B2B Technical Specification

Process Name:	**DELIVERING NEM B2B TRANSACTIONS VIA E-MAIL**
Jurisdiction:	**National**
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CONTENTS

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DOCUMENT HISTORY

Version	Date	Author	Comments
1.0	21/10/02	Bibhakar Saran et al	1st Draft for process leader and B2B WG review
1.1	3/11/02	Graham Dawson	Addresses comments raised via email up until 3/11/02.: → Clarification on precedence → Corrections to requirement for field descriptions to network billing CSV files → Clarification on requirement for bilateral agreement to send service orders as email content and as attachments → All requirements now numbered → Correction to the wording of the negative technical acknowledgement for networkj billing files
1.2	14/11/02	Bibhakar Saran	Incorporates changes agreed at the B2BWG of 11 November 2002. Effective immediately as no changes to the existing, approved standards.
1.3	27/11/02	Bibhakar Saran	Included the Customer Data specific details.
1.3	3/12/02	Bibhakar Saran	Included comments received from Steve Wise regarding NSW Network Billing process specification.
1.3a	8/5/03	David Lipshut	In accordance with the decision of the B2B Management Committee on 29 April, removed references to specific versions of Standards (such as NB_Vic_v1-3) and replaced with "latest published version" in section 1.3. Also removed copyright message (as previously agreed by B2BWG).
1.4	13/5/2003	Steve Wise Elio Pettina	Added technical details from existing Service orders process specification. Added changes from the SA technical specification.
DRAFT 1.5	12/8/2003	Graham Dawson	Added new transaction type for Customer Details Reconciliations ("CUSTRECON") and clarified requirements for *Reference_ID* for Victorian Customer Details Notifications and Customer Details Reconciliations. (Additional minor formatting changes also applied.)
	24/8/2003	Graham Dawson	Added clarification that the method of delivery of Customer Details Reconciliation files should be decided bilaterally (note the 5MB limit on files sent by email).

Version	Date	Author	Comments
	27/8/2003	Graham Dawson	Clarified wording added on 24/8/2003, based on discussion at B2B WG IT Sub-group
V1-5	24/9/2003	David Lipshut	Amended draft as agreed at National B2BWG on 1Sep03: s2.4.1 and 3.1 (m). Version approved at National B2BWG 1Sep03.
v1-6	10/12/2003	David Lipshut	Amended s3.1 per Change Proposal #31 (to add Meter Configuration for MRIMs) which was approved at the National B2BWG on 1Dec03

1 INTRODUCTION

1.1 Purpose

This specification articulates the business and technical requirements for the delivery of identified NEM B2B transactions via email.

1.2 Scope

This specification defines both business rules and technical requirements for:

- → The naming of emails and attachments;
- → Formatting email content;
- → Formatting CSV attachments; and
- → Formatting aseXML attachments.

1.3 Application

This specification applies for the following national and jurisdictional B2B processes:

Jurisdiction(s)	Processes That This Specification Applies To (latest pulished version)
New South Wales	→ Network Billing → NSW B2B Procedures
South Australia	→ Meter Data; → Customer Data; → Customer Complaint Notifications; → Customer Disconnection Notifications; → Network Billing; and → Service Orders. Refer to the interface technical specification for NMI Discovery and MSATS Registration (B2B_TE_SA_IP_NMI_Disc_and_MSATS_Reg_Tech_Spec) for details on sending the following transactions via email: a. NMIStandingDataRequest: NMI Discovery (Stage 2) Request. b. NMIStandingDataResponse: NMI Discovery (Stage 2) Response. c. SA_NMICreateMSATSRequest: Create NMI in MSATS. d. NMIDISFOLREQ: NMI Discovery Follow-up Request. e. NMIDISFOLRES: NMI Discovery Follow-up Response.

Jurisdiction(s)	Processes That This Specification Applies To (latest pulished version)
	For details relating to the NMI Transfer Completed Report, refer to the SA "NMI Transfer Completed Report Functional Specification for Customer Transfers" (SA Document ID: CTG019).
Victoria	→ Meter Data; → Meter Configuration Data; → Network Billing; → Customer Data; and → Service Orders.

1.4 Audience

This specification has been developed for relevant NEM participants and the community of software developers who will implement this specification.

