postcode, new supplier's ID, action date, billing option and Self Read option).
- For Non Market to Market, the mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number,

consumer name, consumer's premises postcode, new supplier's ID, action date, billing option, Self-read option and Meter Option).

- The transaction ID is unique.
- The message type is a valid message type.
- The sending party type is SE – indicating that the (S)upplier submitted the message (E)lectronically.
- The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
- Acceptance of this request does not violate the pending transaction rules as described below:
  - When a consumer transfer request is received, EBT will check if there are pending transactions for the same consumer account number. Under the following circumstances the consumer transfer request will fail validation:
    - When there is a pending consumer transfer request for transfer to the MSSL and a second consumer transfer request for transfer to the MSSL is received.
    - When there is a pending consumer transfer request for transfer to the MSSL and a second consumer transfer request for transfer to NMPR/MPR/DMP is received.
    - When there is a pending consumer transfer request for transfer to the NMPR/MPR/DMP and a second consumer transfer request for transfer to NMPR/MPR/DMP is received.
    - When there is a pending consumer transfer request for transfer to the NMPR/MPR/DMP and a second consumer transfer request for transfer to the MSSL is received and the second transfer action date is equal to or after the first transfer action date.
    - When there is a pending account closure and a consumer transfer request is received and the transfer action date is equal to or after the account closure action date.
    - When there is a pending temporary disconnection that has been initiated by the MSSL.
    - When there is a pending involuntary temporary disconnection and the transfer is to the NMPR, MPR or DMP (transfers to the MSSL can still be accepted).
    - When there is a pending Consumer Transfer Non-Market to Market and the transfer is to the NMPR, MPR, DMP or MSSL
    - When there is a pending Consumer Transfer Market to Non-Market and the transfer is to the NMPR, MPR, DMP or MSSL
  - Under the following circumstances, the acceptance of the consumer transfer will result in the cancellation of the pending transaction (subject to meeting the date validation rules for a termination):
    - When there is a pending consumer transfer request for transfer to the NMPR/MPR/DMP and a second consumer transfer request for transfer to the MSSL is received and the second transfer action date is before the first transfer action date.
    - When there is a pending account closure and the transfer action date is before the account closure date.
    - When there is a pending temporary disconnection that has not been initiated by the MSSL and the transfer action date is before the account closure date.

- When there is a pending billing option change request and the transfer action date is before the billing option change date.
- When there is a pending Meter Option Change request.

- If the transfer is to the MSSL or to a DMP then the billing option must be SB for split billing.
- For transfers from the MSSL, the consumer account status is not "inactive" indicating that the account is closed. The account may be in an "active" or "pending" state.
- For transfers from an NMPR, MPR or DMP, the consumer account status is "active".
- For a transfer to an NMPR, MPR or DMP, the electricity status is not in a state indicating "temporarily disconnected – involuntary" (this state is acceptable for transfers to the MSSL).
- Nominated Action date will be validated as per following table.

Transfer	**AMI meter option**	**Nominated action date**
MPR/NMPR to MPR/NMPR NMPR/MPR to DMP NMPR/MPR to MSSL MSSL to NMPR/MPR DMP to NMPR/MPR	Yes (existing meter option)	At least Next Business day
NMPR/MPR to EBS*	Yes (existing meter option)	At least Next Business day
MPR/NMPR to MPR/NMPR NMPR/MPR to MSSL MSSL to MPR/NMPR	No (existing meter option)	At least after 5 business days
NMPR/MPR to EBS	No (existing meter option)	At least after 5 business days
EBS to NMPR/MPR/MSSL	Yes (New meter option)	At least after 30 Calendar days
EBS to NMPR/MPR/MSSL	No (New meter option)	At least after 5 business days

* EBS refers to regulated tariff environment of SPS

- The sending party is a valid system participant and must be an NMPR, MPR or EMC.
- The new supplier is a valid system participant.
- The new supplier is either the MSSL or the sending party.
- The new supplier is not the current supplier of the consumer.
- The requested billing option is a valid one, that is, either RCB - Retailer Consolidated Billing or SB - Split Billing. The valid option for transfer from Retailer to MSSL/EMC must be SB – Split Billing.
- The requested billing option for transfers from MPR/NMPR to MPR/NMPR or Non-Market to Market, must be RCB – Retailer Consolidated billing, for all residential consumers.
- The requested billing option for transfers from Market to Non-Market , must be RCB – Retailer Consolidated Billing

- The consumer's account number exists.
- For Non-Market to Market Consumer transfer request, the account number provided should be the EBS account number.
- For switch back to regulated tariff, the new supplier will be the account number of the MSSL under regulated tariffs.
- The transaction postcode matches the consumer's premises postcode.
- The sending party of the message is "active".
- The new supplier account is "active".
- For Non-Market to Market consumer transfer request having meter option as 'SRLP', the previous calendar day of action date must be a business day. This condition is not applicable if previous calendar day is actual scheduled meter reading date.
- For contestable consumer transfer request, the previous calendar day of action date must be on business day for consumers having 'SRLP' meter option. This condition is not applicable if previous calendar day is actual scheduled meter reading date or Self read option has been selected.
- For Market to Non-Market consumer transfer request, the action date must be on business day. This condition is not applicable if Self read option has been selected.
- For all consumer transfer requests (i.e. Non-Market to Market, Market to Non-Market and contestable consumer transfer) with Self read flag, consumer must have meter option as 'SRLP'.
- For all consumer transfer requests (i.e. Non-Market to Market, Market to Non-Market and contestable consumer transfer) with Self read flag, action date or previous date of the action date can be on non-business day.

Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

(a) The consumer transfer request fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error

II. The processing for the transaction will stop and participant may be contacted by an MSSL representative.

For certain transfers, EBT generates a change pending notification for the current supplier (NMPR, MPR or EMC) to notify them of the transfer. Table 3.2: Current Supplier Change Pending summarises which participant must be notified of the change depending on the transfer type. The general rule is that when transferring from a retailer (NMPR or MPR) or DMP to another retailer (NMPR or MPR) or DMP then the current supplier needs to be notified. When the retailer submits a transfer to or from the MSSL no change pending notice is required.

Table 3.3: Current Supplier Change Pendings

Transfer Type	Sending Party	Current Supplier
NMPR – NMPR	New NMPR	Current NMPR
NMPR – MPR	MPR	NMPR

Transfer Type	Sending Party	Current Supplier
NMPR – DMP	EMC	NMPR
MPR – NMPR	NMPR	MPR
MPR – MPR	MPR	Current MPR
MPR – DMP	EMC	MPR
DMP – NMPR	NMPR	EMC
DMP – MPR	MPR	EMC

3. For certain transfers, EBT receives a transaction acknowledgment from the current supplier by 23:59:59 on the next business day after the change pending was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user Id and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in (ie if the state is “Pending acknowledgment for change pending from current supplier”, the current supplier must submit the request).
- The sending party of the message is “active”.

    (a) The transaction acknowledgment fails validation.

    I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

4. For consumer transfers, the system checks that the transfer date is still at least on the next business day after the current system date.

    (a) The requested transfer date is no longer acceptable.

    I. EBT generates a new transfer date required notification for the new supplier.

    II. The system receives a transaction acknowledgment from the new supplier by 23:59:59 on the next business day after the new transfer date notice was sent. EBT will validate that:

    - *Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, and sending party type).*

- *The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.*
- *The message type is a valid message type.*
- *The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.*
- *The sending party is the same as the receiving party of the message to which this message is acknowledging.*
- *The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP*
- *The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.*
- *The sending party of the message is "active".*

a) The transaction acknowledgment fails validation.

   i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

b) The transaction acknowledgment is not received within the necessary timeframe.

   i. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

III. By 23:59:59 on the second business day after the new transfer date was requested, the system accepts the new transfer date and validates that:

- *The mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type and new action date).*
- *The transaction ID matches to a consumer transfer request that is waiting for a new transfer date*
- *The message type is a valid message type.*
- *The sending party is the same as the sending party of the original consumer transfer request.*
- *The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.*
- *The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.*
- *The action date is at least on the next business day after the current system date. The transfer will be effective at 00:00:01 on the nominated date.*
- *The sending party is a valid system participant and must be an NMPR, MPR or EMC.*
- *The sending party of the message is "active".*

Successful validation will result in the dispatch of a transaction acknowledgment to the NMPR, MPR or EMC.

a) The new transfer date is not received within the necessary timeframe.

i. The transaction will continue when a valid transfer date is received. The Participant may be contacted by an MSSL representative.

b) The new transfer date fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

IV. Step 3 is repeated to recheck the date.

5. The final bill is generated and dispatched. Refer Section 3.7: Dispatch Data File
6. For all transfers to NMPR's, MPR's or DMP's a change complete notice will be sent to the new supplier. This excludes Consumer Transfer Requests submitted for new contestable accounts which are pending activation and Non-Market to Market Consumer transfer Request
7. For all transfers from DMP's a change complete notification will be sent to the current supplier (EMC).
8. For all transfers to NMPR's, MPR's or DMP's and for transfers from DMP's, EBT will receive one or more transaction acknowledgments from the new supplier and/or the current supplier. These acknowledgments indicate receipt of the change complete notification and will be received by 23:59:59 on the next business day after the change complete was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message electronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active".

(a) The transaction acknowledgment fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

9. For Non-Market to Market transfers, if AMI meter(s) are optimized earlier than expected, then an E-mail notification will be sent to MPR/NMPR to allow submitting earlier transfer date.

- The new transfer date can be submitted via existing New Action date Notice request
- The new transfer date must not be after original action date of transfer
- The new action date is at least the day after the next business day from the current system date.

Cancellation

Cancellation of a transfer request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

3.2 ACCOUNT CLOSURE REQUEST

1. The EBT system handles account closure requests that are submitted electronically by the current supplier of a consumer or by a DMP. Parties who can electronically submit an account closure request include an NMPR, MPR, DMP or the EMC on behalf of the DMP.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, consumer's premises postcode, and action date).
- The transaction ID is unique.
- The message type is a valid message type.
- The account closure date is after 23:59:59 on the 7th business day after the current system date (the date will be specified to the nearest half-hour).
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- Where the sending party type is CE, the sending party ID should be the same as the consumer account number.
- The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
- Acceptance of this request does not violate the pending transaction rules as described below:
    - When an account closure request is received, EBT will check if there are pending transactions for the same consumer account number. Under the following circumstances the account closure request will fail validation:
    - When there is a pending consumer transfer request and the account closure action date is equal to or after the consumer transfer action date.
    - When there is a pending account closure request and the second account closure action date is equal to or after the first account closure action date.
    - Under the following circumstances, the acceptance of the account closure will result in the cancellation of the pending transaction (subject to meeting the date validation rules for a termination):
    - When there is a pending consumer transfer request and the account closure action date is before the transfer action date.
    - When there is a pending account closure and the second account closure action date is before the first account closure action date.
    - When there is a pending temporary disconnection request and the account closure action date is before the temporary disconnection action date.
    - When there is a pending billing option change request and the account closure action date is before the billing option action date.

- The sending party is a valid system participant and must be an NMPR, MPR, EMC or a DMP.
- The consumer's account number exists.
- The transaction postcode matches the consumer's premises postcode.
- Where the sending party type is SE, the sending party's ID number must be the same as the current supplier's ID number.
- The consumer's account status is "active". Not "inactive" or "pending" indicating that the account is closed or not yet open.
- The sending party of the message is "active".

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The account closure request fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  II. The processing for the transaction will stop.

3. For account closures submitted by a DMP, the EBT generates a change pending notification for the current supplier (EMC).
4. For account closures submitted by a DMP, EBT receives a transaction acknowledgment from the current supplier (EMC) by 23:59:59 on the next business day after the change pending was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transaction that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.

5. For Account closure request, the system checks that the account closure date is still at least on the next business day after the current system date.

   (a) The requested account closure date is no longer acceptable (when system date exceeds account closure date)

   I. EBT generates a new action date required notification for the current supplier.

   II. The system receives a transaction acknowledgment from the current supplier by 23:59:59 on the next business day after the new action date notice was sent. EBT will validate that:

   - *Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, and sending party type).*

- *The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.*
- *The message type is a valid message type.*
- *The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.*
- *The sending party is the same as the receiving party of the message to which this message is acknowledging.*
- *The sending party is a valid system participant and must be an NMPR, MPR, EMC*
- *The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.*
- *The sending party of the message is "active".*

c) The transaction acknowledgment fails validation.

ii. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

d) The transaction acknowledgment is not received within the necessary timeframe.

ii. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

III. By 23:59:59 on the second business day after the new action date was requested, the system accepts the new action date and validates that:

- *The mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type and new action date).*
- *The transaction ID matches to a consumer transfer request that is waiting for a new transfer date*
- *The message type is a valid message type.*
- *The sending party is the same as the sending party of the original consumer transfer request.*
- *The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.*
- *The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.*
- *The action date is at least on the next business day after the current system date. The transfer will be effective at 00:00:01 on the nominated date.*
- *The sending party is a valid system participant and must be an NMPR, MPR or EMC.*
- *The sending party of the message is "active".*

Successful validation will result in the dispatch of a transaction acknowledgment to the NMPR, MPR or EMC.

c) The new action date is not received within the necessary timeframe.

ii. The transaction will continue when a valid action date is received. The Participant may be contacted by an MSSL representative.

d) The new action date fails validation.

ii. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

IV. Step 3 is repeated to recheck the date.

- The sending party of the message is "active"

(a) The transaction acknowledgment fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

(b) The transaction acknowledgment is not received within the necessary timeframe.

I. The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

6. The final bill is generated and dispatched. Refer Section 3.7: Dispatch Data File

7. For account closures submitted by the EMC, EBT will receive a transaction acknowledgment from the EMC by 23:59:59 on the next business day after the change complete was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches an account closure that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active"

(a) The transaction acknowledgment fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

(b) The transaction acknowledgment is not received within the necessary timeframe.

I. The transaction will continue when a valid transaction acknowledgment is received. The Participant may be contacted by an MSSL representative.

7. If the MSSL changes the Account Closure date a Change Pending message will be sent to the requesting participant. This will include the new date for the Account Closure and must be acknowledged.

Cancellation

Cancellation of an account closure request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

3.3 VOLUNTARY TEMPORARY DISCONNECTION REQUEST

1. The EBT system handles temporary disconnection requests that are submitted electronically by the current supplier of a consumer or by a DMP. Parties who can electronically submit a temporary disconnection request include an NMPR, MPR, DMP or the EMC on behalf of the DMP. This request is only applicable for non-residential consumers.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, consumer's premises postcode and action date).
- The transaction ID is unique.
- The message type is a valid message type.
- The temporary disconnection date is after 23:59:59 on the 7th business day after the current system date (the date will be specified to the nearest half-hour).
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- Where the sending party type is CE, the sending party ID should be the same as the consumer account number.
- The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
- Acceptance of this request does not violate the pending transaction rules as described below:
    - When a temporary disconnection request is received, EBT will check if there are pending transactions for the same consumer account number. Under the following circumstances the temporary disconnection request will fail validation:
    - When there is a pending consumer transfer request and the temporary disconnection action date is equal to or after the consumer transfer action date.
    - When there is a pending account closure request and the temporary disconnection action date is equal to or after the account closure action date.
    - When there is a pending temporary disconnection request.
    - When there is a pending Consumer Transfer Contestable to Non-contestable (CC to NCC) and the temporary disconnection action date is equal to or after the Consumer Transfer Market to Non-Market .
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or a DMP.
- The consumer's account number exists.
- The transaction postcode matches the consumer's premises postcode.

- Where the sending party type is SE, the sending party's ID number must be the same as the current supplier's ID number.
- The consumer's account status is "active". Not "inactive" or "pending" indicating that the account is closed or not yet open.
- The electricity status is "connected".
- Temporary Disconnection will not be applicable for residential consumers. If consumer is found to be residential, validation will be failed.
- The sending party of the message is "active"

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The voluntary temporary disconnection request fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  II. The processing for the transaction will stop. Participant may be contacted by an MSSL representative.

3. For voluntary temporary disconnections submitted by a DMP, the EBT generates a change pending notification for the current supplier (EMC).
4. For voluntary temporary disconnections submitted by a DMP, EBT receives a transaction acknowledgment from the current supplier (EMC) by 23:59:59 on the next business day after the change pending was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transaction that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active"

  (a) The transaction acknowledgment fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

  (b) The transaction acknowledgment is not received within the necessary timeframe.

  I. The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

Cancellation

Cancellation of a temporary disconnection request by the initiating party may be accepted. Please see the Cancel Transaction section for details

3.4 BILLING OPTION CHANGE REQUEST

1. A Billing Option Change Request concerns changing a consumer's billing option from retailer consolidated billing to split billing or vice versa. Only an NMPR or MPR can submit a billing option change request. This request is only applicable for non residential consumers.

2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, sending party type, consumer account number, consumer name, action date, user ID and billing option indicator).
- The transaction ID is unique.
- The message type is a valid message type.
- The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
- Acceptance of this request does not violated the pending transaction rules as described below:
    - When a billing option change request is received, EBT will check if there are pending transactions for the same consumer account number. Under the following circumstances the billing option change request will fail validation:
    - When there is a pending consumer transfer request
    - When there is a pending account closure request
    - Under the following circumstances the billing option change request may be accepted and if accepted will result in the cancellation of a pending transaction (subject to meeting the validation rules for a termination):
    - When there is a pending billing option change request and the second billing option change request is for the same date as the first billing option change request.
    - When there is a pending Consumer Transfer Market to Non-Market request and the billing option change request is for the same or later than the Consumer Transfer Market to Non-Market request.
- The action date is at least on the day after the next business day from the current system date. The billing option change will be effective at 00:00:01 on the nominated date.
- The sending party is a valid system participant and must be an NMPR or MPR.
- The billing option specified is a valid billing option – either RCB for retailer consolidated billing or SB for split billing.
- The new billing option is not the same as the current billing option.
- The consumer's account number exists.
- The sending party must be the same as the current supplier.

- The consumer's account status is "active" and not "inactive" or "pending" which indicate that the account is closed or not yet open.
- Billing Option Change will not be applicable for residential consumers. If consumer is found to be residential, validation will be failed.
- The sending party of the message is "active".

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The billing option change fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  II. The processing for the transaction will stop. Participant may be contacted by an MSSL representative.

3. The final bill is generated and dispatched to the NMPR or MPR, refer to the Section 3.7.1 Dispatch Invoice Data.

Cancellation

Cancellation of a billing option change request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

3.5 CONSUMER HISTORY REQUEST

1. A system participant (NMPR, MPR, DMP or EMC) may request historical information for a non-residential consumer by submitting a Consumer History Request to the EBT.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, intended recipient, delivery method, period from and period to).
- The transaction ID is unique.
- The message type is a valid message type.
- The delivery method is (E)lectronic.
- Where the sending party type is SE, the intended recipient is the same as the sending party ID (where the sending party type is CE, another retailer or the EMC can be nominated as the intended recipient).
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- Where the sending party type is CE, the sending party ID should be the same as the transaction's consumer account number.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or a DMP.
- The intended recipient is a valid system participant.
- The consumer's account number exists.
- The consumer's account status is not "pending" which indicates that the account has never been active.

- Where the sending party type is SE, the sending party's ID number must be the same as the current supplier's ID number.
- Consumer History Request will not be applicable for residential consumers. If consumer is found to be residential, validation will be failed.
- The sending party of the message is "active".

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The consumer history fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  II. The processing for the transaction will stop. The Participant may be contacted by an MSSL representative.

3. The usage data will be generated and sent to the requesting participant. This will be sent in a separate usage file from that which is usually sent by EBT.
4. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the history data is sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a consumer history request that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the request (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active"

  (a) The transaction acknowledgment fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

  (b) The transaction acknowledgment is not received within the necessary timeframe or fails validation.

  I. The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

- Period From field is provided in the date format
- Period To field is provided in the date format

3.6 CANCEL TRANSACTION

1. A system participant (NMPR, MPR, DMP or EMC) who wishes to cancel a Consumer Transfer Request, Non Market to Market - Consumer Transfer Request, an Account Closure Request, a Voluntary Temporary Disconnection Request, Billing Change Option Request or a Meter Option Change must submit an electronic termination notification to the EBT. Cancellations can be performed electronically by the initiating party of a transaction or by the DMP when they are involved in a transfer, account closure or voluntary temporary disconnection (even though they may not have initiated the transaction).

2. The EBT system will validate the following:

   - Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number and consumer name).
   - The message type is a valid message type.
   - The action date for the consumer transfer, account closure, voluntary temporary disconnection or billing option change that is to be terminated is after 00:00:00 on the third business day after the current system date.
   - The transaction ID on the termination notice matches a transaction ID of a transfer, account closure, voluntary temporary disconnection or billing option change request.
   - The consumer account number on the termination notice matches the consumer account number of the Consumer Transfer Request, Non Market to Market - Consumer Transfer Request, Account Closure Request, Voluntary Temporary Disconnection Request, Billing Option Change Request or Meter Option Change Request.
   - The sending party type is either SE – indicating that a (S)upplier submitted the request (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
   - For termination of a billing option change, the sending party of the termination must be the same as the sending party of the original request as identified by the parent transaction ID.
   - For termination of a transfer, account closure or voluntary temporary disconnection, if the sending party type is SE then the sending party of the termination must be the same as the sending party of the original request.
   - For termination of a transfer, account closure or voluntary temporary disconnection, if the sending party type is CE then the sending party ID must be the same as the consumer account number on the termination notice.
   - The transaction to be terminated cannot be an involuntary temporary disconnection or an MSSL initiated account closure.
   - Sending party is a valid system participant and must be an NMPR, MPR, EMC or a DMP.
   - Consumer account number exists.
   - For Non Market to Market - Consumer transfer request, the account number provided should be the EBS account number.
   - The transaction to be terminated is in a state that permits termination, i.e. it cannot be in a state indicating that a termination notice has already been received.

