Network Billing Build Pack Specification

B2B Process Specification

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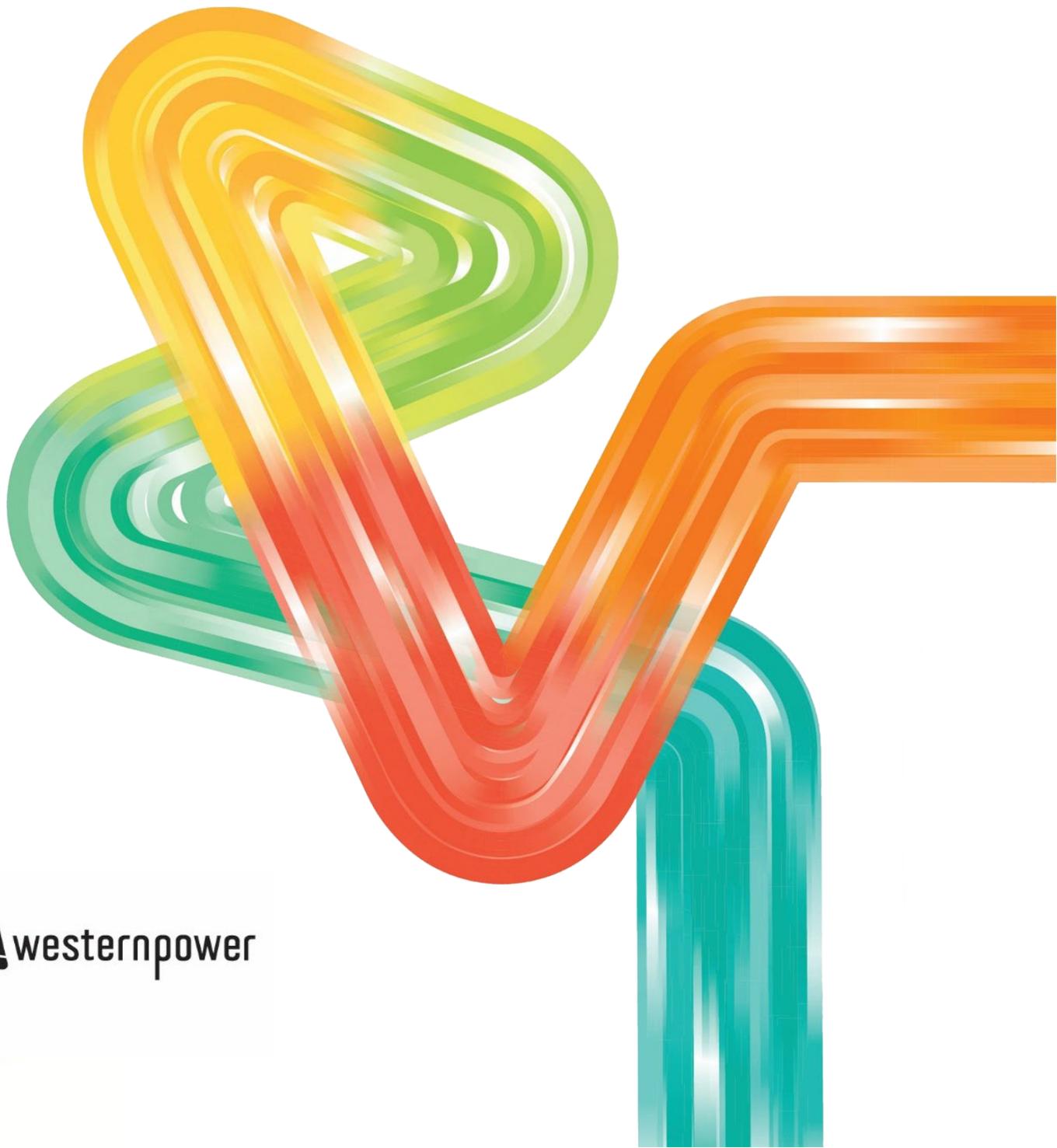
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Document Information

Title	Network Billing Build Pack Specification
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Authorisation

	Title	Name	Date
Owner	Acting Billing Team Leader	Darshan Gandhi	11/01/2023
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Document History

Rev No	Date	Amended by	Details of amendment
0.1	21 Oct 2007	Leigh Meaker	Initial Draft based on Queensland B2B Process Specification – Network Billing (QRRG v1-1) 29 May 2007
1.0	15 Feb 2008	Mark Hillaby	Initial review comments added and WP comments obtained
1.1	3 Mar 2008	Mark Hillaby	Differences in WA Market rules added
1.2	18 Mar 2008	Mark Hillaby	Meter Reading and Billing timeframes confirmed
1.3	27 Mar 2008	Mark Hillaby	External Review Release
1.4	16 Jun 2008	Michael Bell	File definitions converted from CSV to XML. References to "Statement of Charges" and "Invoice" clarified.
1.41	19 Jun 2008	Michael Bell	Corrections to XML schemas and StatementOfCharges layout.
1.5	19 Jun 2008	Mark Hillaby	Version for Market Participant Agreement
1.6	25 Jun 2008	Mark Hillaby	Version for MP Comments
1.61	30 Jun 2008	Michael Bell	Changed references "Retailer" to "Market Participant" and corrected associated grammar. Amended XML specification in Appendix D as per internal review feedback.
1.62	25 Jul 2008	Mark Hillaby	Version for MP agreement, including changes and amendments from comments
2.0	5 Aug 2008	Mark Hillaby	MP agreed version Final
2.1	24 Feb 2009	John Hatton	Changed references to "FTP" and replaced with "agreed commercial electronic transaction"
2.2	12 May 2009	John Hatton	Correction to Statement of Charges.xsd file Was: <xs:element ref="InterestCharge" maxOccurs="unbounded"/> Now: <xs:element ref="InterestCharge" minOccurs="0" maxOccurs="unbounded" /> This simply prevents the inclusion of Blanks if there are no interest charges.

Rev No	Date	Amended by	Details of amendment
2.3	29 Jan 2010	Michael Bell	Change "DocumentType" in StatementOfCharges.xsd from "Tax Invoice" to "Tax Invoice/Adjustment Note", to ensure GST legislative compliance.
2.3a	12 Feb 2010	Gene Matthews	Format change to document to include current Western Power branding. Document content has not been amended
2.4	25 Feb 2010	Gene Matthews	Update Appendix B – to include new tariff RT12 Update Appendix F – to include NEW-C1 – ToU (Residential) Bidirectional Update Appendix G – Position 1-4 – add RT12 Update Appendix G – Position 8 – add "Q" Update Appendix G – Position 8 – Change "N" Update Appendix G – Position 8 – remove "Y" Update Appendix G – Position 9 – change "S" Update Appendix G – Position 10 – add "S"
2.5	14/05/2014	Susan Jones	Added Changes to Appendix F for Bi-directional Tariffs Removed RT12 (C1) Added NEW-C1 New Connection Point Fee - C1 - Anytime Energy (Residential) NEW-C2 New Connection Point Fee - C2 - Anytime Energy (Business) NEW-C3 New Connection Point Fee - C3 - Time Of Use Energy (Small) NEW-C4 New Connection Point Fee - C4 - Time Of Use Energy (Large)
2.6	14/05/2014	Susan Jones	Update Appendix B – to include new tariffs RT13, RT14, RT15 & RT 16 Update Appendix G – Position 1-4 – add RT13 Update Appendix G – Position 1-4 – add RT14 Update Appendix G – Position 1-4 – add RT15 Update Appendix G – Position 1-4 – add RT16 Update Appendix G – Position 8 – Added "Y"
8F	20/08/14	Gene Matthews	Update document control details.
20	01/03/19	Gene Matthews	Update 'Stakeholder' and 'Distribution List' Correction to spelling errors. Update Appendix B – to include new tariffs RT17 to RT22 Update Appendix F – with new services Update Appendix G – Position 1-4 – add RT17 Update Appendix G – Position 1-4 – add RT18 Update Appendix G – Position 1-4 – add RT19 Update Appendix G – Position 1-4 – add RT20 Update Appendix G – Position 1-4 – add RT21 Update Appendix G – Position 8 – Added "H" Update Appendix G – Position 9 – Added "N" Update Appendix G – Position 9 – Added "R" Update Appendix G – Position 9 – Added "U" Update Appendix G – Position 9 – Added "W" Update Appendix G – Position 10 – Added "N" Update Appendix G – Position 10 – Added "U"
26	26/06/19	Gene Matthews	Correction to Appendix B – UOM for all Power Factor components PFE to PF
27	28/06/19	Jaya Rajagopalan	Correction to Appendix B – UOM for RT19 Demand Peak kVa – kW
28	28/06/19	Jaya Rajagopalan	Correction to Appendix B – UOM for TRT1-P Dist. Demand Peak kWh - EA

Rev No	Date	Amended by	Details of amendment
29	4/02/2020	Jaya Rajagopalan	• Implement Change Request #1 (dated 9 December 2019) and further minor changes following a Market Participant's feedback. • Update report template to Western Power's latest version.
30	24/07/2020	Jaya Rajagopalan	• Implement Change Request #2 (dated 19 June 2019)
31	11/01/2023	Darshan Gandhi	Proposed Change Request #3 (dated 29th November 2022 – asking for Market Participants Feedback on addition of RT05-I-PHT & RT06-I-PHT. Insertion of the Timestamp for "Billed 12-month Rolling Peak" information lines on the RT05 and RT06.

Review Details

Review Period:	Revision Date 01/07/2023
NEXT Review Due:	As required

Contents

1. Scope and general

1.1 Overview

1.1.1 With the introduction of Retail Contestability in the Western Australian electricity sector, and the establishment of a market with separate Retailer, Generator and Network Operator entities, business-to-business ("B2B") transactions between Market Participant have become increasingly important. The volume and complexity of B2B transactions within Western Australia's electricity sector are destined to increase.

1.1.2 To handle this increasing volume efficiently, effectively and accurately, automation is considered mandatory. This specification defines the B2B process for the electronic exchange of network billing related transactions.

1.1.3 This version of Western Australian B2B Process Specification – Network Billing has been based on the Queensland version 1.1. The Queensland specification was based on NSW, ACT and Victorian specifications, with the intention of retaining national consistency. The National Electricity Market (NEM) is in the process of agreeing a single national specification for Network Billing, but yet this is not agreed.

1.1.4 In Western Australia, Network Charges will be billed via a Statement of Charges ("SofC"). This is equivalent to a Tax Invoice.

1.2 Process name

1.2.1 Network Billing

1.3 Application

1.3.1 This process applies to the billing of network charges, and associated transactions, by a WA Network Operator ("Network Operator") to a WA Market Participant ("Market Participant") who would normally be charged for Access (e.g. Retailer or Generator). A Network Operator provides Market Participant with access to its distribution and transmission network at a regulated charge. Event Charge services are also provided by the Network Operator (e.g. standard charges).

1.3.2 A paper-based manual system is not allowed under this specification.

1.3.3 This specification describes the automation of the Network Billing process and its associated transactions and the associated business rules.

1.3.4 In addition to the business rules prescribed within this document, Market Participants are also required to comply with various regulatory instruments governing Network Billing.

1.3.5 The successful implementation of this B2B process requires all affected Market Participant (e.g. Network Operator and Retailers) to agree on a common approach. This ensures costly system changes are kept to a minimum and variations in business processes within Network Operator and Market Participants have a minimum impact on other Market Participants.

1.4 Documentation conventions

1.4.1 The following key words are to be interpreted throughout this document as described below:

1.4.2 MUST, REQUIRED and SHALL mean that the definition is an absolute requirement of this specification.

1.4.3 MUST NOT and SHALL NOT mean that the definition is an absolute prohibition of this specification.

1.4.4 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.

1.4.5 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.

1.4.6 MAY or OPTIONAL mean that an item is truly optional. One Market Participant may choose to include the item because a particular marketplace requires it or because the Market Participant feels that it enhances the product while another Market 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 that does not include the option (except, of course, for the feature the option provides).

1.5 Transaction exchanges

1.5.1 The generic exchanges between a Network Operator and Market Participants for billing purposes are outlined below.

- Network Operator transmits Statement of Charges data to Market Participant.
- Market Participant acknowledges receipt of Statement(s) of Charges.
- Market Participant transmits disputed Statement of Charges data to Network Operator.
- Network Operator acknowledges receipt of disputed charges.
- Market Participant and Network Operator investigate dispute(s). [This is a non-electronic B2B process].
- Market Participant provides Network Operator with payment.
- Market Participant provides Network Operator with itemised remittance details for payment allocation.
- Network Operator acknowledges receipt of remittance details.
- Network Operator resolves a dispute and issues a Dispute Status Change Advice
- Market Participant acknowledges receipt of Dispute Status Change Advice.

- Unactioned Statements of Charges are prompted by the Network Operator via an Outstanding Statement of Charges Advice.

- Market Participant acknowledges receipt of Outstanding Statement of Charges Advice.

- Network Operator requests direction of credit application via Credit Balance Advice.

- Market Participant acknowledges receipt of Credit Balances Advice.

- If applicable, recipient sends negative technical acknowledgment to originator.

- If applicable, originator resends corrected data file to recipient.

1.5.2 The frequency and manner of these transactions may vary between Network Operator and Market Participant, and will be subject to commercial agreements.

1.5.3 The interactions are illustrated below:

Network Operator				Market Participant
	a	Send Statement of Charges	→	
←	b	Acknowledge receipt of Statement of Charges		
←	c	Send Dispute Notification		
	d	Acknowledge receipt of Dispute Notification	→	
← - - -	e	Dispute follow up as required	- - - →	
←	f	Payment transaction		
←	g	Send Remittance Advice		
	h	Acknowledge receipt of Remittance Advice	→	
	i	Send Dispute Status Change Advice	→	
←	j	Acknowledge receipt of Status Change Advice		
	k	Send Outstanding Statement of Charges Notification	→	
←	l	Acknowledge receipt of Outstanding SofC Notification		
	m	Send Credit Balance Advice	→	
←	n	Acknowledge receipt of Credit Balance Advice		
←	o	Negative Technical Acknowledgment	→	
←	p	Resend corrected data/file	→	
		← - - - Non Electronic Interface - - - →		
		← Automated B2B Interface →		

1.6   Scope

1.6.1 This specification addresses the electricity process and transactions only. In addition, it focuses on transaction exchanges between Market Participants and the Network Operator only.

1.6.2 Embedded generation

   1.6.2.1   The Network Operator may, by agreement with a Market Participant, use this procedure for issuing Statements of Charges that pertain to NMIs with embedded generation.

1.6.3 Specific exclusions from this specification are:

   1.6.3.1   Internal processes of the Network Operator or Market Participant (for example, validation of Statement of Charges data by the Market Participant);

   1.6.3.2   Transactions or disputes associated with the Network Operator's or Market Participant's direct billing of a customer.

1.6.4 Resolution of Disputes

   1.6.4.1   Where the Network Operator and Participant are not able to resolve a billing dispute using the processes described in this specification then the dispute resolution process described in the applicable Electricity Transfer Access Contract between the parties should be invoked.

1.7   Justification

1.7.1 With the introduction of Retail Contestability in Western Australia, the growth in the number of contestable sites would mean that the printing of Statement of Charges and manually dispatching them to Market Participants would be a costly and labour intensive process. It would not be possible for Market Participants to manually process Statement of Charges for almost one million customers; such a process would delay payment to Network Operator, with implications for their cash flow.

1.7.2 The broadening of Retail Contestability will bring with it large scale customer movements across all of the customer sectors. The management of disputes between the Network Operator and the Market Participant requires agreement upon process and interchanges to ensure that accurate charges are assigned to the correct Market Participant for the right billing periods.

1.7.3 The Network Operator is charged with the treating of all Market Participants with Parity in terms of service provision and support for the Competitive Marketplace. This specification supports the introduction of one process for all Market Participants in the WA market for the purposes of managing Network Access Billing disputes management and payment.

1.8   Change management

1.8.1 Modifications to this specification will be managed by the Network Operator using a consultative process which is managed by The Customer Solutions Branch and

adheres to the ToR for the Network Billing B2B Working Group attached at Appendix E.

1.8.2   Market Participants will be consulted to approve any changes that participant(s) or the market require. The Network Operator may convene a working group and/or invite submissions as appropriate.

1.9   Notice of appendices

1.9.1   The information included in the appendices attached to this document has been provided for information only to assist in the gaining of agreement for this approach. The Appendices will not be maintained once agreement has been gained and are provided for information only.

2. Business information

2.1 Alias names/terminology/definitions

Consistent Term	Equivalents/ Definitions
Access Code	Refers to the *Electricity Networks Access Code 2004* to promote the economically efficient investment in; and operation of and use of networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks.
Adjustment Note	A form of Statement of Charges that cancels a previously issued Statement of Charges. May be regarded as a reversal or credit note.
Billing Period	The Billing Period starts on the Start Date of the first Charge Period and ends on the End Date of the last Charge Period
Cancel	The process whereby Network Operator indicates that a Statement of Charges is no longer due for payment. An Adjustment Note is issued.
Charge Line	A line on a Statement of Charges that relates to an individual charge, such as one element of a Network Operator charge.
Charge Period	Period to which a single rate or tariff charge (the pricing regime) applies to a NUoS record. The single rate or tariff applies to the first and last days of the Charge Period (i.e. inclusive). For example, a rate that applies for February 2007, will have a Start Date of 01Feb07 and an End Date of 28Feb07. For basic meters if a meter reading is conducted on 20Feb07, the End Date will be 19Feb07. In the event that this date marks a transfer, then the billing end date will be 20Feb07 0800 .ie the reading date + 8 hours of the next day. This is to align with the IMO energy market requirements. Multiple Charge Periods can exist for a particular Billing Period (for example, if a tariff has changed or a rate has changed, etc.). An example of this would be where a tariff rate comes into effect on 16Feb07 and the billing period was 01Feb07 to 28Feb07. The prior Charge Period will have a Start Date of 01Feb07 and an End Date of 15Feb07 and the subsequent Charge Period will have a Start Date of 16Feb07 and an End Date of 28Feb07 for an interval meter. A Basic Meter may not change tariff or Market Participant until the day after the meter has been physically read. The Start Date of the first Charge Period and the End Date of the last Charge Period must match the Start and End Date for the relevant Billing Period. Examples of different date scenarios is provided in Appendix C
Network Operator	The Network Operator, in this case Western Power. Also referred to as Distributor, Network, Distribution Business, Local Network Service Provider or LNSP and Distribution Network Service Provider or DNSP. The Network Operator covers the roles of both Distribution Network Service Provider (DNSP) and Transmission Network Service Provider (TNSP).
Electricity Industry Act	Code made under the *Electricity Industry Act 1994* which outlines obligations on Network Operators and Market Participants
Electricity Transfer Access Contract (ETAC)	The ETAC is the Access Agreement or contract arrangement between the Network Operator and the Market Participant. The ETAC sets out the operation of the principles laid down in the *Electricity Networks Access Code 2004.*

Consistent Term	Equivalents/ Definitions
Event Charges	Used to collectively refer to any Network Charge that is not related to NUoS or Interest charges, such as: • Connection charges; • Charges associated with Service Orders; and • Other fees and charges as published by the Network Operator in its Price List or otherwise advised.
Interest Charges	Interest charges are charges that are levied for overdue amounts, as permitted by the Access Arrangement or the ETAC
Invoice	Refer to Statement of Charges below.
MDP	Meter Data Provider. Responsible for the provision of meter data to the WA market. In this case, Western Power.
Network Charges	Used to collectively refer to items such as: • Network Use of System charges (NUoS) (NuoS charges are made up of Distribution Use of System (DUoS) and Transmission Use of Systems (TUoS) charges) • Event charges • Interest charges
NMI	National Metering Identifier used within the Electricity Industry to uniquely identify a connection point (supply point).
NUoS charges	Network Use of System (NUoS) charge is the component of the Network Charges levied by the Network Operator for access to the Network Operator's network. Depending on the tariff and Network Operator, price components include energy consumption, demand (reserve, contract or actual), and standing/access charges for a specified period.
Re-bill	Not used in this specification. (See Adjustment Notes)
Statement of Charges (SofC)	A document outlining the network charges payable by the Market Participant to the Network Operator for a specified NMI. These charges are for access to the Network Operator's network and other network services. Also known as a Network Bill or Network Invoice. Statements of Charges are issued each month, or by agreement. That is, a Statement of Charges for a NMI will be issued if, during the month or agreed period, any of the following occur: • A meter read is collected (for which NUoS is chargeable); • Acts resulting in Event Charges are performed; or • A dispute notification has its status changed to 'CLSD'.
Tariff Component	A component of a NUoS charge element for which a rate is set. Examples include fixed or service charges, volume or usage charges and demand charges.
Tax Charge	This charge reflects the application of GST to the Network Operator's supply to the Market Participant.

Consistent Term	Equivalents/ Definitions
Unique Network Charge	Each NUoS rate published by a Network Operator must be able to be uniquely identified on a Statement of Charges. This is achieved when a network charge rate has a unique combination of the following network charge identifiers: • *Network Tariff* and • *Tariff Component* and • *Step Number*.
WEM	WA Electricity Market. Approved participants are granted a WEM id by the Independent Market Operator for use on market transactions.

2.2   Assumptions

Assumption	Reason
1. Updates to NUoS charges is out of scope of this B2B specification.	NUoS charges, i.e. Network Tariff rates, are not updated frequently (typically once / twice a year); therefore the volume is not high. The NUoS charges are published by the Network Operator s. In addition, changes to the basis on which NUoS charges are based, are published by the Economic Regulation Authority.
2. Updates to NMI Standing Data is out of scope of this B2B specification.	Notification of changes to standing data made by the Network Operator, including assignment of a new Network Tariff Code is to be made via the existing process in place in WA.
3. Event charges are charged in accordance with this B2B specification.	This specification will cater for all network charges, including event based (non-NUoS) charges levied by the Network Operator, as the underlying process for event based charges will be the same as that required for NUoS charges.
4. The file naming convention to be followed.	Adherence to the file naming convention reduces the risk of duplicate file processing by participants. The technical specifications for file naming are specified in the B2B Technical Specification – E-mail Transaction Delivery specification (see Appendix A).
5. E-Mail gateway is an effective means of B2B exchange.	This standard assumes that the e-mail gateway meets standard security requirements. It also assumes Market Participants and Network Operators will allow e-mail to be received with attachments and support potentially large files.
6. Acknowledgments will be made for each transaction.	The recipient, immediately upon receipt, will verify all exchanges. The exchange will not be considered complete until the acknowledgement is received. The technical specification for acknowledgments is the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

Assumption	Reason
7. Negative Technical Acknowledgments to be processed.	Once a file has been acknowledged as being received by the Market Participant / Network Operator, the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A) allows for instances where the file must be resent with a new version number to correct technical non-compliance to that specification. For example, Network Operator has not billed the Tax Charge correctly.

