

WA RETAIL FORUM

OVERVIEW OF B2B PROCEDURES

June 2017

PRESENTED BY ALLICIA VOLVRICHT, RETAIL
MARKET DEVELOPMENT MANAGER



AGENDA

1. Workshop Overview (Objectives, Assumptions, Rules)
2. B2B e-Hub - System Overview
3. Accreditation
4. B2B Guide
5. Service Orders
6. Customer Site Details Notification
7. Meter Data Process
8. One Way Notification
9. NEM RoLR Process Part B
10. Technical Delivery Specification
11. Next Steps
12. Questions

To provide participants with an overview of the National Electricity Market (NEM) B2B Procedures:

- B2B Guide.
- Service Order Process.
- Customer Site Details Notification.
- Meter Data Process.
- One Way Notification.
- NEM RoLR Processes Part B.
- Technical Delivery Specification.

The overview includes:

- Market transactions and obligations.
- Comparisons between current WA and NEM processes.
- Potential policy matters to consider with drafting Retail Market Procedures suitable for WA.

The Final Determination and Report for the NEM B2B Procedures come into effect on 31 December 2017, these can be found on AEMO's website at:

<http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Power-of-choice---B2B-Procedures---Final-Report-and-Determination>

In WA:

- Implement a similar National Electricity Rules (NER) framework (Chapter 7 and relevant/related framework) for the retail market.
- Maintain retail contestability for WA customers >50MWh.
- Prepare for future implementation of Metering Competition and Full Retail Contestability.
- Embedded Networks are not in current scope.
- Western Power (WP) will take on the role and responsibilities of a Metering Co-ordinator (even if Metering Competition is not initially implemented).

The B2B Procedures:

- Are made under clause 7.17 of the National Electricity Rules (NER) and are published as separate documents along functional lines.
- Prescribes the content of, the processes for, and the information to be provided to support, B2B Communications.

Parties must comply with the B2B Procedures.

Refer to the AEMC's website for a marked-up copy of the NER, including changes to Chapter 7, to adopt National Electricity Amendments:

- Embedded Network Rule 2015 No 15.
- Meter Replacement Process Rule 2016 No 2.
- Updating the B2B Framework Rule 2016 No 6.

See: <http://www.aemc.gov.au/Energy-Rules/National-electricity-rules/Chapter-7-from-1-December-2017>

The analysis in these slides is based on the following key assumptions:

- WA adopt the B2B Procedures amended for the NEM (Power of Choice Program) coming into effect 1 December 2017.
- If WA adopt a similar NER Chapter 7 under a local law scheme, it is anticipated a NEM version of the B2B Procedures will be applied to WA as a separate B2B Procedure.
- WA parties will comply with the B2B Procedures.
- The WA B2B Procedures Management Process will differ to the NER (pending policy outcome).

- WA will use the NEM Transactions where relevant (i.e. excluding Embedded Networks).
- The Electricity Industry Metering Code 2012 and Transfer Code to be disappplied to the SWIS.
- WA Build Packs, most will no longer apply and will be replaced with AEMO Procedures.
- WA will use the latest NEM aseXML version available.
- WA transactions will be based on Western Standard Time.

WA CURRENT ARRANGEMENTS



Instrument	Affected? AEMO's Initial Assumption for RMO	Assumptions and Comments
Electricity Industry Act 2004	Yes	To be amended to expand the scope of the WEM Rules and incorporate the prohibition on competition and to remove reference of Transfer/Metering code for the SWIS
WEM Rules – 2006	Yes	To be expanded to incorporate related components of the NER
Electricity Corporations Act 2005	Yes	To be amended to shift the prohibition into the EI Act. PUO to finalise drafting instructions
Electricity Industry (Wholesale Electricity Market) Regulations 2004	Maybe	To be amended as required to facilitate the transfer, though minimal changes anticipated. PUO to finalise drafting instructions
Electricity Transmission and Distribution system (access) Act 1994	Not anticipated	PUO to confirm (definitions)
Electricity Industry Act 2004 - Electricity Industry (obligation to connect) Regulations 2005	Not anticipated	Review recommended to ensure processes do not breach regulations (e.g. timeframes for connections/energisations, definitions). PUO to confirm.
Code of conduct for supply of electricity to small customers 2016	Maybe	PUO to confirm - Discussions with the ERA would be required as to how to proceed. Would need to remove reference to the transfer and metering codes and review of definitions
Electricity Industry Metering Code 2012	Yes	PUO to finalise - To be disapplied from the SWIS. Components may need to be considered.
Electricity Industry Transfer Code 2016	Yes	PUO to finalise – To be disapplied from the SWIS. Clause 4.12 emulated in another instrument. Components may need to be considered to ascertain which will be replaced/no longer relevant/updated in WEM rules

WA CURRENT ARRANGEMENTS



Instrument	Affected? AEMO's initial assumptions for RMO	Assumptions and Comments
Electricity Industry (Obligations to Connect) Regulations 2009	Not Anticipated	PUO to confirm (definitions)
Electricity Industry (Network Reliability and Quality of Supply) Code	Unlikely?	PUO to confirm (definitions)
Electricity Networks Access Code 2004	Maybe	PUO to confirm. Potentially Clause 4.12 of the Transfer Code would need to be emulated in another instrument.
Applications and Queuing Policy	Yes	As it forms part of Western Power's Access Arrangement, it will be for WP to review this document for consistency with the regulatory framework.
Electricity Transfer Access Contract (e.g. ring-fencing)	Maybe	PUO to confirm. Potentially ETACs should be modified to reflect a different trigger for NMs to transfer.
Transfer and Relocation Policy	No?	PUO to confirm. TRP, cl 2.2 "This transfer and relocation policy does not in any way apply to a customer transfer request."
ERA Technical Rules	Maybe	The Technical Rules will stay, but may need minor modifications. PUO to confirm and advise position
Western Power's Technical Guides	Yes – All need to be reviewed	PUO to confirm, will it be for Western Power to undertake a review for consistency? Most will disappear and be replaced by AEMO's Procedures, however specific network related functions will likely need to remain with WP, similar to the NEM where Networks also manage their own network related functions/supporting documents. (e.g. network billing spec, unmetered supply csv tech spec functions not covered as Market Operator functions under the rules) Refer to slides 11 & 12

CURRENT WA BUILD RULES/BUILD PACKS



Build Pack Document Name	Changes Required?	Comments/Assumptions
SWIS Communication Rules	Yes.	<i>This is expected to no longer be required, if adopting Chapter 7 it covers communication rules for B2B under 7.17.3 Content of B2B Procedures. Method and Delivery is covered in the NEM Technical Delivery Specification, Related Documents, B2B Procedures/Guide</i>
Customer Transfer & Standing Data Procedure	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes MSATS and B2B. A review however of Chapter 3 (access to standing data) to also be considered. To be replaced with MSATS and B2B Procedures and NMI Standing Data Procedure/Schedule and Metering Data Provision Procedures</i>
B2B Procedures: Meter Data Process	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes B2B Procedures. Currently based on the NEM Meter Data Process Version 1.4/ Published 2007. To be replaced by the latest NEM B2B Meter Data Process</i>
B2B Procedures: Customer and Site Details Process	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes B2B Procedures. Currently based on the NEM Customer and Site Details Notification Procedure Version 1.4 2007. To be replaced by the latest NEM Customer and Site Details Process Procedure</i>
B2B Procedures: Service Order Process	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes B2B Procedures. Currently based on the NEM Service Order Process Procedure Version 1.4 Published 2007 To be replaced by the latest NEM Service Order Process Procedure</i>
B2B Procedures: Technical Delivery Specification	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes B2B Procedures. Currently based on the NEM Technical Delivery Specification Procedure Version 1.4 Published 2007 To be replaced by the latest NEM Technical Delivery Specification Procedure and Guide</i>
Usage Guidelines	Yes	<i>This will require review, if adopting Chapter 7 it includes B2B, MSATS and Metering/Metrology Procedures. Will largely be replaced by the latest NEM B2B Guide, MSATS Procedure, Metering Procedures and NMI Standing Data Procedures/Schedule. Non Market Operator contents will need to be considered which currently sit outside of AEMO Procedures (e.g CSV Files for UMS Data and Streetlights) and also Policy decision on Historical Consumption Data Requests</i>

CURRENT WA RULES/BUILD PACKS



Build Pack Document Name	Changes Required?	Comments/Assumptions
Market Roles	Yes	This is expected to no longer be required, if adopting Chapter 7 it includes MSATS, Metrology and B2B which includes role definitions, principles and obligations A review however of Chapter 3 (access to standing data) to also be considered. To be replaced with the latest NEM MSATS and B2B Procedures and NMI Standing Data Procedure/Schedule and Metering Data Provision Procedures.
Web Portal User Guide	Yes	<i>This is expected to no longer be required, if adopting Chapter 7 it includes B2B, Metrology and MSATS. To be replaced with NEM related MSATS, Metrology and B2B documents/guides and specification packs</i>
Web Portal Functional Specification	Yes	Same as above
Infrastructure User Guide	Yes	Same as above
List of Codes	Yes	Same as above
Key to codes used in Build Pack	Yes	Same as above
Glossary	Yes	This is expected to no longer be required, to be replaced with the NEM Glossary and Framework
Streetlight Data CSV File Specification & UMS Data CSV File Specification	Yes	These documents covers street-lighting and UMS billing details from WP to Synergy using CSV files. This is not currently a Market Operator function. Network billing is not covered under the existing NER and the B@B Procedures do not currently consider Billing/Network billing, jurisdictional network billing has been interpreted as not relating to an end user or supply to an end user. A possible solution will be for WP to use SMP Hub
WA B2B Process Participant Build Pack	Yes	This is expected to no longer be required, if adopting Chapter 7 it includes B2B Procedures. Currently based on the NEM Technical Delivery Specification Procedure Version 2.4 Published 2005 To be replaced by the latest NEM Technical Delivery Specification Procedure and Guide

NEM arrangements are outlined in the NER, **Part H B2B Requirements** **7.17 B2B Arrangements**

7.17.1 B2B e-Hub

- (a) *AEMO* must provide and operate a *B2B e-Hub*.
- (b) The *B2B e-Hub* must:
 - (1) have the capability to facilitate the *B2B Communications* in accordance with the *B2B Procedures*;
 - (2) have the capability to support a free-form method of communication between *B2B Parties*; and
 - (3) meet any minimum standards of performance specified in the *B2B Procedures*.
- (c) A person must not use the *B2B e-Hub* unless they are a *B2B e-Hub Participant*.
- (d) Each *B2B Party* and *AEMO* must comply with the *B2B Procedures*

(e) Subject to paragraph (f), each *B2B Party* must use the *B2B e-Hub* for *B2B Communications* in accordance with the *B2B Procedures*.

(f) *B2B Parties* may, on such terms and conditions as agreed between them, communicate a *B2B Communication* on a basis other than through the *B2B e-Hub* provided the *B2B Communication* is otherwise made in accordance with the *B2B Procedures*.

(g) Despite paragraphs (d) and (e), a person:

(1) appointed as a *Metering Coordinator* in respect of a *transmission network connection point*, and

(2) not accredited as a *B2B e-Hub Participant*,

is not required to:

(3) comply with the *B2B Procedures*; and

(4) use the *B2B e-Hub* for *B2B Communications*,

in respect of that *transmission network connection point*.

7.17.2 B2B e-Hub Participants

- (a) A *B2B e-Hub Participant* is a person so accredited with *AEMO*.
- (b) *AEMO* must establish and maintain an accreditation process for *B2B e-Hub Participants* (including circumstances under which accreditation can be revoked by *AEMO*) and *publish* information relating to the process by which parties can apply to be accredited as *B2B e-Hub Participants*.
- (c) To be eligible for accreditation as a *B2B e-Hub Participant*, a person must:
 - (1) satisfy *AEMO* that it is complying with and will comply with the *Rules* and the procedures authorised under the *Rules*; and
 - (2) satisfy such other requirements as reasonably determined by *AEMO*, which may include (but are not limited to):
 - (i) systems and information technology requirements necessary for secure use of the *B2B e-Hub*; and
 - (ii) fee payment and credit support requirements.
- (d) *AEMO* may exempt persons or classes of persons from any one or more requirements of the accreditation process for *B2B e-Hub Participants* established under paragraph (b), subject to such conditions as *AEMO* deems appropriate.