1.5 Precedence

1.5.1 Relative to Process Specifications

This specification applies in conjunction with the latest B2B Process Specifications in applicable Jurisdictions, and as referenced by such specifications. Where a Process Specification defines requirements in variance with this technical specification, the Process Specification takes precedence.

1.5.2 Relative to Bilateral Agreements

In accordance with regulatory and contractual frameworks, participants may agree to bilateral agreements for the exchange of B2B transactions. Any such bilateral agreements should be interpreted as taking precedence over this technical specification. However, where bilateral agreements have not been formalised, this technical specification should apply as an "industry minimum" for the delivery of B2B transactions via email.

1.6 Documentation Conventions

The following keywords are to be interpreted throughout this document as described below:

- → MUST, REQUIRED and SHALL mean that the definition is an absolute requirement of this specification.
- → MUST NOT and SHALL NOT mean that the definition is an absolute prohibition of this specification.

- SHOULD or RECOMMENDED mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
- SHOULD NOT or NOT RECOMMENDED mean that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label.
- MAY or OPTIONAL mean that an item is truly optional. One participant may choose to include the item because a particular marketplace requires it or because the participant feels that it enhances the product while another participant may omit the same item. An implementation, which does not include a particular option, MUST be prepared to interoperate with another implementation, which does include the option, though perhaps with reduced functionality. In the same vein, an implementation which does include a particular option MUST be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides).

1.7 Related Documents

- B2B Process Specification: Service Order Interim
- B2B Process Specification: Meter Data
- B2B Process Specification: Meter Configuration Data
- B2B Process Specification: Customer Data
- B2B Process Specification: Victorian Network Billing
- B2B Process Specification: NSW Network Billing
- B2B Process Specification: NSW B2B Procedures
- B2B_CD_SA_IP_LNSP_Disconnection_Of_Customer_Notification "(LNSP Disconnection Of Customer Notification Process Specification)"
- B2B_CD_SA_IP_Complaint_Notification "(Customer Complaint Notification Process Specification)"
- B2B_SO_SA_IP "(Service Order Process Specification)"
- B2B_CD_SA_IP_Customer_Details_Notification "(Customer Details Notification Process Specification)"
- B2B_NB_SA_IP_Network_Billing "(Network Billing Process Specification)"

2 PROCESS-RELATED BUSINESS RULES

2.1 General

All messages are to be sent via Mail Transfer Agent (MTA) to the e-mail addresses prescribed by the recipient.

2.2 Basic Meter Data

The following rules relate to the transmission of basic meter data via email:

a) Basic meter data must be sent as CSV attachments to an e-mail and there must be one and only one attachment per e-mail.
b) If a basic meter data provider does not have any basic meter data to send (on any given day) then no e-mail need be sent.
c) Recipients are not required to acknowledge the receipt of basic meter data emails.
d) MDM consumption data, Meter Read data and Meter Configuration data must always be sent as separate e-mails for each of these types.
e) CSV attachments may contain basic meter data for multiple NMIs.

Appendix A provides a summary of basic meter data exchange procedures.

2.3 Meter Configuration Data

The following rules relate to the transmission of meter configuration data via email:

a) Meter configuration data must be sent as CSV attachments to an e-mail and there must be one and only one attachment per e-mail.
b) If a meter configuration data provider does not have any meter configuration data to send (on any given day) then no email need be sent.
c) Recipients are not required to acknowledge the receipt of meter configuration emails.
d) Meter Read data, Meter Configuration and Settlement Data[1] must always be sent as separate e-mails for each of these types.
e) CSV attachments may contain meter configuration data for multiple NMIs.

Appendix B provides a summary of configuration exchange procedures.

2.4 Customer Details Notifications and Customer Details Reconciliations

The following rules relate to the transmission of Customer Details Notifications and Customer Details Reconciliation files via email:

[1] Settlement Data includes Actual Consumption and Forward Estimates as required under the jurisdictional Metrology Procedures.

a) Customer Details Notifications and Reconciliations must be sent as CSV attachments to an e-mail and there must be one and only one attachment per e-mail.
b) If a retailer does not have any Customer Details Notifications to send to a LNSP (on any given day) then no e-mail need be sent.
c) Recipients are required to acknowledge the receipt of Customer Details Notification and Reconciliation emails unless otherwise specified. (It is the sender's responsibility to ensure the transaction is received.)
Note that the format of the acknowledgment of Customer Details files will be based on bi-lateral arrangements but may be a simple email receipt.
d) CSV attachments may contain Customer Details for multiple customers.