This will not require a dispute notification transaction; it indicates that the file contents have not been successfully received. Therefore, when a negative technical acknowledgment is issued for a file, the following applies:

• Statement of Charges: has not been received, therefore is neither outstanding nor disputed;

• Dispute notification: has not been issued; and

• Remittance advice: has not been sent. |
| 8. The manner in which the Statement of Charges will be sent to the Market Participant will be standardised to one approach. | Statement of Charges will be sent to Market Participants via email in XML format as defined in this specification. |
| 9. Each Statement of Charges relates to one NMI and one billing period. | A Statement of Charges will relate to only one NMI for a specified billing period.

Each Statement of Charges will be assigned with a unique number and must be transmitted with a summary record and the relevant supporting charge records.

A NMI may attract different network charges and hence attract multiple Statements of Charges in a billing period.

The Tax Charge is calculated on each Charge Details and Charge Summary line. The Australian Tax Office (ATO) Total Invoice Rule is used, i.e. the "unrounded" Charge Details are used to calculate the GST Charge Summary which is rounded to 2 decimal places. The Charge Detail Tax Charge will be rounded up or down to total to the Charge Summary line Tax Charge. |
10. Different network charge types are on separate Statements of Charges.	Provide clear delineation between NUoS specific and other charges. NUoS charges (e.g. network access, consumption and demand charges), Event charges (e.g. billing fees, new connection point fees) and Interest charges for a billing period are to be billed on separate Statements of Charges, each with a unique number.
11. Statement of Charges line items have a "Line Identifier".	Each charge line within a Statement of Charges will have a "Line Identifier" to enable it to be clearly identified and thereby ensure an effective dispute notification process. This will be a line number counter.
12. Paper Statement of Charges.	The billing transactions specified are sufficient to replace paper based invoicing. A paper copy of an original Statement of Charges is available on an exception basis (if requested).
13. Frequency of billing.	Frequency of billing is not mandated by this specification. It is prescribed within the ETAC or under the Access Arrangement as applicable

Assumption	Reason
14. Billing Period for Type 1-4 Metered NMIs.	Remotely read metered sites have a billing period that aligns to the nominated monthly billing cycle For NMIs that transfer or are de-energised/re-energised during a month, the Network Operators' published methodology will be used to prorate charges, such as periodic, demand and capacity charges (where applicable).
15. Dispute notifications at the charge line.	Disputes are to be raised at the charge line. Each charge line disputed by the Market Participant is to be sent as a dispute transaction with a reason code. Whilst one Statement of Charges may attract several dispute notifications, all dispute notifications for a Statement of Charges must be transmitted at the same time (i.e. in the same Dispute Notification transaction). Updates to the status of a dispute notification are to be raised at the charge line. Owing to the view that there should be a low volume of dispute notifications, a manual exchange outside of the B2B electronic transactions may follow a dispute notification and be part of the dispute investigation process.
16. One Reason per Dispute Notification	Each dispute notification raised will have a dispute reason code for each dispute record line. This assists in the initial investigation of disputes. Market Participants may perform validation checks on the charge line (instead of identifying one "disputed item"). The dispute reason hierarchy will be used to determine the highest order dispute reason code. See section 0 for valid dispute reason codes and their hierarchy. The dispute reason comment field may be used to provide supporting details or details of any compounding disputes, i.e. where more than one item is in error. This is intended to help prevent amounts that are billed again from being subsequently disputed.
17. Part Payment of a Statement of Charges.	Part payment of a Statement of Charges is not allowed.
18. Payment Terms omitted from this specification.	Payment terms and methods will not be mandated by this specification. This shall be determined by ETAC or under Access Arrangement as applicable. .
19. Remittance advices to be provided	Remittance advice transactions will specify the allocation of a payment to one or more Statement(s) of Charges. In cases where multiple Statements of Charges are paid, the Market Participant will use the remittance advice transaction to nominate how specific payments are to be allocated across multiple Statements of Charges. The electronic payment transaction must contain a cross-reference to the relevant remittance advice file. Network Operator will use the remittance advice details to allocate monies received.
20. Network Operator interest charges	The ETAC or Access Arrangement governs the terms, triggers and method for calculating interest charges between Network Operators and Market Participants. Where the Network Operator charges interest, this will be itemised per NMI using the "Interest charge" record type. Interest will be billed separately to NUoS and Event charges.

Assumption	Reason
21. Market Participant interest benefits	The ETAC sets out the terms, triggers, and method for calculating Interest charges between Market Participant and Network Operators.
22. Cancellation and reissue of a Statement of Charges must not re-use a Statement of Charges number.	Network Operators may correct erroneous Statements of Charges by cancelling it (i.e. an Adjustment Note). The process is: • Issue the original Statement of Charges (number xxx); • Cancel the original Statement of Charges by issuing an Adjustment Note (number yyy) that references the original Statement of Charges (number xxx) • Issue new or 'replacement' Statement of Charges (number zzz) (if required). Changes to a Statement of Charges can only occur by cancelling the Statement of Charges with an Adjustment Note and the issue of a new Statement of Charges. The new Statement of Charges number must be unique; therefore, it cannot be the same number as the original Statement of Charges (before it was cancelled).
23. Every Statement of Charges will be included in a remittance advice file.	Market Participants will reference every acknowledged Statement of Charges in a remittance advice file; including cancellations that may require a negative payment to "close out" the cancelled Statement of Charges' balance. When taking up a cancellation that has been paid (i.e. Adjustment Note), the original Statement of Charges payment (Statement of Charges Identifier) and the reversing negative payment reference (Cross reference) must be included in the same remittance advice file, issued at same time and always reference the same NMI.
24. Transportation of Network Billing files must be in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification in Appendix A.	Market Participants and Network Operator must follow the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3   Network Billing B2B rules

2.3.1 General

2.3.1.1   This specification has all of the rules associated with the issue and processing of Network Access Bills in Western Australia.

2.3.1.2   Any rule in this specification may be varied by the ETAC between the Network Operator and the Market Participant, in which case the ETAC agreed rule applies.

2.3.1.3   Re-sending of a transaction that has failed technical validation involves the original file being reissued and identified by the version number of the previously issued file being incremented.

2.3.2 Issuing Adjustment Notes

2.3.2.1   An 'Adjustment Note' must be issued when a Statement of Charges is to be cancelled. An Adjustment Note can be regarded as being a reversal or a credit note.

2.3.2.2   The Adjustment Indicator is used to show if a network charge is a new or cancelled charge – denoted as "N" or "C" respectively.

2.3.2.3   When a cancellation occurs, each charge line will be identified as a cancelled using the Adjustment Indicator value of "C". The original charge line must be reversed in full (using a negative quantity) and the Old Statement of Charges Number must contain the number of the original, invalid Statement of Charges (i.e. its Statement of Charges Number. The Adjustment Reason must also be populated.

2.3.2.4   If a charge line is subsequently billed again, it is to be treated as a new charge.

2.3.2.5   If a charge is a new charge, the Adjustment Indicator must be "N", the Statement of Charges Number must be populated with a unique number and the Old Statement of Charges Number must not be populated.

2.3.2.6   Population of the Adjustment Indicator and, where appropriate, the Old Statement of Charges Number, is intended to enable recipients to reference Adjustment Notes (cancellations) pertaining to their original Statement of Charges (as required by ATO guidelines).

2.3.3 Calculation of the Tax Charge

2.3.3.1   The Tax Charge amount is shown on each Statement of Charges Details line rounded to 2 decimal places.

2.3.3.2   The unrounded Statement of Charges Details line Tax Charges are summed and shown on the Statement of Charges Summary line rounded to 2 decimal places.

2.3.3.3   The Australian Tax Office (ATO) GST "Total Invoice Rule" is used, i.e. the unrounded tax charges are summed to calculate the GST shown in the Header Information rounded to 2 decimal places.

2.3.3.4   The Tax Charge must be included in each Charge Details and Charge Summary line. If a Charge Details or Charge Summary line is exempt from the Tax Charge, the Tax Charge amount must be zero and the Tax Charge Indicator must be "Y".

2.3.3.5   To the extent the GST amount shown in the Header Information line (rounded to 2 decimal places) does not balance with the sum of all Charge Summary line's Tax Charges, the variance between these two amounts is iteratively distributed, until the variance is zero, using the following method: *In descending order, by the largest Tax Charge on the Charge Summary line, 1 cent is distributed to the Charge Summary line's Tax Charge and the largest Charge Details line's Tax Charge.*

2.3.4 Rules for Numeric field

(This section has been deleted – rules for numeric fields are included within the XML schema definition. See section 3.3.6)

2.3.5 Statement of Charges Specific Rules

2.3.5.1   The electronic Statements of Charges will replace paper-based billing, except where a material technical failure has occurred. Market Participants may print electronic data files should a paper Statement of Charges be required.

2.3.5.2   A Statement of Charges contains only one type of charge (e.g. NUoS, Event or Interest) for one NMI for a specified billing period.

2.3.5.3   Every Statement of Charges issued by a Network Operator will be given a unique number by that Network Operator.

2.3.5.4   The Line Identifier must be a numeric value assigned to each line within a Statement of Charges and, for a Statement of Charges, must start at one and increment by one per charge line. This will mean a transaction number, i.e. Line Identifier and Statement of Charges, will only be unique relative to a Statement of Charges.

2.3.5.5   Where a Network Operator raises an interest charge in accordance with the Access Code or the ETAC, it must ensure that only one interest charge is assigned to a Statement of Charges for a billing period. It must not issue an interest charge per charge line.

2.3.5.6   The method for billing NUoS charges is to raise one Statement of Charges per billing period per NMI. (Note: a Statement of Charges may contain multiple charge lines, such as peak/off peak energy charges and demand charges.)

2.3.5.7   In addition to the NUoS charges for a NMI billed on one Statement of Charges, an additional Statement of Charges must, where applicable, be raised for "Event" and "Interest" charges for the same NMI for the same billing period. These additional Statements of Charges must be transmitted with separate "Statement of Charges Summary" records and should be contained within the same Statement of Charges File and included in the Statement of Charges File Header as the NUoS Statement of Charges.

2.3.5.8   If a dispute is raised against any charge line of a Statement of Charges and the dispute results in a charge line being billed again, all items in the original Statement of Charges must be cancelled (i.e. reversed or credited), regardless of the balance outstanding or dispute status. The applicable Adjustment Note (cancellation) must reference the original Statement of Charges Number.

2.3.5.9   NUoS charges will be calculated using valid meter reads, as prescribed by the Metrology Procedure and the Electricity Industry Code.

2.3.5.10   All consumption-based charges for a billing period will be billed together and sent under one Statement of Charges Number. Consumption-based charges may include network access, standing charges, DUoS, TUoS, capacity and demand. Each component will be specified with sufficient detail to enable the Statement of Charges to be recalculated by the Market Participant, so that quantity * rate = charge amount.

2.3.5.11   A Unique Network Charge (i.e. with the same combination of Network Tariff Code, Tariff Component Code and Step Number) must not be repeated unless specifically allowed in this section 2.3.5.

2.3.5.12   Within a Unique Network Charge, for the same Network Tariff Code, the Tariff Component Code must be repeated where the Tariff Component has multiple steps (i.e. the Tariff Component has a block tariff structure). In this case, the Step Number within the same Network Tariff / Tariff Component block tariff must increment by one for each step. This means the combination of Step Number and Network Tariff / Tariff Component is unique. The Step Number must align with the Tariff Component Code increment numbers published by the Network Operator (if any). The example below shows the required approach.

Network Tariff Code	Tariff Component Code	Step Number
DUOS	NCVCP	1
DUOS	NCVCP	2
DUOS	NCVCP	3
DUOS	NCVCP	4
DUOS	NDVCS	1
DUOS	NDVCS	2
DUOS	NDVCOP	1

2.3.5.13   In any Statement of Charges with more than one charge period, the start and end dates for the charge periods must align with the Statement of Charges start and end dates with no gaps between each of the charge periods.

Example:

Network Tariff Code	Tariff Component Code	Step Number	Billing Period Start Date	Billing Period End Date	Rate	Quantity	Charge Amount
DUOS	NDVCP	1	11-Feb-08	25-Feb-08	1.00	15.00	15.00
DUOS	NDVCP	1	26-Feb-08	10-Mar-08	1.10	14.00	14.40

2.3.5.14   The Network Operator will deliver the Statement of Charges transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.5.15   The Market Participant will acknowledge receipt of Statement of Charges transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.5.16   Unique Network Charges can be repeated only when a quantity or rate changes within a billing period. The Billing Period Start Date and Billing Period End Date will specify the charge period to which a rate relates. e.g. An extra meter is added part way through the billing period

2.3.5.17   Where an interest rate change occurs during a billing period, the Interest Period Start Date and Interest Period End Date will specify the charge period to which each Interest rate applies.

2.3.5.18   The Billing Period Start and End Dates for a Statement of Charges must, align with start and end dates of meter readings provided to the Network Operator by the Metering Data Provider for the NMI. A Network Operator must not send multiple Statements of Charges to cover a single meter reading that relates to 'NUoS Charge' record types.

2.3.5.19   Where a Unique Network Charge changes or a rate change occurs during a billing period, all applicable Unique Network Charges and rates must be presented on a single Statement of Charges (not as separate Statements of Charges). When a Unique Network Charge changes or a rate change occurs (between meter reads), consumption must be pro-rated to the appropriate period(s) to recognise the change(s). All charges pertaining to a single meter reading period must be billed in the same Statement of Charges.

2.3.5.20   When calculating the Due Date for Payment, the Network Operator must not include the date of production and transmission of the Statement of Charges.

2.3.6 Adjustment Note Specific Rules

2.3.6.1   An Adjustment Note (i.e. Cancellation Statement of Charges) must not be issued with the Statement of Charges Number of the original Statement of Charges that is being cancelled. In order to prevent the Statement of Charges being rejected as a DUPL, the cancelled Statement of Charges must be named an "Adjustment Note" and the adjustment indicator of "C" used for every charge line.

2.3.6.2   Re-bill Statement of Charges must not be issued.

2.3.6.3   The Adjustment Note (i.e. cancellation Statement of Charges) must be sent before a related new or 'replacement' Statement of Charges is issued.

2.3.7 Remittance Advice and Payment Specific Rules

2.3.7.1   Market Participants must indicate the Statement of Charges Amount Payable in the remittance advice file.

2.3.7.2   Payment of charge lines subject of a Dispute Notification will be in accordance with the ETAC.

2.3.7.3   Where a Market Participant overpays a Statement of Charges, interest payable by the Network Operator to the Market Participant will be calculated in accordance with the ETAC.

2.3.7.4   Part payment of a Statement of Charges is not allowed. All Statement of Charges will be paid, remitted or disputed in full.

2.3.7.5   Payments are to be made via an agreed commercial electronic transaction between the parties.

2.3.7.6   The Market Participant when paying a charge will reference the NMI and the Statement of Charges Number(s) in remittance advices.

2.3.7.7   If a Statement of Charges is paid twice, the overpaid amount will be allocated via a remittance advice from the Market Participant.

2.3.7.8   A Market Participant may choose to both pay and dispute a Statement of Charges. If the dispute results in an Adjustment Note being issued for the paid Statement of Charges and it not being subsequently billed, section 2.3.7.10 applies.

2.3.7.9   If the Network Operator cancels a paid Statement of Charges (for example correcting a paid Statement of Charges), section 2.3.7.10 applies.

2.3.7.10   The Network Operator must not apply credits or overpayments without a remittance advice from the Market Participant that indicates how the credit or overpayment is to be allocated.

2.3.7.11   When taking up credits, the Market Participant must indicate the original Statement of Charges payment and reversing negative payment in the same remittance advice file, which must always refer to only one NMI. Market Participants may use the Cross Reference field to indicate that the remittance advice relates to cancelled or overpaid Statement of Charges, rather than an electronic payment.

2.3.7.12   The Market Participant will send the remittance advice files in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.7.13   The Network Operator will acknowledge receipt of remittance advice files in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.8 Disputes Specific Rules

2.3.8.1   The Market Participant must issue only one dispute code per charge line, this being the dispute reason with the highest order. That is, if Market Participant has a dispute with a charge line that, for example, spans both the quantity ("QNTY") and per unit rate charged ("RATE"), only one

dispute shall be raised. In this example, using the table in section 3.9.4 the code of "QNTY" should be used.

2.3.8.2   All charge lines for a Statement of Charges will be treated as being disputed while the dispute notification status is "open" for any charge line for that Statement of Charges. The Network Operator may only charge interest on a disputed Statement of Charges in accordance with the Access Code or ETAC.

2.3.8.3   The Network Operator must endeavour to resolve Network Billing dispute notifications that result in an unpaid Statement of Charges before the Statement of Charges for the next billing period for the NMI is due to be issued.

2.3.8.4   A Market Participant can cancel a dispute if lodged in error. This requires a manual exchange as there is no B2B electronic transaction.

2.3.8.5   When all dispute notifications lodged against a Statement of Charges have been resolved with a 'CANC' status, the Market Participant is required to pay the original Statement of Charges in accordance with the ETAC.

2.3.8.6   When all dispute notifications lodged against a Statement of Charges have been resolved, if any has a 'CLSD' status, the Network Operator must cancel and re-issue the Statement of Charges. The Market Participant is required to pay the new Statement of Charges.

2.3.8.7   The Market Participant, when disputing a charge line, must reference the NMI, the Statement of Charges Number and the Line Identifier of the disputed item in the dispute notification.

2.3.8.8   For operational purposes, differences arising from rounding of values will not be a valid justification for a dispute notification, unless the process in rounding the value is erroneous. Due to the cost of Network Operator handling disputes, Market Participants must limit the raising of dispute notifications to situations where material amounts are involved or systemic errors are evident.

2.3.8.9   Any continuing pattern of errors may result in a dispute being escalated in accordance with the ETAC. This can occur outside of this B2B specification.

2.3.8.10   Each charge line that is disputed must result in a dispute notification being raised. For example, if the "peak" charge line is disputed, there will be one dispute notification; if both the "peak" and "off-peak" charge lines are disputed, there will be two dispute notifications for the one Statement of Charges.

2.3.8.11   All charge lines on a Statement of Charges to be disputed must be disputed at the same time. For example, the "peak" charge line cannot be disputed on one day and the "network access" charge line disputed on another day.

2.3.8.12   The Market Participant may put their preferred values into the Dispute Reason Comment field of the dispute notification to assist the Network Operator's investigation.

2.3.8.13   The Market Participant must send dispute notification transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.8.14   The Network Operator must send the dispute status change transactions and credit balance Statement of Charges transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.8.15   The Network Operator must acknowledge receipt of dispute notification transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.8.16   The Market Participant must acknowledge receipt of dispute status change transactions and credit balance Statement of Charges transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.8.17   The Market Participant cannot dispute the Statement of Charges on the grounds that the MDP has not provided the metering data to them.

2.3.8.18   When a Network Operator resolves a dispute and issues a Dispute Status Change Advice Detail Record, it must provide an explanation of its decision in the Dispute Status Change Comments field.

2.3.8.19   When all dispute notifications lodged against a Statement Of Charges have been resolved i.e. have the status as CLSD, the Market Participant may raise a further dispute for the same SofC if required to do so.

2.3.9 Outstanding Statement of Charges Specific Rules

2.3.9.1   The Network Operator will advise the Market Participant of an Outstanding Statement of Charges when the Due Date for Payment has been reached and payment and/or a remittance advice has not been received.

2.3.9.2   If an interest charge is payable, a Statement of Charges per NMI is required.

2.3.9.3   If a monthly aged debt statement, listing Outstanding Statement of Charges, is required, this is a manual exchange outside of this B2B specification.

2.3.9.4   The Network Operator will deliver the Outstanding Statement of Charges Advice transactions in accordance with the B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A).

2.3.9.5   The Market Participant will acknowledge receipt of Outstanding Statement of Charges Advice transactions in accordance with the B2B

Technical Specification – E Mail Transaction Delivery specification (see Appendix A).

2.3.10 Rules for Duplicate Statement of Charges transactions

2.3.10.1 If the Market Participant requests the Network Operator to produce a duplicate Statement of Charges or Adjustment Note, the Network Operator will ensure the duplicate Statement of Charges status indicates that the transaction is a "Copy Statement of Charge" or "Copy Adjustment Note".

2.3.10.2 Re-sending an erroneous transaction that failed technical validation will not be treated as a duplicate Statement of Charges.

2.3.10.3 Amounts relating to duplicate or "Copy Statement of Charges" must be excluded from the Total Tax Charge Exclusive Amount and Total Tax Charge Payable fields of the Statement of Charges footer. The Charge Record Count and Statement of Charges Record Count fields must include duplicate Statement of Charges within the control totals. This approach is intended to assist Market Participants to identify the actual amount payable.

3. Technical information

3.1 Transaction flows

3.1.1 Refer to section 1.4 of this document for the illustrated transaction flows.

Ref	Transaction	From	To	Content	Timing
A	Send Statement of Charges	Network Operator	Market Participant	Refer 3.3	Monthly (or as otherwise agreed)
B	Acknowledge receipt of Statement of Charges	Market Participant	Network Operator		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification
C	Send Dispute Notification	Market Participant	Network Operator	Refer **Error! Reference source not found.**	Varies from daily/ overnight to monthly (depends on payment terms and frequency of billing).
D	Acknowledge receipt of Dispute Notifications	Network Operator	Market Participant		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification
E	Resolve disputes	Both parties		N/A – not auto B2B	As required
F	Generate electronic payment	Market Participant	Network Operator	Agreed Electronic commercial transaction	With remittance advice.
G	Send Remittance Advice	Market Participant	Network Operator	Refer **Error! Reference source not found.**	Varies from daily to monthly (depends on payment terms and frequency of billing).
H	Acknowledge receipt of Remittance Advice	Network Operator	Market Participant		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification
I	Send Dispute Status Change Advice	Network Operator	Market Participant	Refer **Error! Reference source not found.**	Daily, as dispute status is updated.
J	Acknowledge receipt of Dispute Status Change Advice	Market Participant	Network Operator		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification

Ref	Transaction	From	To	Content	Timing
K	Send Outstanding Statement of Charges Advice	Network Operator	Market Participant	Refer **Error! Reference source not found.**	Daily as Statement of Charges become outstanding.
L	Acknowledge receipt of Outstanding Statement of Charges Advice	Market Participant	Network Operator		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification
M	Send Credit Balance Advice	Network Operator	Market Participant	Refer **Error! Reference source not found.**	Monthly
N	Acknowledge receipt of Credit Balance Advice	Market Participant	Network Operator		Immediate or overnight as per B2B Technical Specification – E-Mail Transaction Delivery specification
O	Negative Technical Acknowledgment	Either party		Technical Transmission Standards	By 5pm (local time) next working day via e-mail
P	Resend Statement of Charges and details	Either party		Technical Transmission Standards	As soon as possible on receipt of request

3.2 Field statements

(This section has been modified for relevance to XML formatted data files.)