7.17.3 Content of the B2B Procedures

(a) The *B2B Procedures* may be constituted by one or more separate documents and:

(1) must provide for *B2B Communications* to support each of the services set out in the *minimum services specification*;

(2) may provide for any other *B2B Communications* determined in accordance with the *Rules*;

(3) may include obligations in relation to the information to be maintained and provided to support *B2B Communications*;

(4) must not restrict *B2B Parties* from communicating *B2B Communications* on a basis other than through the *B2B e-Hub* as permitted under clause 7.17.1(f); and

(5) may include minimum performance standards for the *B2B e-Hub*.

(b) For each *B2B Communication*, the *B2B Procedures*:

(1) must specify:

- (i) the required *B2B Data* inputs and *B2B Data* outputs;
- (ii) the required business process flows and related timing requirements;
- (iii) the required content and format;
- (iv) the required delivery method; and
- (v) the back-up delivery method to be used where the required delivery method cannot be used; and

(2) may specify:

- (i) details for testing and certification;
- (ii) provisions relating to contingency arrangements; and
- (iii) examples of how a *B2B Communication* may operate in practice.

(c) *B2B Data* is confidential information and may only be disclosed as permitted by the *Rules*.

RELATED DOCUMENTS

Document Name	Location
Service Paperwork Reference Table *This should be updated to include WA	http://www.aemo.com.au/-/media/Files/PDF/Service_Paperwork_Reference_Table_v5_1.pdf
B2B E-Hub Accreditation	http://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/B2B/B2B-eHub-Accreditation.pdf
B2B E-Hub Application form	http://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/B2B/B2B-eHub-Application-Form.docx
B2B Mapping to aseXML Guide	http://www.aemo.com.au/-/media/Files/PDF/B2B_Mapping_to_aseXMLv2_00.pdf
Meter Data File Format	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes
Guide to Information Systems	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change
Connecting to AEMO's Electricity IT Systems	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change

RELATED DOCUMENTS



Document Name	Location
AseXML Development Guidelines	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Guidelines
AseXML Change Process	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-change-process
General Schema Information	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Schemas
ASEXML Document Samples	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Document-Samples

RETAIL OPERATIONAL CONTACT LIST



The NEM maintains a Retail Operational Contact List which includes Primary Operational Contacts, Process Owners and Escalation Points per Process Categories, e.g Life Support, RoLR, Service Orders, Transfers.

AEMO maintains this currently as part of Support Services, As a market readiness activity the RoCL will be updated to include WA Market Participants. Sub Example below:

Category	Customer Details	Customer Details	IT Operations	IT Operations	Outage Notifications
Sub-category	CSDN Processes - Enquiries related to issues for Customer, Site & Access Details Notifications & requests	CSD Reconciliation - Enquiries related to issues for Customer Site Detail Reconciliations	General Ops - Enquiries related to updating B2B notices or Gateway issues (not responsible for contingency plans, see right)	Contingency Management - Enquiries related to managing a B2B / Gateway contingency plan for their participant in the event that their gateway fails	Unplanned/Planned Customer outages - Enquiries related to outages, DNSPs contact Retailers to advise of an outage or Retailers contact DNSPs to determine if there is an outage
Primary Operational Contact					
Operating Hours					
Name					
Alternate name (if any)					
Direct phone number (incl. area code)					
Mobile phone number					
E-mail address of role					
E-mail address of person					
Fax number					
Process Owner or Escalation Contact					
Name					
Alternate name (if any)					
Direct phone number (incl. area code)					
Mobile phone number					
E-mail address of role					
E-mail address of person					

B2B HUB SYSTEM OVERVIEW

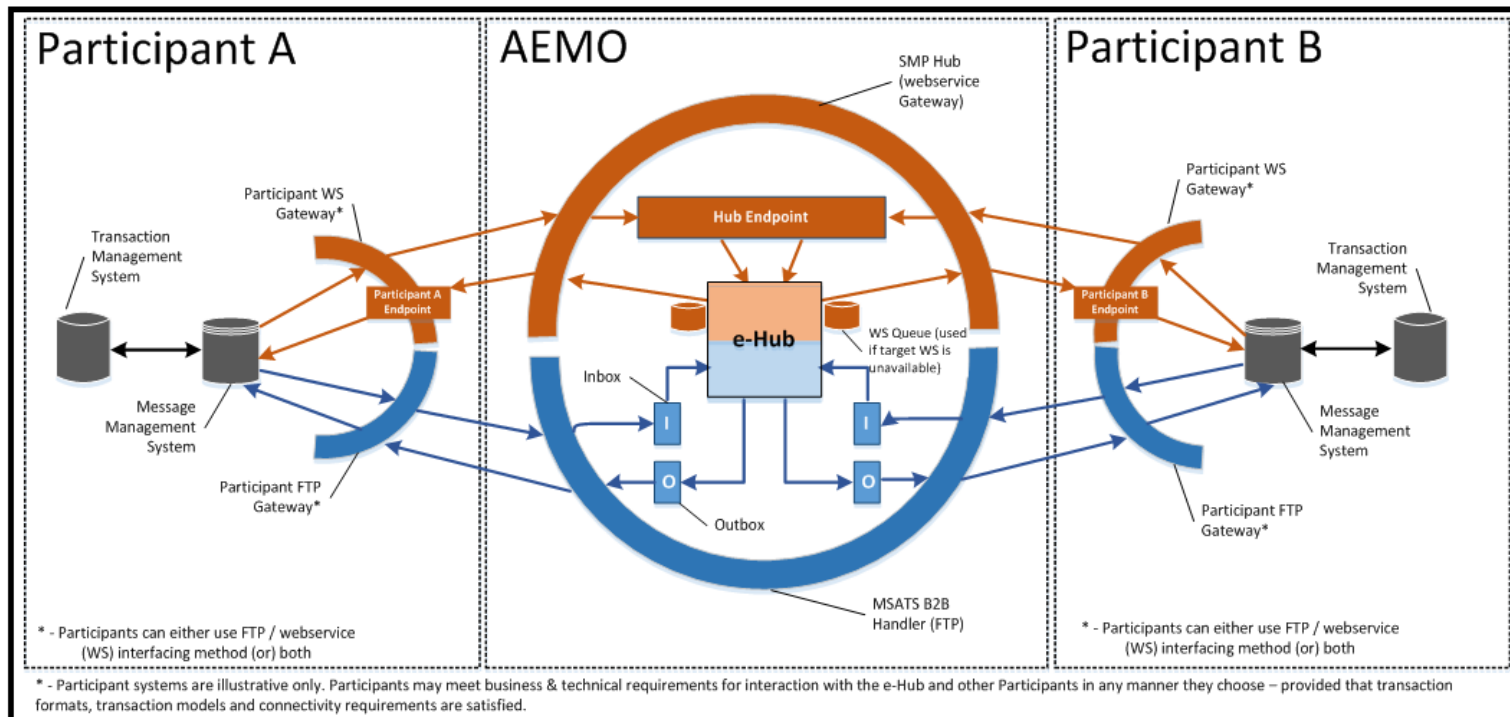


OVERVIEW OF NATIONAL B2B INFRASTRUCTURE

Infrastructure (software and hardware) that enables B2B communication between Participants.

This includes, but is not necessarily limited to:

- MSATS (FTP) (software and hardware)
- MSATS B2B Gateways
- SMP Hub
- Communications between Participants and MSATS B2B Gateways; and Participant Gateways



The functionality available via the e-Hub includes:

- The ability for B2B files to be sent between Participants.
- Header and schema validation of files.
- Support for specific B2B Transaction types.
- Logging of handler activity in an activity log.

e-Hub allows participants to use two methods of communication:

- MSATS (FTP)
 - Supports the transfer of compressed (“zipped”) aseXML files directly between market Participants.
- Shared Market Protocol (SMP) Hub (Webservice Gateway)
 - Business transactions are sent as an aseXML document carried as a payload inside the Webservice message and transmitted over HTTPS.

Analysis: WA currently uses B2B Handler technology but does not appear to have logging of handler activity functionality.

Assumption: NEM e-Hub functionality will be available for use in WA.

- Participants are be able to use the MSATS (FTP) or the SMP Hub (Webservices) for communicating B2B transactions (or a combination of both).
- Participants via the MSATS web browser can select the protocol they wish to use for B2B transactions at the Transaction Group level (i.e., SORD etc.).
- The e-Hub validates each incoming message/file to determine if the Participant is sending the message/file using the opted interfacing method.
- The e-Hub will trigger an exception if the Participant sends a message/file using an interfacing method that is not opted in the portal.

DELIVERY REQUIREMENTS



The National B2B Infrastructure used to deliver B2B Transactions supports “once and once only delivery”.

- Participants and AEMO must not re-use *ase:MessageID* where they have received a Message Acknowledgement from the Recipient for that Message.
- Participants acknowledge and accept that Transactions and Acknowledgements may be delivered to a Participant out of sequence.
- AEMO and participants are responsible to maintain a 24/7 National B2B Infrastructure.
- WA currently communicates B2B transactions between the Initiator and Recipient with no middle participant ‘AEMO e-Hub’.

Assumption: WA will use the functionality of the National B2B Infrastructure.

TERMINOLOGY

Transaction and message communication terminology used:

Message	FTP Term	Webservice Term	Description
Hub Acknowledgement	.ac1	HTTP Response with Hub MessageAcknowledgement payload MACK (positive/negative)	Hub response on receipt of a message.
Message Acknowledgement	.ack MsgAck (positive) MsgNack (negative)	HTTP Response with MessageAcknowledgement payload MACK (positive/negative)	Recipient/Notified Party acknowledges receipt of the message from the Initiator/e-Hub.
Transaction Acknowledgement	TranAck	TACK (positive/negative)	Recipient/Notified Party provides a business/logical acceptance or rejection of the contents of the transaction.

- NEM currently uses aseXML schema version r32 for B2B transactions and the WEM currently uses waeXML schema r17 version
- From 1st Dec 2017 a new aseXML schema version will be released to reflect changes to the NEM for Power Of Choice

TIMING REQUIREMENTS



With the exception of periods covered by any industry agreed outage period, Participants must use reasonable endeavours to adhere to the Timing Requirements as prescribed by the relevant B2B Procedure.

The table below applies to participants interacting using FTP or a combination of FTP and webservices and applies to the Acknowledgement cycle:

- Participants and AEMO must meet these Timing Requirements for a minimum of 95% of Transactions during a rolling 5 business day period.
- This requirement is based on an agreed industry loading scenario which AEMO has published to industry.

Cycle	Low Priority Transactions	Medium Priority Transactions	High Priority Transactions	Responsibility
Hub Transmission Time	30 minutes	15 minutes	5 minutes	AEMO
MsgAck Cycle Time	240 minutes	60 minutes	30 minutes	Participant
TranAck Cycle Time	By end of next business day	By end of next business day	60 minutes	Participant

- WA has the same timing requirements for MsgAck Cycle Time and TranAck Cycle Time.
 - Hub Transmission time is not currently valid.

Assumption: WA will adopt the NEM MSATS (FTP) workflow processes.