2.4.1 The transmission of large files (that cannot be emailed)

Customer Details Reconciliation files and Customer Details Notifications may exceed the 5MB limit for the transmission of files via email (see section 3.3.3a). Where this is the case, Retailers should contact the appropriate LNSP to determine a preferred delivery mechanism noting the following requirements:

a) Ideally, the LNSP should support the delivery of large files to allow automation by the Retailer (e.g. a FTP service). However, where agreement cannot be reached regarding a suitable, and supported, approach by both parties, the Customer Details Notifications ("large only") and/or Reconciliation files may be sent as CSV format files on one or more CDs (formatted for standards Windows access). (i.e. "Baseline" delivery is via CD.)
b) The receipt of CDs should be acknowledged via email.

2.4.2 Use of Fax

Customer Details Notification transactions can be faxed where:

a) Email is unavailable (i.e. as a backup to the email process); or

b) There are issues with the timeliness of delivery; or

c) There is a bilateral agreement between parties that this is the preferred communications method.

2.4.3 Use of Phone

Given the nature of the interim processes proposed and likely uncertainty in the market as operational processes are bedded down, phone is the preferred communications medium for:

a) The consultation process with the retailer for customer disconnection, however once agreement is made this should be documented as per standard business practice;

b) Following up on missing acknowledgements;

c) Initial notification of Life Support and Sensitive Load information;

d) Notification and resolution of validation errors with email or fax messages;

e) Notification and resolution of reconciliation errors (where agreed);

f) Resolution of queries and/or disputes;

g) Escalation of systemic problems for rapid resolution;

h) Requesting additional information from the party who originally received the complaint;

i) Resolving the issue with the customer.

2.5 Network Billing

The following rules relate to the transmission of network billing data via email:

a) Distributors will send and receive all Network Billing transactions via a CSV formatted text file sent as an attachment to an email message.

b) In general data exchanges should involve e-mailing a larger file sent daily (or other bilaterally agreed time periods) rather than real time (eg. one per NMI) sent throughout the day.

c) Distributors should endeavour to batch all invoices and dispatch them in one logical file exchange (eg. overnight) to minimise Retailer reconciliation overhead.

d) Retailers should endeavour to batch dispute and remittance notifications and dispatch them in one logical file exchange (eg. overnight) to minimise risk of invoices not being paid or disputed (ie. forgotten) before becoming overdue.

e) Network billing emails and attachments will not be considered as being successfully sent until a confirmed receipt is received. In NSW, the receipt will be an auto-reply, ideally within 5 minutes of receipt. If not received, the sender must contact the receiving party to ensure that any technical issues are mutually resolved.

f) Parties should ensure files are technically correct. This may involve technical validation of the file by the sender prior to issuance.

g) If a file does not pass the error conditions for technical acknowledgment, the receiving party should advise the sending party of such an occurrence by 5pm (local time) of the next working day. If no such response is received, the file is assumed as technically valid.

2.5.1 Error conditions for the technical acknowledgment

On receipt of an e-mail, the receiver should confirm:

a) The name of the email and attachment are both consistent, valid and understood;

b) The email and attachment have been sent to the correct party;

c) The CSV attachment has not already been successfully processed;

d) The CSV file format has been validated and is deemed to be correct (i.e. fields correct length, content valid according to file definition, all mandatory fields populated);

e) The control totals and retailer name and network name in header and trailer records are correct and appropriate;

f) The CSV attachment contains no incomplete record structures eg. NUOS charge records without Invoice summary records; and that

g) There are no calculation errors such as charge records not adding up to the invoice total.

If there is a failure of any of these checks, the receiving party must notify the sender, by email, that the file has been rejected (providing details of the validation errors) on the basis of failing technical validation and must be corrected and resent.