3.2.1 XML Formatted Data Files

Network Billing data files will be in an XML format.

Network Billing data files will comply with the XML schemas defined with in this document.

3.3 Statement of charges sent to Market Participants

The Statement of Charges comprises the following parts:

- Header Information
- Statement of Charges Summary
- Statement of Charges Details:
  - Network Use of System (NUoS) Charges
  - Event Charges
  - Interest Charges

These parts are all contained within a single XML data file. The file is described below.
Complete file definitions are included in Appendix D.

3.3.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DocumentType	Includes the mandatory words "Tax Invoice/Adjustment Note" to identify the document as a Tax Invoice
InvoiceIdentifier	Unique Invoice Identifier
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
StatementOfChargesSummaryRecordCount	Total number of Statement of Charges summary record types, viz., a count of "Summary" records
StatementOfChargesDetailRecordCount	Total number of charge lines, i.e. detail record types. Namely, a count of "Event Charge", "Network Use of System Charge" and "Interest Charge" records.
AmountsPayable	
GSTExclusive	Total amount of Statement of Charges (before GST) from "Summary" records, excluding Copy Statement of Charges and Copy Adjustment Notes
GST	Total Tax Charge, GST, is calculated using the Australian Tax Office (ATO) Total Invoice Rule, i.e. the "unrounded" Charge Summary lines GST Tax Charges are used to calculate the Header Information GST
GSTInclusive	Total amount of invoices (including GST) from "Summary" records, excluding Copy invoices

3.3.2 Statement of Charges Summary

Element	Description
StatementOfChargesSummary	
StatementOfChargesIdentifier	Unique Statement of Charges Number
NMI	
Identifier	National Metering Identifier

Element	Description
Checksum	NMI Checksum
IssueDate	Date Statement of Charges issued
DueDate	Date payment of Statement of Charges is required

Status	Indicates status of Statement of Charges
	
	Allowable values:
	    Statement of Charges
	    Adjustment Note
	    Copy Stmt of Charges
	    Copy Adjustment Note

AmountsPayable	
GSTExclusive	Sum of all charge lines in this Statement of Charges, exclusive of any tax charge calculated for the Statement of Charges.
GST	Total tax charge, GST, is calculated using the Australian Tax Office (ATO) Total Invoice Rule, i.e. the "unrounded" Charge Details lines GST Tax Charges are used to calculate the Charges Summary GST. The GST may have been varied if the method prescribed in Section 2.3.3.5 has been applied.
GSTInclusive	Sum of all charge lines in this Statement of Charges, inclusive of any tax charge calculated for the Statement of Charges.

GSTIndicator	According to WEM rules, the Tax Charge must be calculated for every Statement of Charges charge line, so this indicator must be set to "Y".
	
	Allowable values:
	    Y
	    N

3.3.3 Statement of Charges Details

3.3.3.1 Network Use of System (NUoS) Charges

Element	Description
NetworkUseOfSystemCharge	
StatementOfChargesIdentifier	Statement of Charges Number that this charge line relates to.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
StatementOfChargesLineIdentifier	The sequence number assigned to each charge line to enable the charge line to be uniquely identified within a Statement of Charges.

Element	Description
OldStatementOfChargesIdentifier	A reference to a previously issued Statement of Charges. Mandatory for Adjustment Notes.
TransactionDate	Date the related Statement of Charges charge line was created in the Network Operator's source system
Adjustment	

Indicator	"C" denotes a cancelled charge line and "N" denotes a new Statement of Charges charge line item.
	Allowable values:
	    N
	    C

Reason	For cancelled charge lines, the reason the adjustment has occurred. Mandatory for Adjustment Notes.
NetworkTariffCode	The code for the Network's tariff assigned to the NMI as agreed with the Network operator.
StepNumber	Where a Network Operator has a multi-step (or block) tariff, a reference to the step number must be used. For Network Operator's without multi-block tariffs, this must default to a literal value '1'.
BillingPeriod	The Billing Period commences on the Start Date of the first Charge Period and ends on the End Date of the last Charge Period
StartDate	Start Date for the Billing or Charge period. This is either the commencement of the billing period or a sub-period within the billing period (where there has been a change to the Unique Network Charges or a rate change during the billing period). The sub-period is termed a 'charge period'. The Billing or Charge Period Start Date must be the meter read start date where it is the commencement of the billing period. The Billing or Charge Period Start Date is the date of the tariff change where it is the commencement of a charge period.
EndDate	End Date for the Billing or Charge period. This is either the end of the billing period or a sub-period within the billing period (where there has been a change to the Unique Network Charges or a rate change during the billing period). The sub-period is termed a 'charge period'. The Billing or Charge Period End Date must be the meter read end date where it is the end of the billing period. The Billing or Charge Period End Date is the day before the Billing Period Start Date for the next billing or charge period.
TariffComponentCode	Indicates the component of the NUoS charge to which the charge line applies. Allowable values are defined in Section 0.
ReadingType	Actual, permanent substitute, estimate quantity using codes prescribed by the Electricity Industry Metering Code 2005 (Western Australian Electricity Market Build Pack List of Codes and Events, Nov 2006). Note Default value is "A" for 'actual'.

Element	Description
LineDescription	Contains details of the charge line. The description must relate to the Unique Network Charge relevant to the charge line. The Line Description may include codes plus indicate a time period or charge type (such as standing charges, demand, capacity etc.)
Measurement	
Quantity	Quantity of the Unit of Measure.
Unit	Unit of Measure, as defined in Section 0.
Rate	The rate applied to the charge, exclusive of the Tax Charge.
AmountsPayable	
GSTExclusive	Calculated Unique Network Charges charge, excluding the Tax Charge. This equals Quantity x Rate.
GST	Tax Charge, GST, applicable to the Charges Detail line. The GST may have been varied if the method prescribed in Section 2.3.3.5 has been applied. If the transaction is GST exempt, the value must be zero.
GSTInclusive	Charge inclusive of Tax (if any).
GSTIndicator	According to WEM rules, the Tax Charge must be calculated for every Statement of Charges charge line, so this indicator must be set to "Y". Allowable values: Y N

3.3.3.2   Event Charges

Element	Description
EventCharge	
StatementOfChargesIdentifier	Statement of Charges Number that this charge line relates to.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
StatementOfChargesLineIdentifier	The sequence number assigned to each charge line to enable the charge line to be uniquely identified within a Statement of Charges.
OldStatementOfChargesIdentifier	A reference to a previously issued Statement of Charges. Mandatory for Adjustment Notes.
TransactionDate	Date the related Statement of Charges line was created in the Network Operator's source system.
Adjustment	
Indicator	"C" denotes a cancelled charge line and "N" denotes a new Statement of Charges charge line item. Allowable values: N C

Element	Description
Reason	For cancelled charge lines, the reason the adjustment has occurred. Mandatory for Adjustment Notes.
NetworkServiceOrder	Network Service Order Id
MarketParticipantServiceOrder	Market Participant Service Order Id. Mandatory for service orders initiated by the Market Participant.
NetworkRateCode	Based on each Network Operator's Product Codes or Fee Codes, to indicate type of service. The code must match the Product Codes used in the Service Order Response for the services being billed.
LineDescription	Contains details of the event charge
ChargeDate	The date the event occurred.
Measurement	
Quantity	Number of event charges (if multiple events within the billing period).
Unit	Typically 'EA'
Rate	The per unit rate of the event charge, exclusive of GST.
AmountsPayable	
GSTExclusive	Service order charge, excluding GST. This equals Quantity x Rate.
GST	GST Charge applicable to the charge line. If the transaction is GST exempt, the value must be zero.
GSTInclusive	Charge inclusive of Tax (if any).

GSTIndicator	According to WEM rules, the Tax Charge must be calculated for every Statement of Charges charge line, so this indicator must be set to "Y".
	Allowable values:
	    Y
	    N

3.3.3.3   Interest Charges

Element	Description
InterestCharge	The Interest Billing Period starts on the Start Date of the first Charge Period and ends on the End Date of the last Charge Period
StatementOfChargesIdentifier	Statement of Charges Number that this charge line relates to.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
StatementOfChargesLineIdentifier	The sequence number assigned to each charge line to enable the charge line to be uniquely identified within a Statement of Charges.
OldStatementOfChargesIdentifier	A reference to a previously issued Statement of Charges. Mandatory for Adjustment Notes.

Element	Description
TransactionDate	Date the related Statement of Charges line was created in the Network Operator's source system.
Adjustment	

Indicator	"C" denotes a cancelled charge line and "N" denotes a new Statement of Charges charge line item.
	Allowable values:
	    N
	    C

Reason	For cancelled charge lines, the reason the adjustment has occurred. Mandatory for Adjustment Notes.
OverdueStatementOfChargesNumber	A reference to the Statement of Charges that incurred the interest charges.
OverdueStatementOfChargesDueDate	Date which payment was originally due.
PrincipalAmount	Amount on which interest is calculated.
InterestPeriod	
StartDate	Start Date for the interest billing or charge period. This may be the start of the interest billing period, or a sub-period within the interest billing period (where there has been an interest rate change during the billing period). The sub-period is termed a 'interest charge period'. The Interest charge Period Start Date is the date of the interest rate change where it is the commencement of a charge period.
EndDate	End Date for the Interest billing or charge period. This may be the end of the interest billing period, or a sub-period within the interest billing period (where there has been an interest rate change during the billing period). The sub-period is termed a 'interest charge period'. The Interest Period End Date is the day before the Interest Period Start Date for the next interest period.
AmountsPayable	
GSTExclusive	Amount of Interest charge.
GST	Currently, GST is not applied to Interest charges, so this field must always be zero.
GSTInclusive	Amount of Interest charge.

GSTIndicator	According to WEM rules, the Tax Charge must be calculated for every Statement of Charges charge line, so this indicator must be set to "Y".
	Allowable values:
	    Y
	    N

3.4   Remittance to Network Operator

This transaction is sent from the Market Participant to the Network Operator to indicate specific Statement of Charges approved for payment.

The Remittance to Network Operator comprises the following parts:

- Header Information
- Remittance Payment Details

These parts are all contained within a single XML data file. The file is described below. Complete file definitions are included in Appendix D.

3.4.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
TotalRecordCount	Total number of records, viz. a count of "Remittance Payment Detail" records.
TotalAmount	Total amount paid, viz. the sum of amounts paid (from the "Remittance Payment Detail" records)

3.4.2 Remittance Payment Details

Element	Description
RemittancePayment	
StatementOfChargesIdentifier	Statement of Charges Number this remittance advice relates to.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
AmountPaid	Amount paid including any GST.
DatePaid	Date when the funds will be available for transfer.
CrossReference	Cross reference from this remittance advice to at least one electronic payment. This reference could be the date and method by which the payment was sent or the payment transaction reference number supplied by the financial intermediary

3.5 Network charge dispute notification sent to Network Operator

When a Market Participant validates the charges received from a Network Operator, there may be differences (for example, in the consumption quantity). The following record types enable a Market Participant to notify a Network Operator of such differences (or "disputes") at the charge line. Disputes must not be raised at the Statement of Charges (or NMI) level.

The Dispute Notification comprises the following parts:

- Header Information
- Dispute Details

These parts are all contained within a single XML data file. The file is described below. Complete file definitions are included in Appendix D.

3.5.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
TotalRecordCount	Total number of dispute notifications, viz. a count of "Dispute Details" records.

3.5.2 Dispute Details

Element	Description
Dispute	
StatementOfChargesIdentifier	Statement of Charges Number this dispute notification relates to.
StatementOfChargesLineIdentifier	The sequence number assigned to each line in the original Statement of Charges identified above to enable the line to be uniquely identified within a dispute notification.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
AmountsPayable	
GSTExclusive	Network Operator's calculated charge, excluding GST, as specified in the Statement of Charges.
GST	Network Operator's GST amount as shown against the charge line being disputed.
GSTInclusive	Network Operator's calculated charge, including GST, as specified in the Statement of Charges.

Element	Description

GST Indicator	DNSP's GST indicator as shown against the charge line being disputed.
	Allowable values:
	    Y
	    N

Reason	
Code	Applicable Dispute Reason Code are defined in Section 0
Comment	Free text field to provide additional explanation of the dispute.

3.6   Dispute status change advice

When a Network Operator updates the status of a dispute from "Open" to either Closed ("CLSD") or Cancelled ("CANC"), this transaction must be used to advise the Market Participant of the outcome of the investigation. The update may occur before or at the same time as the Adjustment Note is generated.

The Dispute Status Change Advice comprises the following parts:

- Header Information
- Dispute Status Change Advice Details

These parts are all contained within a single XML data file. The file is described below. Complete file definitions are included in Appendix D.

3.6.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
Period	
StartDate	This is used to define the start of the reporting period.
EndDate	This is used to define the end of the reporting period.
TotalRecordCount	Total number of dispute status changes, viz. a count of "Dispute Status Change Advice Detail" records

3.6.2 Dispute Status Change Advice Detail

Element	Description
DisputeStatusChange	
StatementOfChargesIdentifier	Statement of Charges Number this dispute status change advice relates to.
StatementOfChargesLineIdentifier	The sequence number assigned to each line in the original Statement Of Charges identified above to enable the line to be uniquely identified within a Dispute Status Advice.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
NewDisputeStatusCode	Dispute Status Code assigned by the Network Operator, as defined in Section 0. Allowable values: OPEN CANC CLSD
Comments	Free text field to provide additional explanation of the dispute status change.

3.7   Outstanding statement of charges advice

When a Network Operator identifies a Statement of Charges has past the due date, and the full payment has not been received, this transaction will be used to remind the Market Participant of the overdue Statement of Charges.

The Outstanding Statement of Charges Advice comprises the following parts:

- Header Information
- Outstanding Statement of Charges Advice Details

These parts are all contained within a single XML data file. The file is described below. Complete file definitions are included in Appendix D.

3.7.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant

Element	Description
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
Period	
StartDate	This is used to define the start of the reporting period.
EndDate	This is used to define the end of the reporting period.
TotalRecordCount	Total number of records, viz. a count of "Outstanding Statement of Charges Advice Details" records.
TotalAmount	Total amount, viz. the sum of Total Amount Payable from all "Outstanding Statement of Charges Advice Details" records

3.7.2 Outstanding Statement of Charges Advice Details

Element	Description
OutstandingStatementOfCharge	
StatementOfChargesIdentifier	Statement of Charges Number.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
IssueDate	Date Statement of Charges issued.
DueDate	Date payment of Statement of Charges was due.
AmountPayable	Total value of all charge lines in this Statement of Charge, inclusive of GST.
DisputeReceivedIndicator	"Y" or "N" to indicate if a dispute has been received for this Statement of Charges. Allowable values: Y N
Comments	Free text field to provide additional information.

3.8 Credit balance advice

On a periodic basis, when the Network Operator identifies Statements of Charges that have a credit balance (for various reasons), this transaction will be used to remind the Market Participant of the credit balance to prompt the Market Participant to allocate the credit balance to other Statements of Charges.

The Credit Balance Advice comprises the following parts:

Header Information

Credit Balance Advice Details

These parts are all contained within a single XML data file. The file is described below. Complete file definitions are included in Appendix D.

3.8.1 Header Information

Element	Description
Timestamp	Timestamp when file was generated
DistributionNetworkServiceProvider	
Name	Network Operator name, as per GST requirements
Code	The WEM Participant Id identifying the Network Operator
ABN	Sending party (Network Operator) Australian Business Number (ABN), as per GST requirements
MarketParticipant	
Name	Market Participant name, as per GST requirements
Code	The WEM Participant Id identifying the Market Participant
ABN	Receiving party (Market Participant) Australian Business Number (ABN), as per GST requirements
Period	
StartDate	This is used to define the start of the reporting period.
EndDate	This is used to define the end of the reporting period.
TotalRecordCount	Total number of records, viz. a count of "Credit Balance Advice Detail" records.
TotalAmount	Total amount, i.e. sum of Balance from all "Credit Balance Advice Detail" records.

3.8.2 Credit Balance Advice Details

Element	Description
Credit	
StatementOfChargesIdentifier	Statement of Charges Number this credit balance advice record relates to.
NMI	
Identifier	National Metering Identifier
Checksum	NMI Checksum
AmountPayable	Total billed value of all transactions for the specified Statement of Charge, inclusive of GST.
Balance	Balance (billed charge less payments received) outstanding for all Statement of Charges line items for the specified Statement of Charge, inclusive of GST.

3.9   Predefined codes

3.9.1 Record Type Codes

(This section deleted as it is not required with XML formatted files)

3.9.2 Units of Measure

3.9.2.1   The Unit of Measure values for NUoS charges are those defined in the Meter Data File Format Specification NEM12 & NEM13 (ME_MA001v…, published by NEMMCO). Values for energy and non-energy charges for use in Western Australia have been listed below; those marked with a hash (#) are for non-energy charges.

UoM Code	Description
DAY	Per Day (#)
EA	Each (#)
kVA	Thousand Volt Amps
kVAH	Thousand Volt Amps Hours
kVAr	Thousand Volt Amps Reactive
kVArH	Thousand Volt Amps Hours Reactive
PF	Power Factor
kW	Thousand watts
kWh	Thousand watt Hours
MTH	Per Month (#)
PA	Per Annum (#)

3.9.3 Tariff Component Codes

3.9.3.1   The table contained in Appendix B defines the codes to be used for the components of NUoS charges. These are subordinate to the Network Tariff Code.

3.9.4 Dispute Reason Codes

3.9.4.1   Dispute reason codes are assigned to charge line items and thus are generic so the same dispute reason code can be used for different time splits and charge types.

3.9.4.2   Comments may be used to provide additional information and to report compounding disputes.

Code	Description	Order
NNMI	NMI unknown to Market Participant (i.e. Market Participant has never been the FRMP for this NMI).	1

Code	Description	Order
LRTB	NMI not responsibility of Market Participant at the start of the period (i.e. Market Participant not the FRMP for period specified).	2
LRTD	NMI not responsibility of Market Participant at the end of the period (i.e. Market Participant has changed during billing period).	3
DUPL	Duplicate charge (Statement of Charges already received for NMI for billing period).	4
BPDF	Billing period overlaps previous Statement of Charges or billing period does not match Market Participant.	5
QNTY	Quantity different. This may apply to any time period, unit of measure or even event-based charges. Note: This code should not be used where a charge should be a zero quantity.	6
TARF	Network tariff code different. This applies to NUoS.	7
RATE	Rate different than published. This may apply to NUoS, interest or any other charges.	8
OTHR	Charge disputed, i.e. Market Participant does not believe this amount should be charged at all. Comments must be used to specify the nature of the dispute. Note: This dispute should not be used to raise technical disputes.	9
INTP	Interest period different	10

3.9.5 Dispute Status Codes

3.9.5.1   Note: A dispute status change transaction will only be generated for disputes that change from Open to Cancelled or Closed.

Code	Description
OPEN	The dispute has been acknowledged and is currently under investigation by the Network Operator.
CANC	The Network Operator has completed the investigation and has determined that there is no reliably demonstrated basis for the dispute. No further action will be taken by the DNSP for this dispute.
CLSD	The Network Operator has completed the investigation and has determined that there is an error with the Statement of Charges. A new Statement of Charges and/or Adjustment Note will be generated.

3.10   Performance considerations

3.10.1   Frequency and timeframes will be those prescribed within the Access Arrangement or applicable ETAC.

3.11   Acknowledgement notifications

3.11.1   Acknowledgment transactions are required to confirm the receiving party has taken receipt of the transaction.

3.11.2   These return transactions are "technical acknowledgments", meaning that a valid transaction has been received (e.g. formatted correctly, field definitions validated, whole transaction received, control totals match). The acknowledgment is not a business acknowledgment, meaning the data may be queried later during business processing by the recipient.

3.11.3   Refer to B2B Technical Specification – E-Mail Transaction Delivery specification (see Appendix A) for details of the prescribed method for technical acknowledgments.

4. Sample format of network billing files

4.1 Permitted adjustment scenario

The sample following end-to-end transaction conversation assumes the Original Statement of Charges was:

Name		Code	ABN									timestamp	10/07/2008 14:58
Western Power		WPNTWK	18 540 492 861									InvoiceNumber	70700
												StatementOfChargesSummaryRecordCount	2
												StatementOfChargesDetailRecordCount	12

Name		Code	ABN				GSTExclusive	GST	GSTInclusive
SAMPLE CO PTY LTD		SAMPLCO	33 666 123 458				$ 300.01	$ 30.00	$ 330.01

StatementOfCharges

Identifier	Identifier	Checksum	IssueDate	DueDate	Status	GSTExclusive	GST	GSTInclusive	GSTIndicator
100000001	8001000999	9	6/07/2008	20/07/2008	Statement of Charges	$ 300.01	$ 30.00	$ 330.01	Y

Statement Of Charges Identifier	Identifier	Checksum	Line Identifier	OldStatement OfCharges	Transaction Date	Indicator	Reason	Network Tariff Code	Step Number	StartDate	EndDate	Tariff Component Code	Reading Type	Line Description	Quantity	Unit	Rate	GST Exclusive	GST	GST Inclusive	GST Indicator
100000001	8001000999	9	1		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-I-G	A	Time of Use Energy (Small) - Info - Group Count	1	EA	0	0	0	0	Y
100000001	8001000999	9	2		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UF	A	Time of Use Energy (Small) Exit Service Fixed	30	DAYS	0.20386	6.12	0.61	6.73	Y
100000001	8001000999	9	3		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UF	A	Time of Use Energy (Small) Exit Service Fixed	30	DAYS	0	0	0	0	Y
100000001	8001000999	9	4		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	2857	KWH	0.04336	123.88	12.39	136.27	Y
100000001	8001000999	9	5		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	2857	KWH	0.02187	62.48	6.25	68.73	Y
100000001	8001000999	9	6		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	3899	KWH	0.0101	39.38	3.94	43.32	Y
100000001	8001000999	9	7		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	3899	KWH	0.0046	17.94	1.79	19.73	Y
100000001	8001000999	9	8		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MF	A	Time of Use Energy (Small) Exit Service Metering Fixed	30	DAYS	0.02546	0.76	0.08	0.84	Y
100000001	8001000999	9	9		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering On Peak	2857	KWH	0.00732	20.91	2.09	23	Y
100000001	8001000999	9	10		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering Off Peak	3899	KWH	0.00732	28.54	2.85	31.39	Y
100000001	8001000999	9	11		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-I		Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y
100000001	8001000999	9	12		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-I		Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y

4.1.1 Separate Statement of Charges Numbers must be used for all transactions. (Headers have been provided for ease of use.)