- The sending party of the message is "active".

Successful validation will result in a transaction acknowledgment being dispatched to the system participant who generated the termination.

(a) The termination notice fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

II. The processing for the original transaction will continue.

3. EBT then notifies the required parties of the termination. The following table identifies the parties to be notified for the automated cancellation of a Consumer Transfer Request, Account Closure Request or Temporary Disconnection Voluntary. The first column in each table identifies the transaction that is to be cancelled. The second column identifies the requesting party of the original request who will have sent in the termination notice. The third column identifies some other party whom, depending on how far the transaction had progressed, would have received a change pending notification or would have been notified about the original request. Thus if, and only if, the request has had such notifications made then an automated termination notification or a manual notification must be invoked. An asterix (*) by the Other Party(s) indicates that this party only gets a transaction terminated notification if the transaction past a certain state. For the current supplier to get a transaction terminated notification, the state must be equal to or after "Pending acknowledgment for change pending from current supplier". Other Party(s) who do not have an asterix will always receive a transaction terminated notification.

Table 3.4: Parties requiring a termination notification

(Note that the subscripts of $_C$ and $_N$ indicate whether the participant is the current supplier or the new supplier)

Transaction to be Cancelled		
	Terminating Party	**Other Party(s)**
CONSUMER TRANSFER REQUEST		
$NMPR_C$ to $NMPR_N$	$NMPR_N$	*$NMPR_C$
$NMPR_C$ to MPR_N	MPR_N	*$NMPR_C$
$NMPR_C$ to DMP	EMC_N	*$NMPR_C$
MPR_C to $NMPR_N$	$NMPR_N$	*MPR_C,
MPR_C to MPR_N	MPR_N	*MPR_C
MPR_C to DMP	EMC_N	*MPR_C
DMP to MSSL	DMP	*EMC_C
DMP to $NMPR_N$	$NMPR_N$	*EMC_C
DMP to $NMPR_N$	DMP	*EMC_C & $NMPR_N$
DMP to MPR_N	MPR_N	*EMC_C
DMP to MPR_N	DMP	*EMC_C & MPR_N
EBS* to MPR_N	MPR_N	End consumer
EBS* to $NMPR_N$	$NMPR_N$	End consumer
MPR_N to EBS*	MPR_N	End consumer
$NMPR_N$ to EBS*	$NMPR_N$	End consumer

Transaction to be Cancelled	Terminating Party	Other Party(s)
ACCOUNT CLOSURE REQUEST		
Account Closure from DMP (EMC Initiated)	DMP	EMC_C
Account Closure from DMP (Consumer Initiated)	DMP	*EMC_C
VOLUNTARY TEMPORARY DISCONNECTION REQUEST		
Voluntary Temporary Disconnection from DMP (EMC Initiated)	DMP	EMC_C
Voluntary Temporary Disconnection from DMP (Consumer Initiated)	DMP	*EMC_C

Transaction to be Cancelled	Terminating Party	Other Party(s)
CONSUMER TRANSFER REQUEST initiated by Consumer or MSSL		
MSSL to $NMPR_N$	End consumer	$NMPR_N$
MSSL to $NMPR_N$	MSSL	$NMPR_N$
MSSL to MPR_N	End consumer	MPR_N
MSSL to MPR_N	MSSL	MPR_N
MSSL to DMP	End consumer	EMC_N
MSSL to DMP	MSSL	EMC_N
$NMPR_C$ to MSSL (Retailer Initiated)	End consumer	$NMPR_C$
$NMPR_C$ to MSSL (Retailer Initiated)	MSSL	$NMPR_C$
$NMPR_C$ to MSSL (Consumer Initiated)	End consumer	*$NMPR_C$
$NMPR_C$ to MSSL (Consumer Initiated)	MSSL	*$NMPR_C$
$NMPR_C$ to $NMPR_N$	End consumer	*$NMPR_C$ & $NMPR_N$
$NMPR_C$ to $NMPR_N$	MSSL	*$NMPR_C$ & $NMPR_N$
$NMPR_C$ to MPR_N	End consumer	*$NMPR_C$ & MPR_N
$NMPR_C$ to MPR_N	MSSL	*$NMPR_C$ & MPR_N
$NMPR_C$ to DMP	End consumer	*$NMPR_C$ & EMC_N
$NMPR_C$ to DMP	MSSL	*$NMPR_C$ & EMC_N
MPR_C to MSSL (Retailer Initiated)	End consumer	MPR_C
MPR_C to MSSL (Retailer Initiated)	MSSL	MPR_C
MPR_C to MSSL (Consumer Initiated)	End consumer	*MPR_C
MPR_C to MSSL (Consumer Initiated)	MSSL	*MPR_C
MPR_C to $NMPR_N$	End consumer	*MPR_C & $NMPR_N$
MPR_C to $NMPR_N$	MSSL	*MPR_C & $NMPR_N$
MPR_C to MPR_N	End consumer	*MPR_C & MPR_N
MPR_C to MPR_N	MSSL	*MPR_C & MPR_N
MPR_C to DMP	End consumer	*MPR_C & EMC_N
MPR_C to DMP	MSSL	*MPR_C & EMC_N
DMP to MSSL	MSSL	EMC_C
DMP to $NMPR_N$	MSSL	*EMC_C & $NMPR_N$
DMP to MPR_N	MSSL	*EMC_C & MPR_N
EBS* to MPR_N	End consumer	MPR_N
EBS* to MPR_N	MSSL	MPR_N

Transaction to be Cancelled		
	Terminating Party	**Other Party(s)**
EBS* to $NMPR_N$	End consumer	$NMPR_N$
EBS* to $NMPR_N$	MSSL	$NMPR_N$
MPR_N to EBS*	End consumer	MPR_N
MPR_N to EBS*	MSSL	MPR_N
$NMPR_N$ to EBS*	End consumer	$NMPR_N$
$NMPR_N$ to EBS*	MSSL	$NMPR_N$
ACCOUNT CLOSURE REQUEST Initiated by Consumer or MSSL		
Account Closure from $NMPR_C$	End consumer	$NMPR_C$
Account Closure from $NMPR_C$	MSSL	$NMPR_C$
Account Closure from MPR_C	End consumer	MPR_C
Account Closure from MPR_C	MSSL	MPR_C
Account Closure from DMP (EMC Initiated)	MSSL	EMC_C
Account Closure from NMPR (MSSL Initiated)	MSSL	*$NMPR_C$
Account Closure from MPR (MSSL Initiated)	MSSL	*MPR_C
Account Closure from DMP (MSSL Initiated)	MSSL	*EMC_C
Account Closure from $NMPR_C$ (Consumer Initiated)	End consumer	*$NMPR_C$
Account Closure from $NMPR_C$ (Consumer Initiated)	MSSL	*$NMPR_C$
Account Closure from MPR_C (Consumer Initiated)	End consumer	*MPR_C
Account Closure from MPR_C (Consumer Initiated)	MSSL	*MPR_C
Account Closure from DMP (Consumer Initiated)	MSSL	*EMC_C
INVOLUNTARY TEMPORARY DISCONNECTION REQUEST		
Involuntary Temporary Disconnection from NMPR (MSSL Initiated)	MSSL	*$NMPR_C$
Involuntary Temporary Disconnection from MPR (MSSL Initiated)	MSSL	*MPR_C
Involuntary Temporary Disconnection from DMP (MSSL Initiated)	MSSL	*EMC_C
VOLUNTARY TEMPORARY DISCONNECTION REQUEST initiated by consumer or MSSL		
Voluntary Temporary Disconnection from $NMPR_C$	End consumer	$NMPR_C$
Voluntary Temporary Disconnection from $NMPR_C$	MSSL	$NMPR_C$
Voluntary Temporary Disconnection from MPR_C	End consumer	MPR_C
Voluntary Temporary Disconnection from MPR_C	MSSL	MPR_C
Voluntary Temporary Disconnection from DMP (EMC Initiated)	MSSL	EMC_C

Transaction to be Cancelled		
	Terminating Party	**Other Party(s)**
Voluntary Temporary Disconnection from $NMPR_C$ (Consumer Initiated)	End consumer	*$NMPR_C$
Voluntary Temporary Disconnection from $NMPR_C$ (Consumer Initiated)	MSSL	*MPR_C
Voluntary Temporary Disconnection from MPR_C (Consumer Initiated)	End consumer	*MPR_C
Voluntary Temporary Disconnection from MPR_C (Consumer Initiated)	MSSL	*MPR_C
Voluntary Temporary Disconnection from DMP (Consumer Initiated)	MSSL	*EMC_C

* EBS refers to regulated tariff environment of SPS

4. For some terminations, EBT will create a transaction terminated notification and dispatch it electronically to those system participants who are aware of the transaction. This will either be the current supplier, the new supplier, or both. Refer to Table 3.4: Parties requiring a termination notification for details of when transaction terminated notifications are required.

5. EBT receives termination transaction acknowledgments from those participants who were sent transaction terminated notifications by 23:59:59 on the next business day after the transaction terminated notification was sent. EBT will validate that:

   - Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
   - The transaction ID identified by the transaction acknowledgment matches a transaction that is waiting for an acknowledgment.
   - The message type is a valid message type.
   - The sending party type is either SE – indicating that a (S)upplier submitted the request (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
   - The sending party is the same as the receiving party of the message to which this message is acknowledging.
   - The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
   - The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
   - The sending party of the message is “active”.

   (a) The transaction acknowledgment fails validation.

   I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

   II. The transaction will continue when the participant submits a valid transaction acknowledgment.

   (b) The transaction acknowledgment is not received within the necessary timeframe.

   I. The termination will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

3.7 DISPATCH DATA FILES

3.7.1 Dispatch Invoice Data

1. This transaction concerns the dispatch of periodic invoice data to system participants.
2. EBT dispatches the file to the receiving party. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the invoice data file was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches an invoice data transaction that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party is a valid system participant and must be an NMPR, MPR, EMC or DMP.
- The sending party of the message is “active”.

    (a) The transaction acknowledgment fails validation.

    I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

    (b) The transaction acknowledgment is not received within the necessary timeframe or fails validation for any reason.

    I. The transaction will continue when a valid transaction acknowledgment is received. The Participant may be contacted by an MSSL representative.

3.7.2 Dispatch Usage Data

1. This transaction concerns the dispatch of periodic usage data to system participants.
2. EBT dispatches the file to the receiving party.
3. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the usage data file was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a usage data transaction that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (DMP) submitted the message (E)lectronically.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.

- The sending party is a valid system participant.
- The sending party of the message is "active".

  (a) The transaction acknowledgment fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

  (b) The transaction acknowledgment is not received within the necessary timeframe or fails validation for any reason.

  I. *The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.*

3.7.3 Pricing Data

1. This transaction concerns the acceptance and dispatch of pricing data sent by the EMC.
2. EBT captures and validates the details. Validation will check that:
   - Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, content format, compressed, data and sending party type).
   - The transaction ID is unique.
   - The message type is a valid message type.
   - The sending party type is SE – indicating that the message was sent (E)lectronically by a (S)upplier.
   - The sending party is a valid system participant and the sending party ID identifies the EMC.
   - The sending party of the message is "active".

   Successful validation will result in a transaction acknowledgment dispatched to the EMC.

   (a) The pricing data fails validation for reasons other than the sending party ID is not provided or is not valid.

   I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

   (b) The pricing data fails validation for any reason.

   II. The processing for the transaction will stop. Participant may be contacted by an MSSL representative.

3.7.4 Vesting Contract Data

1. This transaction concerns the acceptance and dispatch of Contract data sent by the VCC system to the EMC.

   a. Dispatch of this transaction will result in an acknowledgement from the EMC, which will also be handled by EBT.
2. EBT Audits the dispatch and associated acknowledgement of this data to/from the EMC.

3.8 SPECIAL READ REQUEST

1. A system participant (NMPR, MPR) may request a special read request by submitting a Special Read Request to the EBT.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, Post Code)
- The transaction ID is unique.
- The message type is a valid message type.
- The delivery method is (E)lectronic.
- Where the sending party type is SE, the intended recipient is the same as the sending party ID
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is a valid system participant and must be an NMPR, MPR.
- The intended recipient is a valid system participant.
- The consumer's account number exists.
- The consumer's account status is not "pending" which indicates that the account has never been active.
- Where the sending party type is SE, the sending party's ID number must be the same as the current supplier's ID number.
- The transaction postcode matches the consumer's premises postcode.
- Special Read Request will not be applicable for Non-residential consumers and residential consumers on AMI meter option.
- The sending party of the message is "active".

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (b) The Special Read Request fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  II. The processing for the transaction will stop. The Participant may be contacted by an MSSL representative.

3. The reading data will be generated and sent to the requesting participant. This will be sent in a separate special read data file from that which is usually sent by EBT.

4. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the history data is sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a consumer history request that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the request (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an NMPR or MPR

- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active"

  (c) The transaction acknowledgment fails validation.

  II. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

  (d) The transaction acknowledgment is not received within the necessary timeframe or fails validation.

  II. The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

3.9 METER OPTION CHANGE REQUEST

1. A Meter Option Change Request concerns changing a residential consumer's meter option from AMI to SRLP or vice versa. Only an NMPR or MPR can submit a meter option change request.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, User ID, Sending party type, consumer account number, consumer name, Post Code, Meter Option).
- The transaction ID is unique.
- The message type is a valid message type.
- The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The transaction postcode matches the consumer's premises postcode.
- Acceptance of this request does not violated the pending transaction rules as described below:
  - When a meter option change request is received, EBT will check if there are pending transactions for the same consumer account number. Under the following circumstances the meter option change request will fail validation:
  - When there is a pending consumer transfer request
  - When there is a pending meter option change request
  - When there is a pending account closure request
  - When there is a pending Temporary Disconnection request
  - When there is a pending Consumer Transfer Market to Non-Market request
- The sending party is a valid system participant and must be an NMPR or MPR.
- The Meter Option specified is a valid meter Option – either AMI or SRLP.
- The new Meter Option is not the same as the current Meter Option.
- The consumer's account number exists.
- The sending party must be the same as the current supplier.
- The consumer's account status is "active" and not "inactive" or "pending" which indicate that the account is closed or not yet open.

- Meter Option Change will only be applicable for residential consumers. If consumer is found to be Non-residential, validation will be failed.
- The sending party of the message is "active".

  Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (b) The Meter option change fails validation.

  III. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  IV. The processing for the transaction will stop. Participant may be contacted by an MSSL representative.

3. The final bill is generated and dispatched to the NMPR or MPR, refer to the Section 3.7.1 Dispatch Invoice Data.

Cancellation

Cancellation of a meter option change request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

3.10 MASS CONSUMER TRANSFER REQUEST

1. The EBT system handles mass consumer transfer requests for accounts that belong to the same business partner.
2. The system captures and validates the request. Validation will check that:

- Mandatory attributes have been provided for header (header transaction ID and count) and for individual nodes (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number, consumer name, consumer's premises postcode, and action date) for each individual message node.

3. All other processes will be as per the individual consumer transfer request. Please refer section 3.1 Consumer Transfer Request for process details.

4. SYSTEM PARTICIPANT INTERFACE DEFINITIONS

This section defines the structures for all messages that are communicated between EBT and the Market Participants for each Electronic Business Transaction:

Each message consists of two sections: a SonicMQ header, which is not defined as XML and the body containing the content of the message, which is defined as XML.

The header for all messages as defined below is constant for all messages:

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	Message types as defined by the MSSL systems	String

4.1 GENERATING TRANSACTION IDS

Transaction ID's uniquely identify electronic business transactions (EBTs) and are present in all messages communicated between Market Participants and the MSSL. Market Participants can initiate EBTs. In order to perform an EBT the requesting party generates a Transaction ID and sends it as part of the requesting message. All messaging can then be referenced to its parent EBT by its Transaction ID.

To guarantee that Transaction ID's generated by Market Participants are unique, a compound identifier has been adopted. This is defined as a seventeen character string, shown below.

[930XXXXXXX]:[YYYYYY]

eg 9301234561:000123
9301234561:000124

The first part of the identifier is the ten digit Market Participant account number. It is static for all EBTs initiated from that Market Participant and guarantees uniqueness of this ID across market participants.

The second part of the identifier (following a colon separator) is a padded six character Alpha Numeric number iterating from 000001 – ZZZZZZ. This convention guarantees uniqueness across EBTs initiated from a Market Participant.

4.2 SPECIAL CHARACTER HANDLING FOR XML

Certain characters have special meaning in XML. Message that contains these characters will result in XML error if it is not replace with the entity reference shown below.

Entity Reference	Special Character	
<	<	less than
>	>	greater than
&	&	ampersand

'	'	Apostrophe
"	"	quotation mark

Eg:

Message with & in the ConsumerName element will generate an XML error:

```
<ConsumerName>A&A Pte Ltd<ConsumerName>
```

To avoid the error, replace the character & with an entity reference:

```
<ConsumerName>A&amp;A Pte Ltd<ConsumerName>
```

4.3 CONSUMER TRANSFER REQUEST

4.3.1 Consumer Transfer Request interface definition

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Consumer Transfer**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE ConsumerTransfer [
     <!ELEMENT ConsumerTransfer (TransactionId, AccountNumber,
ConsumerName, Postcode, NewSupplierId, ActionDate, BillingOption,
UserId, SendingPartyType, SelfReadOption)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT NewSupplierId (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT BillingOption (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT SelfReadOption (#PCDATA)>

]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Consumer Transfer Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2
New Supplier ID	A system participant who will be the new supplier of a consumer on and after the transfer date.	The Supplier Account No. (provided by MSSL)	10
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The post code at which the premises is located.	A/N	6

Billing Option	An identifier of the method under which the consumer will be billed. This will be either RCB –Retailer Consolidated Billing or SB- Split Billing	{RCB,SB}	2/3
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. For transfer between Retailers, if consumer has opted for SRLP Metering Option then the transfer must be after the 5th business day. For transfer between Retailers, if consumer has opted for AMI Metering Option then the transfer must be at least next business day.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100
Self Read Option	This field indicates whether customer has chosen Self Read Option	A/N ('X' or Blank)	1

4.3.2 Non- Market to Market – Consumer Transfer Request interface definition

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Non Market to Market Consumer Transfer**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE NcctoCCConsumerTransfer [
     <!ELEMENT NcctoCCConsumerTransfer (TransactionId,
EBSAccountNumber, ConsumerName, Postcode, NewSupplierId,
ActionDate, BillingOption, UserId, SendingPartyType, MeterOption,
SelfReadOption)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT EBSAccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT NewSupplierId (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT BillingOption (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT MeterOption (#PCDATA)>
      <!ELEMENT SelfReadOption (#PCDATA)>

]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Consumer Transfer Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE, }	2
New Supplier ID	A system participant who will be the new supplier of a consumer on and after the transfer date.	The Supplier Account No. (provided by MSSL)	10
Consumer Account Number	The EBS account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The post code at which the premises is located.	A/N	6

Billing Option	An identifier of the method under which the consumer will be billed. This will be either RCB –Retailer Consolidated Billing or SB- Split Billing	{RCB,SB}	2/3
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. For consumers with SRLP meter option, the transfer date must be after the 5th business day. For consumers with AMI meter option, the transfer date must be after 30 calendar days.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100
Meter Option	An identifier of the Meter Option that the consumer has opted for. This will be either AMI – billed on actual interval readings or SRLP – billed on intervals generated based on sample load shape	{AMI,SRLP}	¾
Self Read Option	This field indicates whether customer has chosen Self Read Option	A/N	1

4.3.3 Change Complete Notification interface definition

The following table defines the contents of a Change Complete Notification that EBT sends to the initiator of a transaction such as a Consumer Transfer Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Change Complete**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE ChangeComplete [
     <!ELEMENT ChangeComplete (TransactionId)>
     <!ELEMENT TransactionId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transaction that has been completed	***existing*	17

4.3.4 Change Pending Notification interface definition

The following table defines the contents of a Change Pending Notification that is sent by the EBT to a system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Change Pending**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE ChangePending [
     <!ELEMENT ChangePending (TransactionId, AccountNumber,
NewSupplierId, ActionType, ActionDate)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT NewSupplierId (#PCDATA)>
      <!ELEMENT ActionType (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>

]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the request which the change pending has been generated for.	*Transaction ID existing for request*	17

Action Type	The transaction that will occur on the specified action date and time. The value will indicate whether it is a transfer, account closure, involuntary temporary disconnection or voluntary temporary disconnection. The value for this field is derived from the transaction for which this notice has been generated.	{Consumer Transfer, Account Closure, Voluntary Temporary Disconnection, Involuntary Temporary Disconnection}	Min 15 Max 34
Consumer Account Number	The MSSL account number for the consumer. The value for this field is derived from the Consumer Account Number of either the Account Closure, Temporary Disconnection or Consumer Transfer Request for which this notice has been generated.	Consumer Account Number (provided by Consumer)	10
Action Date	The date and time at which the action is to take effect. For transfers the time portion will always be 00:00:01 regardless of hh:mm:ss submitted. The value for this field is derived from the Action Date of the Account closure, Temporary Disconnection Request or from the Action Date of the Consumer Transfer Request for which this notice has been generated. Where the change pending notification has been generated as a consequence of the receipt of a new account closure date, then this new date will be contained within this notification.	Date (yyyymmddhhmmss)	14
New Supplier ID	A system participant who will be the new supplier of a consumer on and after the transfer date. * Only populated for transfers	The Supplier Account No. (provided by MSSL)	10

4.3.5 Transaction Acknowledgment interface definition

The following table defines the contents of a Transaction Acknowledgment sent by a system participant in response to a message that the EBT has sent to the system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Transaction Acknowledgement**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE TransactionAcknowledgement [
     <!ELEMENT TransactionAcknowledgement (TransactionId,
UserId,SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
     <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transaction that is being acknowledged.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2

4.3.6 Validation Acknowledgment interface definition

The following table defines the contents of a Validation Acknowledgment sent to a system participant in response to a transaction that the system participant has sent to the EBT.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Validation Acknowledgement**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE ValidationAcknowledgement [
     <!ELEMENT ValidationAcknowledgement (TransactionId, Result,
ValidationErrors)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT Result (#PCDATA)>
      <!ELEMENT ValidationErrors (ErrorCode, ErrorAttr,
ErrorValue)>
      <!ELEMENT ErrorCode (#PCDATA)>
      <!ELEMENT ErrorAttribute (#PCDATA)>
      <!ELEMENT ErrorValue (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the original transaction for which this acknowledgement is referring to	*Existing Transaction ID*	17
Result	A value to indicate whether or not the message passed validation. Contains values of either Pass or Fail.	{pass, fail}	4
Validation Errors (zero or more to a message)			
Field Name	**Description**	**Field Value**	**Str Len**
Error Code	A code that identifies the type of error encountered.	{FAILED BUSINESS VALIDATION, FAILED MANDATORY VALIDATION, FAILED MULTIPLE TRANSACTION	N

		VALIDATION, UNRECOGNISED VALUE, ILL-FORMED MESSAGE}	
Error Attribute	The name of the attribute with which the error was encountered.	A/N	Unspecified
Error Value	The value that was supplied for the attribute that failed	A/N	Unspecified

4.3.7 New Action Date Required Notification interface definition

The following table defines the contents of a New Action Date Required Notification that is sent by the EBT to the appropriate system participant.