The negative technical acknowledgement e-mail should have the following attributes:

h) The Title/Subject should reference the originating transaction name, plus a suffix if so desired. Eg. Re: NEM#NBCHARGES#ENRGYAUS#EASTERN#20020826V1. For NSW the suffix is mandatory and MUST reflect status of the file. For example "NEM#NBCHARGES#ENRGYAUS#EASTERN#20020826180500V1–Rejected."

i) The message should provide full details on the nature of the problem. Eg. File corrupt, please resend.

j) Confidentiality statements and further contact details may also be appended to the message.

k) The receiving party may also return the file that failed validation as an attachment, to assist in correcting the problem.

l) The party that originally sent the file should use best endeavours to promptly rectify the nature of the problem, and resend the corrected file with a new version number.

In the case of extra-ordinary technical events or excessive delays in resending files, bilateral arrangements may be made between parties. Eg. Waiving interest charges or revised payment processing dates.

2.6 Service Orders

The following rules relate to the transmission of service order data via email:

a) Service Order Requests and Responses (Notifications) should be sent via email (as a preferred delivery mechanism).

b) Service Order Request or Response details must either be included in the body of the email or attached to an email as a CSV or aseXML formatted attachment. (Participants may bilaterally agree to include details in the body of the email and as a CSV or aseXML attachment.)

c) Where the Service Order Request or Response details are included in the body of the email message, the embedded details must conform to the relevant and applicable B2B Service Order process specification.

d) Note that the use of email with a CSV or aseXML format attachment requires bilateral agreement between parties (i.e. the baseline requirement is that Service Order Requests and Responses be sent as emails with the transaction details included in the body of the email).

e) Only a single service order request or response should be sent per email.

SA uses Appointment Notifications with some Service Orders. The points listed in this section apply equally to the Appointment Notification transactions.

2.6.1 Use of Fax

Service Order Requests and Responses can be faxed where:

a) Email is unavailable (i.e. as a backup to the email process); or

b) There are issues with the timeliness of delivery; or

c) There is a bilateral agreement between parties that this is the preferred communications method.

It is recommended that where service order requests are faxed, the fax should conform to the format of a service order request sent as email content and should clearly identify the senders contact details in the event that the fax is corrupted or only partially received.

Refer to the B2B Process Specification: Service Orders for details of the content of service order requests and responses.

2.6.2 Use of Phone

Given the nature of the processes used, phone is the preferred communications medium for:

a) Notification and resolution of validation errors with email or fax messages;

b) Notification and resolution of reconciliation errors (differences in actual Service Order Requests received against daily summaries provided by the Retailer);

c) Resolution of queries and/or disputes;

d) Communicating updates to the details of a Service Order Request and/or cancelling a Service Order Request (note that updates are only allowed where an appropriate bilateral agreement between parties has been reached);

e) Arranging appointments (note that appointments are only allowed where an appropriate bilateral agreement between parties has been reached);

f) Escalation of systemic problems for rapid resolution; and

g) Communicating urgent or after hours requests where this mechanism is specified in the Service Order Process Specification

Note: it is recognised that a LNSP may formalise service order request "rejection" notices or other standard and/or frequent outgoing transactions through use of email. A LNSP may also announce a strong preference for standard and/or frequent incoming transactions to be sent through email.

2.7 Customer Disconnection Notifications

The following rules relate to the transmission of Customer Disconnection Notification data via email:

a) Customer Disconnection Notification details must be included in the body of the email in a listed format.

b) Only a single Customer Disconnection Notification will be sent per email.

c) Bilateral agreement will be necessary before Customer Disconnection Notifications may be exchanged using email attachments. Without a bilateral agreement, all email attachments will be ignored.

d) The Customer Disconnection Notification details must conform to the B2B Customer Disconnection Notification Process Specification.

e) A reply receipt is required for this transaction.

2.8 Customer Complaint Notifications

The following rules relate to the transmission of Customer Complaint Notification data via email:

a) Customer Complaint Notification details must be included in the body of the email in a listed format.

b) Only a single Customer Complaint Notification will be sent per email.

c) Bilateral agreement will be necessary before Customer Complaint Notifications may be exchanged using email attachments. Without a bilateral agreement, all email attachments will be ignored.

d) The Customer Complaint Notification details must conform to the B2B Customer Complaint Notification Process Specification.

e) A reply receipt is required for this transaction.