B2B HANDLER FUNCTIONALITY (FTP)



The functionality of the MSATS (FTP) includes:

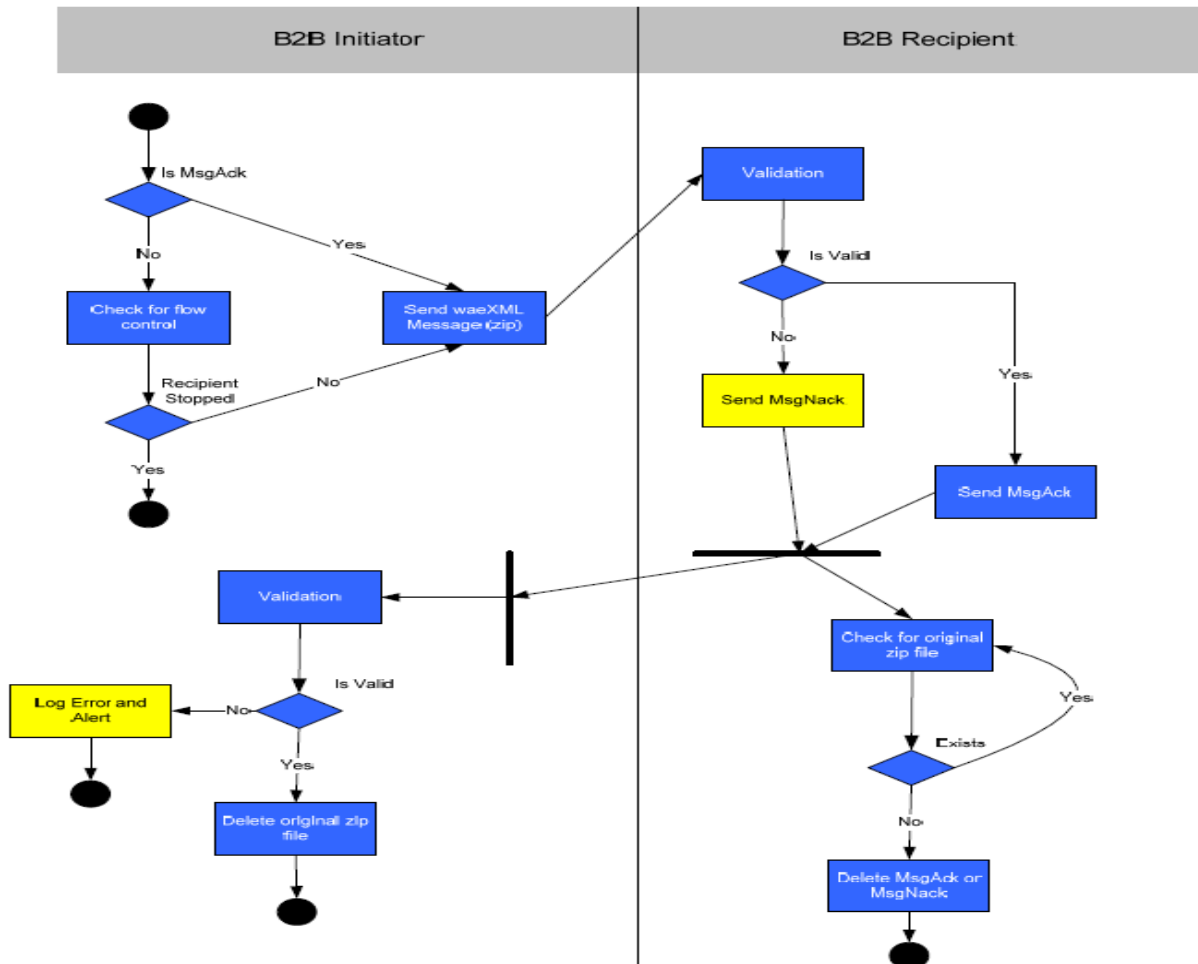
1. The ability for B2B files to be sent directly to Participant directories (“Inbox”) as specified.
2. Header and schema validation of files.
3. Production of a negative Hub Acknowledgement in the case of B2B Message failure.
4. A subdirectory that contains flow control files (.stp files) identifying Participants who are Stopped.
5. If a Participant that a B2B Transaction is being sent to has reached its file limit, the B2B file transfer fails and a negative hub Acknowledgement is sent to the B2B Initiator.
6. Support for specific B2B Transaction types.
7. Logging of MSATS (FTP) activity in an activity log.
8. Creation of a B2B e-Hub Acknowledgement file with a different extension (.ac1) is created to signify the successful transfer of a B2B Transaction to the intended Recipient.
9. Where a Recipient’s Inbox contains an invalid ase:MessageAcknowledgement(s) or invalid standalone ase:Event(s), the Recipient can still initiate Transactions by lodging “.zip” files into their Inbox which will be delivered.

Analysis shows that the WA B2B Handler does not include points 2, 3, 7 or 8 functionality.

Assumption: WA will adopt the NEM MSATS (FTP) functionality.

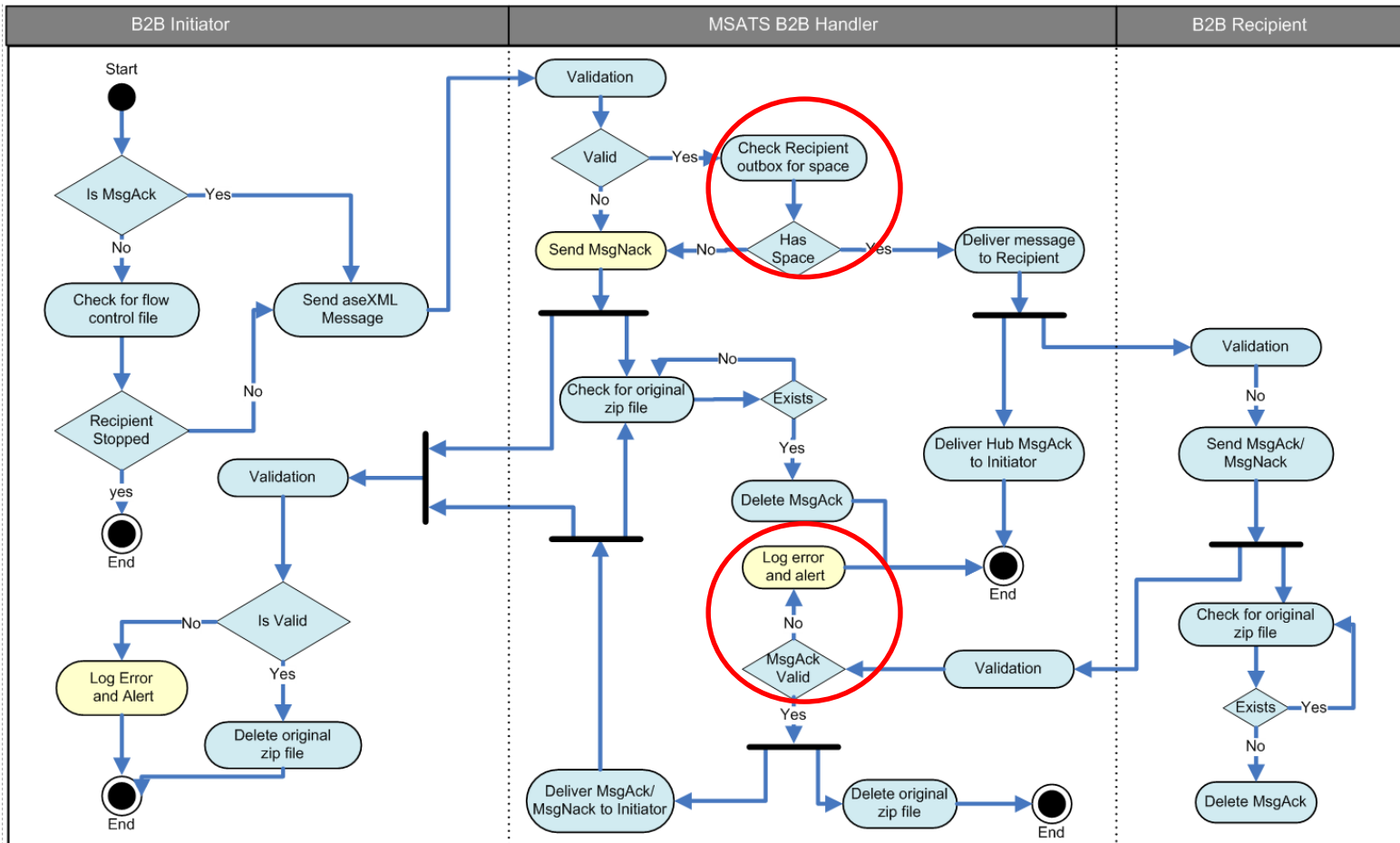
WEM B2B HANDLER WORKFLOW

File Transfer and Acknowledgement Protocol as implemented by the WEM B2B Handler.



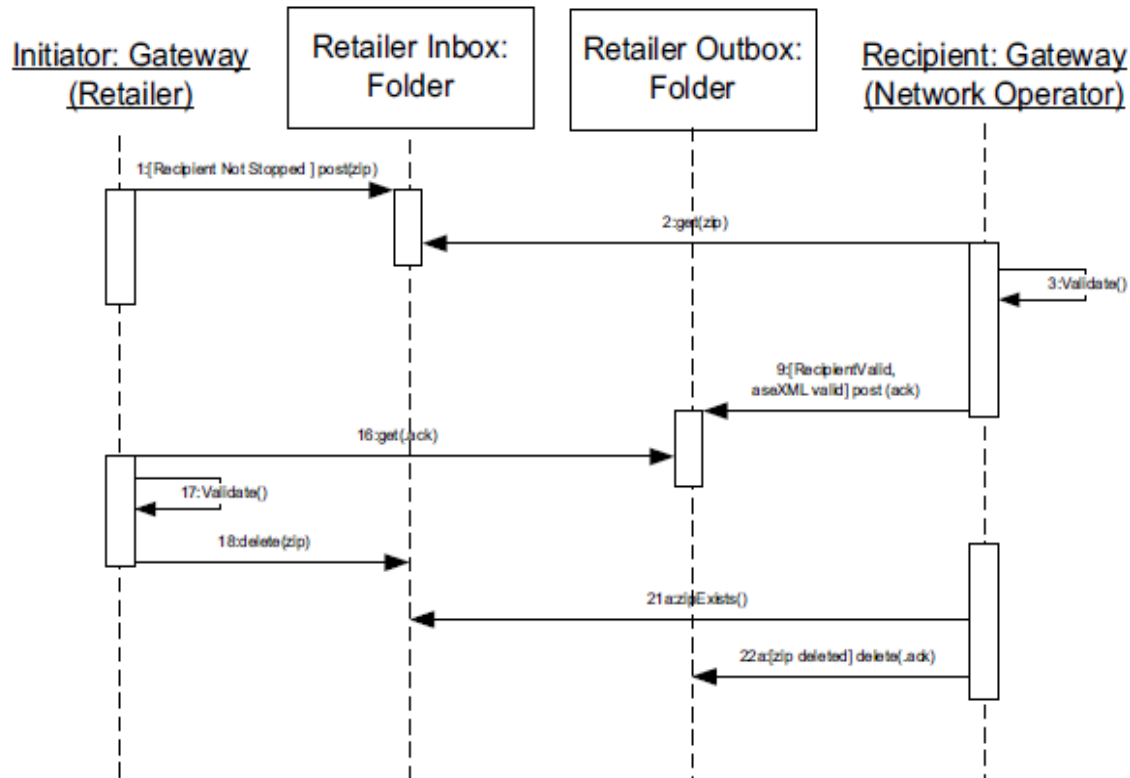
NEM NATIONAL B2B WORKFLOW

File Transfer and Acknowledgement Protocol as implemented by the NEM (FTP)



Analysis: WEM does not currently maintain message logging or checks for outbox space requirements
Assumption: WA will adopt the NEM (FTP) workflow processes