Message Header			
Field Name	**Description**	**Data Type**	
X-JMS-TYPE	**New Date Required**	String	
Message Body (XML DTD)			

```
<?xml version="1.0" >
<!DOCTYPE NewDataRequired [
     <!ELEMENT NewDataRequired (TransactionId)>
     <!ELEMENT TransactionId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transfer that requires a new action date.	*Existing Transaction ID*	17

4.3.8 New Action Date Notice interface definition

The following table identifies the fields required when a system participant submits a New Action Date Notice in response to a New Action Date Required Notification.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**New Action Date Notice**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE NewDate [
     <!ELEMENT NewDate (TransactionId, ActionDate, UserId,
SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transfer that required the new action date.	*Existing Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. At least on the next business day after the current system date For early remediation of AMI meters in case of Non market to market transfers, new action date is at least the day after the next business day from the current system date and new transfer date must not be after original action date of transfer	Date (yyyymmddhhmmss)	14

User ID	This field identifies the user who sent the message	A/N	100

4.4 ACCOUNT CLOSURE REQUEST

4.4.1 Account Closure Request Interface definition

The following table identifies the fields required when a system participant submits a Account Closure Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Account Closure**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE AccountClosure [
     <!ELEMENT AccountClosure (TransactionId, AccountNumber,
ConsumerName, Postcode, ActionDate, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Account Closure Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2

Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The postcode at which the premises is located.	A/N	6
Action Date	The date and time, to the nearest half-hour, on which the disconnection is to take effect.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100

4.4.2 Change Complete Notification interface definition

See 4.3.3

4.4.3 Change Pending Notification interface definition

See 4.3.4

4.4.4 Transaction Acknowledgment interface definition

See 4.3.5

4.4.5 Validation Acknowledgment interface definition

See 4.3.6

4.4.6 New Action Date Required Notification interface definition

See 4.3.7

4.4.7 New Action Date Notice interface definition

See 4.3.8

4.4.8 Termination Notice interface definition

The following table identifies the fields required when a system participant submits a Termination Notice.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Termination Notification**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TerminationNotification [
     <!ELEMENT TerminationNotification (TransactionId,
AccountNumber, ConsumerName, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The original sending party's transaction ID for the transaction that is being terminated	*Existing Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2
Consumer Account Number	The MSSL account number for the consumer. For Non Market to Market - Consumer transfer request, the account number provided should be the EBS account number.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100

User ID	This field identifies the user who sent the message	A/N	100

4.5 VOLUNTARY TEMPORARY DISCONNECTION REQUEST

4.5.1 Voluntary Temporary Disconnection Request Interface definition

The following table identifies the fields required when a system participant submits a Voluntary Temporary Disconnection Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Temporary Disconnection Voluntary**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE  TemporaryDisconnectionVoluntary[
     <!ELEMENT TemporaryDisconnectionVoluntary (TransactionId,
AccountNumber, ConsumerName, Postcode, ActionDate, UserId,
SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Voluntary Temporary Disconnection Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE,CE}	2

	For a DMP initiated request the value is CE indicating Consumer Electronic		
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Premises Post Code	The postcode at which the premises is located.	A/N	6
Action Date	The date and time, to the nearest half-hour, on which the Voluntary Temporary Disconnection is to take effect.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100

4.5.2 Change Pending Notification interface definition

See 4.3.4

4.5.3 Transaction Acknowledgment interface definition

See 4.3.5

4.5.4 Validation Acknowledgment interface definition

See 4.3.6

4.5.5 Termination Notice interface definition

See 4.4.6

4.6 BILLING OPTION CHANGE REQUEST

4.6.1 Billing Option Change Request interface definition

The following table identifies the fields required when a system participant submits a Billing Option Change Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Billing Option Change**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE BillingOptionChange [
     <!ELEMENT BillingOptionChange (TransactionId, AccountNumber,
ActionDate, BillingOption, ConsumerName, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT BillingOption (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Billing Option Change Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Billing Option	An identifier of the method under which the consumer will be billed. This will be either RCB –Retailer Consolidated Billing or SB- Split Billing	{RCB,SB}	2/3

User ID	This field identifies the user who sent the message	A/N	100
Action Date	The date and time when the action will occur. For a change of billing option the must be at least the day after the next business day from the current system date. The change will occur on 00:00:01 on the date specified. Regardless of hh:mm:ss submitted.	Date (yyyymmddhhmmss)	14

4.6.2 Validation Acknowledgment interface definition

See 4.3.6

4.6.3 Termination Notice interface definition

See 4.4.6

4.7 CONSUMER HISTORY REQUEST

4.7.1 Consumer History Request interface definition

The following table identifies the fields required when a system participant submits a Consumer History Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Consumer History**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE ConsumerHistory [
     <!ELEMENT ConsumerHistory (TransactionId, AccountNumber,
ConsumerName, DeliveryMethod, IntendedRecipient, UserId,
SendingPartyType, PeriodFrom, PeriodTo)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT DeliveryMethod (#PCDATA)>
      <!ELEMENT IntendedRecipient (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT PeriodFrom (#PCDATA)>
      <!ELEMENT PeriodTo (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Consumer History Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Delivery Method	The usage data delivery method. This must be (E)lectronic.	{E}	1
Intended Recipient	The recipient of the consumer history data. Where the sending party type is SE, this must be the same as the sending party ID.	{Supplier Account Number}	10

User ID	This field identifies the user who sent the message	A/N	100
Period From	This field identifies From date of the Consumer History Request	Date (yyyymmdd)	8
Period To	This field identifies To date of the Consumer History Request	Date (yyyymmdd)	8

4.7.2 Transaction Acknowledgment interface definition

See 4.3.5

4.7.3 Validation Acknowledgment interface definition

See 4.3.6

4.8 SPECIAL READ REQUEST

4.8.1 Special Read Request interface definition

The following table identifies the fields required when a system participant submits a Special Request Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Special Read**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE SpecialRead [
     <!ELEMENT SpecialRead (TransactionId, AccountNumber,
ConsumerName, UserId, SendingPartyType, Postcode)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len

Transaction ID	The sending party's transaction ID for the Consumer History Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
User ID	This field identifies the user who sent the message	A/N	100
Post Code	The post code at which the premises is located.	A/N	6

4.8.2 Validation Acknowledgment interface definition

See 4.3.6

4.8.3 Special Read Details Interface definition

The following table identifies the fields in the special read details as a response to the special read request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Reading Data**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE ReadingData [
     <!ELEMENT ReadingData (TransactionId, AccountNumber,
MeterId, ReadingDate, RegisterId, MeterReading, Unitofmeasure,
ReadingRemarks, ReasonofFailure)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT MeterId (#PCDATA)>
      <!ELEMENT ReadingDate (#PCDATA)>
      <!ELEMENT RegisterId (#PCDATA)>
      <!ELEMENT MeterReading (#PCDATA)>
      <!ELEMENT Unitofmeasure (#PCDATA)>
      <!ELEMENT ReadingRemarks (#PCDATA)>
      <!ELEMENT ReasonofFailure (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The Sending Party's Transaction ID for the Consumer History Request.	*See 4.1 Generating Transaction ID*	17
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Meter Id	Meter Serial Number	A/N	50
Reading Date	Meter Reading Date and Time	Date	14
Register ID	Reading Register Id	A/N	2
Meter Reading	Register reading	N	11
Unit Of Measure	Unit Of Measure	CHAR	5
Reading Remarks	Meter reading remarks	Success/Failure	100
Reason of Failure	Reason for Fail Reading	Reason for Fail Reading	100

4.9 METER OPTION CHANGE

Meter Option Change interface definition. The following table identifies the fields required when a system participant submits a Meter Option Change Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Meter Option Change**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE MeterOptionChange [
     <!ELEMENT MeterOptionChange (TransactionId, AccountNumber,
ConsumerName, UserId, SendingPartyType, Postcode, MeterOption)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT MeterOption (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Consumer History Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
User ID	This field identifies the user who sent the message	A/N	100
Post Code	The post code at which the premises is located.	A/N	6
Meter Option	An identifier of the Meter Option that the consumer has opted for. This will be	{AMI,SRLP}	4

	either AMI – billed on actual interval readings or SRLP – billed on intervals generated based on sample load shape		

4.9.1 Validation Acknowledgment interface definition

See 4.3.6

4.9.2 Change Complete Notification interface definition

See 4.3.3

4.9.3 Termination Notice interface definition

See 4.4.6

4.10 MASS CUSTOMER TRANSFER REQUEST”

4.10.1 Mass Consumer Transfer Request interface definition

The following table identifies the fields required when a system participant submits a Mass Customer Transfer Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Mass Consumer Transfer**	String

Message Body (XML DTD)

```
<?xml version=”1.0” >
<!DOCTYPE MassConsumerTransfer [
<!ELEMENT MassConsumerTransfer ( Header, Data) >
      <!ELEMENT Header (HeaderTransactionId, RecordCount )
>     <!ELEMENT HeaderTransactionId ( #PCDATA ) >
<!ELEMENT RecordCount ( #PCDATA ) >
      <!ELEMENT Data ( ConsumerTransfer*) >
          <!ELEMENT ConsumerTransfer ( TransactionId,
AccountNumber, ConsumerName, Postcode, NewSupplierId, ActionDate,
BillingOption, UserId, SendingPartyType, SelfReadOption ) >


              <!ELEMENT TransactionId ( #PCDATA ) >
              <!ELEMENT AccountNumber ( #PCDATA ) >
              <!ELEMENT ConsumerName ( #PCDATA ) >
              <!ELEMENT Postcode ( #PCDATA ) >
              <!ELEMENT NewSupplierId ( #PCDATA ) >
               <!ELEMENT ActionDate ( #PCDATA ) >
```

```
                <!ELEMENT BillingOption ( #PCDATA ) >
                <!ELEMENT UserId ( #PCDATA ) >
                <!ELEMENT SendingPartyType ( #PCDATA ) >
                <!ELEMENT SelfReadOption ( #PCDATA ) >
      ]>
```

Field Name	Description	Field Value	Str Len
Header Transaction ID	The sending party's Transaction ID for the Mass CTR transaction	*See 4.1 Generating Transaction ID*	17
Record Count	Count of the number of individual accounts (number of individual data nodes)	*N*	3
Transaction ID	The sending party's transaction ID for the Consumer Transfer Request.	*See 4.1 Generating Transaction ID*	17
Sending Party Type	For an NMPR/MPR initiated request the value is SE indicating Supplier Electronic	{SE }	2
New Supplier ID	A system participant who will be the new supplier of a consumer on and after the transfer date.	The Supplier Account No. (provided by MSSL)	10
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The post code at which the premises is located.	A/N	6
Billing Option	An identifier of the method under which the consumer will be billed. This will be either RCB –Retailer Consolidated Billing or SB- Split Billing	{RCB,SB}	3/2
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. For transfer between Retailers, if consumer has opted for SRLP Metering Option then the transfer must be after the 5th business day.	Date (yyyymmddhhmmss)	14

	For transfer between Retailers, if consumer has opted for AMI Metering Option then the transfer must be at least next business day.		
User ID	This field identifies the user who sent the message	A/N	100
Self Read Option	This field indicates whether customer has chosen Self Read Option	A/N ('X' or Blank)	1

4.11 CANCEL TRANSACTION

4.11.1 Termination Notice interface definition

See 4.4.6

4.11.2 Transaction Terminated Notification interface definition

The following table defines the contents of a Transaction Terminated Notification which is sent to system participants to inform them that a request has been terminated.

Message Header			
Field Name	**Description**	**Data Type**	
X-JMS-TYPE	**Transaction Terminated Notification**	String	
Message Body (XML DTD)			

```
<?xml version="1.0" >
<!DOCTYPE TransactionTerminatedNotification [
     <!ELEMENT TransactionTerminatedNotification
(TransactionId,UserId)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The original sending party's transaction ID for the request that has been terminated.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100

4.11.3 Termination Transaction Acknowledgment interface definition

The following table defines the contents of a Termination Transaction Acknowledgment sent by a system participant in response to a termination message that the EBT has sent to the system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Termination Transaction Acknowledgement**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TerminationTransactionAcknowledgement [
     <!ELEMENT TerminationTransactionAcknowledgement
(TransactionId, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
     <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The Transaction ID of the transaction sent to the system participant to which this termination transaction acknowledgment is responding.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic For a DMP initiated request the value is CE indicating Consumer Electronic	{SE,CE}	2

4.11.4 Validation Acknowledgment interface definition

See 4.2.5

4.12 FILES RECEIVED BY PARTICIPANTS

4.12.1 Invoice Data / Usage Data / MDA Adjusted Usage Data

The following table defines the contents of a Consumer History Usage Data, an Invoice Data, a Usage Data, a SRLP Usage Data, a MDA Adjusted Usage Data, a MDA Adjusted SRLP Usage Data message that is sent by EBT to a system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data / Usage Data / SRLP Usage Data / Adjusted Usage Data/ Adjusted SRLP Usage Data**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE DispatchData [
     <!ELEMENT DispatchData (TransactionId, ContentFormat,
Compressed, Data)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ContentFormat (#PCDATA)>
      <!ELEMENT Compressed (#PCDATA)>
      <!ELEMENT Data ANY>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The unique ID for the transaction	*Generated by MSSL system*	17
Content Format	The format of the content of the message.	{XML, CSV}	3
Compressed	An indicator as to whether the data is compressed or not.	{Y,N}	1
Data	The usage data that will be sent to the participant.	ASCII	Any Size

4.12.2 Consumer History Usage Data

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**History Data**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE HistoryData [
     <!ELEMENT HistoryData (TransactionId, ContentFormat,
Compressed, ConsumerName, PremisesAddress, CorrespondenceAddress,
NextInvoiceDate, Data)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ContentFormat (#PCDATA)>
      <!ELEMENT Compressed (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT PremisesAddress (UnitNumber, StreetNumber,
StreetName, Postcode)>
      <!ELEMENT UnitNumber (#PCDATA)>
      <!ELEMENT StreetNumber (#PCDATA)>
      <!ELEMENT StreetName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT CorrespondenceAddress (UnitNumber, StreetNumber,
StreetName, Postcode)>
      <!ELEMENT UnitNumber (#PCDATA)>
      <!ELEMENT StreetNumber (#PCDATA)>
      <!ELEMENT StreetName (#PCDATA)>
      <!ELEMENT Postcode (#PCDATA)>
      <!ELEMENT NextInvoiceDate (#PCDATA)>
      <!ELEMENT Data ANY>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The unique ID for the transaction	*Generated by MSSL system*	17
Content Format	The format of the content of the message.	{XML, CSV}	3

Compressed	An indicator as to whether the data is compressed or not.	{Y,N}	1
Unit Number	Unit number of address	A/N	50
Street Number	Street number of address	A/N	10
Street Name	Street name of address	A/N	60
Consumer Name	The name of the consumer account.	A/N	100
Premises Post Code	The postcode at which the premises is located.	A/N	6
Next Invoice Date	The date the next invoice is due to be sent to the consumer.	Date (yyyymmddhhmmss)	14
Data	The usage data that will be sent to the participant.	ASCII	Any Size

4.12.3 Transaction Acknowledgment interface definition

See 4.2.4

4.13 FILES SENT BY PARTICIPANT

4.13.1 Pricing Data

The following table defines the contents of a Pricing Data transaction that is sent to the EBT from the Market Company.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Raw Price Document**	String
Message Body (XML DTD)		

```
<?xml version="1.0" >
<!DOCTYPE FileData [
     <!ELEMENT FileData (TransactionId, ContentFormat,
Compressed, UserId, Data, SendingPartyType)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ContentFormat (#PCDATA)>
      <!ELEMENT Compressed (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT Data ANY>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Pricing data transaction	*See 4.1 Generating Transaction ID*	17
Content Format	The format of the content of the message.	{XML, CSV}	3
Compressed	An indicator as to whether the data is compressed or not.	{Y,N}	1
Sending Party Type	the value is SE indicating Supplier Electronic	{SE, }	2
User ID	This field identifies the user who sent the message	A/N	100
Data	The pricing data that will be sent to the MSSL	ASCII	Any Size

4.13.2 Validation Acknowledgment interface definition

See 4.3.6

5. DATA FILE FORMATS

As part of the normal operation of the market a market participant system must be capable of receiving MSSL-issued data files. Currently three different types of data files can be issued by the MSSL system, including:

- Consumer History Data
- Usage Data
- MDA Adjusted Usage Data
- SRLP Usage Data
- MDA Adjusted SRLP Usage Data
- Invoice Data

The following information pertains to how a market participant system should interpret data file messages received from MSSL of any of the above types.

5.1 COMPRESSION

The files that are issued by the MSSL can be significant in size (of the orders of megabytes) so these data files may be compressed. Often the data being compressed contains significant repetition which compression utilities can take advantage of.

The compression algorithm that MSSL uses for compressing data files follows the ZIP standard. This standard is supported by most commercial compression utilities and by some major programming languages, such as Java.

To determine whether the data file content is compressed, the **<Compressed></Compressed>** XML tag should be checked. If the value is “Y” then the data file content is compressed. If the value of this tag is “N” then the data file content is not compressed.

5.2 CHARACTER ENCODING

To permit the transmission of binary data within an XML message, binary data must have a special type of character encoding applied to it. Currently any compressed data is encoded into Base64 prior to that data being inserted into an XML message.

Currently the Base64 Content-Transfer-Encoding algorithm outlined in RFC1521 is the only character-encoding format supported by the MSSL. Whenever data has been compressed, a client should assume that it has been encoded using this algorithm as well.

5.3 FILE FORMATS

The original data files may be forwarded in various formats. The following table identifies the various file types which is described in the **<ContentFormat></ContentFormat>** XML tag. Note that this descriptor identifies the original format of the file prior to any compression/encoding being applied by the MSSL before transmission.

Content Format	Encoding Type
CSV	Comma Separated Values
XML	Extensible Markup Language

6. DATA FILE INTERFACE DEFINITIONS

The following section describes the required formats, type of file and its data definitions for the invoice data, usage, MDA Adjusted Usage, SRLP Usage Data and MDA Adjusted SRLP Usage Data, history data, and pricing data supplied by the Market Company

6.1 PRICING DATA

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Raw Price Document**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE FileData [
     <!ELEMENT FileData (TransactionId, ContentFormat, Compressed,
UserId, Data, SendingPartyType)>
<!ELEMENT TransactionId (#PCDATA)>
<!ELEMENT ContentFormat (#PCDATA)>
<!ELEMENT Compressed (#PCDATA)>
<!ELEMENT UserId (#PCDATA)>
<!ELEMENT Data ANY>
<!ELEMENT SendingPartyType (#PCDATA)>
]>
```

Element	Meaning	Format
TransactionId	A unique Transaction Id indicating the communication transaction that the message is part of	This will be 'EMC' plus a rolling 6 digit padded integer uniquely identifying the transaction (over at least 7 years).
ContentFormat	An indication of the format of the data to be communicated	This will be CSV
Compressed	An indication of whether the data communicated has been compressed	This will be 'N'
User ID	This field identifies the user who sent the message	A/N

Data	The actual data to be communicated	The USEP, HEUC, MEUC, AFP and VCRP price data in the format defined above
SendingPartyType	An identification of how the communication has been initiated	This will be 'SE'

Physical Implementation	
Line Number	**Content**
1	,GIP/GXP,DayValue,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48 This is a constant and indicates that the file is a price file (NB this makes the file easy to read in Excel).
2	F,USEP,<Date>,<Period 1 USEP>,<Period 2 USEP>,<Period 3 USEP>,…….,<Period 48 USEP> F,USEP indicates that the prices are final Universal Singapore Electricity Prices – it is not anticipated that these values will vary in the context of the initial implementation of the interface. <Date> is the date the prices apply to, in the format DD-Mon-YYYY (eg 07-Oct-1968) <Period n USEP> is the Universal Singapore Electricity Price for Period n expressed in Singapore Dollars per Megawatt Hour, to the nearest cent.
3	F,HEUC,<Date>,<Period 1 HEUC>,<Period 2 HEUC>,<Period 3 HEUC>,…….,<Period 48 HEUC> F,HEUC indicates that the prices are final Energy Uplift Charges. <Date> is the date the prices apply to, in the format DD-Mon-YYYY (eg 07-Oct-1968) <Period *n* HEUC> is the Energy Uplift Charge for Period *n* expressed in Singapore Dollars per Megawatt Hour, to the nearest cent.
4	F,MEUC,<Date>,<Period 1 MEUC>,<Period 2 MEUC>,<Period 3 MEUC>,…….,<Period 48 MEUC> F,MEUC indicates that the prices are final Monthly Uplift Charges. <Date> is the date the prices apply to, in the format DD-Mon-YYYY (eg 07-Oct-1968) <Period *n* MEUC> is the Monthly Uplift Charges for Period *n* expressed in Singapore Dollars per Megawatt Hour, to the nearest cent.
5	F,AFP,<Date>,<Period 1 AFP>,<Period 2 AFP>,<Period 3 AFP>,……..,<Period 48 AFP> F,AFP indicates that the prices are final Regulation prices. <Date> is the date the prices apply to, in the format DD-Mon-YYYY (eg 07-Oct-1968) <Period *n* AFP> is the Regulation Price for Period *n* expressed in Singapore Dollars per Megawatt Hour, to the nearest cent.