3 TECHNICAL DELIVERY DETAILS

3.1 E-mail Subject

To assist in tracking and processing Network email B2B transactions, a standard e-mail message subject should be used:

NEM#Transaction_Name#Sending_Participant_ID#Receiving_Participicent_ID#Reference_ID

Email subject naming rules:

a) As shown above, the "#" (hash symbol) must be inserted as a separator between fields (and may be used by recipients to facilitate system parsing and sorting of messages).

b) The subject name must not include spaces.

c) The fields Transaction_Name, Sending_Participant_ID, Receiving_Participant_ID and Reference_ID must not contain "#" (the hash symbol).

d) The literal "NEM" must be included and denotes that the transaction relates to the national electricity market.

e) The Transaction_Name field must be included to identify the (unique) B2B transaction type. The following table lists the allowable transaction names:

Process Area	Transaction Name	Description
Meter Data	METERDATABASIC	Settlement consumption data - basic (NEM03)
	METERREADBASIC	Basic Meter readings (NEM03)
Meter Configuration Data	METERCONFIGBASIC	Basic Meter Configuration data
	METERCONFIGMRIM	Manually Read Interval Meter Configuration data
Network Billing	NBCHARGES	Network Charges/Adjustments/ Recharge Sent to Retailer
	NBCREDIT	Credit Balance Invoice Advice
	NBDISPUTES	Network Charge Dispute Notification Sent to Distributor
	NBDISRESOL	Dispute Status Change Advice
	NBREMIND	Outstanding Invoice Advice
	NBREMITT	Remittance to Distributor
	NBTAXINVREQ	Excluded Service Charge Tax Invoice Request
Service Order Requests	NEWCONNECT	New Connection
	REENERGISE	Re-energisation
	DEENERGISE	De-energisation
	SPECIALRD	Special Read
	MTRADDALTS	Meter Additions/Alterations
	MTRCONFIG	Meter Reconfiguration
	MTRINSPECT	Meter Inspection
	MTRABOLISH	Supply Termination
	MISC	Miscellaneous

Process Area	Transaction Name	Description
Service Order Responses	NEWCNOTICE	New Connection
	REENNOTICE	Re-energisation
	DEENNOTICE	De-energisation
	SPRDNOTICE	Special Read
	MTRADDALTS	Meter Additions/Alterations
	MTRCONFIG	Meter Reconfiguration
	MTRINSPECT	Meter Inspection
	MTRABOLISH	Supply Termination
	MISC	Miscellaneous
Service Order Appointment Notifications	NEWCAPPT	New Connection Appointment
Customer Data	NMIDISFOLREQ	NMI Discovery Follow-up Request
	NMIDISFOLRES	NMI Discovery Follow-up Response
	COMPLAINT	Customer complaint notification
	CUSTDETAILS	Update to customer information
	CUSTRECON	Reconciliation file for customer details
	DBDISCON	customer disconnection notification

f) The Sending_Participant_ID field must be included to identify the participant that has sent the message.

g) The Sending_Participant_ID field must only contain a valid NEM participant ID, as published by NEMMCO.

h) The Receiving_Participant_ID field should be included to identify the participant who is intended to receive the message.
Important note: this field does not apply to all B2B transactions and, under existing interim arrangements, should not be used for METERDATABASIC, METERREADBASIC, METERCONFIGBASIC and METERCONFIGMRIM transactions.

i) Where provided, the Receiving_Participant_ID field must only contain a valid NEM participant ID, as published by NEMMCO.

j) The Reference_ID field must be included to provide both sender and recipient with a consistent and unique reference for the transaction, to assist in identifying duplicate messages.

k) For Network Billing transactions, the Reference_ID field must comprise the concatenation of the file creation date and time (formatted as "CCYYMMDDHHMMSS"), the literal "V" followed by the version number of the file (1, 2, and so on) and for NSW the status (blank or 'Rejected') as illustrated on in 2.5.1 (h). The version number will be incremented only where files are created and resent due to negative technical acknowledgment.

l) For service orders, the Reference_ID field must be no longer than 20 characters and must be the Service Order Number, as included in the contents of the transaction.

m) For Customer Details Notifications, Customer Details Reconciliations and Meter Data transactions, the Reference_ID field must be no longer than 20 characters and must represent the date and timestamp of the message (formatted as "CCYYMMDDHHMMSS").

n) All of the fields described above must be included, with the exception of the Receiving_Participant_ID field in the meter data and meter configuration data transactions.

o) The full subject name, including all required fields and separators, must not exceed a maximum length of 255 characters.