WA B2B HANDLER SEQUENCE DIAGRAM



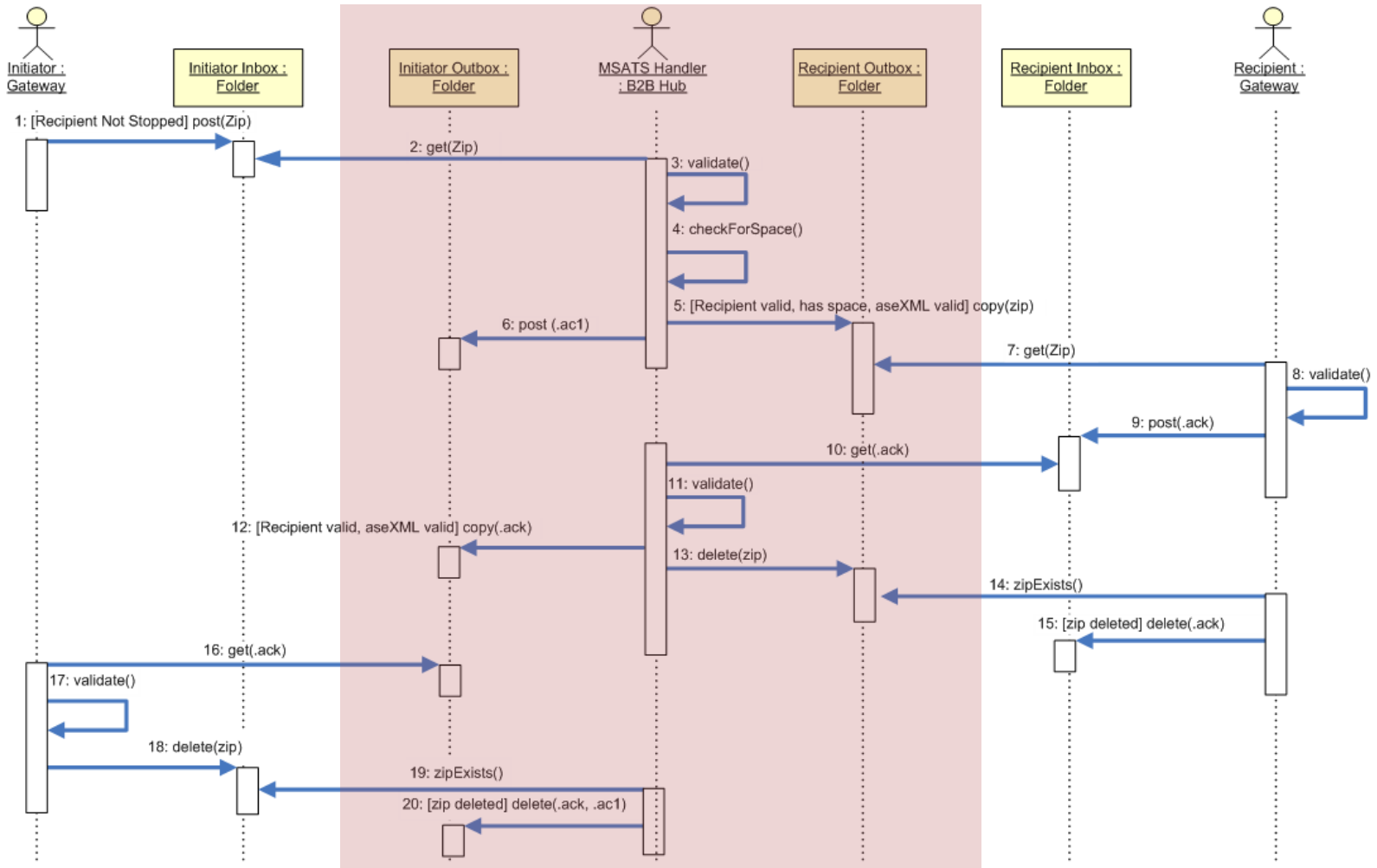
Analysis: WA does not currently use a middle tier B2B Handler File Transfer and Acknowledgement Protocol

Assumption: WA will adopt the NEM (FTP) workflow processes.

NEM NATIONAL FTP SEQUENCE DIAGRAM - ACKNOWLEDGEMENT MODEL



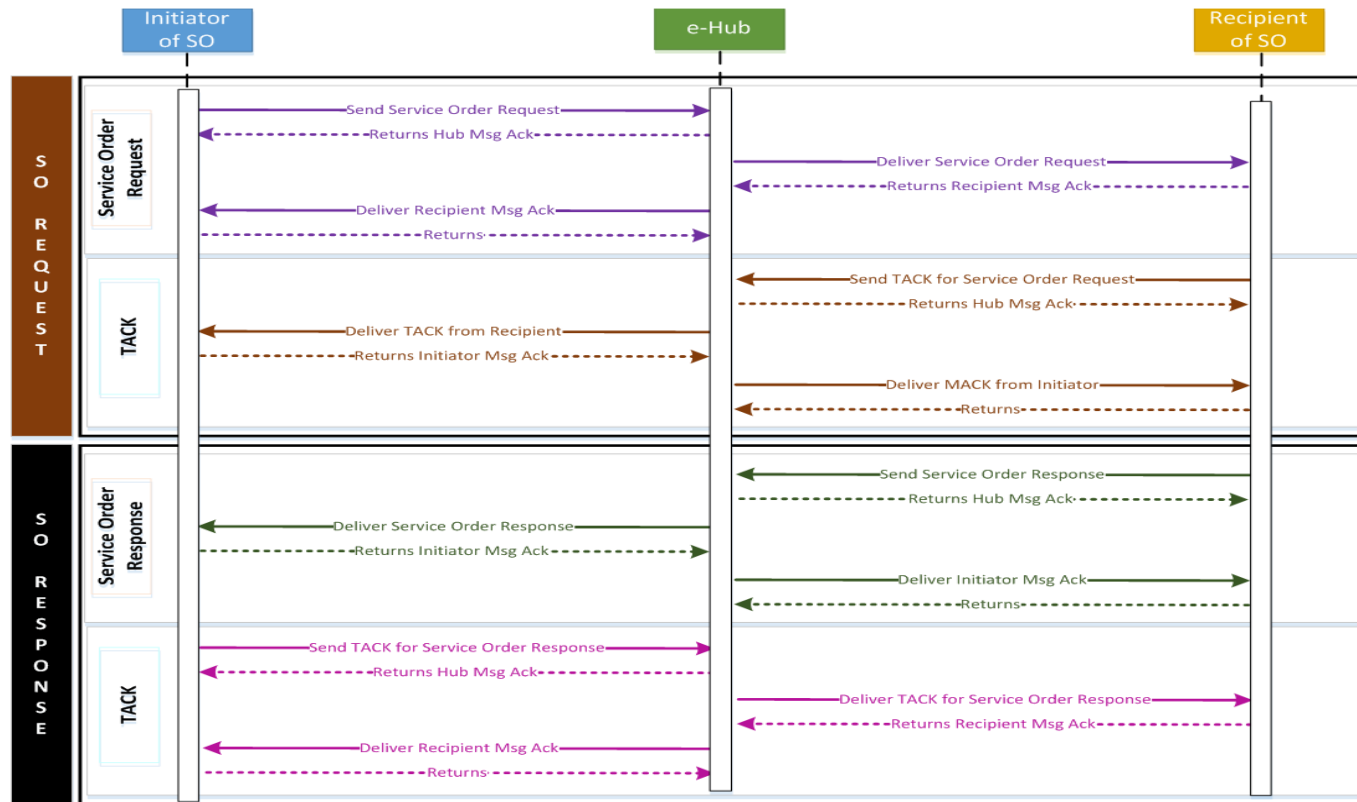
AEMO e-Hub MSATS (FTP)



Assumption: WA will adopt the same NEM (FTP) workflow processes

SMP WEB SERVICES

The SMP Hub Web service facilitates transactions sent in aseXML format carried as a payload inside a webservice message transmitted over HTTPS.
Unlike the B2B handler it does not support compressed messages.



Assumption: SMP Protocol will be available for use by WA participants

The Initiator is responsible for populating the list of Notified Parties in a given transaction to utilise the Notified Party functionality of the e-Hub.

The e-Hub allows for two options for an Initiator to notify other associated Participants:

- e-Hub-generated notifications:
 - The e-Hub will generate the required NotifiedParty transactions at the appropriate trigger points as defined in the B2B Procedure Service Order Process, to the Participants specified in the ServiceOrderRequest, and containing the corresponding payload information as defined in the B2B Procedure One Way Notification Process.
- Initiator-generated notifications:
 - the Initiator will be responsible to generate the NotifiedParty transactions required, in accordance with the B2B Procedures.

Participant responsibilities:

- Must use reasonable endeavours to establish internal contingency arrangements to minimise disruption to other market Participants in the event of a material internal infrastructure failure.
- Use reasonable endeavours to process Messages and Acknowledgements within the timeframes prescribed in this Procedure and elsewhere in the B2B Procedures.
- Where a Participant is unable to process Messages and/or Acknowledgements within timeframes prescribed in this Procedure or any other B2B Procedure, that Participant must as soon as reasonably practicable to inform affected parties and:
 - Detail actions and timeframes to recover
 - Negotiate appropriate intermediate working arrangements.

MAJOR FAILURE EVENTS

To enable 24/7 availability of the National B2B Infrastructure, Participants and AEMO must follow contingency events outlined in the B2B Procedure Technical Delivery Specification effective Dec 2017.

Example:

Failure Event	Contingency Steps
Central MSATS (FTP) (“hub”) failure.	<ol style="list-style-type: none">1. AEMO supports multiple “backup hubs”. In the event of a failure of the operating MSATS (FTP), which prevents the business timings being achieved, AEMO will switch to a back-up hub.2. In the unlikely event that all MSATS (FTP) become unavailable, Participants should defer non-urgent Messages and send all urgent B2B Messages as compressed aseXML email attachments, without password protection, adhering to the requirements specified later in this Section.3. If the MSATS (FTP) fails, AEMO must notify all Participants. When the MSATS (FTP) is available after a failure, AEMO should notify all Participants.

Analysis: WA B2B Hub also maintains Major Failure Events and Contingency Steps including the use of email and the Metering Service Centre / Web portal when the WA B2B Handler is unavailable.

Assumption: WA will follow the NEM Major Failure Events and Contingency Steps.

B2B e-HUB ACCREDITATION



B2B e-Hub accreditation purpose:

- Is required to use the B2B e-Hub.
- Ensures an applicant's processes and IT systems are ready to interact with AEMO's systems safely and securely.
- Data will be delivered in the appropriate format.

How do you become accredited?

- By using the self-certification process in the B2B e-Hub pre-production environment.
- Details of the process can be found on AEMO's website by searching B2B E-Hub Participant Accreditation and Revocation Process, which was compiled as part of the Power of Choice Program.

What can you do once accredited?

- Able to connect to the B2B e-Hub.
- Use the B2B e-Hub to send to and receive from other B2B e-Hub Participants:
 - documents that conform to the current aseXML schema
 - CSV data where applicable.

The Participant preparation required prior to requesting B2B e-Hub accreditation includes:

- The applicant having a separate Participant ID for each market Role as transaction testing related to each market Role must be completed.
 - Some roles allow for the same Participant ID to be allocated to them, i.e.. LNSP role and initial MC roles are the same Participant ID.
- Reviewing the transactions required for testing.
 - If the applicant believes that there is not a requirement to test all of the transactions for the role they are performing, approval will be required from AEMO.

PARTICIPANT PREPARATION



Applicants will need to be familiar with the following Procedures and Guides. Accreditation will form part of Market Readiness Activities.

Document		
NER - Chapters 7, 10 & 11	B2B Guide	Guide to Transition of aseXML
B2B Procedure: Customer and Site Details Notification Process	B2B Procedure: Technical Delivery Specification	B2B mapping to aseXML (guide)
B2B Procedure: Service Order Process	NEM RoLR Processes Part B	Guide to MSATS B2B
B2B Procedure: Meter Data Process	Meter Data File Format Specification NEM 12 & 13	SMP User Guide/ Technical Guideline
B2B Procedure: One Way Notification Process	aseXML Guidelines	

The accreditation steps are:

- Applicant submits an application form (in Appendix A and published on AEMO's website).
- Within 5 business days AEMO will notify party whether the application has been accepted or rejected.
- Additional request forms required for ability to connect to:
 - MarketNet - access to the Market Management System (MMS) and Market Settlement and Transfer Solution (MSATS)
 - B2B e-Hub
 - API Gateway - provides B2B communication options using web services; or using direct connections from a compatible participant gateway.
- Access to a non-production environment will be granted once all IT requirements are met.