4.1.2 Using "separate Statement of Charges Number for all transactions" requires the original Statement of Charges, the Adjustment Note (cancellation Statement of Charges) and the replacement Statement of Charges each have their own unique number.

Adjustment Note (Cancellation Statement of Charges) & Replacement Statement of Charges

Name		Code	ABN									timestamp	10/07/2008 15:26
Western Power		WPNTWK	18 540 492 861									InvoiceNumber	70700
												StatementOfChargesSummaryRecordCount	2
												StatementOfChargesDetailRecordCount	12

Name		Code	ABN				GSTExclusive	GST	GSTInclusive
SAMPLE CO PTY LTD		SAMPLCO	33 666 123 458				$ 99.99	$ 10.00	$ 109.99

StatementOfCharges

Identifier	Identifier	Checksum	IssueDate	DueDate	Status	GSTExclusive	GST	GSTInclusive	GSTIndicator
100000002	8001000999	9	6/08/2008	20/08/2008	Adjustment Note	-300.01	-30.00	-330.01	Y
100000003	8001000999	9	6/08/2008	20/08/2008	Statement of Charges	400.00	40.00	440.00	Y

Statement Of Charges Identifier	Identifier	Checksum	Line Identifier	OldStatement nt OfCharges	Transaction Date	Indicat	Reason	Network Tariff Code	Step Number	StartDate	EndDate	Tariff Component Code	Reading Type	Line Description	Quantity	Unit	Rate	GST Exclusive	GST	GST Inclusive	GST Indicator
100000002	8001000999	9	1	100000001	2/07/2008	C	RATE	TUOS	1	1/06/2008	30/06/2008	RT03-I-G	A	Time of Use Energy (Small) - Info - Group Count	1	EA	0	0	0	0	Y
100000002	8001000999	9	2	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-UF	A	Time of Use Energy (Small) Exit Service Fixed	-30	DAYS	0.20386	-6.12	-0.61	-6.73	Y
100000002	8001000999	9	3	100000001	2/07/2008	C	RATE	TUOS	1	1/06/2008	30/06/2008	RT03-T-UF	A	Time of Use Energy (Small) Exit Service Fixed	-30	DAYS	0	0	0	0	Y
100000002	8001000999	9	4	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	-2857	KWH	0.04336	-123.88	-12.39	-136.27	Y
100000002	8001000999	9	5	100000001	2/07/2008	C	RATE	TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	-2857	KWH	0.02187	-62.48	-6.25	-68.73	Y
100000002	8001000999	9	6	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	-3899	KWH	0.0101	-39.38	-3.94	-43.32	Y
100000002	8001000999	9	7	100000001	2/07/2008	C	RATE	TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	-3899	KWH	0.0046	-17.94	-1.79	-19.73	Y
100000002	8001000999	9	8	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-MF	A	Time of Use Energy (Small) Exit Service Metering Fixed	-30	DAYS	0.02546	-0.76	-0.08	-0.84	Y
100000002	8001000999	9	9	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering On Peak	-2857	KWH	0.00732	-20.91	-2.09	-23	Y
100000002	8001000999	9	10	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering Off Peak	-3899	KWH	0.00732	-28.54	-2.85	-31.39	Y
100000002	8001000999	9	11	100000001	2/07/2008	C	RATE	DUOS	1	1/06/2008	30/06/2008	RT03-D-I	A	Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y
100000002	8001000999	9	12	100000001	2/07/2008	C	RATE	TUOS	1	1/06/2008	30/06/2008	RT03-T-I	A	Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y
100000003	8001000999	9	1		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-I-G	A	Time of Use Energy (Small) - Info - Group Count	1	EA	0	0	0	0	Y
100000003	8001000999	9	2		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UF	A	Time of Use Energy (Small) Exit Service Fixed	30	DAYS	0.20386	6.12	0.61	6.73	Y
100000003	8001000999	9	3		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UF	A	Time of Use Energy (Small) Exit Service Fixed	30	DAYS	0	0	0	0	Y
100000003	8001000999	9	4		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	2857	KWH	0.07836	223.87	22.39	246.26	Y
100000003	8001000999	9	5		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable On Peak	2857	KWH	0.02187	62.48	6.25	68.73	Y
100000003	8001000999	9	6		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	3899	KWH	0.0101	39.38	3.94	43.32	Y
100000003	8001000999	9	7		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-UV	A	Time of Use Energy (Small) Exit Service Variable Off Peak	3899	KWH	0.0046	17.94	1.79	19.73	Y
100000003	8001000999	9	8		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MF	A	Time of Use Energy (Small) Exit Service Metering Fixed	30	DAYS	0.02546	0.76	0.08	0.84	Y
100000003	8001000999	9	9		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering On Peak	2857	KWH	0.00732	20.91	2.09	23	Y
100000003	8001000999	9	10		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-MV	A	Time of Use Energy (Small) Exit Service Metering Off Peak	3899	KWH	0.00732	28.54	2.85	31.39	Y
100000003	8001000999	9	11		2/07/2008	N		DUOS	1	1/06/2008	30/06/2008	RT03-D-I	A	Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y
100000003	8001000999	9	12		2/07/2008	N		TUOS	1	1/06/2008	30/06/2008	RT03-T-I	A	Time of Use Energy (Small) Exit Service Cap Con Credit	0	EA	0	0	0	0	Y

5. Transaction pattern examples

The following examples demonstrate the use of the above rules and are intended to provide practical information on the implementation of the rules described above using a number of Network billing transaction scenarios.

5.1.1 Example 1:

    5.1.1.1   The Network Operator issues a Statement of Charges for $100. The Market Participant accepts the Statement of Charges and generates a remittance advice.
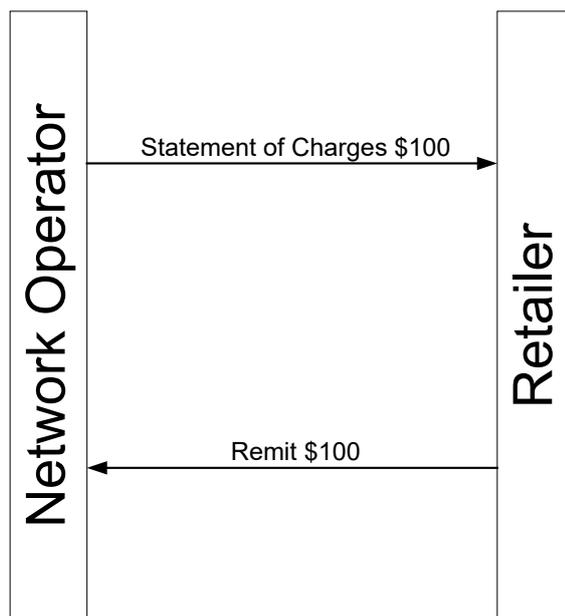
Example 1

5.1.2 Example 2:

5.1.2.1   The Network Operator issues a Statement of Charges for $100. The Market Participant realises there is a problem and raises dispute notification for the Statement of Charges. The Network Operator checks and finds that the original Statement of Charges was incorrect and should have been $90, rather than $100. The Network Operator closes the dispute via a Dispute Status Change Advice and raises an Adjustment Note for the original Statement of Charges for $100 and a new Statement of Charges for $90. The Market Participant accepts the closure of the dispute and remits the original $100 Statement of Charges, the $100 Adjustment Note (credit Statement of Charges) and the new $90 Statement of Charges.
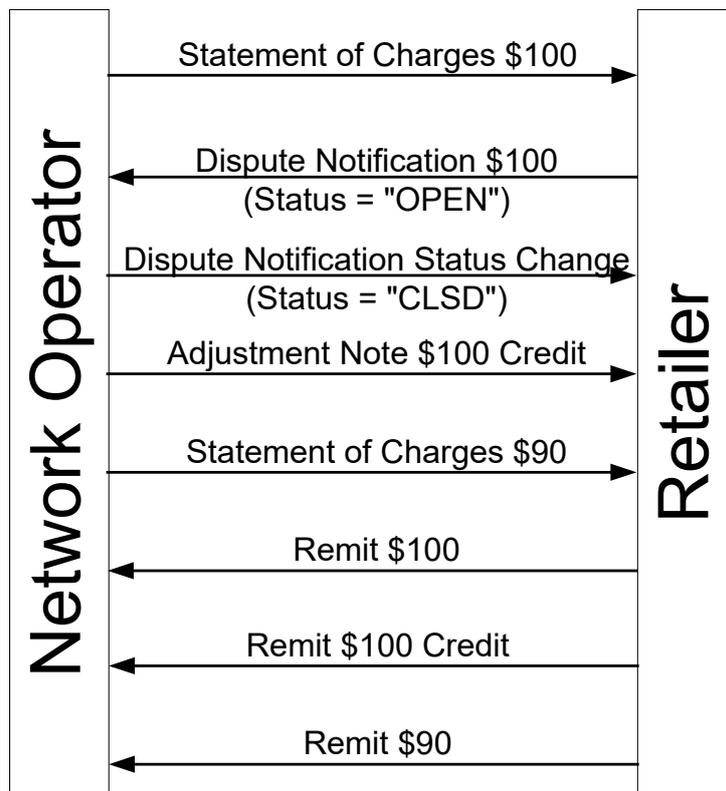
Example 2

5.1.3 Example 3:

5.1.3.1 The Network Operator issues a Statement of Charges for $100. The Market Participant accepts the Statement of Charges and generates a remittance. Later, the Market Participant realises there is a problem and issues a dispute notification for the Statement of Charge. The Network Operator checks and finds that the original Statement of Charges was incorrect and should have been $90, rather than $100. The Network Operator closes the dispute via a Dispute Status Change and raises an Adjustment Note for the Statement of Charges for $100 and a new Statement of Charges for $90. The Market Participant accepts the closure of the dispute and remits the $100 Adjustment Note (credit Statement of Charges) and the new $90 Statement of Charges.
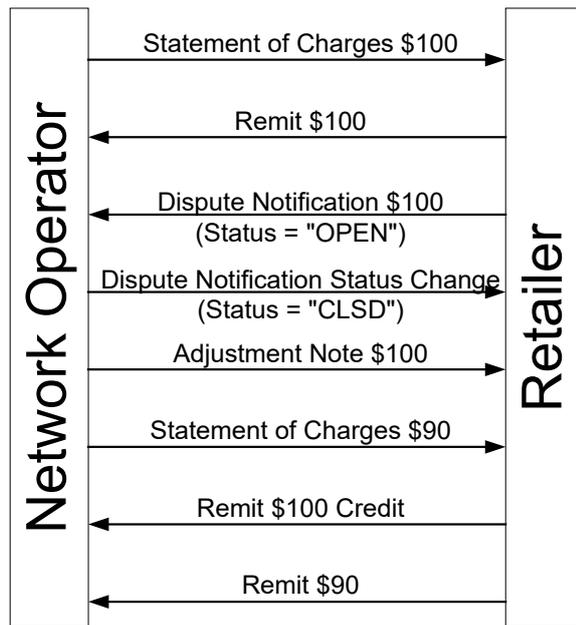
Example 3

5.1.4 Example 4:

5.1.4.1   The Network Operator issues a Statement of Charges for $100. The Market Participant disputes the Statement of Charges by issuing a Dispute Notification. The Network Operator checks and finds that the original Statement of Charges was incorrect. The Network Operator closes the dispute via a Dispute Status Change and raises an Adjustment Note (credit Statement of Charges) for $100. The Market Participant accepts the closure of the dispute and remits the original Statement of Charges and the Adjustment Note.

```
Network Operator                                              Retailer

        |──────── Statement of Charges $100 ──────────────▶|
        |                                                  |
        |◀─────── Dispute Notification $100 ───────────────|
        |          (Status = "OPEN")                       |
        |                                                  |
        |──────── Dispute Notification Status Change ──────▶|
        |          (Status = "CLSD")                       |
        |                                                  |
        |──────── Adjustment Note $100 ───────────────────▶|
        |                                                  |
        |◀─────── Remit $100 ──────────────────────────────|
        |                                                  |
        |◀─────── Remit $100 Credit ───────────────────────|
```
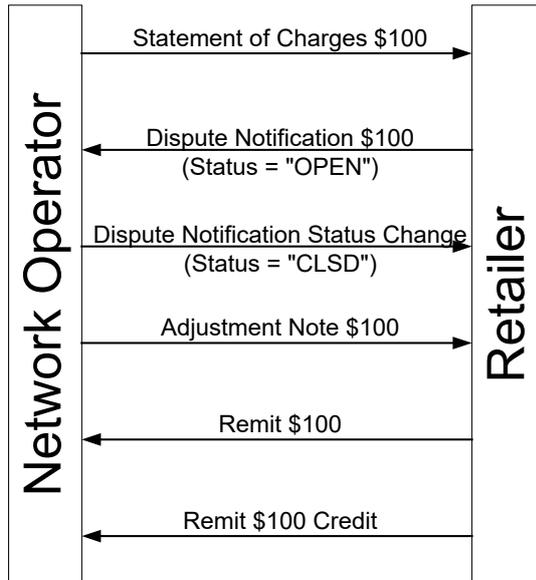
Example 4

5.1.5 Example 5:

5.1.5.1 The Network Operator issues a Statement of Charges for $100. The Market Participant accepts the Statement of Charges and generates a remittance. Later, the Market Participant realises there is a problem and issues a Dispute Notification for the Statement of Charges. The Network Operator checks and finds that the original Statement of Charges was incorrect. The Network Operator closes the dispute via a Dispute Status Change and raises an Adjustment Note (credit Statement of Charges) for $100. The Market Participant accepts the closure of the dispute and remits the Adjustment Note.
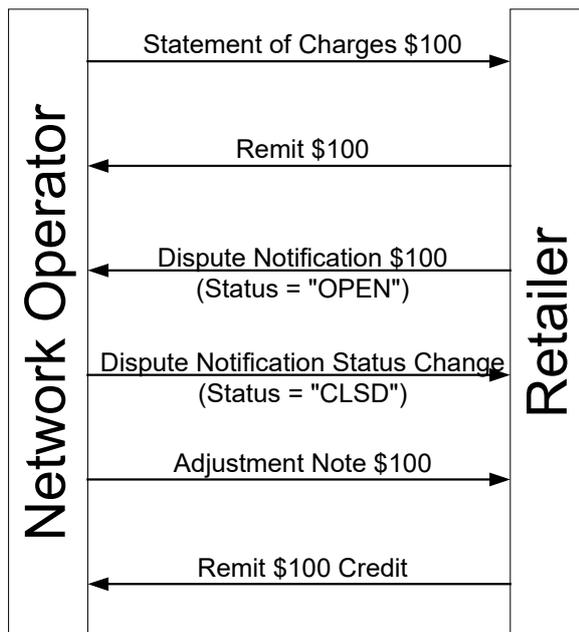
Example 5

5.1.6 Example 6:

5.1.6.1 The Network Operator issues a Statement of Charges for $100. The Market Participant disputes the Statement of Charges by issuing a Dispute Notification. The Network Operator checks and finds that the original Statement of Charges was correct. The Network Operator cancels the dispute via a Dispute Status Change. The Market Participant accepts the cancellation of the dispute and remits the original Statement of Charges.
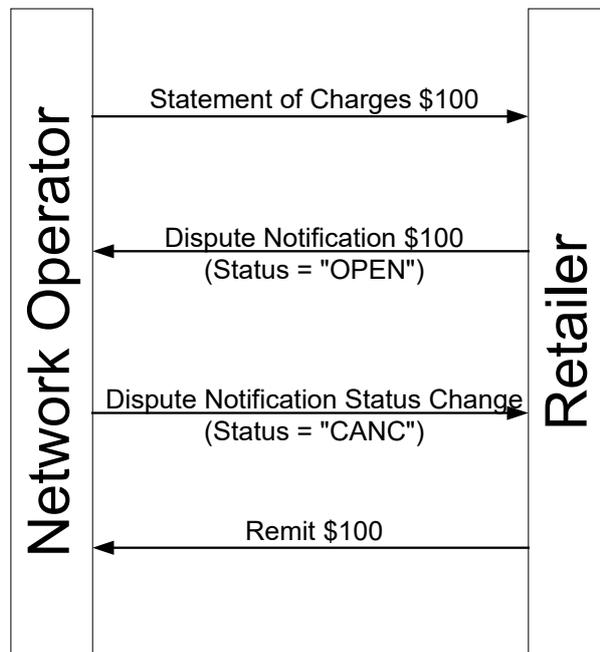
Example 6

5.1.7 Example 7:

    5.1.7.1   The Network Operator issues a Statement of Charges for $100. The Market Participant accepts the Statement of Charges and generates a remittance. Later, the Market Participant realises there is a problem and issues a Dispute Notification for the Statement of Charges. The Network Operator checks and finds that the original Statement of Charges was correct. The Network Operator cancels the dispute via a Dispute Status Change. The Market Participant accepts the cancellation.
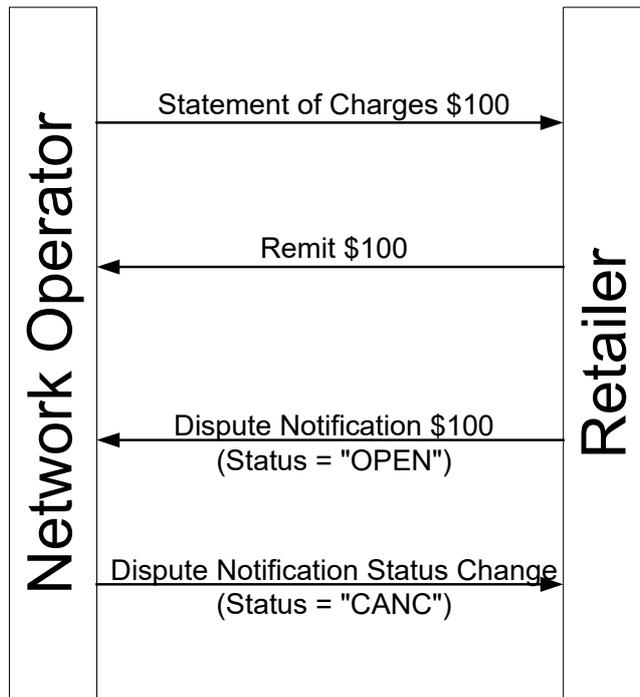
Example 7

5.1.8 Example 8:

5.1.8.1   The Network Operator issues a Statement of Charges for $100. The Market Participant accepts the Statement of Charges and generates a remittance. Later, the Market Participant realises there is a problem and issues a Dispute Notification for the Statement of Charges. The Network Operator checks and finds that the original Statement of Charges was correct. The Network Operator cancels the dispute via a Dispute Status Change. The Market Participant does not accept the cancellation and issues a second Dispute Notification on the original Statement of Charges. The Network Operator checks and finds that the original Statement of Charges was actually incorrect. The Network Operator closes the dispute via a Dispute Status Change and raises an Adjustment Note (credit Statement of Charges) for $100. The Market Participant accepts the closure of the dispute and remits the Adjustment Note.
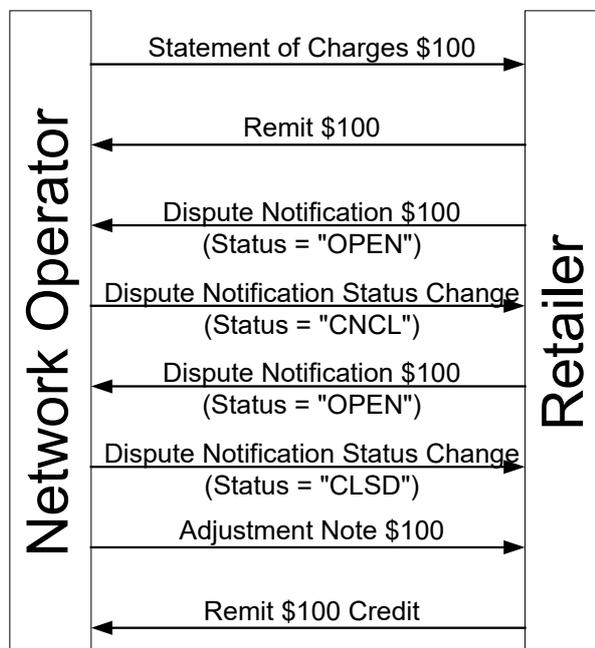

Example 8

Appendix A

B2B technical specification

Email transaction delivery

specification

westernpower

A.1 Introduction

A.1.1 Purpose

1.1.1 This specification articulates the business and technical requirements for the delivery of identified B2B transactions in Western Australia via email.

A.1.2 Scope

1.2.1 This specification defines both business rules and technical requirements for:

- The naming of emails and attachments;
- Formatting email content; and
- Formatting XML file attachments.

A.1.3 Application

1.3.1 This specification applies for the following jurisdictional B2B processes:

Jurisdiction	Processes That This Specification Applies To
Western Australia	→ Network Billing

A.1.4 Audience

1.4.1 This specification has been developed for relevant DNSPs and Market Participants operating in Western Australia and the community of software developers who will implement this specification.

A.1.5 Precedence

1.5.1 Relative to Process Specifications

1.5.1.1 This specification applies in conjunction with the latest Western Australia Network Billing B2B Specifications. Where the B2B Specification defines requirements in variance with this technical specification, the B2B Specification takes precedence.

1.5.2 Relative to Bilateral Agreements

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

A.2 Process-related business rules

A.2.1 General

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

A.2.2 Network billing

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

    a.   Network Operator will send and receive all Network Billing transactions via an XML formatted file sent as an attachment to an email message.

    b.   In general, data exchanges should involve e-mailing a larger file sent overnight on a monthly basis (or other bilaterally agreed time periods) rather than real time.

    c.   Network Operator should endeavour to batch all Statement of Charges and dispatch them in one logical file exchange (e.g. overnight) to minimise Market Participant reconciliation overhead.

    d.   Market Participants should endeavour to batch dispute and remittance notifications and dispatch them in one logical file exchange (e.g. overnight) to minimise risk of Statement of Charges not being paid or disputed (i.e. forgotten) before becoming overdue.

    e.   Network billing emails and attachments will not be considered as being successfully sent until a confirmed receipt is received. 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.

        For Western Australia, the suffix is mandatory and MUST reflect the status of the file. For example:

        Re:WAM#NBCHARGES#SYNERGY#WPN#20070826180500V1–Acknowleged.

    f.   Network Operator and Market Participants 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.