p) The Customer Data NMI Discovery follow-up transactions NMIDISFOLREQ and NMIDISFOLRES use the following fields in the subject of the e-mail:

#NEM#<Transaction>#<Priority> #Receiver#Sender, where:

Priority	High:	Should be used for same day energisations only
	Medium:	Required within 2 business days
	Low:	Not required for at least 2 business days

Only valid market participant codes (from NEMMCO) are acceptable as ***Sender and Receiver***

3.2 Email Content

3.2.1 Confidentiality Notice

All e-mails should contain a confidentiality notice. Where a business does not have an approved, corporate confidentiality notice, the following is to be included:

> *"This email and any files transmitted with it may be confidential and is intended solely for the use of the individual or entity to whom it is addressed. If you have received this email in error, please notify the sender by return email, and delete this email from your in-box. Do not copy it to anybody else."*

For operational convenience, the notice can be added as an automatic signature and may also include contact details for issue resolution and escalation.

3.2.2 Format of Email Content transactions

Where a transaction is sent in the body of the email message:

- The message is to be structured as a list of the relevant fields, as described in the relevant process specification.
- Field names and field sizes are to be consistent with the relevant Transaction data requirements.
- Fields are to be in the same order as listed in the Transaction data tables.
- All relevant fields are to be included (i.e. the field names for optional or required fields with no data should be included – as for *MeterSerialNumber* in the example below);

- Fields names identified as "Not relevant" in the transaction definitions should NOT be included;
- Field names and values are to be separated by a colon, as illustrated below. Colons are not to be used within field values, to assist some parties with processing these emails automatically.”

Example of Service Order Request as an email.

Subject: NEM#DEENERGISE#EASTENGY#CITIP#000000001012320
ServiceOrderNumber: 000000001012320 ServiceOrderType: DEENERGISE RetailerID: EASTENGY ServiceProviderID: CITIP NMI: 0123456789 NMIChecksum: 9 MeterSerialNumber: ServicePointAddress1: UNIT 17 ServicePointAddress2: LEVEL 3 ServicePointAddress3: 1000 LYGON STREET ServicePointAddress-SuburbOrStateOrLocality: CARLTON NORTH ServicePointAddress-StateOrTerritory: VIC ServicePointAddress-Postcode: 3054 AccessDetails: Meter in underground garage HazardCode: DS SpecialInstructions: SpecialReadReasonCode: DR ContactName: GRAHAM DAWSON ContactTelephoneNumber: 0393870000 ContactAddress-UnstructuredAddress1: UNIT 19 ContactAddress-UnstructuredAddress2: LEVEL 1 ContactAddress-UnstructuredAddress3: 1000 LYGON STREET ContactAddress-SuburbOrStateOrLocality: CARLTON NORTH ContactAddress-StateOrTerritory: VIC ContacttAddress-Postcode: 3054 CustomerName: ANNE DAWSON CustomerTelephoneNumber: 0396204004 CustomerAddress-UnstructuredAddress1: 17 RICHARDSON STREET CustomerAddress-UnstructuredAddress2: CustomerAddress-UnstructuredAddress3: CustomerAddress-SuburbOrStateOrLocality: CARLTON NORTH CustomerAddress-StateOrTerritory: VIC CustomerAddress-Postcode: 3054 AppointmentReference:

PreferredDate: 20020113
PreferredTime:

3.3 File Attachments

3.3.1 Number of Attachments

Rules governing the number of email attachments:

a) Each email must have no more than one attachment.
b) Where a B2B transaction is included in an email as body content, rather than as an attachment, the email should not have an attachment (unless bilaterally agreed by participants).

3.3.2 Naming Attachments

Email attachment naming rules:

a) Meter Data attachments must to be named in accordance with the NEMMCO Meter Data Specification.

b) Compressed Meter Configuration Data attachments must share the name of the email (as included in the subject line) and must also include an appended filetype extension of ".zip":

NEM#Transaction_Name#Sending_Participant_ID#Reference_ID.zip

c) For all other transactions sent as compressed attachments (including Network Billing, Service Order Request or Response, and Customer Details Notifications/Reconciliations), the attachment must share the name of the email (as included in the subject line) and must also include an appended filetype extension of ".zip":