The following are system testing stages:

- Stage 1: Messaging – applicants are required to demonstrate to AEMO that their IT systems can fulfil the messaging requirements, including:
 - FTP - Establishing aseXML file sending and receiving
 - APIs – Establishing API message sending and receiving
- Stage 2: Transactions – applicants are required to demonstrate to AEMO that their IT systems can produce and send transactions. Applicants must test transactions based on their role in the market. The transaction test format is:
 - The initiator sends the transaction
 - The recipient acknowledges the transaction
 - The recipient accepts the transaction
 - The recipient produces a response
 - The initiator acknowledges the response

If AEMO considers that the applicant has not met the requirements of the application, AEMO will notify the applicant of:

- Which criteria have not been met.
- How the applicant should address the matter.
- The date the applicant must address the unmet criteria for reconsideration by AEMO.
- If the applicant fails to address the unmet criteria by the date specified by AEMO, the application is deemed to have been withdrawn.

Re-accreditation will be required if a participant:

- Makes any significant changes to their transaction and/or gateway system.
- Is implementing a new transaction and/or gateway system.
- Is changing delivery methods, i.e., moving from FTP to Web Services/APIs.

Participants must advise AEMO of the scope of any proposed change to its gateway, system or delivery method.

AEMO will then determine whether re-accreditation is required.

AEMO may revoke a B2B e-Hub Participant's accreditation if:

- The Participant is no longer a B2B Party; or
- The Participant is not complying with the rules or the procedures authorised under the Rules.

Participants may be issued a notice of non-compliance for failure to comply with any authorised rules or procedures:

- The notice of non-compliance will include a timeframe in which the B2B e-Hub Participant must rectify the non-compliance.
- If rectification of the non-compliance is not completed within the timeframe AEMO may revoke the B2B e-Hub Participants accreditation and access to the B2B e-Hub.

B2B GUIDE



- The B2B Guide was developed as part of Power of Choice changes, to be effective 1 December 2017.
- The B2B Guide is not a B2B Procedure under the Rules, this document may be updated without the need for formal consultation.
- This guide can be found on AEMO's consultation page, see: http://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Working_Groups/Retail_Meetings/POC-B2B/2016/B2B-Guide-v10-draft-clean.pdf.

The B2B Guide:

- Aims to provide interested parties with an understanding of how B2B Communications defined in the B2B Procedures are used in the context of the broader industry scenarios, and to assist participants when forming their respective bilateral/commercial agreements.
- Includes reference to both Regulated and Non Regulated services and service providers across the NEM.
- Does not include rules but instead describes typical business practices

Assumption: A B2B guide will be created for WA

The B2B Guide communications model provides a more detailed explanations by jurisdiction around:

- The roles of the Initiator, Recipient and Notified Parties for:
 - Service Orders
 - One Way Notifications
 - Customer Site Details Notifications
 - Meter Data Process
 - Service Order Paperwork.

- The methods for requesting/providing and sharing of information:
 - BusinessReceipt
 - BusinessAcceptance/Rejections.

B2B TRANSACTIONS AND TYPICAL PARTICIPANT COMBINATIONS



Example of B2B Guide explanation of Service Order Transactions and Participant responsibilities

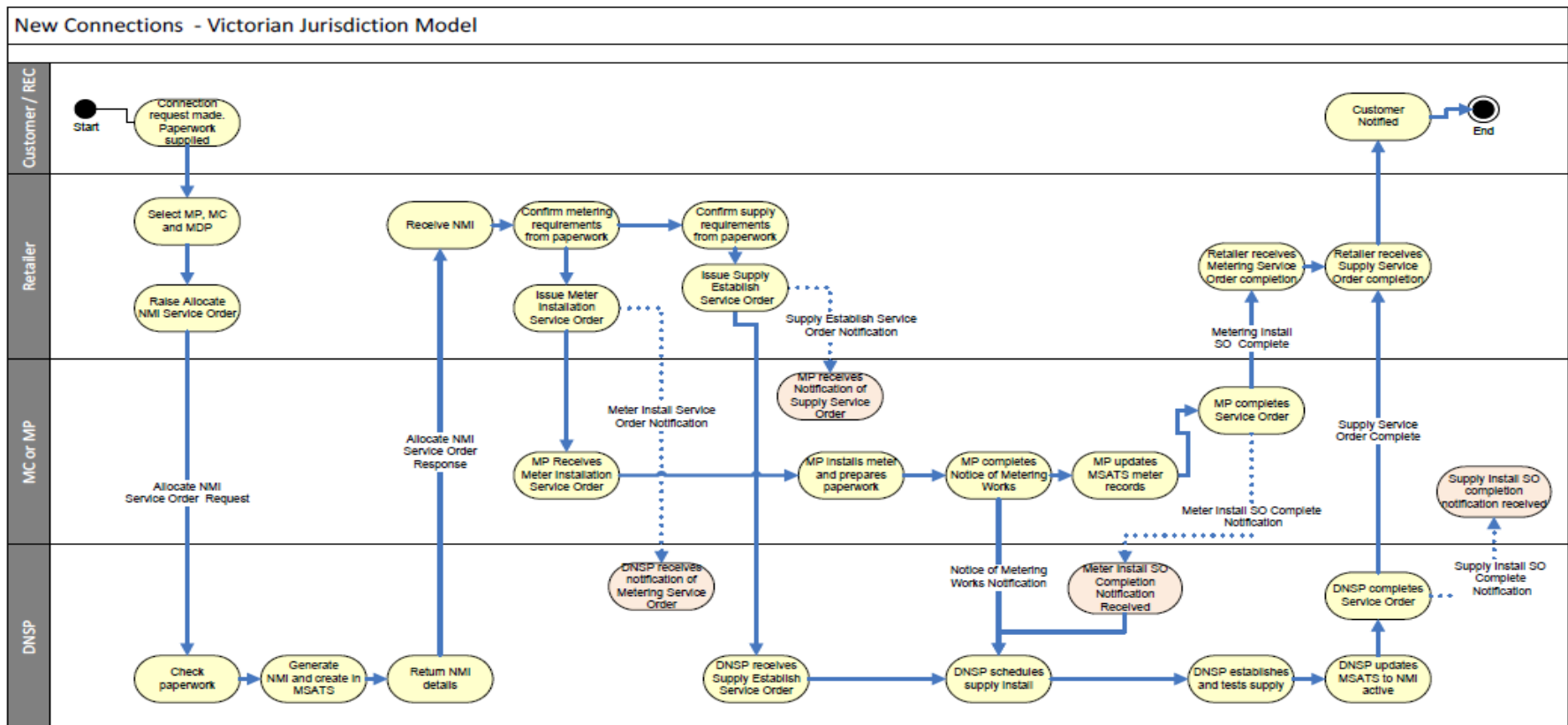
B2B Procedure	Transaction Type	Sub Type	Purpose	Initiator/s	Recipient	Notified Parties
Service Orders	Supply Service Works	Allocate NMI	The first step in a new connection process	RB	DB/ENM	X
Service Orders	Metering Service Works	Install Meter	Install one or more meters or metering installations	RB or MC	MP	DB / MDP / MC
Service Orders	Metering Service Works	Move Meter	Move the location of a meter	RB or MC	MP (or DB for Type 5/6)	MDP / DB / MC
Service Orders	Re-energisation	After Disconnection for Non payment	Re-Energise the customer after a disconnection for Non-payment	RB	DB or MP or MC	MDP / DB / MP / MC
Service Orders	De-energisation	Local Meter Disconnection	De-Energise the customer through local operation of in-built meter contactor	RB	DB/(VIC) / MP	MDP / DB / MP / MC

B2B GUIDE – SCENARIOS AND PROCESS WORKFLOW EXAMPLES



The B2B Guide provides scenarios and workflow diagrams to explain Service Order processes including; Meter Exchange, Re-energisation and De-energisation and Establishing a new customer service (a new connection).

Example below is of a Victorian New Connection.



SERVICE ORDERS



The Service Order Process (Procedure):

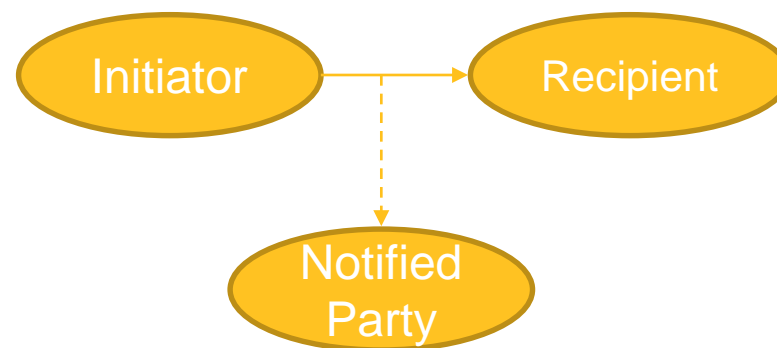
- Specifies the Service Order communication and transaction data.
- Establishes a consistently understood process and transactions.
- Defines the standard process and transaction data requirements that:
 - Enables Participants to request defined services (“Service Orders”)
 - To receive confirmation that the work will or will not be undertaken (or attempted)
 - The work has or has not been completed as requested.
- Is published by AEMO in accordance with NER clause 7.17.3.
- Has effect only for the purposes set out in the NER, NERR and jurisdictional codes.

- WA references are based on the WA B2B Procedure Service Order Process v0.7 (based on the NEM B2B Procedure Service Order Process v1.4 effective 11 Dec 2015).
- NEM references are based on the B2B Procedure Service Order Process v3.0 effective 01 Dec 2017.

POWER OF CHOICE CHANGES TO TERMINOLOGY

In December 2017, the Power of Choice changes will introduce the following new Service Order terminology:

- Initiator – Person who sends the service order.
- Recipient – Service Provider who will carry out the work.
- Notified Party – Persons not involved in the direct provision of the Service Order Request and may who need to know about it.

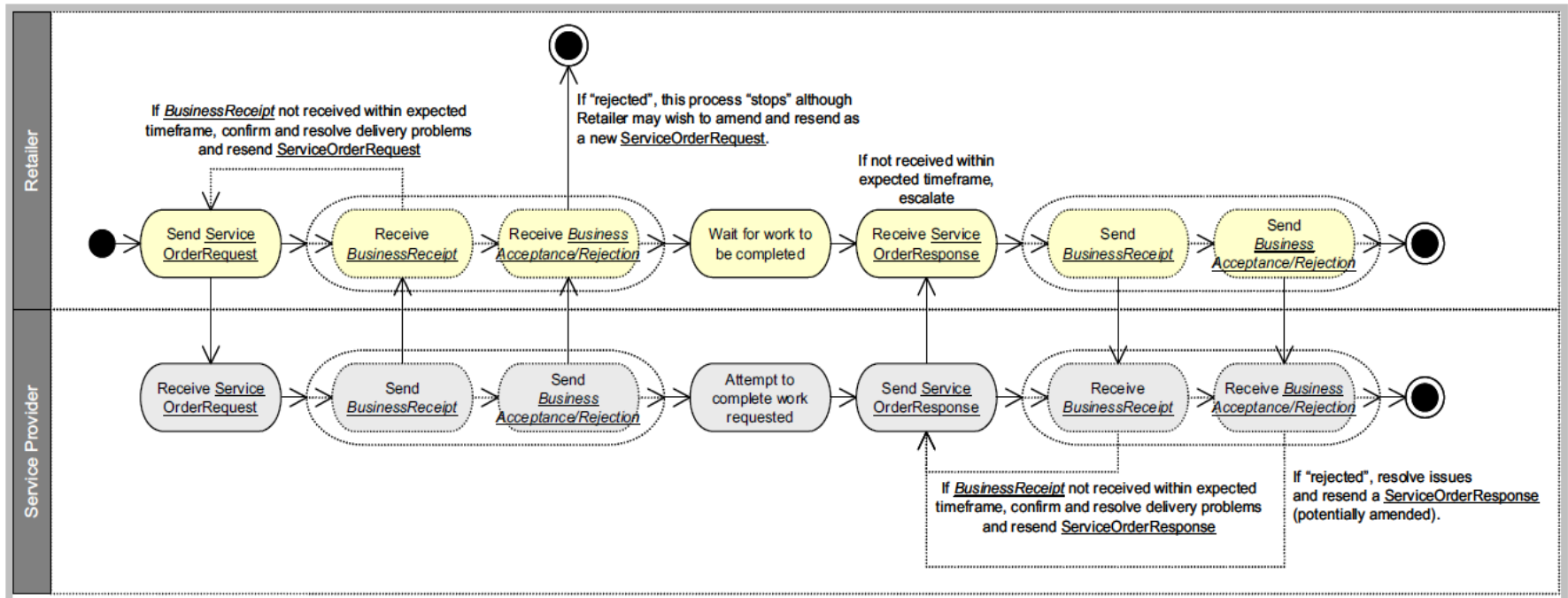


These changes allow:

- Any party to initiate a request.
- Any party to complete a request.
- Other parties to be notified i.e., outage notifications.