2.2.2 Error conditions for the technical acknowledgment

    2.2.2.1   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 XML file attachment has not already been successfully processed;

        d.   (This validation step has been deleted as it is not applicable for XML formatted files.)

        e.   The control totals and Market Participant name and Network name are correct and appropriate;

      f.   (This validation step has been deleted as it is not applicable for XML formatted files.)

      g.   There are no calculation errors, such as charge records not adding up to the Statement of Charges total.

2.2.2.2 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 on the basis of failing technical validation and must be corrected and resent. Details of the validation errors must be provided.

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

      a.   The Title/Subject should reference the originating transaction name, plus a suffix if so desired. E.g.:

            Re: WAM#NBCHARGES#SYNERGY#WPN#20070826V1.

            For Western Australia, the suffix is mandatory and MUST reflect status of the file. For example:

            Re:WAM#NBCHARGES#SYNERGY#WPN#20070826180500V1–Rejected.

      b.   The message should provide full details on the nature of the problem. E.g. File corrupt, please resend.

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

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

      e.   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.

2.2.2.4 In the case of extraordinary technical events or excessive delays in resending files, bilateral arrangements may be made between parties. E.g. waiving interest charges or revised payment processing dates.

A.3   Technical delivery details

A.3.1   Email subject

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

    WAM#Transaction_Name#Sending_Participant_ID#Receiving_Participant_ID#Reference_ID

3.1.2 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 "WAM" must be included and denotes that the transaction relates to the West Australian 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
Network Billing	NBCHARGES	Statement of Charges/Adjustment Note Sent to Market Participant
	NBCREDIT	Credit Balance Advice
	NBDISPUTES	Dispute Notification Sent to Network Operator
	NBDISRESOL	Dispute Status Change Advice
	NBREMIND	Outstanding Statement of Charge Advice
	NBREMITT	Remittance to Network Operator

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 WAM participant ID, as published by the Independent Market Operator.

h. The Receiving_Participant_ID field must be included to identify the participant who is intended to receive the message.
Where provided, the Receiving_Participant_ID field must only contain a valid WAM participant ID, as published by the Independent Market Operator.

i. 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.

j. 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 Western Australia the status (blank or 'Reject'). The version number will be incremented only where files are created and resent due to negative technical acknowledgment.

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

A.3.2 Email content

3.2.1 Confidentiality Notice

3.2.1.1 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."

3.2.1.2 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

3.2.2.1 Transactions XML files must be sent as attachments and not included in the body of text in the email itself.

A.3.3 File attachments

3.3.1 Number of Attachments

3.3.1.1 Rules governing the number of email attachments:

a. Each email must have no more than one attachment.

b. The B2B transaction must be included as an attachment.

3.3.2 Naming Attachments

3.3.2.1 Email attachment naming rules:

a. 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":

WAM#Transaction_Name#Sending_Participant_ID#Receiving_Participant_ID#Reference_ID.zip

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

WAM#Transaction_Name#Sending_Participant_ID#Receiving_Participant_ID#Reference_ID.xml

c. The supported file extension and associated data format is listed below:

Extension suffix	Data format
.xml	XML format

3.3.3 Maximum Size of Attachments

3.3.3.1 Attachments must not exceed a compressed file size of five megabytes.

3.3.4 Compression of Attachments

3.3.4.1 Attachments must be zipped using the 'zlib' standard (using software such as PKZIP), as used in the NEM by MSATS.

3.3.5 Security/Encryption of Attachments

3.3.5.1 Compressed attachments must not be password protected.

3.3.6 Use of XML formatted data files

3.3.6.1. Western Australia Network Billing files will contain XML formatted records that follow the XML schemas described within this process specification.

Appendix B

Tariff component codes

The following codes are to be used for the component elements of NUoS charges. These are subordinate to the Network Tariff Code.

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT01-I-G	AER	Anytime Energy (Res) Info - Group Count	EA	Y
DUOS	RT01-I-U	AER	Anytime Energy (Res) Info - Total Consumption	kWh	Y
DUOS	RT01-I-F	AER	Anytime Energy (Res) Info - Power Factor	PF	Y
DUOS	RT01-I-Y	AER	Anytime Energy (Res) Info - Non Reference Tariff	EA	N
DUOS	RT01-D-UF	AER	Anytime Energy (Res) Fixed	DAY	Y
TUOS	RT01-T-UF	AER	Anytime Energy (Res) Fixed	DAY	Y
DUOS	RT01-D-UV	AER	Anytime Energy (Res) Variable	kWh	Y
TUOS	RT01-T-UV	AER	Anytime Energy (Res) Variable	kWh	Y
DUOS	RT01-D-MF	AER	Anytime Energy (Res) Metering Fixed	EA	Y
DUOS	RT01-D-MV	AER	Anytime Energy (Res) Metering Variable	kWh	Y
DUOS	RT01-D-I	AER	Anytime Energy (Res) Cap Con Credit	DAY	N
TUOS	RT01-T-I	AER	Anytime Energy (Res) Cap Con Credit	DAY	N
DUOS	RT02-I-G	AEB	Anytime Energy (Bus) Info - Group Count	EA	Y
DUOS	RT02-I-U	AEB	Anytime Energy (Bus) Info - Total Consumption	kWh	Y
DUOS	RT02-I-F	AEB	Anytime Energy (Bus) Info - Power Factor	PF	Y
DUOS	RT02-I-Y	AEB	Anytime Energy (Bus) Info - Non Reference Tariff	EA	N
DUOS	RT02-D-UF	AEB	Anytime Energy (Bus) Fixed	DAY	Y
TUOS	RT02-T-UF	AEB	Anytime Energy (Bus) Fixed	DAY	Y
DUOS	RT02-D-UV	AEB	Anytime Energy (Bus) Variable	kWh	Y
TUOS	RT02-T-UV	AEB	Anytime Energy (Bus) Variable	kWh	Y
DUOS	RT02-D-MF	AEB	Anytime Energy (Bus) Metering Fixed	EA	Y
DUOS	RT02-D-MV	AEB	Anytime Energy (Bus) Metering Variable	kWh	Y
DUOS	RT02-D-I	AEB	Anytime Energy (Bus) Cap Con Credit	DAY	N
TUOS	RT02-T-I	AEB	Anytime Energy (Bus) Cap Con Credit	DAY	N
DUOS	RT03-I-G	TOUS	Time Of Use Energy (Res) Info - Group Count	EA	Y
DUOS	RT03-I-UO	TOUS	Time Of Use Energy (Res) Info - Off Peak Consumption	kWh	Y
DUOS	RT03-I-UP	TOUS	Time Of Use Energy (Res) Info - On Peak Consumption	kWh	Y
DUOS	RT03-I-F	TOUS	Time Of Use Energy (Res) Info - Power Factor	PF	Y
DUOS	RT03-I-Y	TOUS	Time Of Use Energy (Res) Info - Non Reference Tariff	EA	N
DUOS	RT03-D-UF	TOUS	Time Of Use Energy (Res) Fixed	DAY	Y
TUOS	RT03-T-UF	TOUS	Time Of Use Energy (Res) Fixed	DAY	Y
DUOS	RT03-D-UVP	TOUS	Time Of Use Energy (Res) Variable On Peak	kWh	Y
TUOS	RT03-T-UVP	TOUS	Time Of Use Energy (Res) Variable On Peak	kWh	Y
DUOS	RT03-D-UVO	TOUS	Time Of Use Energy (Res) Variable Off Peak	kWh	Y
TUOS	RT03-T-UVO	TOUS	Time Of Use Energy (Res) Variable Off Peak	kWh	Y
DUOS	RT03-D-MF	TOUS	Time Of Use Energy (Res) Metering Fixed	EA	Y
DUOS	RT03-D-MVP	TOUS	Time Of Use Energy (Res) Metering On Peak	kWh	Y
DUOS	RT03-D-MVO	TOUS	Time Of Use Energy (Res) Metering Off Peak	kWh	Y
DUOS	RT03-D-I	TOUS	Time Of Use Energy (Res) Cap Con Credit	DAY	N
TUOS	RT03-T-I	TOUS	Time Of Use Energy (Res) Cap Con Credit	DAY	N
DUOS	RT04-I-G	TOUL	Time Of Use Energy (Bus) Info - Group Count	EA	Y
DUOS	RT04-I-UO	TOUL	Time Of Use Energy (Bus) Info - Off Peak Consumption	kWh	Y
DUOS	RT04-I-UP	TOUL	Time Of Use Energy (Bus) Info - On Peak Consumption	kWh	Y
DUOS	RT04-I-F	TOUL	Time Of Use Energy (Bus) Info - Power Factor	PF	Y
DUOS	RT04-I-Y	TOUL	Time Of Use Energy (Bus) Info - Non Reference Tariff	EA	N
DUOS	RT04-D-UF	TOUL	Time Of Use Energy (Bus) Fixed	DAY	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
TUOS	RT04-T-UF	TOUL	Time Of Use Energy (Bus) Fixed	DAY	Y
DUOS	RT04-D-UVP	TOUL	Time Of Use Energy (Bus) Variable On Peak	kWh	Y
TUOS	RT04-T-UVP	TOUL	Time Of Use Energy (Bus) Variable On Peak	kWh	Y
DUOS	RT04-D-UVO	TOUL	Time Of Use Energy (Bus) Variable Off Peak	kWh	Y
TUOS	RT04-T-UVO	TOUL	Time Of Use Energy (Bus) Variable Off Peak	kWh	Y
DUOS	RT04-D-MF	TOUL	Time Of Use Energy (Bus) Metering Fixed	EA	Y
DUOS	RT04-D-MVP	TOUL	Time Of Use Energy (Bus) Metering On Peak	kWh	Y
DUOS	RT04-D-MVO	TOUL	Time Of Use Energy (Bus) Metering Off Peak	kWh	Y
DUOS	RT04-D-I	TOUL	Time Of Use Energy (Bus) Cap Con Credit	DAY	N
TUOS	RT04-T-I	TOUL	Time Of Use Energy (Bus) Cap Con Credit	DAY	N
DUOS	RT05-I-G	HVMD	High Voltage Metered Demand Info - Group Count	EA	Y
DUOS	RT05-I-O	HVMD	High Voltage Metered Demand Info - MPOS Count	EA	N
DUOS	RT05-I-UO	HVMD	High Voltage Metered Demand Info - Off Peak Consumption	kWh	Y
DUOS	RT05-I-UP	HVMD	High Voltage Metered Demand Info - On Peak Consumption	kWh	Y
DUOS	RT05-I-P	HVMD	High Voltage Metered Demand Info - Demand Peak	kVA	Y
DUOS	RT05-I-PH	HVMD	High Voltage Metered Demand - Info - Rolling 12-Month	kVA	Y
DUOS	RT05-I-PHT	HVMD	High Voltage Metered Demand – Info – Rolling 12-Month Time	EA	Y
DUOS	RT05-I-PR	HVMD	High Voltage Metered Demand Info - 12 Month Rolling Pk Reset	kVA	Y
DUOS	RT05-I-F	HVMD	High Voltage Metered Demand Info - Power Factor	PF	Y
DUOS	RT05-I-Y	HVMD	High Voltage Metered Demand Info - Non Reference Tariff	EA	N
DUOS	RT05-D-DF	HVMD	High Voltage Metered Demand Fixed	DAY	Y
DUOS	RT05-D-DFX	HVMD	DISCOUNT on RT05-D-DF	EA	N
TUOS	RT05-T-DF	HVMD	High Voltage Metered Demand Fixed	DAY	Y
TUOS	RT05-T-DFX	HVMD	DISCOUNT on RT05-T-DF	EA	N
DUOS	RT05-D-DV	HVMD	High Voltage Metered Demand Variable	EA	Y
DUOS	RT05-D-DVX	HVMD	DISCOUNT on RT05-D-DV	EA	N
TUOS	RT05-T-DV	HVMD	High Voltage Metered Demand Variable	EA	Y
TUOS	RT05-T-DVX	HVMD	DISCOUNT on RT05-T-DV	EA	N
DUOS	RT05-D-MF	HVMD	High Voltage Metered Demand Metering Fixed	EA	Y
DUOS	RT05-D-MFC	HVMD	High Voltage Metered Demand Metering Fixed	EA	Y
DUOS	RT05-D-LVL	HVMD	High Voltage Metered Demand Demand Length <= 10	EA	Y
DUOS	RT05-D-LVG	HVMD	High Voltage Metered Demand Demand Length > 10	EA	Y
DUOS	RT05-D-H	HVMD	High Voltage Metered Demand Distributed Generation Discount	DAY	N
TUOS	RT05-T-H	HVMD	High Voltage Metered Demand Distributed Generation Discount	DAY	N
DUOS	RT05-D-I	HVMD	High Voltage Metered Demand Cap Con Credit	DAY	N
TUOS	RT05-T-I	HVMD	High Voltage Metered Demand Cap Con Credit	DAY	N
DUOS	RT06-I-G	LVMD	Low Voltage Metered Demand Info - Group Count	EA	Y
DUOS	RT06-I-O	LVMD	Low Voltage Metered Demand Info - MPOS Group Count	EA	N
DUOS	RT06-I-UO	LVMD	Low Voltage Metered Demand Info - Off Peak Consumption	kWh	Y
DUOS	RT06-I-UP	LVMD	Low Voltage Metered Demand Info - On Peak Consumption	kWh	Y
DUOS	RT06-I-P	LVMD	Low Voltage Metered Demand Info - Demand Peak	kVA	Y
DUOS	RT06-I-PH	LVMD	Low Voltage Metered Demand - Info - Rolling 12-Month	kVA	Y
DUOS	RT06-I-PHT	LVMD	Low Voltage Metered Demand – Info – Rolling 12-Month Time	EA	Y
DUOS	RT06-I-PR	LVMD	Low Voltage Metered Demand Info - 12 Month Rolling Pk Reset	kVA	Y
DUOS	RT06-I-F	LVMD	Low Voltage Metered Demand Info - Power Factor	PF	Y
DUOS	RT06-I-Y	LVMD	Low Voltage Metered Demand Info - Non Reference Tariff	EA	N
DUOS	RT06-D-DF	LVMD	Low Voltage Metered Demand Fixed	DAY	Y
DUOS	RT06-D-DFX	LVMD	DISCOUNT on RT06-D-DF	EA	N
TUOS	RT06-T-DF	LVMD	Low Voltage Metered Demand Fixed	DAY	Y
TUOS	RT06-T-DFX	LVMD	DISCOUNT on RT06-T-DF	EA	N

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT06-D-DV	LVMD	Low Voltage Metered Demand Variable	EA	Y
DUOS	RT06-D-DVX	LVMD	DISCOUNT on RT06-D-DV	EA	N
TUOS	RT06-T-DV	LVMD	Low Voltage Metered Demand Variable	EA	Y
TUOS	RT06-T-DVX	LVMD	DISCOUNT on RT06-T-DV	EA	N
DUOS	RT06-D-MF	LVMD	Low Voltage Metered Demand Metering Fixed	EA	Y
DUOS	RT06-D-MFC	LVMD	Low Voltage Metered Demand Metering Fixed	EA	Y
DUOS	RT06-D-LVL	LVMD	Low Voltage Metered Demand Demand Length <= 10	EA	Y
DUOS	RT06-D-LVG	LVMD	Low Voltage Metered Demand Demand Length > 10	EA	Y
DUOS	RT06-D-H	LVMD	Low Voltage Metered Demand Distributed Generation Discount	DAY	N
TUOS	RT06-T-H	LVMD	Low Voltage Metered Demand Distributed Generation Discount	DAY	N
DUOS	RT06-D-I	LVMD	Low Voltage Metered Demand Cap Con Credit	DAY	N
TUOS	RT06-T-I	LVMD	Low Voltage Metered Demand Cap Con Credit	DAY	N
DUOS	RT07-I-G	HVCMD	High Voltage CMD Info - Group Count	EA	Y
DUOS	RT07-I-O	HVCMD	High Voltage CMD Info - MPOS Group Count	EA	N
DUOS	RT07-I-BS	HVCMD	High Voltage CMD Info - FBC Same Sub	EA	N
DUOS	RT07-I-B	HVCMD	High Voltage CMD Info - FBC	EA	N
DUOS	RT07-I-Z	HVCMD	High Voltage CMD Info - Zone Sub Connected	EA	N
DUOS	RT07-I-P	HVCMD	High Voltage CMD Info - Demand Peak	kVA	Y
DUOS	RT07-I-F	HVCMD	High Voltage CMD Info - Power Factor	PF	Y
DUOS	RT07-I-U	HVCMD	High Voltage CMD Info - Total Consumption	kWh	Y
DUOS	RT07-I-N	HVCMD	High Voltage CMD Info - CMD	EA	Y
DUOS	RT07-I-NW	HVCMD	High Voltage CMD Info - CMD Capacity Swap	EA	N
DUOS	RT07-I-Y	HVCMD	High Voltage CMD Info - Non Reference Tariff	EA	N
DUOS	RT07-D-DF	HVCMD	High Voltage CMD Fixed	DAY	Y
TUOS	RT07-T-DF	HVCMD	High Voltage CMD Fixed	DAY	Y
TUOS	RT07-T-DFX	HVCMD	High Voltage CMD Fixed FBC Discount	EA	N
DUOS	RT07-D-DV	HVCMD	High Voltage CMD Variable	EA	Y
TUOS	RT07-T-DVX	HVCMD	High Voltage CMD Variable FBC Discount	EA	N
TUOS	RT07-T-DV	HVCMD	High Voltage CMD Variable	EA	Y
DUOS	RT07-D-MF	HVCMD	High Voltage CMD Metering Fixed	EA	Y
DUOS	RT07-D-MFC	HVCMD	High Voltage CMD Metering Fixed	EA	Y
DUOS	RT07-D-LVL	HVCMD	High Voltage CMD Demand Length <= 10	EA	Y
DUOS	RT07-D-LVG	HVCMD	High Voltage CMD Demand Length > 10	EA	Y
DUOS	RT07-D-AF	HVCMD	High Voltage CMD Administration	DAY	Y
DUOS	RT07-D-E	HVCMD	High Voltage CMD Excess Network Usage	kVA	Y
TUOS	RT07-T-E	HVCMD	High Voltage CMD Excess Network Usage	kVA	Y
DUOS	RT07-D-H	HVCMD	High Voltage CMD Distributed Generation Discount	DAY	N
TUOS	RT07-T-H	HVCMD	High Voltage CMD Distributed Generation Discount	DAY	N
DUOS	RT07-D-I	HVCMD	High Voltage CMD Cap Con Credit	DAY	N
TUOS	RT07-T-I	HVCMD	High Voltage CMD Cap Con Credit	DAY	N
DUOS	RT08-I-G	LVCMD	Low Voltage CMD Info - Group Count	EA	Y
DUOS	RT08-I-O	LVCMD	Low Voltage CMD Info - MPOS Group Count	EA	N
DUOS	RT08-I-BS	LVCMD	Low Voltage CMD Info - FBC Same Sub	EA	N
DUOS	RT08-I-B	LVCMD	Low Voltage CMD Info - FBC	EA	N
DUOS	RT08-I-P	LVCMD	Low Voltage CMD Info - Demand Peak	kVA	Y
DUOS	RT08-I-F	LVCMD	Low Voltage CMD Info - Power Factor	PF	Y
DUOS	RT08-I-U	LVCMD	Low Voltage CMD Info - Total Consumption	kWh	Y
DUOS	RT08-I-N	LVCMD	Low Voltage CMD Info - CMD	EA	Y
DUOS	RT08-I-NW	LVCMD	Low Voltage CMD Info - CMD Capacity Swap	EA	N
DUOS	RT08-I-Y	LVCMD	Low Voltage CMD Info - Non Reference Tariff	EA	N