**NEM#Transaction_Name#Sending_Participant_ID#Receiving_Participant_ID#
Reference_ID.zip**

d) The zip file content will be consistent with the e-mail subject header, using an extension type suffix as illustrated below:

***NEM#Transaction_Name#Sending_Participant_ID#Receiving_Participant_ID#
Reference_ID.csv***

e) The supported file extension and associated data format is listed below:

Extension suffix	***Data format***
.csv	*CSV format*

Extension suffix	*Data format*
.xml	*AseXML instance document*

f) Where a ServiceOrderRequest or ServiceOrderResponse are to be sent as aseXML attachments, a Style Sheet may be used by the receiver to view/print the transaction. In this case, the email will have a standard subject line, a confidentiality notice in the body of the email and one attachment (the aseXML transaction)

3.3.3 .Maximum Size of Attachments

a) In Victoria and SA, attachments must not exceed an uncompressed file size of five megabytes.

b) In NSW, attachments must not exceed a compressed file size of two megabytes.

3.3.4 Compression of Attachments

a) Meter Data attachments must be compressed according to the NEMMCO Meter Data Specification.

b) All other attachments must be zipped using the 'zlib' standard (using software such as PKZIP), as used by MSATS at the time.

3.3.5 Security/Encryption of Attachments

a) Compressed Meter Data attachments must include password protection in accordance with the NEMMCO Meter Data Specification.

b) Meter Configuration Data attachments must not be password protected.

c) All other compressed attachments (such as network billing files) must be password protected using the B2B password issued by NEMMCO.

3.3.6 Use of Header row on CSV data files

a) B2B Meter Data (MDFF) files will be formatted according to the NEMMCO Meter Data Specification.

b) Meter Configuration files must not contain field header rows or records.

c) Victorian Network Billing Files must not contain field description headers or records.

d) NSW Network Billing CSV files will contain field header and footer records as described within this process specification. Files will not contain any field headings.

e) All other CSV attachments must contain field header rows or records.

3.4 Format of Fax Proformas

Where a transaction is faxed, the content of the fax should be the same as one sent as email content. See the example below.

All faxed transactions must be accompanied by a standard fax header detailing the sender and receiver details (in the event that the fax is corrupted or only partially received).

Example of a de-energisation ServiceOrderRequest sent as a fax.

Sending Retailer Name: Sending Retailer Phone Number: Receiving Service Provider Name: Receiving Service Provider Phone Number: Date:
RetServiceOrder: 000000001012320 ServiceOrderType: DEENERGISE RetailerID: EASTENGY ServiceProviderID: CITIP NMI: 0123456789 Checksum: 9 ServicePointAddress1: UNIT 17, LEVEL 3, 1000 LYGON STREET, ServicePointAddress2: CARLTON NORTH, MELBOURNE, ServicePointAddress3: VICTORIA 3054 AccessDetails: None HazardCode: DS SpecialInstructions: None SpecialReadReasonCode: DR ContactName: GRAHAM DAWSON ContactTelephoneNumber: 0393870000 ContactAddress1: None ContactAddress2: None ContactAddress3: None CustomerName: ANNE DAWSON CustomerTelephoneNumber: 0396204004

CustomerAddress1: None

CustomerAddress2: None

CustomerAddress3: None

AppointmentReference: None

PreferredDate: 20020113

PreferredTime: None

This fax is confidential and is intended solely for the use of the individual or entity to whom it is addressed. If you have received this fax in error, please notify the sender by telephone and dispose of this fax in a responsible manner. Do not copy it to anybody else.

APPENDIX A - SUMMARY OF BASIC METER DATA EXCHANGE PROCEDURES

Flow No.	Description	Document Content & Field Formats	Document Delivery Format (eg CSV)	Data Delivery Method	Frequency	Acknowledgments	NOTES
1	**MPC to LNSP** Meter Reads from meter data collector to LNSP	Private	Private	Private	Daily	private	unspecified
2	**LNSP to external MDP** Meter reads	Private	Private	Private	Daily	private	unspecified
3	**MDP to NEMMCO MDM** Consumption (settlement) data	BI610 aseXML	MSATS specified	MSATS specified NEMNet	Settlement data period (daily/weekly) Ref Metrology Procedure	MSATS specified	Ref. Metrology Procedure and NEMMCO MDP Service Level Requirements
4	**MDP to Participants** Consumption (settlement) data	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Settlement data period (daily/weekly) Ref Metrology Procedure	None	Consumption data sent in separate e-mail from other meter data and configuration data
5	**MDP to Participant** Meter Reads	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Multiple deliveries/day OK Within 2 days of schedule	None	Only one attachment per e-mail. Meter data can have multiple NMIs per file.
6	**MDP to LNSP** Consumption (Settlement) data	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Ref Metrology Procedure	None	Consumption data sent in separate e-mail from other meter data and configuration data
7	**MDP to FRMP** Meter Reads	NEMMCO NEM03	CSV	CSV File attached to	Multiple deliveries/day OK	None	Only one attachment per e-mail.