6	F,VCRP,<Date>,<Period 1 VCRP>,<Period 2 VCRP >,<Period 3 VCRP>,…….,<Period 48 VCRP > F, VCRP indicates that the prices are final vesting contract reference prices. <Date> is the date the prices apply to, in the format DD-Mon-YYYY (eg 07-Oct-1968) <Period *n* VCRP> is the Vesting Contract Reference Price for Period *n* expressed in Singapore Dollars per Megawatt Hour, to the nearest cent.

6.2 INVOICE DATA

6.2.1 Retailer Invoice DTD

The Retailer Invoice DTD is applicable for a NMPR and MPR.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data**	String
Message Body (XML DTD)		

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE RetailerInvoiceContent [
<!ELEMENT RetailerInvoiceContent (TaxStatement, InvoiceNumber,
InvoiceIssueDate, Consumer*, RetailerAccountNumber, RetailerName,
RetailerAddress*, BalanceBF, AccountTransaction*, OutstandingBalance,
StartBillingDate, EndBillingDate, FinalBill, Charge*, TotalConsumerCharges ,
RetailerTotalPayable, OverallCurrentChargesExclusiveofGST, OverallCurrentCharges,
OverallAmountPayable, OverallGSTApplicableAmount,  OverallGSTAmountPayable,
OverallGSTInfo1, OverallGSTInfo2, SupportingInformation*, PaymentDueDate,
SecurityDeposit*, Provider*, ProviderTelephoneNumber, MSSLCOREGNumber,
MSSLGSTNumber)>
        <!ELEMENT TaxStatement (#PCDATA)>
        <!ELEMENT InvoiceNumber (#PCDATA)>
        <!ELEMENT InvoiceIssueDate (#PCDATA)>
        <!ELEMENT Consumer (CustomerAccountNumber, StartBillingDate,
EndBillingDate, FinalBill, Charge*, TotalAmountPayable, TotalGSTApplicableAmount,
TotalGSTAmountPayable, SupportingInformation*)>
                <!ELEMENT CustomerAccountNumber (#PCDATA)>
                <!ELEMENT Charge (ChargeDescription, Breakdown*, ChargeTotal)>
                        <!ELEMENT ChargeDescription (#PCDATA)>
                        <!ELEMENT Breakdown (Description, Usage, Rate, Total)>
                                <!ELEMENT Description (#PCDATA)>
                                <!ELEMENT Usage (#PCDATA)>
                                <!ELEMENT Rate (#PCDATA)>
                                <!ELEMENT Total (#PCDATA)>
                        <!ELEMENT ChargeTotal (#PCDATA)>
                <!ELEMENT TotalAmountPayable (#PCDATA)>
                <!ELEMENT TotalGSTApplicableAmount (#PCDATA)>
                <!ELEMENT TotalGSTAmountPayable (#PCDATA)>
                <!ELEMENT SupportingInformation (InfoDescription, InfoDetail)>
                        <!ELEMENT InfoDescription (#PCDATA)>
                        <!ELEMENT InfoDetail (#PCDATA)>
        <!ELEMENT RetailerAccountNumber (#PCDATA)>
        <!ELEMENT RetailerName (#PCDATA)>
        <!ELEMENT RetailerAddress (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
                <!ELEMENT Address2 (#PCDATA)>
                <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT BalanceBF (#PCDATA)>
```

```
<!ELEMENT AccountTransaction (AccTransDescription, AccTransDate, AccTransAmount)>
        <!ELEMENT AccTransDescription (#PCDATA)>
        <!ELEMENT AccTransDate (#PCDATA)>
        <!ELEMENT AccTransAmount (#PCDATA)>
<!ELEMENT OutstandingBalance (#PCDATA)>
<!ELEMENT StartBillingDate (#PCDATA)>
<!ELEMENT EndBillingDate (#PCDATA)>
<!ELEMENT FinalBill (#PCDATA)>
<!ELEMENT TotalConsumerCharges (#PCDATA)>
<!ELEMENT RetailerTotalPayable (#PCDATA)>
<!ELEMENT OverallCurrentChargesExclusiveofGST (#PCDATA)>
<!ELEMENT OverallCurrentCharges (#PCDATA)>
<!ELEMENT OverallAmountPayable (#PCDATA)>
<!ELEMENT OverallGSTApplicableAmount (#PCDATA)>
<!ELEMENT OverallGSTAmountPayable (#PCDATA)>
<!ELEMENT OverallGSTInfo1 (#PCDATA)>
<!ELEMENT OverallGSTInfo2 (#PCDATA)>
<!ELEMENT PaymentDueDate (#PCDATA)>
<!ELEMENT SecurityDeposit (SecurityDepositType, SecurityDepositAmount)>
        <!ELEMENT SecurityDepositType (#PCDATA)>
        <!ELEMENT SecurityDepositAmount (#PCDATA)>
<!ELEMENT Provider (Name, Address*, Email)>
<!ELEMENT Name (#PCDATA)>
        <!ELEMENT Address (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
        <!ELEMENT Address2 (#PCDATA)>
        <!ELEMENT Address3 (#PCDATA)>
<!ELEMENT Email (#PCDATA)>
<!ELEMENT ProviderTelephoneNumber (#PCDATA)>
<!ELEMENT MSSLCOREGNumber (#PCDATA)>
<!ELEMENT MSSLGSTNumber (#PCDATA)>]>
```

Element	Meaning
AccountTransaction	Transaction on retailer's account
AccTransAmount	Amount applicable for account transaction

AccTransDate	Date of account transaction
AccTransDescription	Description of account transaction, eg. Payment Received, Security Deposit Adjustment, etc.
Address	The address of the MSSL. This address consists of three individual address lines.
Address1	The first line of the address as it appears on the bill
Address2	The second line of the address as it appears on the bill
Address3	The third line of the address as it appears on the bill
BalanceBF	Balance brought forward - retailer's opening account balance for this invoice
Breakdown	Detailed breakdown of charge
Charge	Charge applicable for the consumer, or retailer specific charge
ChargeDescription	Description of the charge, eg. Total Electricity Supply Charge, Vesting Contract Debit/Credit, Transmission Charge, Retail Settlement Uplift, etc.
ChargeTotal	Total of charge
Consumer	Consumer that belongs to the Retailer
CustomerAccountNumber	Consumer Account Number
Description	Description of charge breakdown, eg. Contract Capacity Charge, Meter Service Charge, etc.
Email	Contact Email for the MSSL
FinalBill	Identifier if the invoice is for a final bill
EndBillingDate	End date of the billing period for which charges are applicable
InfoDescription	Description of InfoDetail, eg. Gross Electricity Usage, etc.
InfoDetail	Item of additional information, eg. 125,000 kWh, etc.
InvoiceIssueDate	the date the invoice was generated
InvoiceNumber	Identifier number of the invoice
MSSLCOREGNumber	MSSL’s Company registration number: 199504470N
MSSLGSTNumber	MSSL’s GST reference number: M2-8920920-4
Name	The name of the MSSL

OutstandingBalance	Outstanding balance after account transactions are applied to balance brought forward
OverallAmountPayable	Overall amount payable by the retailer for the invoice
OverallCurrentChargesExclusiveofGST	Total current charges for the billing period excluding Goods and Services Tax
OverallCurrentCharges	Total current charges for the billing period including Goods and Services Tax
OverallGSTAmountPayable	Total GST for retailer
OverallGSTApplicableAmount	Total amount subject to GST for retailer
OverallGSTInfo1	Goods and Services Tax information (Part 1)
OverallGSTInfo2	Goods and Services Tax information (Part 2)
PaymentDueDate	Due date for the OverallAmountPayable for the invoice
Provider	The MSSL provider information.
ProviderTelephoneNumber	Contact telephone number for the MSSL
Rate	Rate of charge breakdown applicable to 'Usage'
RetailerAccountNumber	Retailer Account Number
RetailerAddress	The billing address of the retailer for whom the goods and services are supplied. The address consists of three individual address lines.
RetailerInvoiceContent	Retailers invoice
RetailerName	The name of the retailer to whom the goods and services are supplied.
RetailerTotalPayable	Total amount for the retailer specific charges (ie. non-consumer related charges)
SecurityDeposit	Security deposit item
SecurityDepositAmount	Amount of security deposit item
SecurityDepositType	Description of security deposit item, eg. MSSL Cash, MSSL Bank Guarantee, etc.
StartBillingDate	Start date of the billing period for which charges are applicable
SupportingInformation	Additional supporting information for the invoice applicable to the consumer or retailer
TaxStatement	Tax statement for the invoice.
Total	Total of charge breakdown

TotalAmountPayable	Total charges applicable to the consumer
TotalConsumerCharges	Total current charges of consumers excluding Goods and Services Tax
TotalGSTAmountPayable	Total GST for consumer
TotalGSTApplicableAmount	Total amount subject to GST for consumer
Usage	Usage of charge breakdown, eg. 100kWh, 2 meters, 1 month, etc.

6.2.2 Customer Invoice DTD

The Customer Invoice DTD is applicable for a MPC with Direct Access.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data**	String
Message Body (XML DTD)		

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE CustomerInvoiceContent [
<!ELEMENT CustomerInvoiceContent (TaxStatement, InvoiceNumber,
InvoiceIssueDate, CustomerAccountNumber, ConsumerName, ConsumerAddress*,
BalanceBF, AccountTransaction*, OutstandingBalance, StartBillingDate,
EndBillingDate, FinalBill, Charge*, TotalCurrentCharges, TotalAmountPayable,
TotalGSTApplicableAmount, TotalGSTAmountPayable, SupportingInformation*,
PaymentDueDate, SecurityDeposit*, Provider*, ProviderTelephoneNumber,
MSSLCOREGNumber, MSSLGSTNumber)>
        <!ELEMENT TaxStatement (#PCDATA)>
        <!ELEMENT InvoiceNumber (#PCDATA)>
        <!ELEMENT InvoiceIssueDate (#PCDATA)>
        <!ELEMENT CustomerAccountNumber (#PCDATA)>
        <!ELEMENT ConsumerName (#PCDATA)>
        <!ELEMENT ConsumerAddress (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
                <!ELEMENT Address2 (#PCDATA)>
                <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT BalanceBF (#PCDATA)>
        <!ELEMENT AccountTransaction (AccTransDescription, AccTransDate,
AccTransAmount)>
                <!ELEMENT AccTransDescription (#PCDATA)>
                <!ELEMENT AccTransDate (#PCDATA)>
                <!ELEMENT AccTransAmount (#PCDATA)>
        <!ELEMENT OutstandingBalance (#PCDATA)>
        <!ELEMENT StartBillingDate (#PCDATA)>
        <!ELEMENT EndBillingDate (#PCDATA)>
        <!ELEMENT FinalBill (#PCDATA)>
        <!ELEMENT Charge (ChargeDescription, Breakdown*, ChargeTotal)>
                <!ELEMENT ChargeDescription (#PCDATA)>
                <!ELEMENT Breakdown (Description, Usage, Rate, Total)>
                        <!ELEMENT Description (#PCDATA)>
                        <!ELEMENT Usage (#PCDATA)>
                        <!ELEMENT Rate (#PCDATA)>
                        <!ELEMENT Total (#PCDATA)>
                <!ELEMENT ChargeTotal (#PCDATA)>
        <!ELEMENT TotalCurrentCharges (#PCDATA)>
        <!ELEMENT TotalAmountPayable (#PCDATA)>
```

```
        <!ELEMENT TotalGSTApplicableAmount (#PCDATA)>
        <!ELEMENT TotalGSTAmountPayable (#PCDATA)>
        <!ELEMENT SupportingInformation (InfoDescription, InfoDetail)>
                <!ELEMENT InfoDescription (#PCDATA)>
                <!ELEMENT InfoDetail (#PCDATA)>
        <!ELEMENT PaymentDueDate (#PCDATA)>
        <!ELEMENT SecurityDeposit (SecurityDepositType, SecurityDepositValue)>
                <!ELEMENT SecurityDepositType (#PCDATA)>
                <!ELEMENT SecurityDepositAmount (#PCDATA)>
        <!ELEMENT Provider (Name, Address*, Fax, Email)>
        <!ELEMENT Name (#PCDATA)>
                <!ELEMENT Address (Address1, Address2, Address3)>
                        <!ELEMENT Address1 (#PCDATA)>
                <!ELEMENT Address2 (#PCDATA)>
                <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT Email (#PCDATA)>
        <!ELEMENT ProviderTelephoneNumber (#PCDATA)>
        <!ELEMENT MSSLCOREGNumber (#PCDATA)>
        <!ELEMENT MSSLGSTNumber (#PCDATA)>
]>
```

Element	Meaning
AccountTransaction	Transaction on consumer's account
AccTransAmount	Amount applicable for account transaction
AccTransDate	Date of account transaction
AccTransDescription	Description of account transaction, eg. Payment Received, Security Deposit Adjustment, Total GST Voucher – U-Save of Consumers, Unused GST Voucher – U-Save of Consumers.
Address	The address of the consumer. This address consists of three individual address lines.
Address1	The first line of the address as it appears on the bill
Address2	The second line of the address as it appears on the bill
Address3	The third line of the address as it appears on the bill
BalanceBF	Balance brought forward - consumer's opening account balance for this invoice
Breakdown	Detailed breakdown of charge

Charge	Charge applicable for the invoice
ChargeDescription	Description of the charge
ChargeTotal	Total of charge
CustomerAccountNumber	Consumer Account Number
ConsumerName	The name of the consumer to whom the goods and services are supplied.
ConsumerAddress	The billing address of the consumer for whom the goods and services are supplied. The address consists of three individual address lines.
CustomerInvoiceContent	Consumer's invoice
Description	Description of charge breakdown
Email	Contact Email for the MSSL
FinalBill	Identifier if the invoice is for a final bill
EndBillingDate	End date of the billing period for which charges are applicable
InfoDescription	Description of InfoDetail, eg. Gross Electricity Usage, etc.
InfoDetail	Item of additional information, eg. 125,000 kWh, etc.
InvoiceIssueDate	The date the invoice was generated
InvoiceNumber	Identifier number of the invoice
Name	The name of the MSSL
MSSLCOREGNumber	MSSL’s Company registration number: 199504470N
MSSLGSTNumber	MSSL’s GST reference number: M2-8920920-4
OutstandingBalance	Outstanding balance after account transactions are applied to balance brought forward
PaymentDueDate	Due date for the TotalAmountPayable for the invoice
Provider	The MSSL provider information.
ProviderTelephoneNumber	Contact telephone number for the MSSL
Rate	Rate of charge breakdown applicable to 'Usage'
SecurityDeposit	Security deposit item
SecurityDepositAmount	Amount of security deposit item
SecurityDepositType	Description of security deposit item, eg. MSSL Cash, MSSL Bank Guarantee

StartBillingDate	Start date of the billing period for which charges are applicable
SupportingInformation	Additional information
TaxStatement	Tax statement for the invoice.
Total	Total of charge breakdown
TotalAmountPayable	Total charges applicable to the consumer
TotalCurrentCharges	Total current charges for the billing period including Goods and Services Tax
TotalGSTAmountPayable	Total GST for consumer
TotalGSTApplicableAmount	Total amount subject to GST for consumer
Usage	Usage of charge breakdown, eg. 100kWh, 2 meters, 1 month

6.3 CONSUMER HISTORY DATA

CSV Header Information		
Field Name	**Description**	**Format**
Account Number	“1234567890ABCDEF..”	10 Char (STR)
Meter ID*	“1234567890ABCDEF”	12 Char (STR)
Location	“1234567890ABCDEF..”	60 Char (STR)
* Multiples possible		
CSV Data (Format of data between file tags)		

```
Account Number: 9301000003
Meter ID: EC5, Location: METERING_POINT_LOCATION_3
01/09/2002,1,0,3729.692,FRI,1,1.006012
01/09/2002,2,0,3570.756,FRI,1,1.006012
01/09/2002,3,0,3563.268,FRI,1,1.006012
01/09/2002,4,0,3733.768,FRI,1,1.006012
01/09/2002,5,0,3617.436,FRI,1,1.006012
01/09/2002,6,0,3642.428,FRI,1,1.006012
01/09/2002,7,0,3502.384,FRI,1,1.006012
01/09/2002,8,0,3582.12,FRI,1,1.006012

etc…
```

Field Name	Description	Format
Date	"01/04/2001"	dd/mm/yyyy (DATE)
Interval	"11"	2 Digit (NUM)
Active	"12345….."	10 Digit ,7 decimals(NUM)
Reactive	"12345….."	10 Digit ,7 decimals(NUM)
Read Frequency	"DLY"	3 Char (STR)
SAF Adjustment Factor	"1……"	10 Digit ,7 decimals(NUM)
TLF Adjustment Factor	"1……"	10 Digit ,7 decimals(NUM)
Embedded Generator		

Note: The above data will be provided for each metering point for the timeframe mentioned in the requested transaction. All data is guaranteed clean and complete.

The usage data feed is generated for the specified consumer for the period the customer is under the retailer.

6.4 USAGE DATA

CSV Header Information

Field Name	Description	Format
Meter ID:*	“1234567890ABCDEF”	12 Char (STR)
* Multiples possible		
CSV Data (Format of data between file tags)		

Meter ID: 203_meter
01/04/01,2,903,903,179,179
01/04/01,3,844,844,160,160
01/04/01,4,917,917,154,154
01/04/01,5,950,950,195,195
01/04/01,6,891,891,155,155
01/04/01,7,981,981,183,183
01/04/01,8,856,856,195,195
01/04/01,9,934,934,161,161
01/04/01,10,978,978,198,198
01/04/01,11,856,856,193,193
01/04/01,12,873,873,172,172
01/04/01,13,802,802,175,175
01/04/01,14,859,859,189,189
01/04/01,15,997,997,192,192
01/04/01,16,953,953,169,169
01/04/01,17,916,916,159,159
01/04/01,18,921,921,166,166
01/04/01,19,853,853,171,171
01/04/01,20,902,902,157,157
01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157

01/04/01,20,902,902,157,157
01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157
01/04/01,46,881,881,163,163
01/04/01,47,811,811,151,151
01/04/01,48,862,862,192,192

etc… (for each participant's metering point)

01/04/01,9,934,934,161,161
01/04/01,10,978,978,198,198
01/04/01,11,856,856,193,193
01/04/01,12,873,873,172,172
01/04/01,13,802,802,175,175
01/04/01,14,859,859,189,189
01/04/01,15,997,997,192,192
01/04/01,16,953,953,169,169
01/04/01,17,916,916,159,159
01/04/01,18,921,921,166,166
01/04/01,19,853,853,171,171
01/04/01,20,902,902,157,157

01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157
01/04/01,46,881,881,163,163
01/04/01,47,811,811,151,151
01/04/01,48,862,862,192,192

etc… (for each participant's metering point)

</FileData>

The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.

Explicitly, each line is:

Date, interval, active, adjusted active, reactive, adjusted reactive.