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT08-D-DF	LVCMD	Low Voltage CMD Fixed	DAY	Y
TUOS	RT08-T-DF	LVCMD	Low Voltage CMD Fixed	DAY	Y
TUOS	RT08-T-DFX	LVCMD	Low Voltage CMD Fixed FBC Discount	EA	N
DUOS	RT08-D-DV	LVCMD	Low Voltage CMD Variable	EA	Y
TUOS	RT08-T-DVX	LVCMD	Low Voltage CMD Variable FBC Discount	EA	N
TUOS	RT08-T-DV	LVCMD	Low Voltage CMD Variable	EA	Y
DUOS	RT08-D-MF	LVCMD	Low Voltage CMD Metering Fixed	EA	Y
DUOS	RT08-D-MFC	LVCMD	Low Voltage CMD Metering Fixed	EA	Y
DUOS	RT08-D-LVL	LVCMD	Low Voltage CMD Demand Length <= 10	EA	Y
DUOS	RT08-D-LVG	LVCMD	Low Voltage CMD Demand Length > 10	EA	Y
DUOS	RT08-D-VF	LVCMD	Low Voltage CMD Low Voltage Charge Fixed	DAY	Y
DUOS	RT08-D-VV	LVCMD	Low Voltage CMD Low Voltage Charge Variable	EA	Y
DUOS	RT08-D-AF	LVCMD	Low Voltage CMD Administration	DAY	Y
DUOS	RT08-D-E	LVCMD	Low Voltage CMD Excess Network Usage	kVA	Y
TUOS	RT08-T-E	LVCMD	Low Voltage CMD Excess Network Usage	kVA	Y
DUOS	RT08-D-H	LVCMD	Low Voltage CMD Distributed Generation Discount	DAY	N
TUOS	RT08-T-H	LVCMD	Low Voltage CMD Distributed Generation Discount	DAY	N
DUOS	RT08-D-I	LVCMD	Low Voltage CMD Cap Con Credit	DAY	N
TUOS	RT08-T-I	LVCMD	Low Voltage CMD Cap Con Credit	DAY	N
TUOS	TRT1-I-G	TREX	Transmission Exit Info - Group Count	EA	Y
TUOS	TRT1-I-O	TREX	Transmission Exit Info - MPOS Group Count	EA	N
TUOS	TRT1-I-P	TREX	Transmission Exit Info - Demand Peak	kW	Y
TUOS	TRT1-I-F	TREX	Transmission Exit Info - Power Factor	PF	Y
TUOS	TRT1-I-U	TREX	Transmission Exit Info - Total Consumption	kWh	Y
TUOS	TRT1-I-B	TREX	Transmission Exit Info - FBC	EA	N
TUOS	TRT1-I-BS	TREX	Transmission Exit Info - FBC Same Sub	EA	N
TUOS	TRT1-I-N	TREX	Transmission Exit Info - CMD	EA	Y
TUOS	TRT1-I-NW	TREX	Transmission Exit Info - CMD Capacity Swap	EA	N
TUOS	TRT1-I-Y	TREX	Transmission Exit Info - Non Reference Tariff	EA	N
TUOS	TRT1-T-X	TREX	Transmission Exit User Charge	DAY	Y
TUOS	TRT1-T-UV	TREX	Transmission Exit Use Of System	EA	Y
TUOS	TRT1-T-RV	TREX	Transmission Exit Common Service	EA	Y
TUOS	TRT1-T-RVX	TREX	Transmission Exit Common Service FBC Discount	EA	N
TUOS	TRT1-T-SV	TREX	Transmission Exit Control System	EA	Y
TUOS	TRT1-T-MF	TREX	Transmission Exit Metering Fixed	EA	Y
TUOS	TRT1-T-E	TREX	Transmission Exit Excess Network Usage	kW	Y
TUOS	TRT1-T-I	TREX	Transmission Exit Cap Con Credit	DAY	N
DUOS	RT11-I-G	DEN	Distribution Entry Info - Group Count	EA	Y
DUOS	RT11-I-P	DEN	Distribution Entry Info - Demand Peak	kW	Y
DUOS	RT11-I-U	DEN	Distribution Entry Info - Total Consumption	kWh	Y
DUOS	RT11-I-N	DEN	Distribution Entry Info - Nameplate Output	kW	Y
DUOS	RT11-I-Q	DEN	Distribution Entry Info - DSOC	kW	Y
DUOS	RT11-I-QW	DEN	Distribution Entry Info - DSOC Capacity Swap	kW	Y
DUOS	RT11-I-Y	DEN	Distribution Entry Info - Non Reference Tariff	EA	N
TUOS	RT11-T-CV	DEN	Distribution Entry Connection	EA	Y
TUOS	RT11-T-SV	DEN	Distribution Entry Control System	EA	Y
TUOS	RT11-T-UV	DEN	Distribution Entry Use Of System	EA	Y
DUOS	RT11-D-MF	DEN	Distribution Entry Metering Fixed	EA	Y
DUOS	RT11-D-MFC	DEN	Distribution Entry Metering Fixed	EA	Y
DUOS	RT11-D-LVL	DEN	Distribution Entry Demand Length <= 10	EA	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT11-D-LVG	DEN	Distribution Entry Demand Length > 10	EA	Y
DUOS	RT11-D-E	DEN	Distribution Entry Excess Network Usage	kW	Y
TUOS	RT11-T-E	DEN	Distribution Entry Excess Network Usage	kW	Y
DUOS	RT11-D-H	DEN	Distribution Entry Bi-Di Distributed Generation Discount	DAY	N
TUOS	RT11-T-H	DEN	Distribution Entry Bi-Di Distributed Generation Discount	DAY	N
DUOS	RT11-D-I	DEN	Distribution Entry Cap Con Credit	DAY	N
TUOS	RT11-T-I	DEN	Distribution Entry Cap Con Credit	DAY	N
TUOS	TRT2-I-G	TREN	Transmission Entry Info - Group Count	EA	Y
TUOS	TRT2-I-O	TREN	Transmission Entry Info - MPOS Group Count	EA	N
TUOS	TRT2-I-P	TREN	Transmission Entry Info - Demand Peak	kW	Y
TUOS	TRT2-I-U	TREN	Transmission Entry Info - Total Consumption	kWh	Y
TUOS	TRT2-I-N	TREN	Transmission Entry Info - Nameplate Output	kW	Y
TUOS	TRT2-I-Q	TREN	Transmission Entry Info - DSOC	kW	Y
TUOS	TRT2-I-QW	TREN	Transmission Entry Info - DSOC Capacity Swap	kW	Y
TUOS	TRT2-I-Y	TREN	Transmission Entry Info - Non Reference Tariff	EA	N
TUOS	TRT2-T-X	TREN	Transmission Entry User Charge	DAY	Y
TUOS	TRT2-T-UV	TREN	Transmission Entry Use Of System	EA	Y
TUOS	TRT2-T-SV	TREN	Transmission Entry Control System	EA	Y
TUOS	TRT2-T-MF	TREN	Transmission Entry Metering Fixed	EA	Y
TUOS	TRT2-T-E	TREN	Transmission Entry Excess Network Usage	kW	Y
TUOS	TRT2-T-I	TREN	Transmission Entry Cap Con Credit	DAY	N
DUOS	RT13-I-G	BAER	Anytime Energy (Res) Bi-Di Info - Group Count	EA	Y
DUOS	RT13-I-U	BAER	Anytime Energy (Res) Bi-Di Info - Total Consumption	kWh	Y
DUOS	RT13-I-F	BAER	Anytime Energy (Res) Bi-Di Info - Power Factor	PF	Y
DUOS	RT13-I-Y	BAER	Anytime Energy (Res) Bi-Di Info - Non Reference Tariff	EA	N
DUOS	RT13-D-UF	BAER	Anytime Energy (Res) Bi-Di Fixed	DAY	Y
TUOS	RT13-T-UF	BAER	Anytime Energy (Res) Bi-Di Fixed	DAY	Y
DUOS	RT13-D-UV	BAER	Anytime Energy (Res) Bi-Di Variable	kWh	Y
TUOS	RT13-T-UV	BAER	Anytime Energy (Res) Bi-Di Variable	kWh	Y
DUOS	RT13-D-MF	BAER	Anytime Energy (Res) Bi-Di Metering Fixed	EA	Y
DUOS	RT13-D-MV	BAER	Anytime Energy (Res) Bi-Di Metering Variable	kWh	Y
DUOS	RT13-D-H	BAER	Anytime Energy (Res) Bi-Di Distributed Generation Discount	DAY	N
TUOS	RT13-T-H	BAER	Anytime Energy (Res) Bi-Di Distributed Generation Discount	DAY	N
DUOS	RT13-D-I	BAER	Anytime Energy (Res) Bi-Di Cap Con Credit	DAY	N
TUOS	RT13-T-I	BAER	Anytime Energy (Res) Bi-Di Cap Con Credit	DAY	N
DUOS	RT14-I-G	BAEB	Anytime Energy (Bus) Bi-Di Info - Group Count	EA	Y
DUOS	RT14-I-U	BAEB	Anytime Energy (Bus) Bi-Di Info - Total Consumption	kWh	Y
DUOS	RT14-I-F	BAEB	Anytime Energy (Bus) Bi-Di Info - Power Factor	PF	Y
DUOS	RT14-I-Y	BAEB	Anytime Energy (Bus) Bi-Di Info - Non Reference Tariff	EA	N
DUOS	RT14-D-UF	BAEB	Anytime Energy (Bus) Bi-Di Fixed	DAY	Y
TUOS	RT14-T-UF	BAEB	Anytime Energy (Bus) Bi-Di Fixed	DAY	Y
DUOS	RT14-D-UV	BAEB	Anytime Energy (Bus) Bi-Di Variable	kWh	Y
TUOS	RT14-T-UV	BAEB	Anytime Energy (Bus) Bi-Di Variable	kWh	Y
DUOS	RT14-D-MF	BAEB	Anytime Energy (Bus) Bi-Di Metering Fixed	EA	Y
DUOS	RT14-D-MV	BAEB	Anytime Energy (Bus) Bi-Di Metering Variable	kWh	Y
DUOS	RT14-D-H	BAEB	Anytime Energy (Bus) Bi-Di Distributed Generation Discount	DAY	N
TUOS	RT14-T-H	BAEB	Anytime Energy (Bus) Bi-Di Distributed Generation Discount	DAY	N
DUOS	RT14-D-I	BAEB	Anytime Energy (Bus) Bi-Di Cap Con Credit	DAY	N
TUOS	RT14-T-I	BAEB	Anytime Energy (Bus) Bi-Di Cap Con Credit	DAY	N
DUOS	RT15-I-G	BTOUS	Time Of Use Energy (Res) Bi-Di Info - Group Count	EA	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT15-I-UO	BTOUS	Time Of Use Energy (Res) Bi-Di Info - Off Peak Consumption	kWh	Y
DUOS	RT15-I-UP	BTOUS	Time Of Use Energy (Res) Bi-Di Info - On Peak Consumption	kWh	Y
DUOS	RT15-I-F	BTOUS	Time Of Use Energy (Res) Bi-Di Info - Power Factor	PF	Y
DUOS	RT15-I-Y	BTOUS	Time Of Use Energy (Res) Bi-Di Info - Non Reference Tariff	EA	N
DUOS	RT15-D-UF	BTOUS	Time Of Use Energy (Res) Bi-Di Fixed	DAY	Y
TUOS	RT15-T-UF	BTOUS	Time Of Use Energy (Res) Bi-Di Fixed	DAY	Y
DUOS	RT15-D-UVP	BTOUS	Time Of Use Energy (Res) Bi-Di Variable On Peak	kWh	Y
TUOS	RT15-T-UVP	BTOUS	Time Of Use Energy (Res) Bi-Di Variable On Peak	kWh	Y
DUOS	RT15-D-UVO	BTOUS	Time Of Use Energy (Res) Bi-Di Variable Off Peak	kWh	Y
TUOS	RT15-T-UVO	BTOUS	Time Of Use Energy (Res) Bi-Di Variable Off Peak	kWh	Y
DUOS	RT15-D-MF	BTOUS	Time Of Use Energy (Res) Bi-Di Metering Fixed	EA	Y
DUOS	RT15-D-MVP	BTOUS	Time Of Use Energy (Res) Bi-Di Metering On Peak	kWh	Y
DUOS	RT15-D-MVO	BTOUS	Time Of Use Energy (Res) Bi-Di Metering Off Peak	kWh	Y
DUOS	RT15-D-H	BTOUS	Time Of Use Energy (Res) Bi-Di Distributed Generation Disc	DAY	N
TUOS	RT15-T-H	BTOUS	Time Of Use Energy (Res) Bi-Di Distributed Generation Disc	DAY	N
DUOS	RT15-D-I	BTOUS	Time Of Use Energy (Res) Bi-Di Cap Con Credit	DAY	N
TUOS	RT15-T-I	BTOUS	Time Of Use Energy (Res) Bi-Di Cap Con Credit	DAY	N
DUOS	RT16-I-G	BTOUL	Time Of Use Energy (Bus) Bi-Di Info - Group Count	EA	Y
DUOS	RT16-I-UO	BTOUL	Time Of Use Energy (Bus) Bi-Di Info - Off Peak Consumption	kWh	Y
DUOS	RT16-I-UP	BTOUL	Time Of Use Energy (Bus) Bi-Di Info - On Peak Consumption	kWh	Y
DUOS	RT16-I-F	BTOUL	Time Of Use Energy (Bus) Bi-Di Info - Power Factor	PF	Y
DUOS	RT16-I-Y	BTOUL	Time Of Use Energy (Bus) Bi-Di Info - Non Reference Tariff	EA	N
DUOS	RT16-D-UF	BTOUL	Time Of Use Energy (Bus) Bi-Di Fixed	DAY	Y
TUOS	RT16-T-UF	BTOUL	Time Of Use Energy (Bus) Bi-Di Fixed	DAY	Y
DUOS	RT16-D-UVP	BTOUL	Time Of Use Energy (Bus) Bi-Di Variable On Peak	kWh	Y
TUOS	RT16-T-UVP	BTOUL	Time Of Use Energy (Bus) Bi-Di Variable On Peak	kWh	Y
DUOS	RT16-D-UVO	BTOUL	Time Of Use Energy (Bus) Bi-Di Variable Off Peak	kWh	Y
TUOS	RT16-T-UVO	BTOUL	Time Of Use Energy (Bus) Bi-Di Variable Off Peak	kWh	Y
DUOS	RT16-D-MF	BTOUL	Time Of Use Energy (Bus) Bi-Di Metering Fixed	EA	Y
DUOS	RT16-D-MVP	BTOUL	Time Of Use Energy (Bus) Bi-Di Metering On Peak	kWh	Y
DUOS	RT16-D-MVO	BTOUL	Time Of Use Energy (Bus) Bi-Di Metering Off Peak	kWh	Y
DUOS	RT16-D-H	BTOUL	Time Of Use Energy (Bus) Bi-Di Distributed Generation Disc	DAY	N
TUOS	RT16-T-H	BTOUL	Time Of Use Energy (Bus) Bi-Di Distributed Generation Disc	DAY	N
DUOS	RT16-D-I	BTOUL	Time Of Use Energy (Bus) Bi-Di Cap Con Credit	DAY	N
TUOS	RT16-T-I	BTOUL	Time Of Use Energy (Bus) Bi-Di Cap Con Credit	DAY	N
DUOS	RT17-I-G	TTOUS	3 Part Time Of Use (Res) Info - Group Count	EA	Y
DUOS	RT17-I-UO	TTOUS	3 Part Time Of Use (Res) Info - Off Peak Consumption	kWh	Y
DUOS	RT17-I-UP	TTOUS	3 Part Time Of Use (Res) Info - On Peak Consumption	kWh	Y
DUOS	RT17-I-US	TTOUS	3 Part Time Of Use (Res) Info - Shoulder Consumption	kWh	Y
DUOS	RT17-I-F	TTOUS	3 Part Time Of Use (Res) Info - Power Factor	PF	Y
DUOS	RT17-I-Y	TTOUS	3 Part Time Of Use (Res) Info - Non Reference Tariff	EA	N
DUOS	RT17-D-UF	TTOUS	3 Part Time Of Use (Res) Fixed	DAY	Y
TUOS	RT17-T-UF	TTOUS	3 Part Time Of Use (Res) Fixed	DAY	Y
DUOS	RT17-D-UVP	TTOUS	3 Part Time Of Use (Res) Variable On Peak	kWh	Y
TUOS	RT17-T-UVP	TTOUS	3 Part Time Of Use (Res) Variable On Peak	kWh	Y
DUOS	RT17-D-UVO	TTOUS	3 Part Time Of Use (Res) Variable Off Peak	kWh	Y
TUOS	RT17-T-UVO	TTOUS	3 Part Time Of Use (Res) Variable Off Peak	kWh	Y
DUOS	RT17-D-UVS	TTOUS	3 Part Time Of Use (Res) Variable Shoulder	kWh	Y
TUOS	RT17-T-UVS	TTOUS	3 Part Time Of Use (Res) Variable Shoulder	kWh	Y
DUOS	RT17-D-MF	TTOUS	3 Part Time Of Use (Res) Metering Fixed	EA	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT17-D-H	TTOUS	3 Part Time Of Use (Res) Distributed Generation Discount	DAY	N
TUOS	RT17-T-H	TTOUS	3 Part Time Of Use (Res) Distributed Generation Discount	DAY	N
DUOS	RT18-I-G	TTOUL	3 Part Time Of Use (Bus) Info - Group Count	EA	Y
DUOS	RT18-I-UO	TTOUL	3 Part Time Of Use (Bus) Info - Off Peak Consumption	kWh	Y
DUOS	RT18-I-UP	TTOUL	3 Part Time Of Use (Bus) Info - On Peak Consumption	kWh	Y
DUOS	RT18-I-US	TTOUL	3 Part Time Of Use (Bus) Info - Shoulder Consumption	kWh	Y
DUOS	RT18-I-F	TTOUL	3 Part Time Of Use (Bus) Info - Power Factor	PF	Y
DUOS	RT18-I-Y	TTOUL	3 Part Time Of Use (Bus) Info - Non Reference Tariff	EA	N
DUOS	RT18-D-UF	TTOUL	3 Part Time Of Use (Bus) Fixed	DAY	Y
TUOS	RT18-T-UF	TTOUL	3 Part Time Of Use (Bus) Fixed	DAY	Y
DUOS	RT18-D-UVP	TTOUL	3 Part Time Of Use (Bus) Variable On Peak	kWh	Y
TUOS	RT18-T-UVP	TTOUL	3 Part Time Of Use (Bus) Variable On Peak	kWh	Y
DUOS	RT18-D-UVO	TTOUL	3 Part Time Of Use (Bus) Variable Off Peak	kWh	Y
TUOS	RT18-T-UVO	TTOUL	3 Part Time Of Use (Bus) Variable Off Peak	kWh	Y
DUOS	RT18-D-UVS	TTOUL	3 Part Time Of Use (Bus) Variable Shoulder	kWh	Y
TUOS	RT18-T-UVS	TTOUL	3 Part Time Of Use (Bus) Variable Shoulder	kWh	Y
DUOS	RT18-D-MF	TTOUL	3 Part Time Of Use (Bus) Metering Fixed	EA	Y
DUOS	RT18-D-H	TTOUL	3 Part Time Of Use (Bus) Distributed Generation Discount	DAY	N
TUOS	RT18-T-H	TTOUL	3 Part Time Of Use (Bus) Distributed Generation Discount	DAY	N
DUOS	RT19-I-G	DTOUS	3 Part Time Of Use Demand (Res) Info - Group Count	EA	Y
DUOS	RT19-I-UO	DTOUS	3 Part Time Of Use Demand (Res) Info - Off Peak Consumption	kWh	Y
DUOS	RT19-I-UP	DTOUS	3 Part Time Of Use Demand (Res) Info - On Peak Consumption	kWh	Y
DUOS	RT19-I-US	DTOUS	3 Part Time Of Use Demand (Res) Info - Shoulder Consumption	kWh	Y
DUOS	RT19-I-PP	DTOUS	3 Part Time Of Use Demand (Res) Info - Demand Peak	kW	Y
DUOS	RT19-I-F	DTOUS	3 Part Time Of Use Demand (Res) Info - Power Factor	PF	Y
DUOS	RT19-I-Y	DTOUS	3 Part Time Of Use Demand (Res) Info - Non Reference Tariff	EA	N
DUOS	RT19-D-UF	DTOUS	3 Part Time Of Use Demand (Res) Fixed	DAY	Y
TUOS	RT19-T-UF	DTOUS	3 Part Time Of Use Demand (Res) Fixed	DAY	Y
DUOS	RT19-D-DVP	DTOUS	3 Part Time Of Use Demand (Res) Demand Variable - Peak	kW	Y
TUOS	RT19-T-DVP	DTOUS	3 Part Time Of Use Demand (Res) Demand Variable - Peak	kW	Y
DUOS	RT19-D-UVP	DTOUS	3 Part Time Of Use Demand (Res) Variable On Peak	kWh	Y
TUOS	RT19-T-UVP	DTOUS	3 Part Time Of Use Demand (Res) Variable On Peak	kWh	Y
DUOS	RT19-D-UVS	DTOUS	3 Part Time Of Use Demand (Res) Variable Shoulder	kWh	Y
TUOS	RT19-T-UVS	DTOUS	3 Part Time Of Use Demand (Res) Variable Shoulder	kWh	Y
DUOS	RT19-D-UVO	DTOUS	3 Part Time Of Use Demand (Res) Variable Off Peak	kWh	Y
TUOS	RT19-T-UVO	DTOUS	3 Part Time Of Use Demand (Res) Variable Off Peak	kWh	Y
DUOS	RT19-D-MF	DTOUS	3 Part Time Of Use Demand (Res) Metering Fixed	EA	Y
DUOS	RT19-D-H	DTOUS	3 Part Time Of Use Demand (Res) Distributed Generation Disc	DAY	N
TUOS	RT19-T-H	DTOUS	3 Part Time Of Use Demand (Res) Distributed Generation Disc	DAY	N
DUOS	RT20-I-G	DTOUL	3 Part Time Of Use Demand (Bus) Info - Group Count	EA	Y
DUOS	RT20-I-UO	DTOUL	3 Part Time Of Use Demand (Bus) Info - Off Peak Consumption	kWh	Y
DUOS	RT20-I-UP	DTOUL	3 Part Time Of Use Demand (Bus) Info - On Peak Consumption	kWh	Y
DUOS	RT20-I-US	DTOUL	3 Part Time Of Use Demand (Bus) Info - Shoulder Consumption	kWh	Y
DUOS	RT20-I-PP	DTOUL	3 Part Time Of Use Demand (Bus) Info - Demand Peak	kVA	Y
DUOS	RT20-I-F	DTOUL	3 Part Time Of Use Demand (Bus) Info - Power Factor	PF	Y
DUOS	RT20-I-Y	DTOUL	3 Part Time Of Use Demand (Bus) Info - Non Reference Tariff	EA	N
DUOS	RT20-D-UF	DTOUL	3 Part Time Of Use Demand (Bus) Fixed	DAY	Y
TUOS	RT20-T-UF	DTOUL	3 Part Time Of Use Demand (Bus) Fixed	DAY	Y
DUOS	RT20-D-DVP	DTOUL	3 Part Time Of Use Demand (Bus) Demand Variable - Peak	kVA	Y
TUOS	RT20-T-DVP	DTOUL	3 Part Time Of Use Demand (Bus) Demand Variable - Peak	kVA	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT20-D-UVP	DTOUL	3 Part Time Of Use Demand (Bus) Variable On Peak	kWh	Y
TUOS	RT20-T-UVP	DTOUL	3 Part Time Of Use Demand (Bus) Variable On Peak	kWh	Y
DUOS	RT20-D-UVS	DTOUL	3 Part Time Of Use Demand (Bus) Variable Shoulder	kWh	Y
TUOS	RT20-T-UVS	DTOUL	3 Part Time Of Use Demand (Bus) Variable Shoulder	kWh	Y
DUOS	RT20-D-UVO	DTOUL	3 Part Time Of Use Demand (Bus) Variable Off Peak	kWh	Y
TUOS	RT20-T-UVO	DTOUL	3 Part Time Of Use Demand (Bus) Variable Off Peak	kWh	Y
DUOS	RT20-D-MF	DTOUL	3 Part Time Of Use Demand (Bus) Metering Fixed	EA	Y
DUOS	RT20-D-H	DTOUL	3 Part Time Of Use Demand (Bus) Distributed Generation Disc	DAY	N
TUOS	RT20-T-H	DTOUL	3 Part Time Of Use Demand (Bus) Distributed Generation Disc	DAY	N
DUOS	RT21-I-G	MTOUS	Multi Part Time Of Use (Res) Info - Group Count	EA	Y
DUOS	RT21-I-UO	MTOUS	Multi Part Time Of Use (Res) Info - Off Peak Consumption	kWh	Y
DUOS	RT21-I-UP	MTOUS	Multi Part Time Of Use (Res) Info - On Peak Consumption	kWh	Y
DUOS	RT21-I-UN	MTOUS	Multi Part Time Of Use (Res) Info - Overnight Consumption	kWh	Y
DUOS	RT21-I-US	MTOUS	Multi Part Time Of Use (Res) Info - Shoulder Consumption	kWh	Y
DUOS	RT21-I-F	MTOUS	Multi Part Time Of Use (Res) Info - Power Factor	PF	Y
DUOS	RT21-I-Y	MTOUS	Multi Part Time Of Use (Res) Info - NonReference Tariff	EA	N
DUOS	RT21-D-UF	MTOUS	Multi Part Time Of Use (Res) Fixed	DAY	Y
TUOS	RT21-T-UF	MTOUS	Multi Part Time Of Use (Res) Fixed	DAY	Y
DUOS	RT21-D-UVP	MTOUS	Multi Part Time Of Use (Res) Variable On Peak	kWh	Y
TUOS	RT21-T-UVP	MTOUS	Multi Part Time Of Use (Res) Variable On Peak	kWh	Y
DUOS	RT21-D-UVS	MTOUS	Multi Part Time Of Use (Res) Variable Shoulder	kWh	Y
TUOS	RT21-T-UVS	MTOUS	Multi Part Time Of Use (Res) Variable Shoulder	kWh	Y
DUOS	RT21-D-UVO	MTOUS	Multi Part Time Of Use (Res) Variable Off Peak	kWh	Y
TUOS	RT21-T-UVO	MTOUS	Multi Part Time Of Use (Res) Variable Off Peak	kWh	Y
DUOS	RT21-D-UVN	MTOUS	Multi Part Time Of Use (Res) Variable Overnight	kWh	Y
TUOS	RT21-T-UVN	MTOUS	Multi Part Time Of Use (Res) Variable Overnight	kWh	Y
DUOS	RT21-D-MF	MTOUS	Multi Part Time Of Use (Res) Metering Fixed	EA	Y
DUOS	RT21-D-H	MTOUS	Multi Part Time Of Use (Res) Distributed Generation Discount	DAY	N
TUOS	RT21-T-H	MTOUS	Multi Part Time Of Use (Res) Distributed Generation Discount	DAY	N
DUOS	RT22-I-G	MTOUL	Multi Part Time Of Use (Bus) Info - Group Count	EA	Y
DUOS	RT22-I-UO	MTOUL	Multi Part Time Of Use (Bus) Info - Off Peak Consumption	kWh	Y
DUOS	RT22-I-UP	MTOUL	Multi Part Time Of Use (Bus) Info - On Peak Consumption	kWh	Y
DUOS	RT22-I-UN	MTOUL	Multi Part Time Of Use (Res) Info - Overnight Consumption	kWh	Y
DUOS	RT22-I-US	MTOUL	Multi Part Time Of Use (Bus) Info - Shoulder Consumption	kWh	Y
DUOS	RT22-I-UU	MTOUL	Multi Part Time Of Use (Bus) Info - Super Off Peak Consumptn	kWh	Y
DUOS	RT22-I-F	MTOUL	Multi Part Time Of Use (Bus) Info - Power Factor	PF	Y
DUOS	RT22-I-Y	MTOUL	Multi Part Time Of Use (Bus) Info - NonReference Tariff	EA	N
DUOS	RT22-D-UF	MTOUL	Multi Part Time Of Use (Bus) Fixed	DAY	Y
TUOS	RT22-T-UF	MTOUL	Multi Part Time Of Use (Bus) Fixed	DAY	Y
DUOS	RT22-D-UVP	MTOUL	Multi Part Time Of Use (Bus) Variable On Peak	kWh	Y
TUOS	RT22-T-UVP	MTOUL	Multi Part Time Of Use (Bus) Variable On Peak	kWh	Y
DUOS	RT22-D-UVS	MTOUL	Multi Part Time Of Use (Bus) Variable Shoulder	kWh	Y
TUOS	RT22-T-UVS	MTOUL	Multi Part Time Of Use (Bus) Variable Shoulder	kWh	Y
DUOS	RT22-D-UVO	MTOUL	Multi Part Time Of Use (Bus) Variable Off Peak	kWh	Y
TUOS	RT22-T-UVO	MTOUL	Multi Part Time Of Use (Bus) Variable Off Peak	kWh	Y
DUOS	RT22-D-UVU	MTOUL	Multi Part Time Of Use (Bus) Variable Super Off Peak	kWh	Y
TUOS	RT22-T-UVU	MTOUL	Multi Part Time Of Use (Bus) Variable Super Off Peak	kWh	Y
DUOS	RT22-D-UVN	MTOUL	Multi Part Time Of Use (Bus) Variable Overnight	kWh	Y
TUOS	RT22-T-UVN	MTOUL	Multi Part Time Of Use (Bus) Variable Overnight	kWh	Y
DUOS	RT22-D-MF	MTOUL	Multi Part Time Of Use (Bus) Metering Fixed	EA	Y