KEY VARIANCES BETWEEN WEM AND NEM

WA Service Order High Level Process

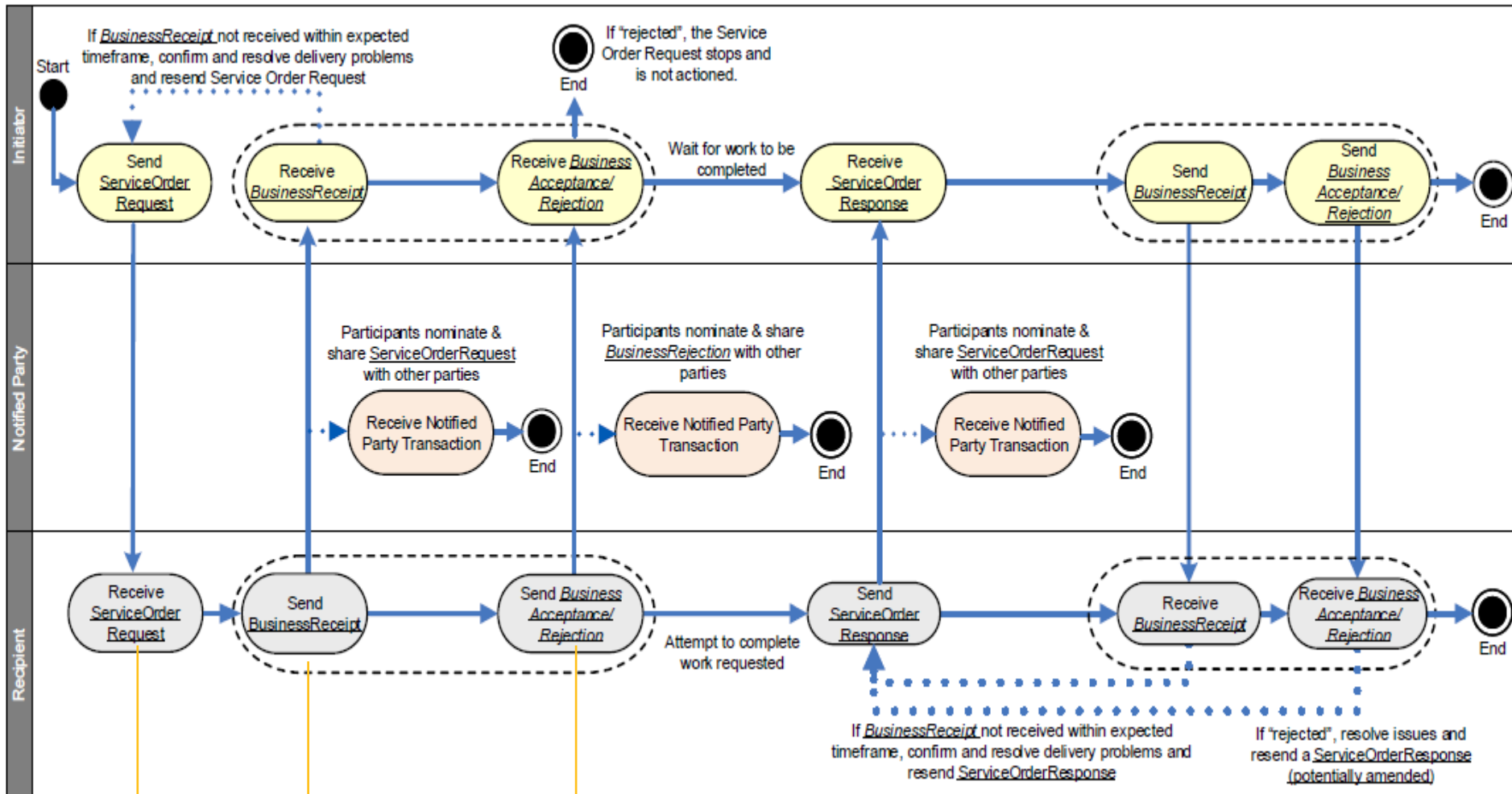


Key Variances:

- WEM transactions are between a Retailer and Service Provider (WP), whereas the NEM model considers transactions between an initiator, recipient and multiple notified parties.
- WA Retailer may amend and re-send a rejected Service Order as a New Service Order whereas In the NEM a new Service Order is initiated.

- The Power of Choice changes introduced an additional level of communication – to provide status information to parties not involved as the initiator or receiver of a request, i.e., ‘Notified Party’.
- It is not mandatory to use Notified Party.
- On receipt of information, a Notified Party must acknowledge the transaction.

HIGH LEVEL COMMUNICATION PROCESS FOR SERVICE ORDERS



If the recipient is both the DNSP and MC send only to the DNSP

Indicates SO Received and readable

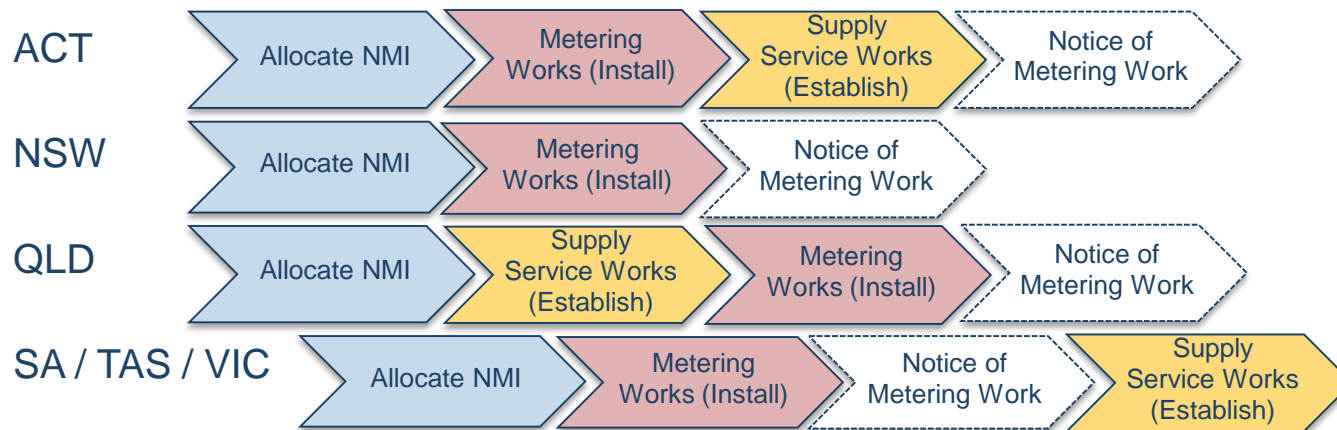
All Rejections must include relevant event code

NEM SERVICE ORDER - JURISDICTIONAL DIFFERENCES

The NEM Service Order rules:

- Requires an Allocate NMI Service Order to be initiated first in all jurisdictions. The completion of this Service Order is required to enable a participant to raise a Supply Service Works or Metering Works Service Order which requires a NMI.
- Allows any following Service Orders to be flexible in terms of sequence to allow for jurisdictional differences.

Example of a Service Order for a New Connection:



In WA, analysis indicates that an Allocate NMI Service Order is completed retrospectively.



Assumption: WA to adopt the NEM Service Order Rules.

SERVICE ORDER TYPE COMPARISON



The table below reflects the different naming conventions used for Service Order Types between the NEM and WA.

WA SERVICE ORDER TYPES	COMPARATIVE NEM SERVICE ORDER TYPE
Allocate NMI	Supply Service Works
New Connection	Supply Service Works
Additions and Alterations	Metering Service Works
Meter Investigation	Metering Service Works
Meter Reconfiguration	Metering Service Works
Supply Abolishment	Metering Service Works
De-energisation	Same
Re-energisation	Same
Miscellaneous Services	Same

SERVICE ORDER TYPE COMPARISON



The following tables compares WA and NEM Service Orders, Service Order Sub Types.

NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	Notified Parties	VARIANCE BETWEEN NEM AND WA
Supply Service Works	Allocate NMI	Used where the retailer wants the Site registered in MSATS with retailer as the current FRMP at the time of NMI allocation.	Yes	RB	DB/ ENM	X	WA Service Order Type = Allocate NMI
Supply Service Works	Tariff Change	DNSP is requested to change the network tariff	Yes	RB	DB/ ENM	X	WA Service Order Type = Meter Reconfiguration
Supply Service Works	Supply Alteration	DNSP is requested to alter the supply Examples of use: Increasing supply from 1 phase to 3 phase. Relocation of the service line not involving a change of NMI.	No	RB	DB	MDP/MP/ [MC]	WA Service Order Sub Type not found

Assumption: WA will utilise the NEM Service Order and Service Order Sub Types combinations

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Supply Service Works	Supply Abolishment	DNSP is requested to remove the service line/cable as supply is no longer required at Site. This involves decommissioning a NMI (e.g. demolition).	Yes	RB	DB	MDP/MP/[MC]	WA Service Order Type = Supply Abolishment
Supply Service Works	Establish Temporary Supply	DNSP is requested to arrange for a customer a temporary physical connection to a builders temporary supply pole at a construction Site.	Yes	RB	DB	MDP/MP/[MC]	WA Service Order Type = New Connection, WA Service Order Sub Type = Temporary
Supply Service Works	Establish Temporary in Permanent	DNSP is requested to establish a temporary supply for a customer at a Construction Site and when construction completed will remain as the permanent supply.	Yes	RB	DB	MDP/MP/[MC]	WA Service Order Type = New Connection, WA Service Order Sub Type = Temporary in Permanent