01/04/01,46,881,881,163,163 01/04/01,47,811,811,151,151 01/04/01,48,862,862,192,192 Meter ID: ABCDEF123456, 01/04/01,1,929,929,163,163 01/04/01,2,903,903,179,179 01/04/01,3,844,844,160,160 01/04/01,4,917,917,154,154 01/04/01,5,950,950,195,195 01/04/01,6,891,891,155,155 01/04/01,7,981,981,183,183 01/04/01,8,856,856,195,195 01/04/01,9,934,934,161,161 01/04/01,10,978,978,198,198 01/04/01,11,856,856,193,193 01/04/01,12,873,873,172,172 01/04/01,13,802,802,175,175 01/04/01,14,859,859,189,189 01/04/01,15,997,997,192,192 01/04/01,16,953,953,169,169 01/04/01,17,916,916,159,159 01/04/01,18,921,921,166,166 01/04/01,19,853,853,171,171		

Note: for formatting purposes this data is shown in 3 columns

Field Name	Description	Format
Date	"01/04/01"	dd/mm/yy (DATE)
Interval	"11"	2 Digit (NUM)
Active	"12345….."	10 Digit ,7 decimals(NUM)
Adjusted Active	"12345….."	10 Digit ,7 decimals(NUM)
Reactive	"12345….."	10 Digit ,7 decimals(NUM)
Adjusted Reactive	"12345….."	10 Digit ,7 decimals(NUM)
Note: The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.		

6.5 MDA ADJUSTED USAGE DATA

CSV Header Information		
Field Name	**Description**	**Format**
Meter ID:*	“1234567890ABCDEF”	12 Char (STR)
* Multiples possible		
CSV Data (Format of data between file tags)		

Meter ID: 000010300
01/04/01,2,903,903,179,179
01/04/01,3,844,844,160,160
01/04/01,4,917,917,154,154
01/04/01,5,950,950,195,195
01/04/01,6,891,891,155,155
01/04/01,7,981,981,183,183
01/04/01,8,856,856,195,195
01/04/01,9,934,934,161,161
01/04/01,10,978,978,198,198
01/04/01,11,856,856,193,193
01/04/01,12,873,873,172,172
01/04/01,13,802,802,175,175
01/04/01,14,859,859,189,189
01/04/01,15,997,997,192,192
01/04/01,16,953,953,169,169
01/04/01,17,916,916,159,159
01/04/01,18,921,921,166,166
01/04/01,19,853,853,171,171
01/04/01,20,902,902,157,157
01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157

01/04/01,20,902,902,157,157
01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157
01/04/01,46,881,881,163,163
01/04/01,47,811,811,151,151
01/04/01,48,862,862,192,192

etc… (for each participant's metering point and for each MDA adjusted day)

01/04/01,9,934,934,161,161
01/04/01,10,978,978,198,198
01/04/01,11,856,856,193,193
01/04/01,12,873,873,172,172
01/04/01,13,802,802,175,175
01/04/01,14,859,859,189,189
01/04/01,15,997,997,192,192
01/04/01,16,953,953,169,169
01/04/01,17,916,916,159,159
01/04/01,18,921,921,166,166
01/04/01,19,853,853,171,171
01/04/01,20,902,902,157,157

01/04/01,21,959,959,181,181
01/04/01,22,972,972,155,155
01/04/01,23,818,818,160,160
01/04/01,24,908,908,185,185
01/04/01,25,883,883,175,175
01/04/01,26,814,814,159,159
01/04/01,27,890,890,200,200
01/04/01,28,940,940,174,174
01/04/01,29,900,900,150,150
01/04/01,30,881,881,171,171
01/04/01,31,989,989,164,164
01/04/01,32,997,997,188,188
01/04/01,33,918,918,195,195
01/04/01,34,906,906,191,191
01/04/01,35,923,923,159,159
01/04/01,36,817,817,155,155
01/04/01,37,837,837,150,150
01/04/01,38,856,856,157,157
01/04/01,39,803,803,169,169
01/04/01,40,830,830,159,159
01/04/01,41,884,884,199,199
01/04/01,42,910,910,194,194
01/04/01,43,912,912,179,179
01/04/01,44,956,956,187,187
01/04/01,45,808,808,157,157
01/04/01,46,881,881,163,163
01/04/01,47,811,811,151,151
01/04/01,48,862,862,192,192

etc… (for each participant's metering point and for each MDA adjusted day)

</FileData>

The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.

Explicitly, each line is:

Date, interval, active, adjusted active, reactive, adjusted reactive.

01/04/01,46,881,881,163,163 01/04/01,47,811,811,151,151 01/04/01,48,862,862,192,192 Meter ID: ABCDEF123456, 01/04/01,1,929,929,163,163 01/04/01,2,903,903,179,179 01/04/01,3,844,844,160,160 01/04/01,4,917,917,154,154 01/04/01,5,950,950,195,195 01/04/01,6,891,891,155,155 01/04/01,7,981,981,183,183 01/04/01,8,856,856,195,195 01/04/01,9,934,934,161,161 01/04/01,10,978,978,198,198 01/04/01,11,856,856,193,193 01/04/01,12,873,873,172,172 01/04/01,13,802,802,175,175 01/04/01,14,859,859,189,189 01/04/01,15,997,997,192,192 01/04/01,16,953,953,169,169 01/04/01,17,916,916,159,159 01/04/01,18,921,921,166,166 01/04/01,19,853,853,171,171		

Note: for formatting purposes this data is shown in 3 columns

Field Name	Description	Format
Date	"01/04/01"	dd/mm/yy (DATE)
Interval	"11"	2 Digit (NUM)
MDA Active (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)
TLF Adjusted Active (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)
Reactive (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)

Adjusted Reactive (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)
Note: The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.		

6.6 SRLP USAGE DATA

CSV Header Information		
Field Name	**Description**	**Format**
Meter ID:*	“1234567890ABCDEF”	12 Char (STR)
Read Type:*	“A”	1 Char (STR)
* Multiples possible		
CSV Data (Format of data between file tags)		

Meter ID: 000010300,A 01/04/01,1,903,903 01/04/01,2,903,903 01/04/01,3,844,844 01/04/01,4,917,917 01/04/01,5,950,950 01/04/01,6,891,891 01/04/01,7,981,981 01/04/01,8,856,856 01/04/01,9,934,934 01/04/01,10,978,978 01/04/01,11,856,856 01/04/01,12,873,873 01/04/01,13,802,802 01/04/01,14,859,859 01/04/01,15,997,997 01/04/01,16,953,953 01/04/01,17,916,916 01/04/01,18,921,921 01/04/01,19,853,853 01/04/01,20,902,902 01/04/01,21,959,959 01/04/01,22,972,972 01/04/01,23,818,818 01/04/01,24,908,908 01/04/01,25,883,883 01/04/01,26,814,814 01/04/01,27,890,890 01/04/01,28,940,940 01/04/01,29,900,900 01/04/01,30,881,881 01/04/01,31,989,989 01/04/01,32,997,997 01/04/01,33,918,918 01/04/01,34,906,906 01/04/01,35,923,923 01/04/01,36,817,817 01/04/01,37,837,837 01/04/01,38,856,856	02/04/16,20,902,902 02/04/16,21,959,959 02/04/16,22,972,972 02/04/16,23,818,818 02/04/16,24,908,908 02/04/16,25,883,883 02/04/16,26,814,814 02/04/16,27,890,890 02/04/16,28,940,940 02/04/16,29,900,900 02/04/16,30,881,881 02/04/16,31,989,989 02/04/16,32,997,997 02/04/16,33,918,918 02/04/16,34,906,906 02/04/16,35,923,923 02/04/16,36,817,817 02/04/16,37,837,837 02/04/16,38,856,856 02/04/16,39,803,803 02/04/16,40,830,830 02/04/16,41,884,884 02/04/16,42,910,910 02/04/16,43,912,912 02/04/16,44,956,956 02/04/16,45,808,808 02/04/16,46,881,881 02/04/16,47,811,811 02/04/16,48,862,862 etc… (for each participant's metering point for billing period) Meter ID: 000910800,E 01/04/16,9,934,934 01/04/16,10,978,978 01/04/16,11,856,856 01/04/16,12,873,873 01/04/16,13,802,802 01/04/16,14,859,859	02/04/16,21,959,959 02/04/16,22,972,972 02/04/16,23,818,818 02/04/16,24,908,908 02/04/16,25,883,883 02/04/16,26,814,814 02/04/16,27,890,890 02/04/16,28,940,940 02/04/16,29,900,900 02/04/16,30,881,881 02/04/16,31,989,989 02/04/16,32,997,997 02/04/16,33,918,918 02/04/16,34,906,906 02/04/16,35,923,923 02/04/16,36,817,817 02/04/16,37,837,837 02/04/16,38,856,856 02/04/16,39,803,803 02/04/16,40,830,830 02/04/16,41,884,884 02/04/16,42,910,910 02/04/16,43,912,912 02/04/16,44,956,956 02/04/16,45,808,808 02/04/16,46,881,881 02/04/16,47,811,811 02/04/16,48,862,862 etc… (for each participant's metering point) </FileData> The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings. Explicitly, each line is: Date, interval, active, adjusted active.

01/04/01,39,803,803	01/04/16,15,997,997	
01/04/01,40,830,830	01/04/16,16,953,953	
01/04/01,41,884,884	01/04/16,17,916,916	
01/04/01,42,910,910	01/04/16,18,921,921	
01/04/01,43,912,912	01/04/16,19,853,853	
01/04/01,44,956,956	01/04/16,20,902,902	
01/04/01,45,808,808		
01/04/01,46,881,881		
01/04/01,47,811,811		
01/04/01,48,862,862		
02/04/01,1,929,929		
02/04/01,2,903,903		
02/04/01,3,844,844		
02/04/01,4,917,917		
02/04/01,5,950,950		
02/04/01,6,891,891		
02/04/01,7,981,981		
02/04/01,8,856,856		
02/04/01,9,934,934		
02/04/01,10,978,978		
02/04/01,11,856,856		
02/04/01,12,873,873		
02/04/01,13,802,802		
02/04/01,14,859,859		
02/04/01,15,997,997		
02/04/01,16,953,953		
02/04/01,17,916,916		
02/04/01,18,921,921		
02/04/01,19,853,853		

Note: for formatting purposes this data is shown in 3 columns

Field Name	Description	Format
Date	“01/04/16”	dd/mm/yy (DATE)
Interval	“11”	2 Digit (NUM)

Active	"12345….."	10 Digit ,7 decimals(NUM)
Adjusted Active	"12345….."	10 Digit ,7 decimals(NUM)
Note: The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.		

6.7 MDA ADJUSTED SRLP USAGE DATA

CSV Header Information		
Field Name	**Description**	**Format**
Meter ID:*	"1234567890ABCDEF"	12 Char (STR)
Read Type:*	"A"	1 Char (STR)
* Multiples possible		
CSV Data (Format of data between file tags)		

Meter ID: 000010300,A 01/04/01,1,903,903 01/04/01,2,903,903 01/04/01,3,844,844 01/04/01,4,917,917 01/04/01,5,950,950 01/04/01,6,891,891 01/04/01,7,981,981 01/04/01,8,856,856 01/04/01,9,934,934 01/04/01,10,978,978 01/04/01,11,856,856 01/04/01,12,873,873 01/04/01,13,802,802 01/04/01,14,859,859 01/04/01,15,997,997 01/04/01,16,953,953 01/04/01,17,916,916 01/04/01,18,921,921 01/04/01,19,853,853 01/04/01,20,902,902 01/04/01,21,959,959 01/04/01,22,972,972 01/04/01,23,818,818 01/04/01,24,908,908 01/04/01,25,883,883 01/04/01,26,814,814 01/04/01,27,890,890 01/04/01,28,940,940 01/04/01,29,900,900 01/04/01,30,881,881 01/04/01,31,989,989 01/04/01,32,997,997 01/04/01,33,918,918 01/04/01,34,906,906 01/04/01,35,923,923 01/04/01,36,817,817 01/04/01,37,837,837 01/04/01,38,856,856 01/04/01,39,803,803 01/04/01,40,830,830 01/04/01,41,884,884 01/04/01,42,910,910 01/04/01,43,912,912 01/04/01,44,956,956	02/04/16,20,902,902 02/04/16,21,959,959 02/04/16,22,972,972 02/04/16,23,818,818 02/04/16,24,908,908 02/04/16,25,883,883 02/04/16,26,814,814 02/04/16,27,890,890 02/04/16,28,940,940 02/04/16,29,900,900 02/04/16,30,881,881 02/04/16,31,989,989 02/04/16,32,997,997 02/04/16,33,918,918 02/04/16,34,906,906 02/04/16,35,923,923 02/04/16,36,817,817 02/04/16,37,837,837 02/04/16,38,856,856 02/04/16,39,803,803 02/04/16,40,830,830 02/04/16,41,884,884 02/04/16,42,910,910 02/04/16,43,912,912 02/04/16,44,956,956 02/04/16,45,808,808 02/04/16,46,881,881 02/04/16,47,811,811 02/04/16,48,862,862 etc… (for each participant's metering point and for each MDA adjusted day) Meter ID: 000910800,E 01/04/16,9,934,934 01/04/16,10,978,978 01/04/16,11,856,856 01/04/16,12,873,873 01/04/16,13,802,802 01/04/16,14,859,859 01/04/16,15,997,997 01/04/16,16,953,953 01/04/16,17,916,916 01/04/16,18,921,921 01/04/16,19,853,853 01/04/16,20,902,902	02/04/16,21,959,959 02/04/16,22,972,972 02/04/16,23,818,818 02/04/16,24,908,908 02/04/16,25,883,883 02/04/16,26,814,814 02/04/16,27,890,890 02/04/16,28,940,940 02/04/16,29,900,900 02/04/16,30,881,881 02/04/16,31,989,989 02/04/16,32,997,997 02/04/16,33,918,918 02/04/16,34,906,906 02/04/16,35,923,923 02/04/16,36,817,817 02/04/16,37,837,837 02/04/16,38,856,856 02/04/16,39,803,803 02/04/16,40,830,830 02/04/16,41,884,884 02/04/16,42,910,910 02/04/16,43,912,912 02/04/16,44,956,956 02/04/16,45,808,808 02/04/16,46,881,881 02/04/16,47,811,811 02/04/16,48,862,862 etc… (for each participant's metering point and for each MDA adjusted day) </FileData> The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings. Explicitly, each line is: Date, interval, active, adjusted active.

01/04/01,45,808,808		
01/04/01,46,881,881		
01/04/01,47,811,811		
01/04/01,48,862,862		
02/04/01,1,929,929		
02/04/01,2,903,903		
02/04/01,3,844,844		
02/04/01,4,917,917		
02/04/01,5,950,950		
02/04/01,6,891,891		
02/04/01,7,981,981		
02/04/01,8,856,856		
02/04/01,9,934,934		
02/04/01,10,978,978		
02/04/01,11,856,856		
02/04/01,12,873,873		
02/04/01,13,802,802		
02/04/01,14,859,859		
02/04/01,15,997,997		
02/04/01,16,953,953		
02/04/01,17,916,916		
02/04/01,18,921,921		
02/04/01,19,853,853		

Note: for formatting purposes this data is shown in 3 columns

Field Name	Description	Format
Date	"01/04/16"	dd/mm/yy (DATE)
Interval	"11"	2 Digit (NUM)
MDA Active (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)
TLF Adjusted Active (MDA Adjusted)	"12345….."	10 Digit ,7 decimals(NUM)
Note: The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.		

6.8 FOR MARKET COMPANY – USAGE DATA

CSV Header Information		
Field Name	**Description**	**Format**
-	-	-
CSV Data (Format of data between file tags)		

```
"IEQ","18-NOV-2011","01","102.012","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","02","106.286","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","03","102.275","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","04","96.146","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","05","94.371","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","06","91.822","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","07","92.737","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","08","91.361","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","09","91.101","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","10","91.181","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","11","94.706","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","12","97.040","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","13","98.558","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","14","102.405","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","15","102.486","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","16","114.758","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","17","115.946","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","18","103.761","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","19","109.168","AGCKMCG : KEPPEL : KMCBLK1",""
"IEQ","18-NOV-2011","20","116.513","AGCKMCG : KEPPEL : KMCBLK1",""
.
.
"WFQ","18-NOV-2011","40","998.347","","SP SVCS_M"
"WFQ","18-NOV-2011","41","994.023","","SP SVCS_M"
"WFQ","18-NOV-2011","42","984.137","","SP SVCS_M"
"WFQ","18-NOV-2011","43","968.380","","SP SVCS_M"
"WFQ","18-NOV-2011","44","948.015","","SP SVCS_M"
"WFQ","18-NOV-2011","45","936.812","","SP SVCS_M"
"WFQ","18-NOV-2011","46","918.899","","SP SVCS_M"
"WFQ","18-NOV-2011","47","893.856","","SP SVCS_M"
"WFQ","18-NOV-2011","48","863.124","","SP SVCS_M"
"WMQ","18-NOV-2011","01","273.443","","KEPP ELE_R"
"WMQ","18-NOV-2011","02","274.266","","KEPP ELE_R"
"WMQ","18-NOV-2011","03","273.233","","KEPP ELE_R"
"WMQ","18-NOV-2011","04","273.710","","KEPP ELE_R"
"WMQ","18-NOV-2011","05","274.287","","KEPP ELE_R"
"WMQ","18-NOV-2011","06","275.334","","KEPP ELE_R"
"WMQ","18-NOV-2011","07","275.753","","KEPP ELE_R"
"WMQ","18-NOV-2011","08","274.378","","KEPP ELE_R"
"WMQ","18-NOV-2011","09","271.955","","KEPP ELE_R"
"WMQ","18-NOV-2011","10","270.141","","KEPP ELE_R"
.
.
```

Note: The sample is an extracted of a full file

Field Name	Description	Format
Energy Quantity Type	"IEQ","IIQ","WPQ","WEQ","WDQ","WLQ","WCQ","WMQ","WFQ"	3 Char (Str)
Date	"18-NOV-2011"	dd-mmm-yyyy (DATE)
Interval	"11"	2 Digit (NUM)
Energy Quantity	"998.347"	10 Digit ,7 decimals(NUM)
Market Network Node	"AGCKMCG : KEPPEL : KMCBLK1"	40 Char (Str)
Settlement Account	"KEPP ELE_R"	40 Char (Str)

6.9 FOR MARKET COMPANY – MDA ADJUSTED USAGE DATA

CSV Header Information		
Field Name	**Description**	**Format**
Start of Header	"ADJUSTMENT SUMMARY START"	24 Char (STR)
Period List Header	"Adjusted Period"	15 Char (STR)
Adjusted Periods List	"04-FEB-2011","05-FEB-2011"	dd-mmm-yyyy (DATE)
Affected Account / MNN Header	"Affected SA/MNN"	15 Char (STR)
Affected Account / MNN Name & Period*	"SER ENR_R","04-FEB-2011","05-FEB-2011","06-FEB-2011","07-FEB-2011"	Settlement Account / Market Network Node 30 Char (STR) dd-mmm-yyyy (DATE)
End of Header	"ADJUSTMENT SUMMARY END"	22 Char (STR)
* Multiples possible		

CSV Data (Format of data between file tags)


```
"ADJUSTMENT SUMMARY START"
"Adjusted Period"
"04-FEB-2011","05-FEB-2011","06-FEB-2011","07-FEB-2011","08-FEB-2011","09-FEB-2011","10-FEB-2011","11-FEB-2011","12-FEB-2011","13-FEB-2011","14-FEB-2011","15-FEB-2011","16-FEB-2011","17-FEB-2011","18-FEB-2011","19-FEB-2011","20-FEB-2011","21-FEB-2011","22-FEB-2011","23-FEB-2011","24-FEB-2011","25-FEB-2011","26-FEB-2011","27-FEB-2011","28-FEB-2011","01-MAR-2011","02-MAR-2011","03-MAR-2011","04-MAR-2011","05-MAR-2011"
"Affected SA/MNN"
"KEPP ELE_R","01-MAR-2011","02-MAR-2011"
"SER ENR_R","04-FEB-2011","05-FEB-2011","06-FEB-2011","07-FEB-2011","08-FEB-2011","09-FEB-2011","10-FEB-2011","11-FEB-2011","12-FEB-2011","13-FEB-2011","14-FEB-2011","15-FEB-2011","16-FEB-2011","17-FEB-2011","18-FEB-2011","19-FEB-2011","20-FEB-2011","21-FEB-2011","22-FEB-2011","23-FEB-2011","24-FEB-2011","25-FEB-2011","26-FEB-2011","27-FEB-2011","28-FEB-2011","01-MAR-2011","02-MAR-2011","03-MAR-2011","04-MAR-2011","05-MAR-2011"
"R_SNKO ENERGY","04-FEB-2011","05-FEB-2011","06-FEB-2011","07-FEB-2011","08-FEB-2011","09-FEB-2011","10-FEB-2011","11-FEB-2011","12-FEB-2011","13-FEB-2011","14-FEB-2011","15-FEB-2011","16-FEB-2011","17-FEB-2011","18-FEB-2011","19-FEB-2011","20-FEB-2011","21-FEB-2011","22-FEB-2011","23-FEB-2011","24-FEB-2011","25-FEB-2011","26-FEB-2011","27-FEB-2011","28-FEB-2011","01-MAR-2011","02-MAR-2011","03-MAR-2011","04-MAR-2011","05-MAR-2011"
"TUAS SUP_R","04-FEB-2011","05-FEB-2011","06-FEB-2011","07-FEB-2011","08-FEB-2011","09-FEB-2011","10-FEB-2011","11-FEB-2011","12-FEB-2011","13-FEB-2011","14-FEB-2011","15-FEB-2011","16-FEB-2011","17-FEB-2011","18-FEB-2011","19-FEB-2011","20-FEB-2011","21-FEB-2011","22-FEB-2011","23-FEB-2011","24-FEB-2011","25-FEB-2011","26-FEB-2011","27-FEB-2011","28-FEB-2011","01-MAR-2011","02-MAR-2011","03-MAR-2011","04-MAR-2011","05-MAR-2011"
"ADJUSTMENT SUMMARY END"
"IEQ","04-FEB-2011","01","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","02","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","03","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","04","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","05","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","06","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","07","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","08","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","09","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","10","0.001","MNN:EG_GEN:001","",
"IEQ","04-FEB-2011","11","0.001","MNN:EG_GEN:001","",
.
.
"WMQ","05-MAR-2011","40","0.000","","Test75"
"WMQ","05-MAR-2011","41","0.000","","Test75"
"WMQ","05-MAR-2011","42","0.000","","Test75"
"WMQ","05-MAR-2011","43","0.000","","Test75"
"WMQ","05-MAR-2011","44","0.000","","Test75"
"WMQ","05-MAR-2011","45","0.000","","Test75"
"WMQ","05-MAR-2011","46","0.000","","Test75"
"WMQ","05-MAR-2011","47","0.000","","Test75"
"WMQ","05-MAR-2011","48","0.000","","Test75"
```


Note: The sample is an extracted of a full file

Field Name	Description	Format
Energy Quantity Type	“IEQ”,”IIQ”,”WPQ”,”WEQ”,”WDQ”,”WLQ”,”WCQ”,”WMQ”,” WFQ”	3 Char (Str)
Date	“18-NOV-2011”	dd-mmm-yyyy (DATE)
Interval	“11”	2 Digit (NUM)
Energy Quantity	“998.347”	10 Digit ,7 decimals(NUM)

Market Network Node	"AGCKMCG : KEPPEL : KMCBLK1"	40 Char (Str)
Settlement Account	"KEPP ELE_R"	40 Char (Str)
Note: The above data will always be provided when data has been cleaned and there are no missing intervals for a *day's* worth of metering point's readings.		