	Network Tariff Component Code		Line Description	UOM	Print if Zero
DUOS	RT22-D-H	MTOUL	Multi Part Time Of Use (Bus) Distributed Generation Discount	DAY	N
TUOS	RT22-T-H	MTOUL	Multi Part Time Of Use (Bus) Distributed Generation Discount	DAY	N

Appendix C

Relationship between meter reading, charge period and billing period rates

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The following table sets out examples of a different date scenarios:

	Scenario	Meter Read Start Date	Meter Read End Date	Start of Billing Period	End of Billing Period	Charge Period Start Date	Charge Period End Date
1a	Quarterly/Bi monthly meter read collected on 18May08 and the previous read was 16Feb08 **excluding** a customer transfer	16Feb08 0000	17May08 2400	16Feb08 0000	17May08 2400	16Feb08 0000	17May08 2400
1b	Quarterly/Bi monthly meter read collected on 18May08 and the previous read was 16Feb08 **including** a customer transfer on 18May08	16Feb08 0000	18May08 0800	16Feb08 0000	18May08 0800	16Feb08 0000	18May08 0800
2a	Special meter read collected on 10May08, previous read was 29Apr08 and scheduled meter read collected on 28May08 **excluding** a customer transfer	29Apr08 0000	9May08 2400	29Apr08 0000	27May08 2400	29Apr08 0000	9May08 2400
2b		10May08 0000	27May08 2400			10May08 0000	27May08 2400
2c	Special meter read collected on 10May08, previous read was 29Apr08and scheduled meter read collected on 28May08	29Apr08 0000	9May08 2400	29Apr08 0000	28May08 0800	29Apr08 0000	9May08 2400
2d	**including** a customer transfer on 28May08	10May08 0000	28May08 0800			10May08 0000	28May08 0800
3a	Quarterly/Bi monthly read collected on 14May08 and the previous read was collected on 16Feb08 **plus** change of tariff effective from 1May08 (applies to an INVERVAL meter read only) Note: for a Basic Meter, the tariff cannot change until the day after the last meter read. Eg on the 14th May in this example.	16Feb08 0000	30Apr08 2400	16Feb08 0000	13May08 2400	16Feb08 0000	30Apr08 2400
3b		1May08 0000	13May08 2400			1May08 0000	13May08 2400
4a	Special read collected on 10May08, previous read was 29Apr08 and scheduled read collected on 29May08 **plus** change of tariff effective from 1May08 (applies to an INVERVAL meter read only) Note: for a Basic Meter, the tariff cannot change until the day after the last meter read. Eg on the 10th May in this example if the special meter read was for this purpose otherwise on the 29th May.	29Apr08 0000	30Apr08 2400	29Apr08 0000	28May08 2400	29Apr08 0000	30Apr08 2400
4b		1May08 0000	9May08 2400			1May08 0000	9May08 2400
4c		10May08 0000	28May08 2400			10May08 0000	28May08 2400

Appendix D

File definitions

(XML schemas)

B2B Network Billing files are defined by the following XML Schemas.

D.1   Statement of charges

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="StatementOfCharges">
        <xs:complexType>
                <xs:sequence>
                        <xs:element ref="InvoiceIdentifier"/>
                        <xs:element ref="DistributionNetworkServiceProvider"/>
                        <xs:element ref="MarketParticipant"/>
                        <xs:element ref="StatementOfChargesSummaryRecordCount"/>
                        <xs:element ref="StatementOfChargesDetailRecordCount"/>
                        <xs:element ref="AmountsPayable"/>
                        <xs:element ref="StatementOfChargesSummary" minOccurs="1"
maxOccurs="unbounded"/>
                        <xs:element ref="StatementOfChargesDetail" minOccurs="1"/>
                </xs:sequence>
                <xs:attribute name="timestamp" use="required">
                        <xs:simpleType>
                                <xs:restriction base="xs:dateTime"/>
                        </xs:simpleType>
                </xs:attribute>
                <xs:attribute name="DocumentType" use="required" fixed="Tax Invoice/Adjustment Note">
                        <xs:simpleType>
                                <xs:restriction base="xs:string"/>
                        </xs:simpleType>
                </xs:attribute>
        </xs:complexType>
  </xs:element>
  <xs:element name="DistributionNetworkServiceProvider">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="Name">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="50"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="Code">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="10"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="ABN">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="14"/>
                                        </xs:restriction>
                                </xs:simpleType>
```

```xml
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="MarketParticipant">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Name">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:maxLength value="50"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                    <xs:element name="Code">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:maxLength value="10"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                    <xs:element name="ABN">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:maxLength value="14"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="InvoiceIdentifier">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="20"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="StatementOfChargesSummaryRecordCount">
            <xs:simpleType>
                <xs:restriction base="xs:integer"/>
            </xs:simpleType>
        </xs:element>        <xs:element name="StatementOfChargesDetailRecordCount">
            <xs:simpleType>
                <xs:restriction base="xs:integer"/>
            </xs:simpleType>
        </xs:element>
        <xs:element name="AmountsPayable">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="GSTExclusive">
                        <xs:simpleType>
                            <xs:restriction base="xs:decimal">
                                <xs:totalDigits value="15"/>
                                <xs:fractionDigits value="2"/>
```

```
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="GST">
            <xs:simpleType>
                <xs:restriction base="xs:decimal">
                    <xs:totalDigits value="15"/>
                    <xs:fractionDigits value="2"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="GSTInclusive">
            <xs:simpleType>
                <xs:restriction base="xs:decimal">
                    <xs:totalDigits value="15"/>
                    <xs:fractionDigits value="2"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="StatementOfChargesSummary">
    <xs:complexType>
        <xs:sequence>
            <xs:element ref="StatementOfChargesIdentifier"/>
            <xs:element ref="NMI"/>
            <xs:element ref="IssueDate"/>
            <xs:element ref="DueDate"/>
            <xs:element ref="Status"/>
            <xs:element ref="AmountsPayable"/>
            <xs:element ref="GSTIndicator"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="StatementOfChargesIdentifier">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="20"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
  <xs:element name="NMI">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Identifier">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:length value="10"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="Checksum">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
```

```xml
                                    <xs:length value="1"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="IssueDate">
            <xs:simpleType>
                    <xs:restriction base="xs:date"/>
            </xs:simpleType>
    </xs:element>
    <xs:element name="DueDate">
            <xs:simpleType>
                    <xs:restriction base="xs:date"/>
            </xs:simpleType>
    </xs:element>
    <xs:element name="Status">
            <xs:simpleType>
                    <xs:restriction base="xs:string">
                            <xs:maxLength value="20"/>
                            <xs:enumeration value="Statement of Charges"/>
                            <xs:enumeration value="Adjustment Note"/>
                            <xs:enumeration value="Copy Stmt of Charges"/>
                            <xs:enumeration value="Copy Adjustment Note"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="GSTIndicator">
            <xs:simpleType>
                    <xs:restriction base="xs:string">
                            <xs:length value="1"/>
                            <xs:enumeration value="Y"/>
                            <xs:enumeration value="N"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="StatementOfChargesDetail">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element ref="NetworkUseOfSystemCharge" maxOccurs="unbounded"/>
                            <xs:element ref="EventCharge" maxOccurs="unbounded"/>
                            <xs:element ref="InterestCharge" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="NetworkUseOfSystemCharge">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element ref="StatementOfChargesIdentifier"/>
                            <xs:element ref="NMI"/>
                            <xs:element ref="StatementOfChargesLineIdentifier"/>
                            <xs:element ref="OldStatementOfChargesIdentifier" minOccurs="0"/>
                            <xs:element ref="TransactionDate"/>
                            <xs:element ref="Adjustment"/>
```

```xml
                    <xs:element ref="NetworkTariffCode"/>
                    <xs:element ref="StepNumber"/>
                    <xs:element ref="BillingPeriod"/>
                    <xs:element ref="TariffComponentCode"/>
                    <xs:element ref="ReadingType"/>
                    <xs:element ref="LineDescription"/>
                    <xs:element ref="Measurement"/>
                    <xs:element ref="Rate"/>
                    <xs:element ref="AmountsPayable"/>
                    <xs:element ref="GSTIndicator"/>
                </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="StatementOfChargesLineIdentifier">
            <xs:simpleType>
                    <xs:restriction base="xs:string">
                            <xs:maxLength value="17"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="OldStatementOfChargesIdentifier">
            <xs:simpleType>
                    <xs:restriction base="xs:string">
                            <xs:maxLength value="20"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="TransactionDate">
            <xs:simpleType>
                    <xs:restriction base="xs:date"/>
            </xs:simpleType>
    </xs:element>
    <xs:element name="Adjustment">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element name="Indicator">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:enumeration value="N"/>
                                                    <xs:enumeration value="C"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="Reason" minOccurs="0">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="60"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                    </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="NetworkTariffCode">
            <xs:simpleType>
```

```
                    <xs:restriction base="xs:string">
                        <xs:maxLength value="10"/>
                    </xs:restriction>
                </xs:simpleType>
        </xs:element>
        <xs:element name="StepNumber">
            <xs:simpleType>
                <xs:restriction base="xs:integer"/>
            </xs:simpleType>
        </xs:element>
        <xs:element name="BillingPeriod">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="StartDate">
                        <xs:simpleType>
                            <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                    </xs:element>
                    <xs:element name="EndDate">
                        <xs:simpleType>
                            <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="TariffComponentCode">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="10"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="ReadingType">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:length value="1"/>
                    <xs:enumeration value="A"/>
                    <xs:enumeration value="E"/>
                    <xs:enumeration value="F"/>
                    <xs:enumeration value="N"/>
                    <xs:enumeration value="S"/>
                    <xs:enumeration value="V"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="LineDescription">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:minLength value="1"/>
                    <xs:maxLength value="60"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="Measurement">
```

```
<xs:complexType>
        <xs:sequence>
                <xs:element name="Quantity">
                        <xs:simpleType>
                                <xs:restriction base="xs:decimal">
                                        <xs:totalDigits value="14"/>
                                        <xs:fractionDigits value="5"/>
                                </xs:restriction>
                        </xs:simpleType>
                </xs:element>
                <xs:element name="Unit">
                        <xs:simpleType>
                                <xs:restriction base="xs:string">
                                        <xs:enumeration value="DAY"/>
                                        <xs:enumeration value="EA"/>
                                        <xs:enumeration value="kVA"/>
                                        <xs:enumeration value="kVAH"/>
                                        <xs:enumeration value="kVAr"/>
                                        <xs:enumeration value="kVArH"/>
                                        <xs:enumeration value="PF"/>
                                        <xs:enumeration value="kW"/>
                                        <xs:enumeration value="kWh"/>
                                        <xs:enumeration value="MTH"/>
                                        <xs:enumeration value="PA"/>
                                </xs:restriction>
                        </xs:simpleType>
                </xs:element>
        </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Rate">
        <xs:simpleType>
                <xs:restriction base="xs:decimal">
                        <xs:totalDigits value="14"/>
                        <xs:fractionDigits value="5"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="EventCharge">
        <xs:complexType>
                <xs:sequence>
                        <xs:element ref="StatementOfChargesIdentifier"/>
                        <xs:element ref="NMI"/>
                        <xs:element ref="StatementOfChargesLineIdentifier"/>
                        <xs:element ref="OldStatementOfChargesIdentifier"/>
                        <xs:element ref="TransactionDate"/>
                        <xs:element ref="Adjustment"/>
                        <xs:element ref="NetworkServiceOrder" minOccurs="0"/>
                        <xs:element ref="MarketParticipantServiceOrder" minOccurs="0"/>
                        <xs:element ref="NetworkRateCode"/>
                        <xs:element ref="LineDescription"/>
                        <xs:element ref="ChargeDate"/>
                        <xs:element ref="Measurement"/>
                        <xs:element ref="Rate"/>
                        <xs:element ref="AmountsPayable"/>
```

```xml
                    <xs:element ref="GSTIndicator"/>
            </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="NetworkServiceOrder">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="15"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="MarketParticipantServiceOrder">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="15"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="NetworkRateCode">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="10"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="ChargeDate">
        <xs:simpleType>
                <xs:restriction base="xs:date"/>
        </xs:simpleType>
</xs:element>
<xs:element name="InterestCharge">
        <xs:complexType>
                <xs:sequence>
                        <xs:element ref="StatementOfChargesIdentifier"/>
                        <xs:element ref="NMI"/>
                        <xs:element ref="StatementOfChargesLineIdentifier"/>
                        <xs:element ref="OldStatementOfChargesIdentifier"/>
                        <xs:element ref="TransactionDate"/>
                        <xs:element ref="Adjustment"/>
                        <xs:element ref="OverdueStatementOfChargesNumber"/>
                        <xs:element ref="OverdueStatementOfChargesDueDate"/>
                        <xs:element ref="PrincipalAmount"/>
                        <xs:element ref="InterestPeriod"/>
                        <xs:element ref="AmountsPayable"/>
                        <xs:element ref="GSTIndicator"/>
                </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="OverdueStatementOfChargesNumber">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="20"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
```

```
<xs:element name="OverdueStatementOfChargesDueDate">
      <xs:simpleType>
            <xs:restriction base="xs:date"/>
      </xs:simpleType>
</xs:element>
<xs:element name="PrincipalAmount">
      <xs:simpleType>
            <xs:restriction base="xs:decimal">
                  <xs:totalDigits value="15"/>
                  <xs:fractionDigits value="2"/>
            </xs:restriction>
      </xs:simpleType>
</xs:element>
<xs:element name="InterestPeriod">
      <xs:complexType>
            <xs:sequence>
                  <xs:element name="StartDate">
                        <xs:simpleType>
                              <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                  </xs:element>
                  <xs:element name="EndDate">
                        <xs:simpleType>
                              <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                  </xs:element>
            </xs:sequence>
      </xs:complexType>
</xs:element>
</xs:schema>
```

D.2   Remittance to network operator

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="RemittanceToNetworkOperator">
      <xs:complexType>
            <xs:sequence>
                  <xs:element ref="DistributionNetworkServiceProvider"/>
                  <xs:element ref="MarketParticipant"/>
                  <xs:element ref="TotalRecordCount"/>
                  <xs:element ref="TotalAmount"/>
                  <xs:element ref="RemittancePayment" minOccurs="1" maxOccurs="unbounded"/>
            </xs:sequence>
            <xs:attribute name="timestamp" use="required">
                  <xs:simpleType>
                        <xs:restriction base="xs:dateTime"/>
                  </xs:simpleType>
            </xs:attribute>
      </xs:complexType>
</xs:element>
<xs:element name="DistributionNetworkServiceProvider">
```

```xml
<xs:complexType>
	<xs:sequence>
		<xs:element name="Name">
			<xs:simpleType>
				<xs:restriction base="xs:string">
					<xs:maxLength value="50"/>
				</xs:restriction>
			</xs:simpleType>
		</xs:element>
		<xs:element name="Code">
			<xs:simpleType>
				<xs:restriction base="xs:string">
					<xs:maxLength value="10"/>
				</xs:restriction>
			</xs:simpleType>
		</xs:element>
		<xs:element name="ABN">
			<xs:simpleType>
				<xs:restriction base="xs:string">
					<xs:maxLength value="14"/>
				</xs:restriction>
			</xs:simpleType>
		</xs:element>
	</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="MarketParticipant">
	<xs:complexType>
		<xs:sequence>
			<xs:element name="Name">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="50"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
			<xs:element name="Code">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="10"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
			<xs:element name="ABN">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="14"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
		</xs:sequence>
	</xs:complexType>
</xs:element>
<xs:element name="TotalRecordCount">
	<xs:simpleType>
```

```
                    <xs:restriction base="xs:nonNegativeInteger"/>
            </xs:simpleType>
    </xs:element>
    <xs:element name="TotalAmount">
            <xs:simpleType>
                    <xs:restriction base="xs:decimal">
                            <xs:totalDigits value="15"/>
                            <xs:fractionDigits value="2"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="RemittancePayment">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element ref="StatementOfChargesIdentifier"/>
                            <xs:element ref="NMI"/>
                            <xs:element ref="AmountPaid"/>
                            <xs:element ref="DatePaid" minOccurs="0"/>
                            <xs:element ref="CrossReference"/>
                    </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="StatementOfChargesIdentifier">
            <xs:simpleType>
                    <xs:restriction base="xs:string">
                            <xs:maxLength value="20"/>
                    </xs:restriction>
            </xs:simpleType>
    </xs:element>
    <xs:element name="NMI">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element name="Identifier">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:length value="10"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="Checksum">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:length value="1"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                    </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="AmountPaid">
            <xs:simpleType>
                    <xs:restriction base="xs:decimal">
                            <xs:totalDigits value="15"/>
                            <xs:fractionDigits value="2"/>
                    </xs:restriction>
```

```
                    </xs:simpleType>
            </xs:element>
            <xs:element name="DatePaid">
                    <xs:simpleType>
                            <xs:restriction base="xs:date"/>
                    </xs:simpleType>
            </xs:element>
            <xs:element name="CrossReference">
                    <xs:simpleType>
                            <xs:restriction base="xs:string">
                                    <xs:maxLength value="60"/>
                            </xs:restriction>
                    </xs:simpleType>
            </xs:element>
    </xs:schema>
```

D.3   Dispute notification

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="DisputeNotification">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element ref="DistributionNetworkServiceProvider"/>
                            <xs:element ref="MarketParticipant"/>
                            <xs:element ref="TotalRecordCount"/>
                            <xs:element ref="Dispute" minOccurs="1" maxOccurs="unbounded"/>
                    </xs:sequence>
                    <xs:attribute name="timestamp" use="required">
                            <xs:simpleType>
                                    <xs:restriction base="xs:dateTime"/>
                            </xs:simpleType>
                    </xs:attribute>
            </xs:complexType>
    </xs:element>
    <xs:element name="DistributionNetworkServiceProvider">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element name="Name">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="50"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="Code">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="10"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="ABN">
                                    <xs:simpleType>
```

```xml
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="14"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="MarketParticipant">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Name">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="50"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="Code">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="10"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="ABN">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="14"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="TotalRecordCount">
                <xs:simpleType>
                    <xs:restriction base="xs:nonNegativeInteger"/>
                </xs:simpleType>
            </xs:element>
            <xs:element name="Dispute">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element ref="StatementOfChargesIdentifier"/>
                        <xs:element ref="StatementOfChargesLineIdentifier"/>
                        <xs:element ref="NMI"/>
                        <xs:element ref="AmountsPayable" minOccurs="0"/>
                        <xs:element ref="GSTIndicator" minOccurs="0"/>
                        <xs:element ref="Reason"/>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="StatementOfChargesIdentifier">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
```