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Supply Service Works	Establish Permanent Supply	DNSP is requested to arrange a new permanent supply at a connection point.	Yes	RB	DB	MDP/MP/[MC]	WA Service Order Type = New Connection, WA Sub Type = Permanent
Supply Service Works	Temporary Isolation	DNSP is requested to temporarily isolate (disconnect) supply at a supply point for a limited time, usually just for the day without need for re-en. For example where a service line needs to be dropped and reconnected within a short period of time.	No	RB	DB	MDP/MP/[MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Supply Service Works	Temporary Isolation – Group Supply	DNSP is requested to temporarily isolate (disconnect) supply where multiple NMIs are connected to a supply point (e.g. apartment block)	No	RB	DB	MDP/MP/[MC]	WA Service Order Sub Type not found
Re-energisation	After Disconnection for Non payment	Re-Energise the customer after a disconnection for Non-payment	Yes	RB	DB or MP or MC	MDP/DB/MP / [MC]	WA Service Order Sub Type = After Disconnection for Non-payment
Re-energisation	Remote	Where the initiator requires re-energisation not requiring a physical visit to the customer’s premises (e.g. Customer is moving into a premises)	No	RB	DB (VIC), MP or MC	MDP/DB/MP / [MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Re-energisation	Retrospective Move-In	When a move-in reading is required for an already Energised Site	No	RB	DB or MP	MDP/DB/MP/[MC]	WA Service Order Sub Type not found
Re-energisation	New Reading Required	Where a Retailer wants a reading taken, rather than a deemed Meter Reading for a manually read meter.	No	RB	DB or MP	MDP/DB/MP/[MC]	WA Service Order Sub Type not found
Re-energisation	Physical Visit	Where the initiator requires Re-energisation requiring a physical visit to the customer's premises.	No	RB	DB or MP	MDP/DB/MP/[MC]	WA Service Order Sub Type not found
Re-energisation	Sticker Removal	Re-Energise the customer via visiting a site and removing a sticker over the main switch	No	RB	DB or MP	MDP/DB/MP/[MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Re-energisation	Recipient Discretion	The Recipient will re-energise the Site in the most efficient manner where standard practice applies.	No	RB	DB or MP or MC	MDP/DB/MP/[MC]	WA Service Order Sub Type not found
De-energisation	Pillar-Box Pit or Pole-Top	A physical disconnection of the service mains at the connection to the network.	No	RB	DB	MDP/MP/[MC]	WA Service Order Sub Type not found
De-energisation	Remove Fuse	The Initiator requires the physical removal of the <i>supply</i> fuse	No	RB	DB	MDP/MP/[MC]	WA Service Order Sub Type not found
De-energisation	Remote	Where the Initiator requires de-energisation not requiring a physical visit to the customer's premises.	No	RB or MC	DB (VIC), MP or MC	MDP/MP/[MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
De-energisation	Local Meter Disconnection	Attend Site and disconnect at the meter by either isolating the meter point itself, opening the contactors or removing tails from the meter terminal.	No	RB	DB (VIC), MP	MDP/DB/MP/ [MC]	WA Service Order Sub Type not found
De-energisation	Recipient Discretion	The Recipient will de-energise the Site in the most efficient manner at the Recipient's discretion. Where standard practise applies	No	RB or MC	DB or MP or MC	MDP/DB/MP/ [MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPES COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Special Read	Check Read	Where there is a reported error in the Meter Reading.	Yes	RB	MDP or DB for Type 5/6 Meters	X	No Variance
Special Read	Final Read	Used when a reading is required for preparing a final bill for the Customer	Yes	RB	MDP or DB for Type 5/6 Meters	X	No Variance
Miscellaneous Services	NO SUB TYPE – ignore if populated	An ad-hoc service request	No	[ANY]	[ANY]	[ANY]	WA Service Order Type = Miscellaneous Services WA Service Order Sub Type not Found
Meter Service Works	Exchange Meter	Exchange of one or more meters (e.g. Change a single phase meter into a multi-phase meter. Meter Churn.	Yes	RB OR [MC]	MP	DB/MDP/[MC]	WA Service Order Type = Adds & Alts

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Meter Service Works	Install Meter	The installation of one or more meters.	Yes	RB OR [MC]	MP	DB/MDP/ [MC]	WA Service Order Type = Adds & Alts
Meter Service Works	Move Meter	Relocation of one or more meters (e.g. to facilitate building works at a Site, but not decommission the NMI).	Yes	RB or MC	MP or DB for Type 5/6 meters	MDP/ [MC]	WA Service Order Sub Type not found
Meter Service Works	Meter Reconfiguration	Reconfiguration or reprogramming of the metering installation. Usually required when a retailer needs to change tariff (eg Changing the hours of application of different registers (peak and off-peak)).	Yes	RB or MC	MP or DB for Type 5/6 meters	MDP/ [MC]	WA Service Order Type = Meter Reconfiguration WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Meter Service Works	Meter Investigation - Inspect	The Initiator requires an investigation of a metering installation. The Initiator must provide additional information in the special instruction where a Service Order Sub Type of Meter Investigation-Inspect or Meter Investigation-Meter Test is used.	Yes	RB or MC	MP or DB for Type 5/6 meters	MDP/ [MC]	WA Service Order Type = Meter Investigation WA Service Order Sub Type = Inspect
Meter Service Works	Meter Investigation - Meter Test		Yes	RB or MC	MP or DB for Type 5/6 meters	MDP/ [MC]	WA Service Order Type = Meter Investigation WA Service Order Sub Type = Meter Test
Meter Service Works	Install Controlled Load	Install or set up Controlled Load devices eg hot water, pool pump	No	RB or MC	MP or DB	DB/MDP/ [MC]	WA Service Order Sub Type not found

SERVICE ORDER TYPE COMPARISON



NEM SERVICE ORDER TYPE	NEM SUB TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Meter Service Works	Remove Meter	The removal of one or more meters is required. The removal of redundant meters. When last meter on site removed SO should be accompanied with a Supply Abolishment sent to the DNSP.	Yes	RB or MC	MP or DB for Type 5/6 meters	DB/MDP/[MC]	<p>WA Service Order Type = Adds & Alts</p> <p>WA uses Service Order sub type for removal of single redundant meter not multiple meters specified by meter serial number</p>
Meter Service Works	Change Time switch settings	Change the time switch settings (e.g. for daylight savings).	No	RB	DB	MP/[MC]	WA Service Order Sub Type not Found

There are 3 WA Service Order Sub Types not used in the NEM:

WA SUB TYPE	USED IN WA SERVICE ORDER TYPE	DESCRIPTION	EXISTS IN NEM	NEM REFERENCE
Remove Fuse (Non Payment)	De-energisation	This code can only be used for a De-energisation at the fuse or meter as part of a non-payment process	No	POC has removed “non payment”. NEM to use SO Type De-Energisation with Sub Type Remove Fuse
Warning	De-energisation	This code must only be used for a De-energisation. A warning card is issued at the property without physical de-energisation	No	Sub type not used, removed years before, obligations on Retailers to provide de-energisation notices
Tamper	Meter Investigation	When inspection required where supply or equipment tampering is suspected	No	Not used in NEM. NEM raise SO Type Metering Service Works with Sub Type Metering Investigation – Meter Test

Assumption: WA will adopt the NEM Sub Type Codes.

NEM GENERAL PRINCIPLES

- A ServiceOrderRequest is raised by the Initiator.
- The NER states that a prospective Retailer is only permitted to send the following type of ServiceOrderRequest:

SERVICE ORDER TYPE	SERVICE ORDER SUB TYPE
Supply Service Works	Allocate NMI, Establish Temporary Supply, Establish Temporary in Permanent
Special Read	Final and <Blank> (excludes Check Read)
Re-energisation	All
Metering Service Works	Install Meter, Exchange Meter
Miscellaneous	<Blank>

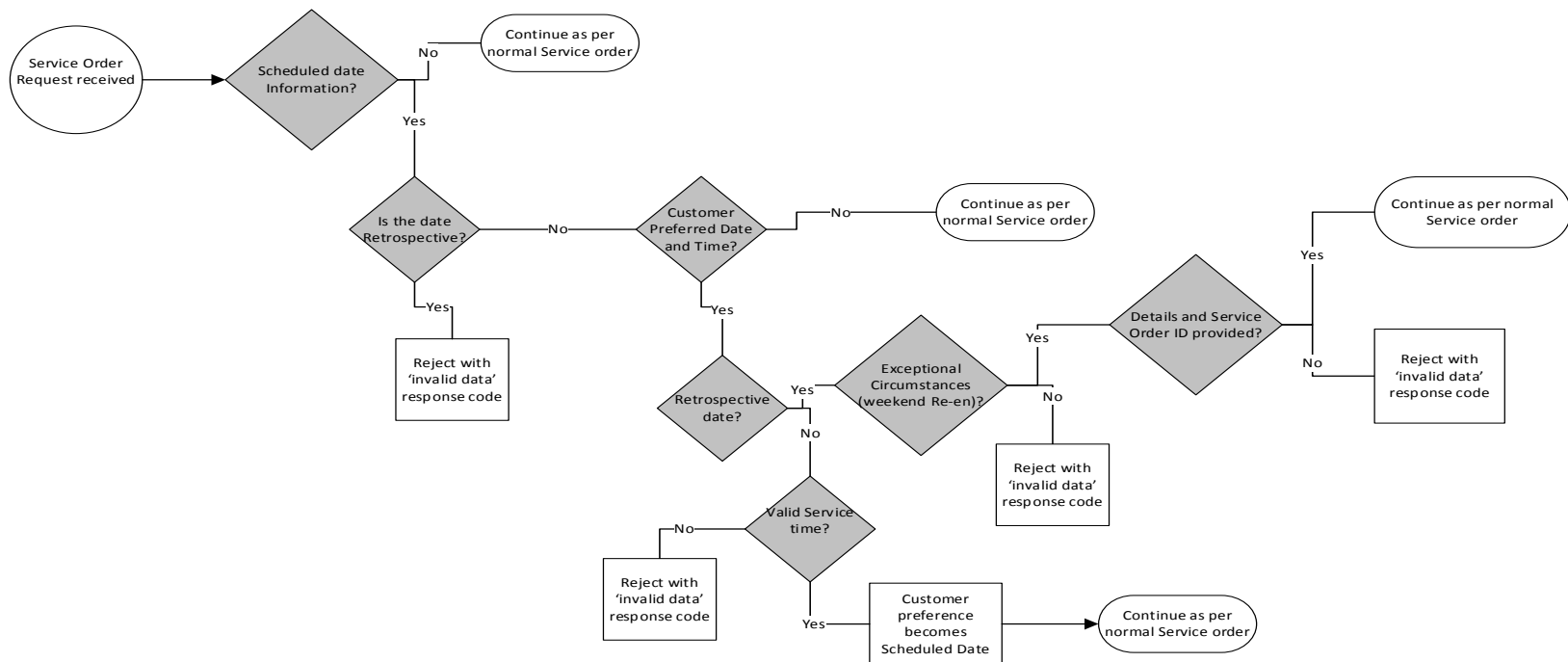
- The NER also maintains that a previous Retailer for a *NMI* that is the subject of the ServiceOrderRequest is only permitted to raise the following Metering Service Works:

SERVICE ORDER TYPE	SERVICE ORDER SUB TYPE
Metering Service Works	Meter Investigation – Inspect and Test
Special Read	Check Read

CUSTOMER CONSULTATION PROCESS



Some Service Orders e.g. Re-En or temporary disconnections for large Customers may require Customer consultation. The following workflow explains this process:



In comparison, the WA B2B Procedure highlights that a Retrospective Scheduled date is not rejected where a:

- **Scheduled Date \geq Today's Date + Lead Days** – no change to Scheduled Date
- **Scheduled Date $<$ Today's Date + Lead Days** then Scheduled Date to Today's Date + Lead Days
- Service Provider (WP) and customer agree to an alternative timeframe within the required timeframe, this voids Customer Preferred Date and Time.

SERVICE ORDER STATUS AND EXCEPTION CODE REQUIREMENTS



SERVICE ORDER STATUS CODE	DESCRIPTION	EXCEPTION CODE REQUIRED?
Completed	All aspects of the work requested are completed by the recipient	No
Partially Completed	The recipient has completed the primary work (described by the Service Order Type) but was unable to complete other associated activity, i.e., obtain an actual meter reading.	Yes
Not Completed	Primary work requested could not be completed	Yes

Product Code - Cost TBA requirements:

- Must not be used for Re-En, De-En or Special Read Service Orders.
- Must only be used when further information is required to determine scope of work.
- Should not be used as a default code.

A Product Code must reflect the actual work completed (not what was initially requested).

Initial analysis shows that the NEM and WEM follow the same process for:

- Cancelling a Service Order request.
- Closing the Service Order process.
- Service Paperwork.
- Updating a Service Order Request.
- Raising a Service Order Response.

Analysis shows that the WEM follows the same processes for Status Updates to Service Orders and for providing Product Codes.

EXCEPTION CODES

The following tables show the NEM exception code values and identifies whether they are used in the WEM.