7. MESSAGES

The following tables provide a summary of messages for each transaction and response times required.

7.1.1 Consumer Transfer Request

A. PARTICIPANT – NMPR/MPR (AS CURRENT SUPPLIER)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Consumer Transfer Request		✓	N/A	Submitted when Transferring to the MSSL
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	Sent when initiated by new supplier, MC or Consumer
Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of notification	Change Pending Received

B. PARTICIPANT – NMPR/MPR (AS NEW SUPPLIER)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Consumer Transfer Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Transaction acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Complete, 2)Transaction Terminated or 3) New Transfer Date Required
New Action Date Required Notice	✓		Auto	
New Action Date		✓	Within 2 business days	
Change Complete Notification	✓		Auto	

Transaction Terminated Notification	✓		Auto	
Termination Notice		✓	Accepted up until two business days before the action date	

C. PARTICIPANT – MC (FOR ALL TRANSFERS TO/FROM DMP)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Consumer Transfer Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	For DMP transfers to NMPR/MPR
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Complete, 2)Transaction Terminated, 3) New Transfer Date Required 4) Change Pending
New Action Date Required Notice	✓		Auto	
New Action Date		✓	Within 2 business days	
Change Complete Notification	✓		Auto	Received for all transfers to/from DMP except to MSSL
Transaction Terminated Notification	✓		Auto	
Termination Notice		✓	Accepted up until the two business days before the action date	

D. PARTICIPANT – NMPR/MPR (NON MARKET TO MARKET, MARKET TO NON MARKET)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Consumer Transfer Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Complete, 2) New Transfer Date Required
New Action Date Required Notice	✓		Auto	
New Action Date		✓	Within 2 business days	
Change Complete Notification	✓		Auto	Received for all transfers to/from DMP except to MSSL
Transaction Terminated Notification	✓		Auto	
Transaction Terminated Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Transaction Terminated Notification,
Termination Notice		✓	Accepted up until the two business days before the action date	

7.1.2 Account Closure Request

A. PARTICIPANT – NMPR/MPR

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Account Closure Request		✓	N/A	

Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	Received when initiated by MSSL or Consumer
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change Pending
Termination Notice		✓	accepted up until the two business days before the action date	

B. PARTICIPANT – EMC

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Account Closure Request		✓	N/A	Sent on behalf of DMP
Validation Acknowledgment	✓		Auto	
Change Complete Notification	✓		Auto	
Change Pending Notification	✓		Auto	Received if Account Closure initiated by DMP
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Pending or 2) Change Complete
Termination Notice		✓	Accepted up until the two business days before the action date	

C. PARTICIPANT – DMP

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Account Closure Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Termination Notice		✓	Accepted up until the two business days before the action date	

7.1.3 Involuntary Temporary Disconnection Request

A. PARTICIPANT – NMPR/MPR/MC (CURRENT SUPPLIER)

Message	Sent by EBT	Receive d by EBT	Response Time	Pre- Condition
Change Pending Notification	✓		Auto	Sent when initiated by MSSL or Consumer
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change Pending

7.1.4 Voluntary Temporary Disconnection Request

A. PARTICIPANT – NMPR/MPR (CURRENT RETAILER)

Message	Sent by EBT	Receive d by EBT	Response Time	Pre- Condition
Voluntary Temporary Disconnection Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	Received when initiated by MSSL or Consumer
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change Pending
Termination Notice		✓	Accepted up until the two business days before the action date	

B. PARTICIPANT – EMC

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Voluntary Temporary Disconnection Request		✓	N/A	Initiated on behalf of DMP
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	Received if initiated by DMP
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change Pending
Termination Notice		✓	Accepted up until the two business days before the action date	

C. PARTICIPANT – DMP

Message	Sent by EBT	Received by EBT	Response Time
Voluntary Temporary Disconnection Request		✓	N/A
Validation Acknowledgment	✓		Auto
Termination Notice		✓	Accepted up until the two business days before the action date. Note: DMP does not have to be initiator to cancel transaction

7.1.5 Billing Option Change Request

Participant – NMPR/MPR

Message	Sent by EBT	Received by EBT	Response Time
Billing Option Change Request		✓	N/A
Validation Acknowledgment	✓		Auto
Termination Notice		✓	Accepted up until the two business days before the action date

7.1.6 Consumer History Request

Participant – NMPR/MPR/DMP/EMC

Message	Sent by EBT	Received by EBT	Response Time	Pre-condition
Consumer History Request		✓	N/A	
Validation Acknowledgment	✓		Auto	
Consumer History Data	✓		Auto	Sent to relevant participant
Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Usage File	Sent by relevant participant

7.1.7 Cancel Transaction

Participant – NMPR/MPR/DMP/EMC

Message	Sent by EBT	Received by EBT	Response Time	Pre-Condition
Termination Notice		✓	Accepted up until the two business days before the action date	
Validation Acknowledgment	✓		Auto	
Transaction Terminated Notification	✓			Received If participant has previously received Change Pending notification for the transaction

Termination Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Transaction Terminated Notification	

7.1.8 Dispatch Data File

Participant – NMPR/MPR/DMP/EMC

Message	Sent by EBT	Received by EBT	Response Time
Data file (History Usage, Invoice, Usage)	✓		Auto
Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Data File

7.1.9 Pricing Data

Participant – EMC

Message	Sent by EBT	Received by EBT	Response Time
Pricing Data		✓	Auto
Validation Acknowledgment	✓		Auto

7.1.10 Special Reading Request

Participant – NMPR/MPR

Message	Sent by EBT	Received by EBT	Response Time
Special Reading Request		✓	Auto
Validation Acknowledgment	✓		Auto

Special Reading Response	✓		Auto

7.1.11 Meter Option Change

Participant – NMPR/MPR

Message	Sent by EBT	Received by EBT	Response Time	Precondition
Meter Option Change Request		✓	Auto	
Validation Acknowledgment	✓		Auto	
Change Complete Notification	✓		Auto	
Termination Notice		✓	Auto	Accepted until new meter option is updated in system
Transaction Terminated Notification	✓			Received If participant has previously received Change Pending notification for the transaction
Termination Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Transaction Terminated Notification	
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change complete notification

8. CONTACT INFORMATION

Participants can use the following contacts with regards to technical or business function queries.

Contact Point	Contact Details
For Technical Issue SP ITD Help Desk	Phone - 6916 8111 Email - helpdesk@spgroup.com.sg
For Market Participant Business Issue	Phone - 6916 7228 Email - retailerhelp@spgroup.com.sg
For Market Company Business Issue	Phone - 6916 8578 Email - hildatoh@spgroup.com.sg

9. DEMAND RESPONSE SCHEME

Demand response can be broadly defined as the change in electricity usage in response to market conditions particularly during periods of high wholesale market prices or when system reliability is adversely affected. An effective demand response programme improves the overall efficiency of the market by allowing consumers to respond to real-time market pricing signals. In addition, demand response can lower peak electricity demand, thereby bringing about benefits such as reducing the need to start up less efficient power plants during peak periods and promoting efficient long-run investments for system expansion. For consumers, demand response provides an additional option for them to participate in the electricity market, with appropriate incentives to better manage their electricity usage in response to market conditions.

This section covers the enhancements for Demand Response Scheme only. For information on existing process, refer to the previous sections of this document. Information that is common to the existing EBT system and DRS are listed in the table below.

Topic	Section in Document
Technical Architecture	Section 2.2
Transaction IDs	Section 4.1
Special Character Handling for XML	Section 4.2
Data File Formats	Section 5
Data File Interface Definitions (Except invoice data)	Section 6
Contact Information	Section 8

9.1 TERMINOLOGY

This paragraph provides a brief description of the terminology specific to the Demand Response Scheme.

- **Demand Response Aggregator (DRA):** A company who is able to aggregate the demand of multiple consumers into a larger tranche.
- **DRS Consumer:** An end-user consumer that takes part in the Demand Response Scheme under a DRA.
- **Direct DRA (DDRA):** An end-user consumer that chooses to participate in the Demand Response Scheme directly through the NEMS.
- **Load Registered Facility (LRF):** Any facility that draws energy from the transmission system.

9.2 DRS EBT OVERVIEW

Depending on the intended transaction, DRAs and DDRAs can communicate with the MSSL via EBT system or via the Market Company. The table below shows the DRS transactions and the corresponding initiator.

Transaction	Initiator	Method
DRA Creation	Market Company	Manual Request
LRF Creation	Market Company	Manual Request
DRS Consumer Registration (DRS or DDRA)	DRA/Market Company	EBT
DRS Consumer Transfer (DRA to DRA)	DRA	EBT
DRS Consumer De-Registration (DRS or DDRA)	DRA / Market Company	EBT / Manual Request
DRS Consumer Transfer (DRA to DDRA)	Market Company	EBT
DRS Consumer Transfer (DDRA to DRA)	DRA	EBT
DRS Consumer Transfer (to LRF within the same DRA)	DRA	EBT
LRF Ownership Transfer	Market Company	Manual Request
Closure of Load Registered Facility	Market Company	Manual Request
DRA Closure	Market Company	Manual Request
Consumer History Request	DRA/Market Company/Consumer	Manual Request
Dispatch Usage Data	MSSL	EBT
Dispatch Invoice Data	MSSL	EBT

9.3 DRS EBT DESCRIPTION

9.3.1 Demand Response Registration Transfer Request

1. The following table specifies the cases in which a particular EBT system participant submits an automated Demand Response Registration Transfer Request (DRRT)

Table 9.3.1: Submission of DRRT

Description	DRRT type	Sending Party
For registration to a DRA or to a Direct DRA, the new DRA is responsible for submitting the Demand Response Registration Request to the EBT system on behalf of the consumer. (Note: the EMC is the supplier for the Direct DRA).	DR Registration	New DRA (DRA or EMC)
For transfers to a DRA or to a Direct DRA, the new supplier is responsible for submitting the Demand Response Transfer Request to the EBT system on behalf of the consumer. (Note: the EMC is the supplier for the DMP).	DR Transfer	New DRA (DRA or EMC)
For the transfer of a DRS Consumer from one LRF to another LRF under the same DRA.	LRF Transfer	Current DRA

2. The system captures and validates the request. EBT must verify the following:

- Mandatory attributes have been provided (transaction ID, account number, consumer name, consumer's premises postcode, DRRT request type, new DRA's ID, load facility, action date, and user ID).
- The transaction ID is unique.
- The message type is a valid message type.
- The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
- Acceptance of this request does not violate the pending transaction rules as described below:
  - When a LRF/DR transfer request is received, EBT will check if there are pending transactions for the same consumer account/LRF/DRA. Under the following circumstances the LRF/DR transfer request will fail validation:
    - When there is a pending LRF transfer request and a second LRF/DR transfer request is received and the action date of the second request is the same or later than the existing request.
    - When there is a pending DR transfer request and a second LRF/DR transfer request is received and the action date of the second request is the same or later than the existing request.
    - When there is a pending DRS deregistration and a LRF/DR transfer request is received and the action date of the second request is the same or later than the existing request.

- When there is a pending LRF ownership transfer and a LRF/DR transfer request is received and the action date of the second request is the same or later than the existing request.
- When there is a pending LRF cancellation and a LRF/DR transfer request is received and the action date of the second request is later than the existing request.
- When there is a pending DRA closure and a LRF transfer request is received and the action date of the second request is the same or later than the existing request.
- When there is a pending DRA closure and a DR transfer request is received and the action date of the second request is later than the existing request.
- When there is a pending LRF/DR transfer and consumer transfer request to regulated tariff is received.
- When there is a pending DRS deregistration and consumer transfer request to regulated tariff is received.

– Under the following circumstances, the acceptance of the LRF/ DR transfer will result in the cancellation of the pending transaction (subject to meeting the date validation rules for a termination):

- When there is a pending LRF ownership transfer and a LRF/DR transfer request is received and the action date of the second request is earlier than the existing request.
- When there is a pending DR transfer request and a second DR transfer request is received and the action date of the second request is earlier than the existing request.
- When there is a pending DRS deregistration and a LRF/DR transfer request is received and the action date of the second request is earlier than the existing request.
- When there is a pending LRF/DRA closure and consumer transfer request to regulated tariff is received having action date of the second request is earlier than existing request.

- The target LRF exists and is valid under the new DRA for the given action date.
- For DR Registration Requests, the consumer account status is in an ‘active’ state and the consumer should not have an existing and active DRS account in the system.
- For DR Transfer and LRF Transfer Requests, the consumer account status is “active”.
- The nominated action date is at least on the day after the 12th business day from the current system date. The transfer will be effective at 00:00:01 on the nominated date.
- The sending party is a valid system participant and must be an DRA or EMC.
- The new DRA is a valid system participant.
- The new DRA is the sending party.
- For DR Transfer Requests, the new DRA is not the current DRA of the consumer. For LRF Transfer Requests, the new DRA is the same as the current DRA of the consumer.
- The consumer’s account number exists.

- The transaction postcode matches the consumer's premises postcode.
- The sending party of the message is "active".
- The new DRA account is "active".
- The consumer is having 'AMI' meter installed on the premise
- Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The consumer transfer request fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error

  II. The processing for the transaction will stop and participant may be contacted by an MSSL representative.

3. For certain transfers, EBT generates a change pending notification for the current DRA (DRA or EMC) to notify them of the transfer. Table 9.3.2 summarises which participant must be notified of the change depending on the transfer type. The general rule is that when transferring from a DRA or Direct DRA to another DRA or Direct DRA then the current DRA needs to be notified. When the DRA submits a LRF transfer, no change pending notice is required.

Table 9.3.2: Current DRA Change Pendings

Transfer Type	Sending Party	Current DRA
DRA - DRA	New DRA	Current DRA
DRA – DDRA	EMC	DRA
DDRA - DRA	DRA	EMC

4. For Demand Response Transfers, EBT receives a transaction acknowledgment from the current DRA by 23:59:59 on the next business day after the change pending was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user Id and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an DRA or EMC.

- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in (ie if the state is "Pending acknowledgment for change pending from current supplier", the current supplier must submit the request).

- The sending party of the message is "active".

  (a) The transaction acknowledgment fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

  (b) The transaction is not received within the necessary timeframe

  I. The processing for the transaction will continue when the participant submits a valid transaction acknowledgment. Participant may be contacted by an MSSL representative.

5. For transfers from DRA to DRA/Direct DRA, the current DRA is given an opportunity to object. Therefore, EBT will wait three business days from the day after receiving the transaction acknowledgment in response to the change pending.

   Table 9.3.3 outlines those transfers that are subject to objection periods.

Table 9.3.3: Demand Response Transfers subject to Objections

Transfer	Sending Party	Objecting Party
DRA – DRA	New DRA	Current DRA
DRA – DDRA	EMC	DRA

(a) Receive objection from the current DRA.

I. EBT will validate that the:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID matches to a Demand Response Transfer Request from the current supplier that is in a state to receive an objection notification.
- The message type is a valid message type.
- The objection notice has been received within the specified objection period of 3 business days from the day after the date and time the transaction acknowledgment was received.
- The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is a valid system participant and must be a DRA.
- The sending party of the objection notice is the current DRA of the consumer who is being transferred.
- The sending party of the message is "active".

Successful validation will result in the dispatch of a transaction acknowledgment to the objecting party.

a) The objection notice fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

ii. The processing of the original transfer will continue. Participant may be contacted by an MSSL representative

II. The system waits for a termination notice for 3 business days from the day after the date and time the objection notice was received.

a) Receive termination from the current DRA.

i. The system will validate that the:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user Id, sending party type, consumer account number and consumer name).
- The transaction ID matches to a Demand Response Transfer Request that is in a correct state to receive the termination
- The message type is a valid message type.
- The consumer account number on the termination notice matches the consumer account number of the Demand Response Transfer Request.
- The termination notice relates to a consumer transfer which has an action date which is at least after 00:00:00 on the third business day after the current system date.
- The system validates that the termination notice has been received within the waiting period of 3 business days from the day after the date and time the objection notice was received.
- The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is a valid system participant and must be a DRA.
- The consumer account number exists.
- The sending party of the termination notice is the current DRA of the consumer who is being transferred.
- The sending party of the message is “active”.

Successful validation will result in the dispatch of a transaction acknowledgment to the current supplier.

1) The termination notice fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

ii. The processing of the original transfer will continue. Participant may be contacted by an MSSL representative.

ii. The system will generate a transaction terminated notification and send it to the new DRA.

iii. EBT receives a termination transaction acknowledgment from the new DRA by 23:59:59 on the next business day after the termination notification was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is a valid system participant.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an DRA or EMC.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active".

1) The transaction acknowledgment fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

2) The transaction acknowledgment is not received within the necessary timeframe.

i. The transaction will continue when the participant submits a valid transaction acknowledgment. Participant may be contacted by an MSSL representative.

iv. The processing of the original consumer transfer will stop.

6. For transfers from an DRA/Direct DRA to an DRA/Direct DRA, the system checks that the transfer date is still at least on the next business day after the current system date.

(a) The requested transfer date is no longer acceptable.

I. EBT generates a new transfer date required notification for the new DRA.

II. The system receives a transaction acknowledgment from the new DRA by 23:59:59 on the next business day after the new transfer date notice was sent. EBT will validate that:

- *Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).*
- *The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.*
- *The message type is a valid message type.*
- *The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.*
- *The sending party is the same as the receiving party of the message to which this message is acknowledging.*

- *The sending party is a valid system participant and must be an DRA or EMC.*
- *The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.*
- *The sending party of the message is "active".*

a) The transaction acknowledgment fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

b) The transaction acknowledgment is not received within the necessary timeframe.

i. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

III. By 23:59:59 on the second business day after the new transfer date was requested, the system accepts the new transfer date and validates that:

- *The mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type and new action date).*
- *The transaction ID matches to a Demand Response Transfer Request that is waiting for a new transfer date*
- *The message type is a valid message type.*
- *The sending party is the same as the sending party of the original Demand Response Transfer Request.*
- *The sending party type is SE – indicating that a (S)upplier submitted the message (E)lectronically.*
- *The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.*
- *The action date is at least on the twelfth business day after the current system date. The transfer will be effective at 00:00:01 on the nominated date.*
- *The sending party is a valid system participant and must be a DRA or EMC.*
- *The sending party of the message is "active".*

Successful validation will result in the dispatch of a transaction acknowledgment to the DRA or EMC.

a) The new transfer date is not received within the necessary timeframe.

ii. The transaction will continue when a valid transfer date is received. The Participant may be contacted by an MSSL representative.

b) The new transfer date fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

IV. EBT generates a change pending notification for the current DRA to notify them of the revised transfer date.

V. *The system receives a transaction acknowledgment from the current DRA by 23:59:59 on the next business day after the change pending was sent. EBT will validate that:*

- *Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).*
- *The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.*
- *The message type is a valid message type.*
- *The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.*
- *The sending party is the same as the receiving party of the message to which this message is acknowledging.*
- *The sending party is a valid system participant and must be a DRA or EMC.*
- *The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.*
- *The sending party of the message is "active".*

a) The transaction acknowledgment fails validation.

i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

b) The transaction acknowledgment is not received within the necessary timeframe.

i. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

VI. *Step 6 is repeated to recheck the date.*

7. For DR Transfers, the final bill is generated and dispatched. Refer Section 9.3.3: Dispatch Data Files. No final bill is required for DR Registration and LRF Transfer Requests.