```
                <xs:maxLength value="20"/>
            </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="StatementOfChargesLineIdentifier">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="17"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="NMI">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="Identifier">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:length value="10"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="Checksum">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:length value="1"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="AmountsPayable">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="GSTExclusive">
                                <xs:simpleType>
                                        <xs:restriction base="xs:decimal">
                                                <xs:totalDigits value="15"/>
                                                <xs:fractionDigits value="2"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="GST">
                                <xs:simpleType>
                                        <xs:restriction base="xs:decimal">
                                                <xs:totalDigits value="15"/>
                                                <xs:fractionDigits value="2"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="GSTInclusive">
                                <xs:simpleType>
                                        <xs:restriction base="xs:decimal">
                                                <xs:totalDigits value="15"/>
                                                <xs:fractionDigits value="2"/>
```

```
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="GSTIndicator">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:length value="1"/>
            <xs:enumeration value="Y"/>
            <xs:enumeration value="N"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element name="Reason">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Code">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:enumeration value="NNMI"/>
                        <xs:enumeration value="LRTB"/>
                        <xs:enumeration value="LRTD"/>
                        <xs:enumeration value="DUPL"/>
                        <xs:enumeration value="BPDF"/>
                        <xs:enumeration value="QNTY"/>
                        <xs:enumeration value="TARF"/>
                        <xs:enumeration value="RATE"/>
                        <xs:enumeration value="OTHR"/>
                        <xs:enumeration value="INTP"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="Comment" minOccurs="0">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:maxLength value="240"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:schema>
```

D.4   Dispute status change advice

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="DisputeStatusChangeAdvice">
      <xs:complexType>
          <xs:sequence>
              <xs:element ref="DistributionNetworkServiceProvider"/>
```

```xml
                        <xs:element ref="MarketParticipant"/>
                        <xs:element ref="Period"/>
                        <xs:element ref="TotalRecordCount"/>
                        <xs:element ref="DisputeStatusChange" minOccurs="1" maxOccurs="unbounded"/>
                </xs:sequence>
                <xs:attribute name="timestamp" use="required">
                        <xs:simpleType>
                                <xs:restriction base="xs:dateTime"/>
                        </xs:simpleType>
                </xs:attribute>
        </xs:complexType>
</xs:element>
<xs:element name="DistributionNetworkServiceProvider">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="Name">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="50"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="Code">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="10"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="ABN">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="14"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="MarketParticipant">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="Name">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="50"/>
                                        </xs:restriction>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="Code">
                                <xs:simpleType>
                                        <xs:restriction base="xs:string">
                                                <xs:maxLength value="10"/>
                                        </xs:restriction>
                                </xs:simpleType>
```

```xml
                    </xs:element>
                    <xs:element name="ABN">
                            <xs:simpleType>
                                    <xs:restriction base="xs:string">
                                            <xs:maxLength value="14"/>
                                    </xs:restriction>
                            </xs:simpleType>
                    </xs:element>
            </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="Period">
        <xs:complexType>
                <xs:sequence>
                        <xs:element name="StartDate">
                                <xs:simpleType>
                                        <xs:restriction base="xs:date"/>
                                </xs:simpleType>
                        </xs:element>
                        <xs:element name="EndDate">
                                <xs:simpleType>
                                        <xs:restriction base="xs:date"/>
                                </xs:simpleType>
                        </xs:element>
                </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="TotalRecordCount">
        <xs:simpleType>
                <xs:restriction base="xs:nonNegativeInteger"/>
        </xs:simpleType>
</xs:element>
<xs:element name="DisputeStatusChange">
        <xs:complexType>
                <xs:sequence>
                        <xs:element ref="StatementOfChargesIdentifier"/>
                        <xs:element ref="StatementOfChargesLineIdentifier"/>
                        <xs:element ref="NMI"/>
                        <xs:element ref="NewDisputeStatusCode"/>
                        <xs:element ref="Comments" minOccurs="0"/>
                </xs:sequence>
        </xs:complexType>
</xs:element>
<xs:element name="StatementOfChargesIdentifier">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="20"/>
                </xs:restriction>
        </xs:simpleType>
</xs:element>
<xs:element name="StatementOfChargesLineIdentifier">
        <xs:simpleType>
                <xs:restriction base="xs:string">
                        <xs:maxLength value="17"/>
                </xs:restriction>
```

```
            </xs:simpleType>
        </xs:element>
        <xs:element name="NMI">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Identifier">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:length value="10"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                    <xs:element name="Checksum">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:length value="1"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="NewDisputeStatusCode">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:enumeration value="OPEN"/>
                    <xs:enumeration value="CANC"/>
                    <xs:enumeration value="CLSD"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="Comments">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="240"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
    </xs:schema>
```

D.5   Outstanding statement of changes advice

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="OutstandingStatementOfChargesAdvice">
        <xs:complexType>
            <xs:sequence>
                <xs:element ref="DistributionNetworkServiceProvider"/>
                <xs:element ref="MarketParticipant"/>
                <xs:element ref="Period"/>
                <xs:element ref="TotalRecordCount"/>
                <xs:element ref="TotalAmount"/>
                <xs:element ref="OutstandingStatementOfCharge" minOccurs="1"
maxOccurs="unbounded"/>
```

```xml
                    </xs:sequence>
                    <xs:attribute name="timestamp" use="required">
                            <xs:simpleType>
                                    <xs:restriction base="xs:dateTime"/>
                            </xs:simpleType>
                    </xs:attribute>
            </xs:complexType>
    </xs:element>
    <xs:element name="DistributionNetworkServiceProvider">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element name="Name">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="50"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="Code">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="10"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="ABN">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="14"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                    </xs:sequence>
            </xs:complexType>
    </xs:element>
    <xs:element name="MarketParticipant">
            <xs:complexType>
                    <xs:sequence>
                            <xs:element name="Name">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="50"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="Code">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
                                                    <xs:maxLength value="10"/>
                                            </xs:restriction>
                                    </xs:simpleType>
                            </xs:element>
                            <xs:element name="ABN">
                                    <xs:simpleType>
                                            <xs:restriction base="xs:string">
```

```xml
                                <xs:maxLength value="14"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="Period">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="StartDate">
                        <xs:simpleType>
                            <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                    </xs:element>
                    <xs:element name="EndDate">
                        <xs:simpleType>
                            <xs:restriction base="xs:date"/>
                        </xs:simpleType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="TotalRecordCount">
            <xs:simpleType>
                <xs:restriction base="xs:nonNegativeInteger"/>
            </xs:simpleType>
        </xs:element>
        <xs:element name="TotalAmount">
            <xs:simpleType>
                <xs:restriction base="xs:decimal">
                    <xs:totalDigits value="15"/>
                    <xs:fractionDigits value="2"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="OutstandingStatementOfCharge">
            <xs:complexType>
                <xs:sequence>
                    <xs:element ref="StatementOfChargesIdentifier"/>
                    <xs:element ref="NMI"/>
                    <xs:element ref="IssueDate"/>
                    <xs:element ref="DueDate"/>
                    <xs:element ref="AmountPayable"/>
                    <xs:element ref="DisputeReceivedIndicator"/>
                    <xs:element ref="Comments" minOccurs="0"/>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="StatementOfChargesIdentifier">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="20"/>
                </xs:restriction>
            </xs:simpleType>
```

```xml
            </xs:element>
            <xs:element name="NMI">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Identifier">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:length value="10"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="Checksum">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:length value="1"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="IssueDate">
                <xs:simpleType>
                    <xs:restriction base="xs:date"/>
                </xs:simpleType>
            </xs:element>
            <xs:element name="DueDate">
                <xs:simpleType>
                    <xs:restriction base="xs:date"/>
                </xs:simpleType>
            </xs:element>
            <xs:element name="AmountPayable">
                <xs:simpleType>
                    <xs:restriction base="xs:decimal">
                        <xs:totalDigits value="15"/>
                        <xs:fractionDigits value="2"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="DisputeReceivedIndicator">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:enumeration value="Y"/>
                        <xs:enumeration value="N"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="Comments">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:maxLength value="240"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:schema>
```

D.6   Credit balance advice

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="CreditBalanceAdvice">
        <xs:complexType>
            <xs:sequence>
                    <xs:element ref="DistributionNetworkServiceProvider"/>
                    <xs:element ref="MarketParticipant"/>
                    <xs:element ref="Period"/>
                    <xs:element ref="TotalRecordCount"/>
                    <xs:element ref="TotalAmount"/>
                    <xs:element ref="Credit" minOccurs="1" maxOccurs="unbounded"/>
            </xs:sequence>
            <xs:attribute name="timestamp" use="required">
                    <xs:simpleType>
                            <xs:restriction base="xs:dateTime"/>
                    </xs:simpleType>
            </xs:attribute>
        </xs:complexType>
  </xs:element>
  <xs:element name="DistributionNetworkServiceProvider">
        <xs:complexType>
            <xs:sequence>
                    <xs:element name="Name">
                            <xs:simpleType>
                                    <xs:restriction base="xs:string">
                                            <xs:maxLength value="50"/>
                                    </xs:restriction>
                            </xs:simpleType>
                    </xs:element>
                    <xs:element name="Code">
                            <xs:simpleType>
                                    <xs:restriction base="xs:string">
                                            <xs:maxLength value="10"/>
                                    </xs:restriction>
                            </xs:simpleType>
                    </xs:element>
                    <xs:element name="ABN">
                            <xs:simpleType>
                                    <xs:restriction base="xs:string">
                                            <xs:maxLength value="14"/>
                                    </xs:restriction>
                            </xs:simpleType>
                    </xs:element>
            </xs:sequence>
        </xs:complexType>
  </xs:element>
  <xs:element name="MarketParticipant">
        <xs:complexType>
            <xs:sequence>
                    <xs:element name="Name">
                            <xs:simpleType>
                                    <xs:restriction base="xs:string">
```

```xml
                                    <xs:maxLength value="50"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="Code">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="10"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="ABN">
                            <xs:simpleType>
                                <xs:restriction base="xs:string">
                                    <xs:maxLength value="14"/>
                                </xs:restriction>
                            </xs:simpleType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="Period">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="StartDate">
                            <xs:simpleType>
                                <xs:restriction base="xs:date"/>
                            </xs:simpleType>
                        </xs:element>
                        <xs:element name="EndDate">
                            <xs:simpleType>
                                <xs:restriction base="xs:date"/>
                            </xs:simpleType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="TotalRecordCount">
                <xs:simpleType>
                    <xs:restriction base="xs:nonNegativeInteger"/>
                </xs:simpleType>
            </xs:element>
            <xs:element name="TotalAmount">
                <xs:simpleType>
                    <xs:restriction base="xs:decimal">
                        <xs:totalDigits value="15"/>
                        <xs:fractionDigits value="2"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="Credit">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element ref="StatementOfChargesIdentifier"/>
                        <xs:element ref="NMI"/>
```

```xml
                                    <xs:element ref="AmountPayable"/>
                                    <xs:element ref="Balance"/>
                          </xs:sequence>
                 </xs:complexType>
        </xs:element>
        <xs:element name="StatementOfChargesIdentifier">
                 <xs:simpleType>
                          <xs:restriction base="xs:string">
                                   <xs:maxLength value="20"/>
                          </xs:restriction>
                 </xs:simpleType>
        </xs:element>
        <xs:element name="NMI">
                 <xs:complexType>
                          <xs:sequence>
                                    <xs:element name="Identifier">
                                            <xs:simpleType>
                                                     <xs:restriction base="xs:string">
                                                              <xs:length value="10"/>
                                                     </xs:restriction>
                                            </xs:simpleType>
                                    </xs:element>
                                    <xs:element name="Checksum">
                                            <xs:simpleType>
                                                     <xs:restriction base="xs:string">
                                                              <xs:length value="1"/>
                                                     </xs:restriction>
                                            </xs:simpleType>
                                    </xs:element>
                          </xs:sequence>
                 </xs:complexType>
        </xs:element>
        <xs:element name="AmountPayable">
                 <xs:simpleType>
                          <xs:restriction base="xs:decimal">
                                   <xs:totalDigits value="15"/>
                                   <xs:fractionDigits value="2"/>
                          </xs:restriction>
                 </xs:simpleType>
        </xs:element>
        <xs:element name="Balance">
                 <xs:simpleType>
                          <xs:restriction base="xs:decimal">
                                   <xs:totalDigits value="15"/>
                                   <xs:fractionDigits value="2"/>
                          </xs:restriction>
                 </xs:simpleType>
        </xs:element>
</xs:schema>
```

D.7   Service charge tax invoice request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```xml
<xs:element name="ServiceChargeTaxInvoiceRequest">
	<xs:complexType>
		<xs:sequence>
			<xs:element ref="DistributionNetworkServiceProvider"/>
			<xs:element ref="MarketParticipant"/>
			<xs:element ref="TotalRecordCount"/>
			<xs:element ref="TotalAmount"/>
			<xs:element ref="Request" minOccurs="1" maxOccurs="unbounded"/>
		</xs:sequence>
		<xs:attribute name="timestamp" use="required">
			<xs:simpleType>
				<xs:restriction base="xs:dateTime"/>
			</xs:simpleType>
		</xs:attribute>
	</xs:complexType>
</xs:element>
<xs:element name="DistributionNetworkServiceProvider">
	<xs:complexType>
		<xs:sequence>
			<xs:element name="Name">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="50"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
			<xs:element name="Code">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="10"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
			<xs:element name="ABN">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="14"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
		</xs:sequence>
	</xs:complexType>
</xs:element>
<xs:element name="MarketParticipant">
	<xs:complexType>
		<xs:sequence>
			<xs:element name="Name">
				<xs:simpleType>
					<xs:restriction base="xs:string">
						<xs:maxLength value="50"/>
					</xs:restriction>
				</xs:simpleType>
			</xs:element>
			<xs:element name="Code">
				<xs:simpleType>
```

```xml
                                    <xs:restriction base="xs:string">
                                        <xs:maxLength value="10"/>
                                    </xs:restriction>
                                </xs:simpleType>
                            </xs:element>
                            <xs:element name="ABN">
                                <xs:simpleType>
                                    <xs:restriction base="xs:string">
                                        <xs:maxLength value="14"/>
                                    </xs:restriction>
                                </xs:simpleType>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                </xs:element>
                <xs:element name="TotalRecordCount">
                    <xs:simpleType>
                        <xs:restriction base="xs:nonNegativeInteger"/>
                    </xs:simpleType>
                </xs:element>
                <xs:element name="TotalAmount">
                    <xs:simpleType>
                        <xs:restriction base="xs:decimal">
                            <xs:totalDigits value="15"/>
                            <xs:fractionDigits value="2"/>
                        </xs:restriction>
                    </xs:simpleType>
                </xs:element>
                <xs:element name="Request">
                    <xs:complexType>
                        <xs:sequence>
                            <xs:element ref="StatementOfChargesIdentifier"/>
                            <xs:element ref="StatementOfChargesLineIdentifier"/>
                            <xs:element ref="OldTransactionID" minOccurs="0"/>
                            <xs:element ref="OldStatementOfChargesIdentifier" minOccurs="0"/>
                            <xs:element ref="TransactionDate"/>
                            <xs:element ref="AdjustmentIndicator" minOccurs="0"/>
                            <xs:element ref="NMI"/>
                            <xs:element ref="NetworkServiceOrderReference" minOccurs="0"/>
                            <xs:element ref="MarketParticipantServiceOrderReference" minOccurs="0"/>
                            <xs:element ref="ServicesCode"/>
                            <xs:element ref="Description"/>
                            <xs:element ref="AfterHoursIndicator"/>
                            <xs:element ref="CompletionCode"/>
                            <xs:element ref="Quantity"/>
                            <xs:element ref="Rate"/>
                            <xs:element ref="ServiceCharge"/>
                            <xs:element ref="GST"/>
                        </xs:sequence>
                    </xs:complexType>
                </xs:element>
                <xs:element name="StatementOfChargesIdentifier">
                    <xs:simpleType>
                        <xs:restriction base="xs:string">
                            <xs:maxLength value="20"/>
```

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Appendix E

Terms of reference for the developments of the Network Access billing B2B specification

westernpower

E.1 Introduction

These Terms of Reference have been drafted by Western Power for the purpose of establishing a working group to support the review and agreement of the Network Billing B2B Specifications for Western Australia by all participants.

The B2B Procedures for network billing in Western Australia will be based upon the equivalent B2B Procedures in Queensland, varied as required to account for jurisdictional differences and operational efficiencies not otherwise accounted for in the Queensland B2B Procedures.

E.2 Purpose and objectives

(a) The working group will be responsible for reaching agreement on the following:

(i) Network Billing B2B Specification

(ii) Documentation and Change Management processes

(b) The working group is expected to:

(i) Review the proposed Network Billing B2B Specification, identify potential issues and recommend changes

(c) To complete the above tasks, the working group shall:

(i) liaise with and facilitate the communication of network billing procedure issues to appropriate industry organisations and service providers

(ii) have regard for the commercial and competitive (retail and service provision) implications of procedures recommended

(d) The agreed technical specification must meet the policy objectives of the Office of Energy. At a high level, these include:

(i) minimise costs for the market;

(ii) facilitate the transfer of contestable customers;

(iii) not creating technical or cost barriers to entry for new entrants;

(iv) compatibility with the technical specifications of the IMO's systems;

(v) compatibility with eastern States technical specifications (as this would facilitate entry of eastern States participants into the WA market);

(vi) compliance with the legislation, such as the Code of Conduct for the Supply of Electricity to Small Use Customers, the Metering Code, etc

E.3 Participants

(a) The following groups will be invited to participate in workshops and provide comments and suggestions:

Participant	Role	Representative
Western Power		TBA
Synergy	Retailer	Brad White – Project Manager, Strategic IT&T
Alinta Ltd	Retailer	TBA
Griffin Energy Pty Ltd	Retailer	TBA
Landfill Gas and Power Pty Ltd	Retailer	TBA
Perth Energy Pty Ltd	Retailer	TBA
TransAlta Energy (Australia) Pty Ltd	Retailer	TBA
Wesfarmers Premier Power Sales	Retailer	TBA
Worsley Alumina Pty Ltd	Retailer	TBA
Office of Energy	An observer and to provide comment and input on government policy matters	Peter Hawken – Senior Manager, Regulatory Authority
Economic Regulation Authority	Market Regulator	Karen Tilsed Competition, Markets and Electricity
Independent Market Operator	Representative from the IMO on the working group	Matthew Pember IMO Change Administrator
B2B Procedures Reference Group	Keeping apprised of progress with national standards	Anthony Caruana - B2B Project Manager, Retail Competition Development NEMMCO

(b)   The working group is to comprise of members with experience directly relevant to the business and data processes. Members of the working group are to be suitably qualified (i.e. seniority and experience) to contribute to the effort.

(c)   Participant organisations are to ensure that a nominee can competently fulfil the role of a Member, having:

(i)   Knowledge of and experience with the WEM

(ii)   Experience with and skills in considering data processes related issues that affect Distribution Network Service Providers and Retailers

(iii)   Experience with and skills in supporting resolution of issues

E.4 Duties and responsibilities

The working group has the following tasks:

(a) Participation in meetings for the agreement of the Network Billing B2B Specification and the resolution of issues

(b) Quality review of documentation prepared by Western Power.

(c) Making of recommendations to the working group on material provided for review.

(d) Propose, for consideration by the working group:

   (i) changes to the Network Billing Procedures, for example, to improve the efficiency of business processes or to recommend a change to the technical specification to cater for a Western Australian requirement

   (ii) amendments to these Terms of Reference

(e) Remain abreast of policy developments impacting the WEM and report on their potential impact

E.5 Outcomes/outputs

An agreed Network Billing B2B Specification

E.6 Timeframes

(a) The initial meeting for the working group is planned for June 2008.

(b) August 2008 is the targeted date for agreement of a Network Billing B2B Specification by all participants.

(c) In order to meet this delivery date, the schedule below is proposed

ID	Task Name	Start
1	**Preparation and kick-off**	**Thu 1/05/08**
2	Draft WA Spec from Qld version	Thu 1/05/08
3	Get WP executive sponsorship	Thu 1/05/08
4	Agree Draft Terms of Reference	Wed 4/06/08
5	Send Invitations	Mon 23/06/08
6	Kick-off Meeting	Mon 30/06/08
7	**Review and Update**	**Mon 23/06/08**
8	Distribute draft 1 specification	Mon 23/06/08
9	Review 1 period	Tue 24/06/08
10	Deadline for feedback of draft 1	Mon 7/07/08
11	Consolidate Feedback	Tue 8/07/08
12	Distribute draft 2 specification	Fri 11/07/08
13	Review 2 period	Mon 14/07/08
14	Deadline for feedback of draft 2	Fri 25/07/08
15	Consolidate Feedback	Mon 28/07/08
16	**Approval**	**Wed 30/07/08**
17	Distribute Final Specification	Wed 30/07/08
18	Obtain approval sign-off	Thu 31/07/08
19	Specifications agreed	Fri 8/08/08

E.7 Meetings and administration

(a) The working group is to meet as necessary to perform its role.

(b) Western Power is to facilitate meetings of the working group by provision of a Chairperson and Secretariat function.

(c)   Meetings will be held at Western Power premises

(d)   Western Power is responsible for document management; for setting up an appropriate email address for submissions and responses; and for setting up a mailing list for distribution of review materials

(e)   Notice of a meeting and agenda is, where possible, to be issued at least five working days in advance.

(f)   Review materials will be distributed, where practical, at least four working days prior to the meeting.

(g)   Meeting minutes with action items will be distributed within two working days of the meeting.

(h)   A quorum for a meeting requires at least two market participants other than Western Power.

E.8   Governance

(a) The working group has been formed to review the draft Network Billing B2B Specification and provide recommendations to Western Power

(b) Communication with participants will be done via email

(c) A log will be kept of all meetings, emails and issues raised.

(d) Meeting minutes, comments and correspondence will be circulated to all parties, unless indicated as private or not for circulation.

(e) Consensus will be sought on all requested amendments and issues. The Chairperson of the working group will ensure that significant issues are clearly explained and carefully considered prior to submission.

(f) Where an amendment is requested, it should include,

   (i)   a full description of the proposed change;

   (ii)   a list of the benefits expected;

   (iii)   the impact of not applying the change;

   (iv)   how Participants might be affected, including comments of the economic impact on affected Participants and the market;

   (v)   the impact on performance (covering business and technical issues, as applicable);

   (vi)   business and technical risk, as applicable;

   (vii)   the diversity and weight of opinion of the working group in the event that consensus is not achieved

(g) Where an agreement is sought, the decision/recommendation will be based on those members present at that meeting or through proxy to the Chairperson.

(h) Where a clear consensus is not reached, the dissenting views are to be noted in any formal recommendation.