Flow No.	Description	Document Content & Field Formats	Document Delivery Format (eg CSV)	Data Delivery Method	Frequency	Acknowledgments	NOTES
		ME_MA001vxxx		e-mail	Within 2 days of schedule		Meter data can have multiple NMIs per file.
8	**MDP to FRMP** Consumption (Settlement) data	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Ref Metrology Procedure	None	Consumption data sent in separate e-mail from other meter data and configuration data
9	**MDP to Local Retailer** Meter Read	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Multiple deliveries/day OK Within 2 days of schedule	None	Only one attachment per e-mail. Meter data can have multiple NMIs per file.
10	**MDP to Local Retailer** Consumption (Settlement) data	NEMMCO NEM03 ME_MA001vxxx	CSV	CSV File attached to e-mail	Ref Metrology Procedure	None	Consumption data sent in separate e-mail from other meter data and configuration data
11	**LNSP to Participants (alternate route)** Meter Reads	NEMMCO NEM03 ME_MA001vxx	CSV	CSV File attached to e-mail	Multiple deliveries/day OK Within 2 days of schedule	None	Only one attachment per e-mail. Meter data can have multiple NMIs per file.

APPENDIX B - SUMMARY OF METER CONFIGURATION EXCHANGE PROCEDURES

Flow No.	Description	Document Content & Field Formats	Document Delivery Format (eg CSV)	Data Delivery Method	Frequency	Acknowledgments	NOTES
1	**LNSP to external MDP** meter configuration	Private	Private	Private	Daily	private	unspecified
2	**MDP to Participant** Meter Configuration	B2B Meter Configuration Spec	CSV	CSV File attached to e-mail	Day of corresponding data	None	Configuration data always in separate file from Meter data.
3	**MDP to FRMP** Meter Configuration	B2B Meter Configuration Spec	CSV	CSV File attached to e-mail	Day of corresponding data	None	Configuration data always in separate file from Meter data.
4	**MDP to Local Retailer** Meter Configuration	B2B Meter Configuration Spec	CSV	CSV File attached to e-mail	Day of corresponding data	None	Configuration data always in separate file from Meter data.
5	**LNSP to Participants (alternate route)** Meter Configuration	B2B Meter Configuration Spec	CSV	CSV File attached to e-mail	Day of corresponding data	None	Configuration data always in separate file from Meter data.

APPENDIX C - SUMMARY OF NSW NETWORK BILLING EXCHANGE PROCEDURES

Flow No.	Description	Document Content & Field Formats	Document Delivery Format (eg CSV)	Data Delivery Method	Frequency	Acknowledgments	NOTES
1	**LNSP to FRMP** Network invoice	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Various – from daily to monthly	Immediate e-mail plus additional negative technical acknowledgment	Only one attachment per e-mail Can have multiple NMIs per file. negative technical acknowledgment by 5pm (local time) of next working day
2	**FRMP to LNSP** Dispute Notification	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Before date due	Immediate e-mail	Date due determined by Invoice Due Date in Network Invoice less three days as specified in MOR/UOS agreements.
3	**FRMP to LNSP** Remittance Advice	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Before date due	Immediate e-mail	Associated EFT/ Payment also occurs at same time. Date due determined by Invoice Due Date in Network Invoice.
4	**LNSP to FRMP** Dispute Status Change advice	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Daily	Immediate e-mail	
5	**LNSP to FRMP** Overdue Invoice advice	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Daily	Immediate e-mail	
6	**LNSP to FRMP** Credit Balance Invoice advice	B2B Network Billing Spec	CSV	CSV File attached to e-mail	Monthly	Immediate e-mail	