8. For all DR Transfers and LRF Transfers, a change complete notice will be sent to the new DRA. No change complete notice is required for DR Registration requests.

9. For all transfers from Direct DRA, a change complete notification will be sent to the current DRA (EMC).

10. For all transfers to DRA or Direct DRA and for transfers from Direct DRA, EBT will receive one or more transaction acknowledgments from the new DRA and/or the current DRA. These acknowledgments indicate receipt of the change complete notification and will be received by 23:59:59 on the next business day after the change complete was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.

- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.
- The sending party is the same as the receiving party of the message to which this message is acknowledging.
- The sending party is a valid system participant and must be an DRA or EMC.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party of the message is "active".

  (a) The transaction acknowledgment fails validation.

- *A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.*

  (c) The transaction acknowledgment is not received within the necessary timeframe.

  I. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

Cancellation

Cancellation of a Demand Response Registration Transfer Request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

9.3.2 Cancel Transaction

1. A system participant (DRA or EMC) who wishes to cancel a Demand Response Registration Transfer Request or Demand Response De-Registration Request must submit an electronic termination notification to the EBT. Cancellations can be performed electronically by the initiating party when they are involved in a transfer.

2. The EBT system will validate the following:

   - Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID, sending party type, consumer account number and consumer name).
   - The message type is a valid message type.
   - The action date for the Demand Response Registration Transfer or Demand Response De-Registration Request that is to be terminated is after 00:00:00 on the third business day after the current system date.
   - The transaction ID on the termination notice matches a transaction ID Demand Response Registration Transfer Request or Demand Response De-Registration Request.
   - The consumer account number on the termination notice matches the consumer account number of the Demand Response Registration Transfer Request or Demand Response De-Registration Request.
   - The sending party type is SE – indicating that a (S)upplier submitted the request (E)lectronically.
   - For termination of a Demand Response Transfer, if the sending party type is SE then the sending party of the termination must be the same as the sending party of the original request.
   - Sending party is a valid system participant and must be an DRA or EMC.
   - Consumer account number exists.
   - The transaction to be terminated is in a state that permits termination, i.e. it cannot be in a state indicating that a termination notice has already been received.
   - The sending party of the message is “active”.

   Successful validation will result in a transaction acknowledgment being dispatched to the system participant who generated the termination.

   (a) The termination notice fails validation.

   I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.

   II. The processing for the original transaction will continue.

3. EBT then notifies the required parties of the termination. The following table identifies the parties to be notified for the automated cancellation of a Demand Response Registration or Demand Response Transfer Request or Demand Response De-Registration Request. The first column in each table identifies the transaction that is to be cancelled. The second column identifies the requesting party of the original request who will have sent in the termination notice. The third column identifies some other party whom, depending on how far the transaction had progressed, would have received a change pending notification or would have been notified about the original request. Thus if, and only if, the request has

had such notifications made then an automated termination notification or a manual notification must be invoked. An asterix (*) by the Other Party(s) indicates that this party only gets a transaction terminated notification if the transaction past a certain state. For the current DRA to get a transaction terminated notification, the state must be equal to or after "Pending acknowledgment for change pending from current supplier". Other Party(s) who do not have an asterix will always receive a transaction terminated notification.

Table 9.3.2.1: Parties requiring a termination notification

(Note that the subscripts of $_C$ and $_N$ indicate whether the participant is the current DRA or the new DRA)

Transaction to be Cancelled	Terminating Party	Other Party(s)
DEMAND RESPONSE REGISTRATION REQUEST		
DR Registration - DRA	DRA	-
DR Registration – DDRA	EMC	-
DEMAND RESPONSE TRANSFER REQUEST		
DRA_C to DRA_N	DRA_N	*DRA_C
DRA to DDRA	EMC	*DRA
DDRA to DRA	DRA	EMC
LRF within same DRA	DRA	-
DEMAND RESPONSE DEREGISTRATION REQUEST		
DR Registration - DRA	DRA	
DR Registration – DDRA	EMC	

4. For some terminations, EBT will create a transaction terminated notification and dispatch it electronically to those system participants who are aware of the transaction. This will either be the current DRA, the new DRA, or both. Refer to 9.3.2.1 for details of when transaction terminated notifications are required.

5. EBT receives termination transaction acknowledgments from those participants who were sent transaction terminated notifications by 23:59:59 on the next business day after the transaction terminated notification was sent. EBT will validate that:

   - Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
   - The transaction ID identified by the transaction acknowledgment matches a transaction that is waiting for an acknowledgment.
   - The message type is a valid message type.
   - The sending party type is either SE – indicating that a (S)upplier submitted the request (E)lectronically.
   - The sending party is the same as the receiving party of the message to which this message is acknowledging.
   - The sending party is a valid system participant and must be an DRA or EMC.
   - The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.

- The sending party of the message is "active".

  (a) The transaction acknowledgment fails validation.

  I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

  II. The transaction will continue when the participant submits a valid transaction acknowledgment.

  (b) *The transaction acknowledgment is not received within the necessary timeframe.*

  I. The termination will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

9.3.3 Demand Response De-Registration Request – DRA or DDRA

1. The DRA/EMC submits a Demand Response De-Registration request.
2. The system captures and validates the request. EBT must verify the following:
   - Mandatory attributes have been provided (transaction ID, account number, consumer name, consumer's premises postcode, action date Sending Party Type and user ID).
   - The transaction ID is unique.
   - The message type is a valid message type.
   - The action date is equal to or before 23:59:59 on the ninetieth calendar day after the current system date.
   - The action date is after 23:59:59 on the seventh calendar day after the current system date.

- The consumer account status is in an 'active' state.
- The sending party is a valid system participant and must be an DRA or EMC.
- The consumer's account number exists.
- The transaction postcode matches the consumer's premises postcode.
- The sending party of the message is "active".
- Successful validation will result in the dispatch of a transaction acknowledgment to the sending party.

  (a) The consumer transfer request fails validation.

  i. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error

  ii. The processing for the transaction will stop and participant may be contacted by an MSSL representative.

3. On the action date, MSSL updates its consumer data, process misc. charges and generates a final bill to a DRS account.

4. The DRA/EMC receives a change complete notification from the MSSL, and the MSSL sets the request's status to "Pending a transaction acknowledgement for the change complete notification that was sent to 'relevant party''.

5. The DRA/EMC sends a transaction acknowledgment to the MSSL within one business day, and the MSSL sets the request's status to "All change complete notifications have been acknowledged".

6. For all transfers to DRA or Direct DRA and for transfers from Direct DRA, EBT will receive one or more transaction acknowledgments from the new DRA and/or the current DRA. These acknowledgments indicate receipt of the change complete notification and will be received by 23:59:59 on the next business day after the change complete was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).

- The transaction ID identified by the transaction acknowledgment matches a transfer that was sent to the system participant and is waiting for an acknowledgment.

- The message type is a valid message type.

- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically.

- The sending party is the same as the receiving party of the message to which this message is acknowledging.

- The sending party is a valid system participant and must be an DRA.

- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.

- Multiple Transaction Rules as per Account Closure. The sending party of the message is "active".

  (b) The transaction acknowledgment fails validation.

- *A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and the value of the error.*

  (d) The transaction acknowledgment is not received within the necessary timeframe.

  II. The transaction will continue when the participant submits a valid transaction acknowledgment. The Participant may be contacted by an MSSL representative.

. ***Cancellation***

Cancellation of a Demand Response Registration Transfer Request by the initiating party may be accepted. Please see the Cancel Transaction section for details.

9.3.4 Dispatch Data Files

A. DISPATCH INVOICE DATA

1. This transaction concerns the dispatch of periodic invoice data to system participants.
2. EBT dispatches the file to the receiving party. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the invoice data file was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches an invoice data transaction that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (Direct DRA) submitted the message (E)lectronically.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party is a valid system participant and must be a DRA or Direct DRA.
- The sending party of the message is “active”.

(a) The transaction acknowledgment fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

(b) The transaction acknowledgment is not received within the necessary timeframe or fails validation for any reason.

The transaction will continue when a valid transaction acknowledgment is received. The Participant may be contacted by an MSSL representative.

B. DISPATCH USAGE DATA

1. This transaction concerns the dispatch of periodic usage data to system participants.
2. EBT dispatches the file to the receiving party.
3. EBT will then receive a transaction acknowledgment from the receiving party by 23:59:59 on the next business day after the usage data file was sent. EBT will validate that:

- Mandatory attributes have been provided (transaction ID, message type, sending party ID, user ID and sending party type).
- The transaction ID identified by the transaction acknowledgment matches a usage data transaction that is waiting for an acknowledgment.
- The message type is a valid message type.
- The sending party type is either SE – indicating that a (S)upplier submitted the message (E)lectronically, or CE – indicating that a (C)onsumer (Direct DRA) submitted the message (E)lectronically.
- The sending party is the correct sending party for the transaction acknowledgment as identified by the state the transaction is currently in.
- The sending party is a valid system participant.
- The sending party of the message is “active”.

(a) The transaction acknowledgment fails validation.

I. A transaction acknowledgment will be generated specifying the reason for the failure, the attribute that failed and its value.

(b) The transaction acknowledgment is not received within the necessary timeframe or fails validation for any reason.

The transaction will continue when a valid transaction acknowledgment is received. Participant may be contacted by an MSSL representative.

9.4 DEMAND RESPONSE INTERFACE DEFINITION

9.4.1 Demand Response Registration Transfer Request interface definition

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Demand Response Registration Transfer**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE DRRegistrationTransfer[
     <!ELEMENT DRRegistrationTransfer(TransactionId, AccountNumber,
ConsumerName, Postcode, RequestType, NewDRAId, LoadFacility,
ActionDate, UserId)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
     <!ELEMENT ConsumerName (#PCDATA)>
     <!ELEMENT Postcode (#PCDATA)>
     <!ELEMENT RequestType (#PCDATA)>
     <!ELEMENT NewDRAId (#PCDATA)>
     <!ELEMENT LoadFacility (#PCDATA)>
     <!ELEMENT ActionDate (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>

]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the Demand Response Registration Transfer Request	See 4.1 Generating Transaction ID	17
Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The post code at which the premises is located.	A/N	6
Request Type	The type of DR request	*{REG,DTF,LTF}*	5

NewDRAId	A system participant who will be the new DRA of a consumer on and after the action date.	The Supplier Account No. (provided by MSSL)	10
LoadFacility	A load facility which the DRS Consumer will be a part of on and after the action date.	The Load Facility Name	30
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. The transfer date must be at least on the day after the next business day from the current system date. For transfer between Retailers, the transfer must be after the 5th business day.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100

9.4.2 Demand Response De Registration Request interface definition

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Demand Response De-Registration**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE DRDRegistration[
     <!ELEMENT DRDRegistration(TransactionId, AccountNumber,
ConsumerName, Postcode, ActionDate, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT AccountNumber (#PCDATA)>
     <!ELEMENT ConsumerName (#PCDATA)>
     <!ELEMENT Postcode (#PCDATA)>
     <!ELEMENT ActionDate (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
     <!ELEMENT SendingPartyType (#PCDATA)>

]
```

Transaction ID	The sending party's transaction ID for the Demand Response De-Registration Request	See 4.1 Generating Transaction ID	17
Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
Post Code	The post code at which the premises is located.	A/N	6
Action Date	The date at which the De-registratioin is to take effect. The time, to the nearest half-hour, on which the de-registration is to take effect.	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100
Sending Party Type	For an EMC/DRA initiated request the value is SE indicating Supplier Electronic	{SE}	2

9.4.3 Change Complete Notification interface definition

The following table defines the contents of a Change Complete Notification that EBT sends to the initiator of a transaction such as a Consumer Transfer Request.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Change Complete**	String
Message Body (XML DTD)		

```
<?xml version=”1.0” >
<!DOCTYPE ChangeComplete [
     <!ELEMENT ChangeComplete (TransactionId)>
     <!ELEMENT TransactionId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transaction that has been completed	***existing*	17

9.4.4 Change Pending Notification interface definition

The following table defines the contents of a Change Pending Notification that is sent by the EBT to a system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Change Pending**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE ChangePending [
     <!ELEMENT ChangePending (TransactionId, AccountNumber,
NewSupplierId, ActionType, ActionDate)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT NewSupplierId (#PCDATA)>
      <!ELEMENT ActionType (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>

]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the request which the change pending has been generated for.	*Transaction ID existing for request*	17
Action Type	The transaction that will occur on the specified action date and time. The value will indicate whether it is a transfer, account closure, involuntary temporary disconnection or voluntary temporary disconnection. The value for this field is derived from the transaction for which this notice has been generated.	{, DR Registration Transfer, DR Deregistration}	Min 15 Max 34
Consumer Account Number	The MSSL account number for the consumer. The value for this field is derived from the Consumer Account Number of either the Account Closure, Temporary Disconnection or Consumer Transfer	Consumer Account Number (provided by Consumer)	10

	Request for which this notice has been generated.		
Action Date	The date and time at which the action is to take effect. For transfers the time portion will always be 00:00:01 regardless of hh:mm:ss submitted. The value for this field is derived from the Action Date of the Account closure, Temporary Disconnection Request or from the Action Date of the Consumer Transfer Request for which this notice has been generated. Where the change pending notification has been generated as a consequence of the receipt of a new transfer date or a new account closure date, then this new date will be contained within this notification.	Date (yyyymmddhhmmss)	14
New Supplier ID	A system participant who will be the new supplier of a consumer on and after the transfer date. * Only populated for transfers	The Supplier Account No. (provided by MSSL)	10

9.4.5 Transaction Acknowledgement interface definition

The following table defines the contents of a Transaction Acknowledgment sent by a system participant in response to a message that the EBT has sent to the system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Transaction Acknowledgement**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TransactionAcknowledgement [
     <!ELEMENT TransactionAcknowledgement (TransactionId,
UserId,SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
     <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transaction that is being acknowledged.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2

9.4.6 Validation Acknowledgement interface definition

The following table defines the contents of a Validation Acknowledgment sent to a system participant in response to a transaction that the system participant has sent to the EBT.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Validation Acknowledgement**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE ValidationAcknowledgement [
     <!ELEMENT ValidationAcknowledgement (TransactionId, Result,
ValidationErrors)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT Result (#PCDATA)>
      <!ELEMENT ValidationErrors (ErrorCode, ErrorAttr, ErrorValue)>
      <!ELEMENT ErrorCode (#PCDATA)>
      <!ELEMENT ErrorAttribute (#PCDATA)>
      <!ELEMENT ErrorValue (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the original transaction for which this acknowledgement is referring to	*Existing Transaction ID*	17
Result	A value to indicate whether or not the message passed validation. Contains values of either Pass or Fail.	{pass, fail}	4
Validation Errors (zero or more to a message)			
Field Name	**Description**	**Field Value**	**Str Len**
Error Code	A code that identifies the type of error encountered.	{FAILED BUSINESS VALIDATION, FAILED MANDATORY VALIDATION, FAILED MULTIPLE TRANSACTION VALIDATION, UNRECOGNISED	N

		VALUE, ILL-FORMED MESSAGE}	
Error Attribute	The name of the attribute with which the error was encountered.	A/N	Unspecified
Error Value	The value that was supplied for the attribute that failed	A/N	Unspecified

9.4.7 New Action Date Required Notification interface definition

The following table defines the contents of a New Action Date Required Notification that is sent by the EBT to the appropriate system participant.

Message Header			
Field Name	**Description**	**Data Type**	
X-JMS-TYPE	**New Date Required**	String	
Message Body (XML DTD)			

```
<?xml version="1.0" >
<!DOCTYPE NewDataRequired [
     <!ELEMENT NewDataRequired (TransactionId)>
     <!ELEMENT TransactionId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transfer that requires a new action date.	*Existing Transaction ID*	17

9.4.8 New Action Date Notice interface definition

The following table identifies the fields required when a system participant submits a New Action Date Notice in response to a New Action Date Required Notification.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**New Action Date Notice**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE NewDate [
     <!ELEMENT NewDate (TransactionId, ActionDate, UserId,
SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ActionDate (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The sending party's transaction ID for the transfer that required the new action date.	*Existing Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE, }	2
Action Date	The date at which the transfer is to take effect. All transfers are deemed to take place at midnight (00:00:01) on the date of the transfer regardless of hh:mm:ss submitted. At least on the next business day after the current system date	Date (yyyymmddhhmmss)	14
User ID	This field identifies the user who sent the message	A/N	100

9.4.9 Objection Notice interface definition

The following table identifies the fields required when a system participant submits an Objection Notice.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Objection Notification**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE ObjectionNotification [
     <!ELEMENT ObjectionNotification (TransactionId,
SendingPartyType,UserId)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The original sending party's transaction ID for the transfer that is being objected to	*Existing Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE, }	2
User ID	This field identifies the user who sent the message	A/N	100

9.4.10 Termination Notice interface definition

The following table identifies the fields required when a system participant submits a Termination Notice.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Termination Notification**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TerminationNotification [
     <!ELEMENT TerminationNotification (TransactionId, AccountNumber,
ConsumerName, UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT AccountNumber (#PCDATA)>
      <!ELEMENT UserId (#PCDATA)>
      <!ELEMENT ConsumerName (#PCDATA)>
      <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The original sending party's transaction ID for the transaction that is being terminated	*Existing Transaction ID*	17
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2
Consumer Account Number	The MSSL account number for the consumer.	Consumer Account Number (provided by Consumer)	10
Consumer Name	The name of the consumer account.	A/N	100
User ID	This field identifies the user who sent the message	A/N	100

9.4.11 Transaction Terminated Notification interface definition

The following table defines the contents of a Transaction Terminated Notification which is sent to system participants to inform them that a request has been terminated.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Transaction Terminated Notification**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TransactionTerminatedNotification [
     <!ELEMENT TransactionTerminatedNotification
(TransactionId,UserId)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The original sending party's transaction ID for the request that has been terminated.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100

9.4.12 Termination Transaction Acknowledgement interface definition

The following table defines the contents of a Termination Transaction Acknowledgment sent by a system participant in response to a termination message that the EBT has sent to the system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Termination Transaction Acknowledgement**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE TerminationTransactionAcknowledgement [
     <!ELEMENT TerminationTransactionAcknowledgement (TransactionId,
UserId, SendingPartyType)>
     <!ELEMENT TransactionId (#PCDATA)>
     <!ELEMENT UserId (#PCDATA)>
     <!ELEMENT SendingPartyType (#PCDATA)>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The Transaction ID of the transaction sent to the system participant to which this termination transaction acknowledgment is responding.	*Existing Transaction ID*	17
User ID	This field identifies the user who sent the message	A/N	100
Sending Party Type	For an NMPR/MPR/EMC initiated request the value is SE indicating Supplier Electronic	{SE }	2

9.4.13 Invoice Data/ Usage Data/ MDA Adjusted Usage Data

The following table defines the contents of a Consumer History Usage Data, an Invoice Data, a Usage Data, a MDA Adjusted Usage Data message that is sent by EBT to a system participant.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data / Usage Data / MDA Adjusted Usage Data**	String

Message Body (XML DTD)

```
<?xml version="1.0" >
<!DOCTYPE DispatchData [
     <!ELEMENT DispatchData (TransactionId, ContentFormat, Compressed,
Data)>
      <!ELEMENT TransactionId (#PCDATA)>
      <!ELEMENT ContentFormat (#PCDATA)>
      <!ELEMENT Compressed (#PCDATA)>
      <!ELEMENT Data ANY>
]
```

Field Name	Description	Field Value	Str Len
Transaction ID	The unique ID for the transaction	*Generated by MSSL system*	17
Content Format	The format of the content of the message.	{XML, CSV}	3
Compressed	An indicator as to whether the data is compressed or not.	{Y,N}	1
Data	The usage data that will be sent to the participant.	ASCII	Any Size

9.5 DRS DATA FILE INTERFACE DEFINITION

The following section describes the required formats, type of file and its data definitions for DRS invoice data. Refer to section 6 for details on interface definitions of usage, MDA adjusted usage, and pricing data files.

9.5.1 DRA Invoice DTD

The DRA Invoice DTD is applicable for a DRA.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data / Usage Data**	String
Message Body (XML DTD)		

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE RetailerInvoiceContent [
<!ELEMENT RetailerInvoiceContent (TaxStatement, InvoiceNumber, InvoiceIssueDate,
Consumer*, RetailerAccountNumber, RetailerName, RetailerAddress*, BalanceBF,
AccountTransaction*, OutstandingBalance, StartBillingDate, EndBillingDate, FinalBill, Charge*,
TotalConsumerCharges , RetailerTotalPayable, OverallCurrentChargesExclusiveofGST,
OverallCurrentCharges, OverallAmountPayable, OverallGSTApplicableAmount,
OverallGSTAmountPayable, OverallGSTInfo1, OverallGSTInfo2, SupportingInformation*,
PaymentDueDate, SecurityDeposit*, Provider*, ProviderTelephoneNumber, MSSLCOREGNumber,
MSSLGSTNumber)>
        <!ELEMENT TaxStatement (#PCDATA)>
        <!ELEMENT InvoiceNumber (#PCDATA)>
        <!ELEMENT InvoiceIssueDate (#PCDATA)>
        <!ELEMENT Consumer (CustomerAccountNumber, StartBillingDate, EndBillingDate,
FinalBill, Charge*, TotalAmountPayable, TotalGSTApplicableAmount, TotalGSTAmountPayable,
SupportingInformation*)>
                <!ELEMENT CustomerAccountNumber (#PCDATA)>
                <!ELEMENT Charge (ChargeDescription, Breakdown*, ChargeTotal)>
                        <!ELEMENT ChargeDescription (#PCDATA)>
                        <!ELEMENT Breakdown (Description, Usage, Rate, Total)>
                                <!ELEMENT Description (#PCDATA)>
                                <!ELEMENT Usage (#PCDATA)>
                                <!ELEMENT Rate (#PCDATA)>
                                <!ELEMENT Total (#PCDATA)>
                        <!ELEMENT ChargeTotal (#PCDATA)>
                <!ELEMENT TotalAmountPayable (#PCDATA)>
                <!ELEMENT TotalGSTApplicableAmount (#PCDATA)>
                <!ELEMENT TotalGSTAmountPayable (#PCDATA)>
                <!ELEMENT SupportingInformation (InfoDescription, InfoDetail)>
                        <!ELEMENT InfoDescription (#PCDATA)>
                        <!ELEMENT InfoDetail (#PCDATA)>
        <!ELEMENT RetailerAccountNumber (#PCDATA)>
        <!ELEMENT RetailerName (#PCDATA)>
        <!ELEMENT RetailerAddress (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
                <!ELEMENT Address2 (#PCDATA)>
                <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT BalanceBF (#PCDATA)>
        <!ELEMENT AccountTransaction (AccTransDescription, AccTransDate,
AccTransAmount)>
                <!ELEMENT AccTransDescription (#PCDATA)>
                <!ELEMENT AccTransDate (#PCDATA)>
```

```
<!ELEMENT AccTransAmount (#PCDATA)>
<!ELEMENT OutstandingBalance (#PCDATA)>
<!ELEMENT StartBillingDate (#PCDATA)>
<!ELEMENT EndBillingDate (#PCDATA)>
<!ELEMENT FinalBill (#PCDATA)>
<!ELEMENT TotalConsumerCharges (#PCDATA)>
<!ELEMENT RetailerTotalPayable (#PCDATA)>
<!ELEMENT OverallCurrentChargesExclusiveofGST (#PCDATA)>
<!ELEMENT OverallCurrentCharges (#PCDATA)>
<!ELEMENT OverallAmountPayable (#PCDATA)>
<!ELEMENT OverallGSTApplicableAmount (#PCDATA)>
<!ELEMENT OverallGSTAmountPayable (#PCDATA)>
<!ELEMENT OverallGSTInfo1 (#PCDATA)>
<!ELEMENT OverallGSTInfo2 (#PCDATA)>
<!ELEMENT PaymentDueDate (#PCDATA)>
<!ELEMENT SecurityDeposit (SecurityDepositType, SecurityDepositAmount)>
        <!ELEMENT SecurityDepositType (#PCDATA)>
        <!ELEMENT SecurityDepositAmount (#PCDATA)>
<!ELEMENT Provider (Name, Address*, Email)>
<!ELEMENT Name (#PCDATA)>
        <!ELEMENT Address (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
        <!ELEMENT Address2 (#PCDATA)>
        <!ELEMENT Address3 (#PCDATA)>
<!ELEMENT Email (#PCDATA)>
<!ELEMENT ProviderTelephoneNumber (#PCDATA)>
<!ELEMENT MSSLCOREGNumber (#PCDATA)>
<!ELEMENT MSSLGSTNumber (#PCDATA)>]>
```

Element	Meaning
AccountTransaction	Transaction on DRA's account
AccTransAmount	Amount applicable for account transaction
AccTransDate	Date of account transaction
AccTransDescription	Description of account transaction, eg. Payment Received, Security Deposit Adjustment, etc.
Address	The address of the MSSL. This address consists of three individual address lines.

Address1	The first line of the address as it appears on the bill
Address2	The second line of the address as it appears on the bill
Address3	The third line of the address as it appears on the bill
BalanceBF	Balance brought forward - DRA's opening account balance for this invoice
Breakdown	Detailed breakdown of charge
Charge	Charge applicable for the consumer, or DRA specific charge
ChargeDescription	Description of the charge, eg. Recurring Market Support Service Charges, Non-Recurring Financial Charges etc.
ChargeTotal	Total of charge
Consumer	Consumer that belongs to the DRA
CustomerAccountNumber	Consumer Account Number
Description	Description of charge breakdown, eg. DRS Billing and Collection, DRS MSS Basic Services etc.
Email	Contact Email for the MSSL
FinalBill	Identifier if the invoice is for a final bill
EndBillingDate	End date of the billing period for which charges are applicable
InvoiceIssueDate	The date the invoice was generated
InvoiceNumber	Identifier number of the invoice
MSSLCOREGNumber	MSSL’s Company registration number: 199504470N
MSSLGSTNumber	MSSL’s GST reference number: M2-8920920-4
Name	The name of the MSSL
OutstandingBalance	Outstanding balance after account transactions are applied to balance brought forward
OverallAmountPayable	Overall amount payable by the DRA for the invoice
OverallCurrentChargesExclusiveofGST	Total current charges for the billing period excluding Goods and Services Tax
OverallCurrentCharges	Total current charges for the billing period including Goods and Services Tax
OverallGSTAmountPayable	Total GST for DRA
OverallGSTApplicableAmount	Total amount subject to GST for DRA

OverallGSTInfo1	Goods and Services Tax information (Part 1)
OverallGSTInfo2	Goods and Services Tax information (Part 2)
PaymentDueDate	Due date for the OverallAmountPayable for the invoice
Provider	The MSSL provider information.
ProviderTelephoneNumber	Contact telephone number for the MSSL
Rate	Rate of charge breakdown applicable to 'Usage'
RetailerAccountNumber	DRA Account Number
RetailerAddress	The billing address of the DRA for whom the goods and services are supplied. The address consists of three individual address lines.
RetailerInvoiceContent	DRAs invoice
RetailerName	The name of the DRA to whom the goods and services are supplied.
RetailerTotalPayable	Total amount for the DRA specific charges (ie. non-consumer related charges)
SecurityDeposit	Security deposit item
SecurityDepositAmount	Amount of security deposit item
SecurityDepositType	Description of security deposit item, eg. MSSL Cash, MSSL Bank Guarantee, etc.
StartBillingDate	Start date of the billing period for which charges are applicable
TaxStatement	Tax statement for the invoice.
Total	Total of charge breakdown
TotalAmountPayable	Total charges applicable to the consumer
TotalConsumerCharges	Total current charges of consumers excluding Goods and Services Tax
TotalGSTAmountPayable	Total GST for consumer
TotalGSTApplicableAmount	Total amount subject to GST for consumer
Usage	Usage of charge breakdown, eg. 1000kWh, 2 meters, 1 month, etc.

9.5.2 DDRA Invoice DTD

The DDRA Invoice DTD is applicable for a DDRA with Direct Access.

Message Header		
Field Name	**Description**	**Data Type**
X-JMS-TYPE	**Invoice Data / Usage Data**	String
Message Body (XML DTD)		

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE CustomerInvoiceContent [
<!ELEMENT CustomerInvoiceContent (TaxStatement, InvoiceNumber, InvoiceIssueDate,
CustomerAccountNumber, ConsumerName, ConsumerAddress*, BalanceBF,
AccountTransaction*, OutstandingBalance, StartBillingDate, EndBillingDate, FinalBill, Charge*,
TotalCurrentCharges, TotalAmountPayable, TotalGSTApplicableAmount,
TotalGSTAmountPayable, PaymentDueDate, SecurityDeposit*, Provider*,
ProviderTelephoneNumber, MSSLGSTNumber)>
        <!ELEMENT TaxStatement (#PCDATA)>
        <!ELEMENT InvoiceNumber (#PCDATA)>
        <!ELEMENT InvoiceIssueDate (#PCDATA)>
        <!ELEMENT CustomerAccountNumber (#PCDATA)>
        <!ELEMENT ConsumerName (#PCDATA)>
        <!ELEMENT ConsumerAddress (Address1, Address2, Address3)>
                <!ELEMENT Address1 (#PCDATA)>
                <!ELEMENT Address2 (#PCDATA)>
                <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT BalanceBF (#PCDATA)>
        <!ELEMENT AccountTransaction (AccTransDescription, AccTransDate,
AccTransAmount)>
                <!ELEMENT AccTransDescription (#PCDATA)>
                <!ELEMENT AccTransDate (#PCDATA)>
                <!ELEMENT AccTransAmount (#PCDATA)>
        <!ELEMENT OutstandingBalance (#PCDATA)>
        <!ELEMENT StartBillingDate (#PCDATA)>
        <!ELEMENT EndBillingDate (#PCDATA)>
        <!ELEMENT FinalBill (#PCDATA)>
        <!ELEMENT Charge (ChargeDescription, Breakdown*, ChargeTotal)>
                <!ELEMENT ChargeDescription (#PCDATA)>
                <!ELEMENT Breakdown (Description, Usage, Rate, Total)>
                        <!ELEMENT Description (#PCDATA)>
                        <!ELEMENT Usage (#PCDATA)>
                        <!ELEMENT Rate (#PCDATA)>
                        <!ELEMENT Total (#PCDATA)>
                <!ELEMENT ChargeTotal (#PCDATA)>
        <!ELEMENT TotalCurrentCharges (#PCDATA)>
        <!ELEMENT TotalAmountPayable (#PCDATA)>
        <!ELEMENT TotalGSTApplicableAmount (#PCDATA)>
        <!ELEMENT TotalGSTAmountPayable (#PCDATA)>
        <!ELEMENT PaymentDueDate (#PCDATA)>
```

```
        <!ELEMENT SecurityDeposit (SecurityDepositType, SecurityDepositValue)>
        <!ELEMENT SecurityDepositType (#PCDATA)>
                <!ELEMENT SecurityDepositAmount (#PCDATA)>
        <!ELEMENT Provider (Name, Address*, Email)>
        <!ELEMENT Name (#PCDATA)>
                <!ELEMENT Address (Address1, Address2, Address3)>
                        <!ELEMENT Address1 (#PCDATA)>
                        <!ELEMENT Address2 (#PCDATA)>
                        <!ELEMENT Address3 (#PCDATA)>
        <!ELEMENT Email (#PCDATA)>
        <!ELEMENT ProviderTelephoneNumber (#PCDATA)>
        <!ELEMENT MSSLCOREGNumber (#PCDATA)>
        <!ELEMENT MSSLGSTNumber (#PCDATA)>
    ]>
```

Element	Meaning
AccountTransaction	Transaction on DDRA's account
AccTransAmount	Amount applicable for account transaction
AccTransDate	Date of account transaction
AccTransDescription	Description of account transaction, eg. Payment Received, Security Deposit Adjustment
Address	The address of the MSSL. This address consists of three individual address lines.
Address1	The first line of the address as it appears on the bill
Address2	The second line of the address as it appears on the bill
Address3	The third line of the address as it appears on the bill
BalanceBF	Balance brought forward - consumer's opening account balance for this invoice
Breakdown	Detailed breakdown of charge
Charge	Charge applicable for the invoice
ChargeDescription	Description of the charge
ChargeTotal	Total of charge
CustomerAccountNumber	DDRA Account Number
ConsumerName	The name of the DDRA to whom the goods and services are supplied.

ConsumerAddress	The billing address of the DDRA for whom the goods and services are supplied. The address consists of three individual address lines.
CustomerInvoiceContent	DDRA's invoice
Description	Description of charge breakdown
Email	Contact Email for the MSSL
FinalBill	Identifier if the invoice is for a final bill
EndBillingDate	End date of the billing period for which charges are applicable
InvoiceIssueDate	The date the invoice was generated
InvoiceNumber	Identifier number of the invoice
Name	The name of the MSSL
MSSLCOREGNumber	MSSL's Company registration number: 199504470N
MSSLGSTNumber	MSSL's GST reference number: M2-8920920-4
OutstandingBalance	Outstanding balance after account transactions are applied to balance brought forward
PaymentDueDate	Due date for the TotalAmountPayable for the invoice
Provider	The MSSL provider information.
ProviderTelephoneNumber	Contact telephone number for the MSSL
Rate	Rate of charge breakdown applicable to 'Usage'
SecurityDeposit	Security deposit item
SecurityDepositAmount	Amount of security deposit item
SecurityDepositType	Description of security deposit item, eg. MSSL Cash, MSSL Bank Guarantee
StartBillingDate	Start date of the billing period for which charges are applicable
TaxStatement	Tax statement for the invoice.
Total	Total of charge breakdown
TotalAmountPayable	Total charges applicable to the DDRA
TotalCurrentCharges	Total current charges for the billing period including Goods and Services Tax
TotalGSTAmountPayable	Total GST for DDRA
TotalGSTApplicableAmount	Total amount subject to GST for DDRA
Usage	Usage of charge breakdown, eg. 1000kWh, 2 meters, 1 month, etc.

9.6 DRS MESSAGES SUMMARY

The following tables provide a summary of messages for each transaction and response times required.

9.6.1 Demand Response Registration Transfer Request

A. PARTICIPANT – DRA (AS CURRENT DRA)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Demand Response Registration Transfer Request		✓	N/A	Submitted when transferring to another LRF under the DRA
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	Sent when initiated by new DRA or EMC
Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of notification	Change Pending Received
Objection Notice		✓	Accepted within 3 day period after TA sent.	
Termination Notice		✓	Accepted within 3 day period after Objection Notice sent.	

B. PARTICIPANT – DRA (AS NEW DRA)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Demand Response Registration Transfer Request		✓	N/A	Submitted for DR Registration and DRA Transfer
Validation Acknowledgment	✓		Auto	
Transaction acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Complete, 2)Transaction Terminated or 3) New Transfer Date Required
New Action Date Required Notice	✓		Auto	
New Action Date		✓	Within 2 business days	
Change Complete Notification	✓		Auto	
Transaction Terminated Notification	✓		Auto	
Termination Notice		✓	Accepted up until two business days before the action date	

C. PARTICIPANT – EMC (FOR DRRA REGISTRATION AND TRANSFERS TO/FROM DDRA)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Demand Response Transfer Request		✓	N/A	Submitted for DR Registration and DRA Transfer
Validation Acknowledgment	✓		Auto	
Change Pending Notification	✓		Auto	For DMP transfers to NMPR/MPR
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of 1) Change Complete, 2)Transaction Terminated, 3) New Transfer Date Required 4) Change Pending
New Action Date Required Notice	✓		Auto	
New Action Date		✓	Within 2 business days	
Change Complete Notification	✓		Auto	Received for all transfers to/from Direct DRA
Transaction Terminated Notification	✓		Auto	
Termination Notice		✓	Accepted up until the two business days before the action date	

9.6.2 Cancel Transaction

A. PARTICIPANT – DRA/EMC

Message	Sent by EBT	Received by EBT	Response Time	Pre-Condition
Termination Notice		✓	Accepted up until the two business days before the action date	
Validation Acknowledgment	✓		Auto	
Transaction Terminated Notification	✓			Received If participant has previously received Change Pending notification for the transaction
Termination Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Transaction Terminated Notification	

9.6.3 Dispatch Data File

A. PARTICIPANT - DRA/EMC

Message	Sent by EBT	Received by EBT	Response Time
Data file (Invoice, Usage)	✓		Auto
Transaction Acknowledgment		✓	By 23:59:59 of business day following receipt of Data File

9.6.4 Demand Response De-Registration Request

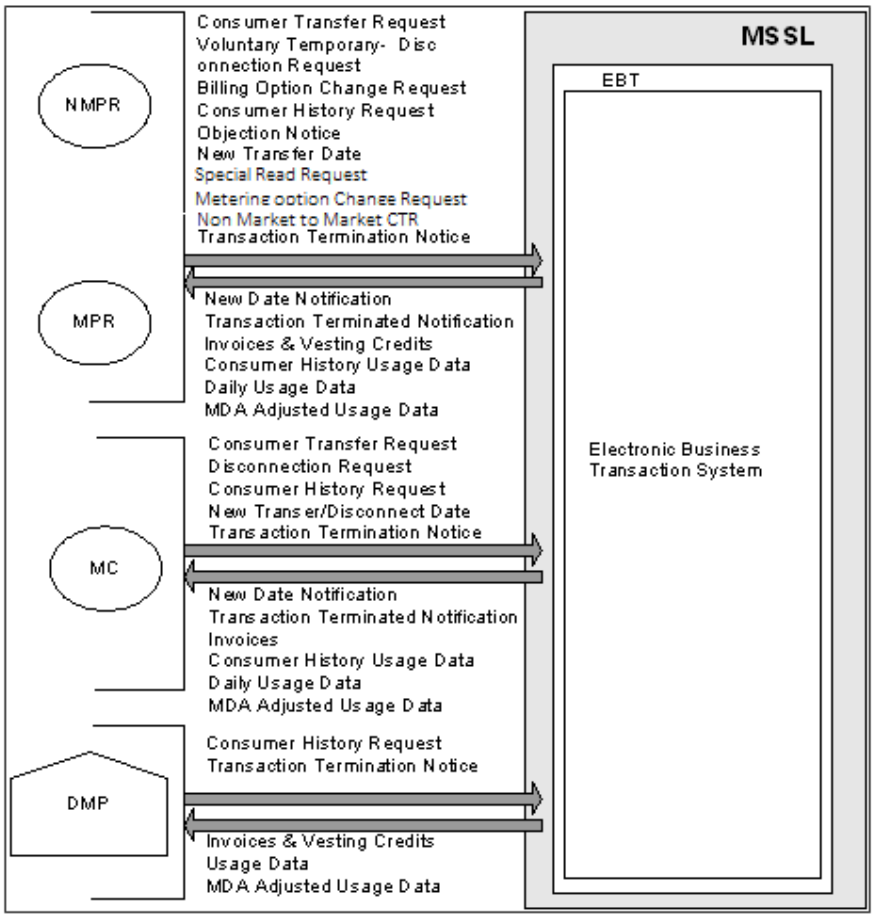
A. PARTICIPANT – DRA (AS CURRENT DRA/EMC)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Demand Response De-Registration Request	✓		N/A	Submitted when De-registering under the DRA
Validation Acknowledgment		✓	Auto	
Change Complete Notification		✓	Auto	
Transaction Acknowledgment	✓		By 23:59:59 of business day following receipt of notification	Change Complete Received

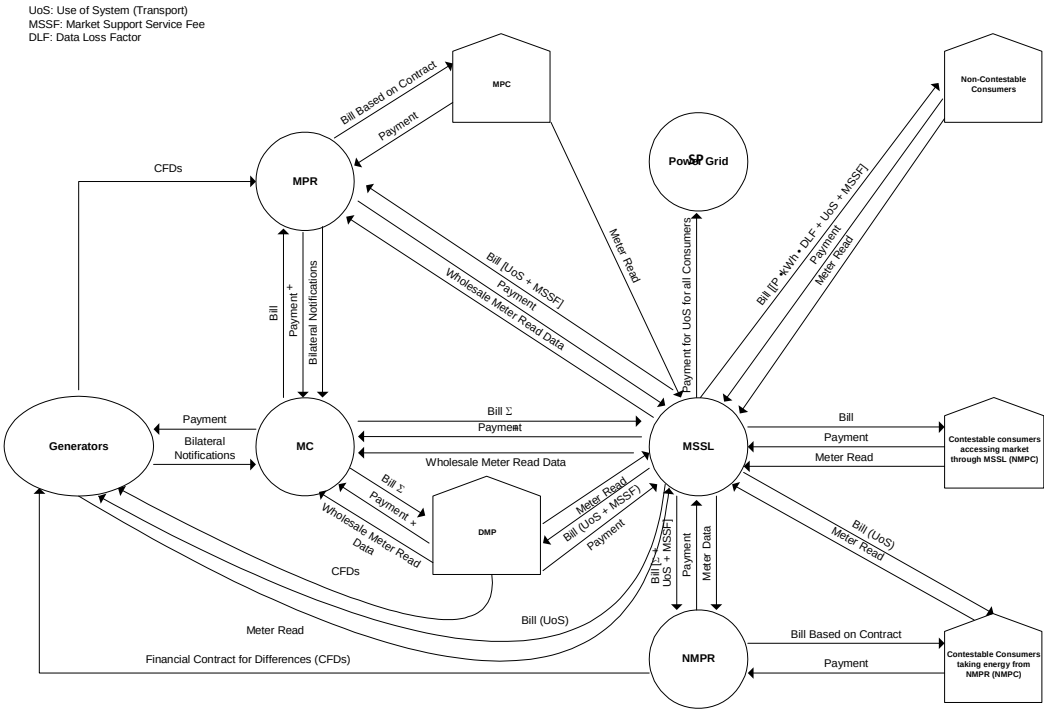
B. PARTICIPANT – DRA (MANUAL REQUEST)

Message	Sent by EBT	Received by EBT	Response Time	Pre- Condition
Demand Response De-Registration Request			N/A	Manual request submitted by MSSL
Change Pending Notification	✓		Auto	
Transaction Acknowledgment		✓	By 23:59:59 of following business day	Receipt of Change Pending
Change Complete Notification		✓	Auto	
Transaction Acknowledgment	✓		By 23:59:59 of business day following receipt of notification	Change Complete Received

Summary of Transactions between External Participants and EBT system



APPENDIX B: OVERVIEW OF THE MARKET STRUCTURE



+ Wholesale settlement payments will not actually be made through the IMO but through a third-party bank