NEM EXCEPTION CODE VALUE	DEFINITION	SERVICE ORDER STATUS	IN WA	WEM VARIANCE
Customer On-Site	There is a Customer at Site and the Site was not de-energised.	Not Completed	Yes	No
Customer Prevented	Customer prevented de-energisation.	Not Completed	Yes	No
Recipient Cancellation	Recipient cancellation. Details must be provided in SpecialNotes.	Not Completed	Yes	Exception code used = Service Provider Cancellation
Documentation Not Provided	Documentation required for the completion of the requested work has not been provided. Details must be provided in SpecialNotes.	Not Completed	Yes	No
De-energisation Not Completed Due To A Re-energisation	De-energisation not completed due to a re-energisation for the same period.	Not Completed	Yes	No
Metering Problem	Metering problem preventing completion of Meter Reading.	Partially Completed	Yes	No

EXCEPTION CODES (CONT.)



NEM EXCEPTION CODE VALUE	DEFINITION	SERVICE ORDER STATUS	IN WA	WEM VARIANCE
Meter Reading Only Undertaken Due To Prior Re-energisation	A Meter Reading only was taken, rather than the requested de-energisation, due to a prior re-energisation.	Completed	Yes	No
New Customer On-Site	Customer at Site who claims to be a new customer.	Limited to De-energisation request with a status of 'Not Completed'.	Yes	No
No Supply	Supply not available.	Not Completed	Yes	No
Other	Other reasons. Details must be provided in Special Notes.	Not Completed, Partially Completed	Yes	No
Reading Problem	Reading problem preventing completion of Meter Reading.	Partially Completed	Yes	No
Initiator Cancellation	Initiator cancellation (any charges for work partially completed should be indicated in ProductCodes).	Not Completed	Yes	Exception Code used = Retailer Cancellation
Request Submitted By Another Initiator	Alternative Request received from another Participant.	Not Completed	Yes	Exception Code used - Request Submitted By Another Retailer

EXCEPTION CODES (CONT.)

NEM EXCEPTION CODE VALUE	DEFINITION	SERVICE ORDER STATUS	IN WA	WEM VARIANCE
Sensitive Load	Sensitive load and did not de-energise.	Limited to De-energisation request with a status of 'Not Completed'.	Yes	WEM includes Life Support in this exception code group
Life Support	Life Support Customer and did not de-energise.	Limited to De-energisation request with a status of 'Not Completed'.	No	No Stand alone exception code used for Life Support
Unable To Access	Unable to gain access to complete work.	Not Completed	Yes	No
Unknown Load	The Site draws a significant load when re-energised and the Customer is not present. The Site was not left re-energised for safety reasons.	Not Completed	Yes	No
Unsafe	Unsafe to complete work.	Not Completed	Yes	No

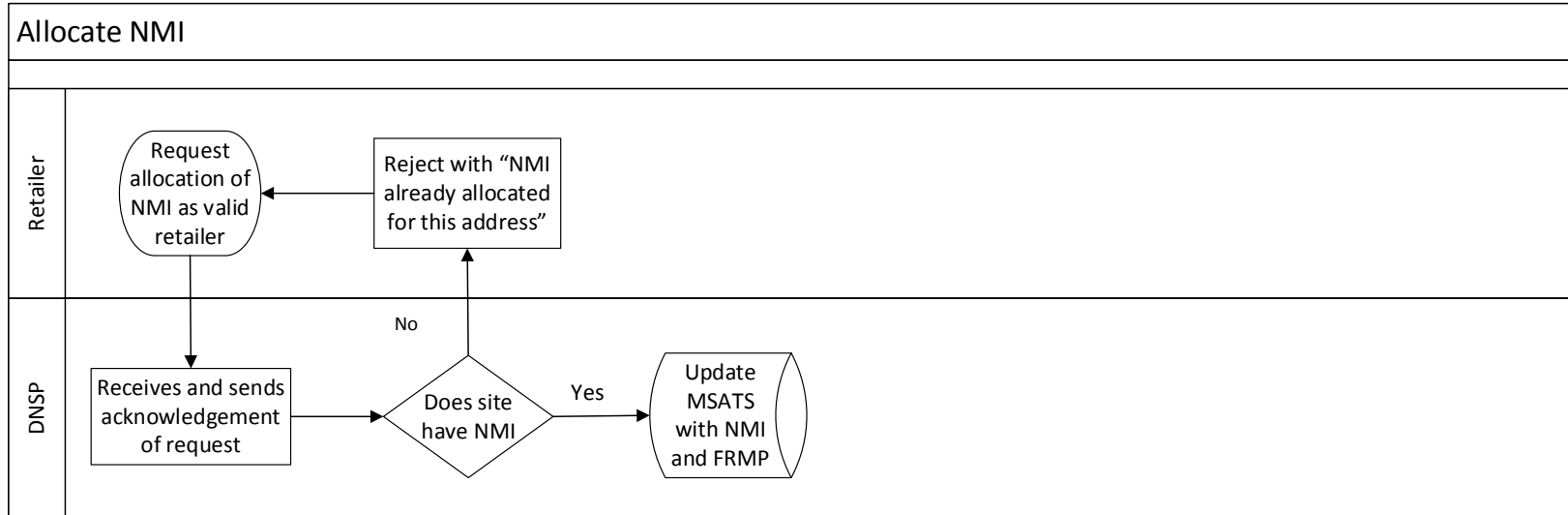
EXCEPTION CODES (CONT.)

The following table sets out the exception codes that WA does not use.

VALUE	DEFINITION	USED WITH SERVICEORDERSTATUS
Tariff Change Not Approved	Request for a tariff change is not approved.	Not Completed
Metering not compatible with proposed Tariff Change	The Recipient is not able to complete the request due to the meter not being compatible proposed tariff.	Not Completed.
Inadequate Infrastructure	Where significant work is required to provide supply work to the customer and no customer contact has been made to the Distributor.	Not Completed
No Comms	Recipient unable to contact a remotely controlled device.	Service Order Requests with the status of 'Not Completed'.
Unknown Connection Status	Recipient unable to determine connection status of a remotely controlled device.	Service Order Requests with the status of 'Not Completed'.
Meter Not Retrieved	Used in conjunction with a response to a Service Order Abolishment by a DNSP.	Limited to a Service Order Abolishment with the status of Partially Completed to indicate Supply was abolished, but the meter was unable to be recovered.
Site Already Energised	Customer Site is energised at the time of the Service Order Request.	Not Completed
Shared Supply Point	Unable to perform the requested work because the disconnection point is common with other customers.	Not Completed

Assumption: The above NEM exception codes will be available for use in WA.

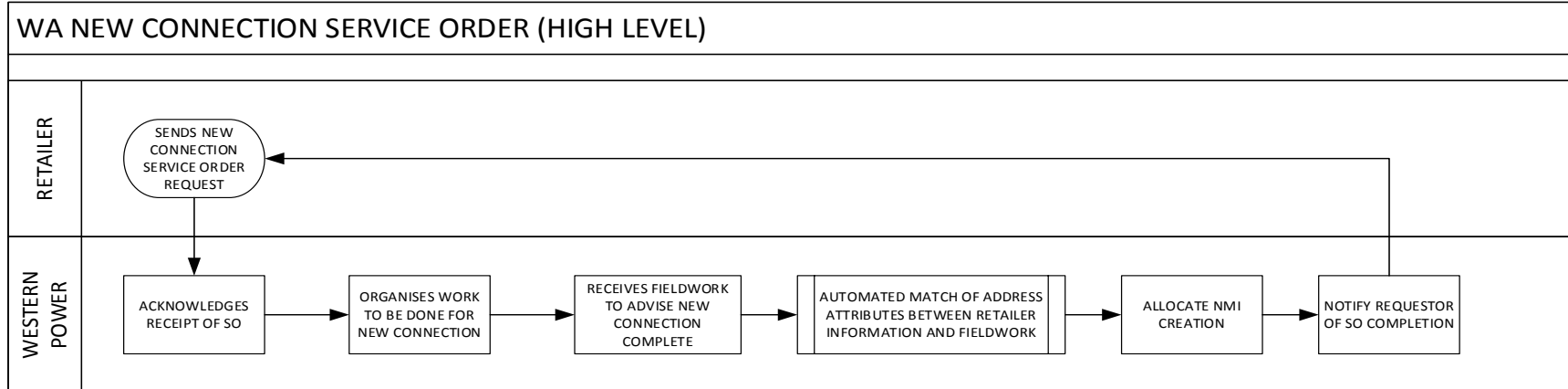
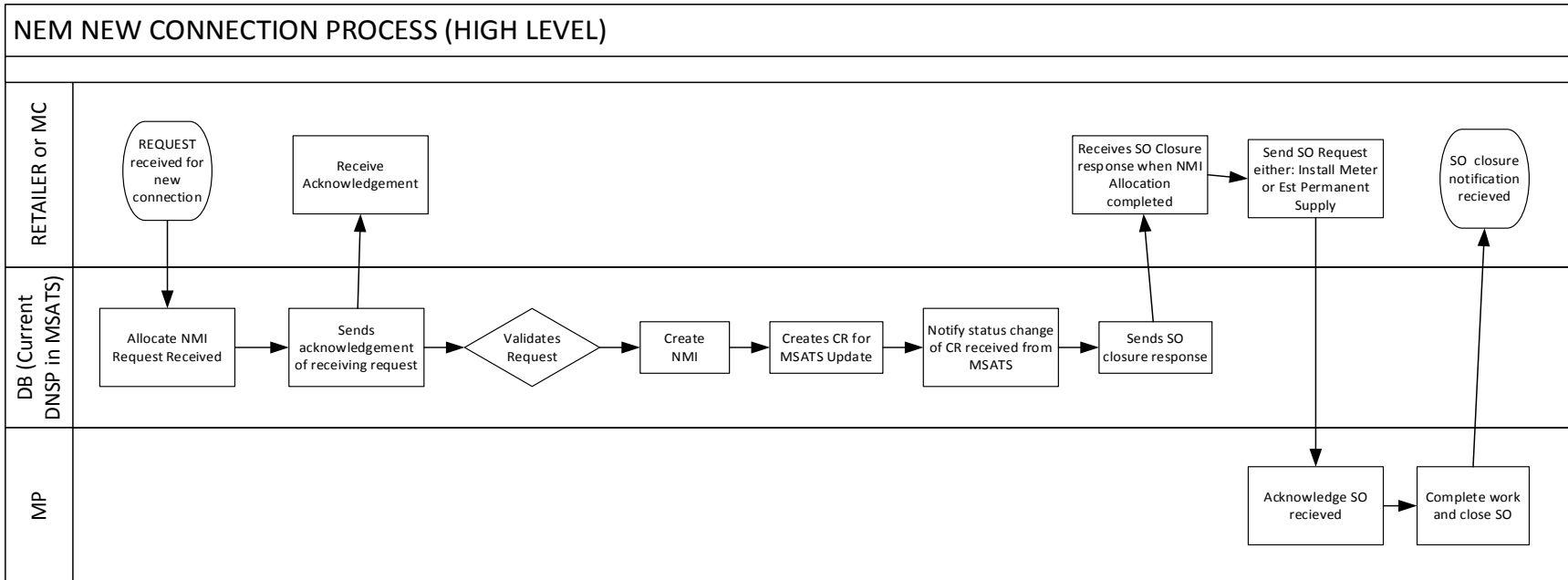
ALLOCATE NMI



In jurisdictions where paperwork is required, a Retailer and/or DNSP must ensure that it is available and completed. This is required to progress and complete the Allocate NMI Service Request. The ServiceOrderRequest does not replace the need for paperwork.

Assumption: If Paperwork is required for WA this will also apply, current WA Procedure under Allocate NMI advises ‘ Participants should refer to relevant provisions in their Service Level Agreement with the Network Operator.

NEW CONNECTION / ALLOCATE NMI PROCESS



Assumption: WA will align to the NEM approach.

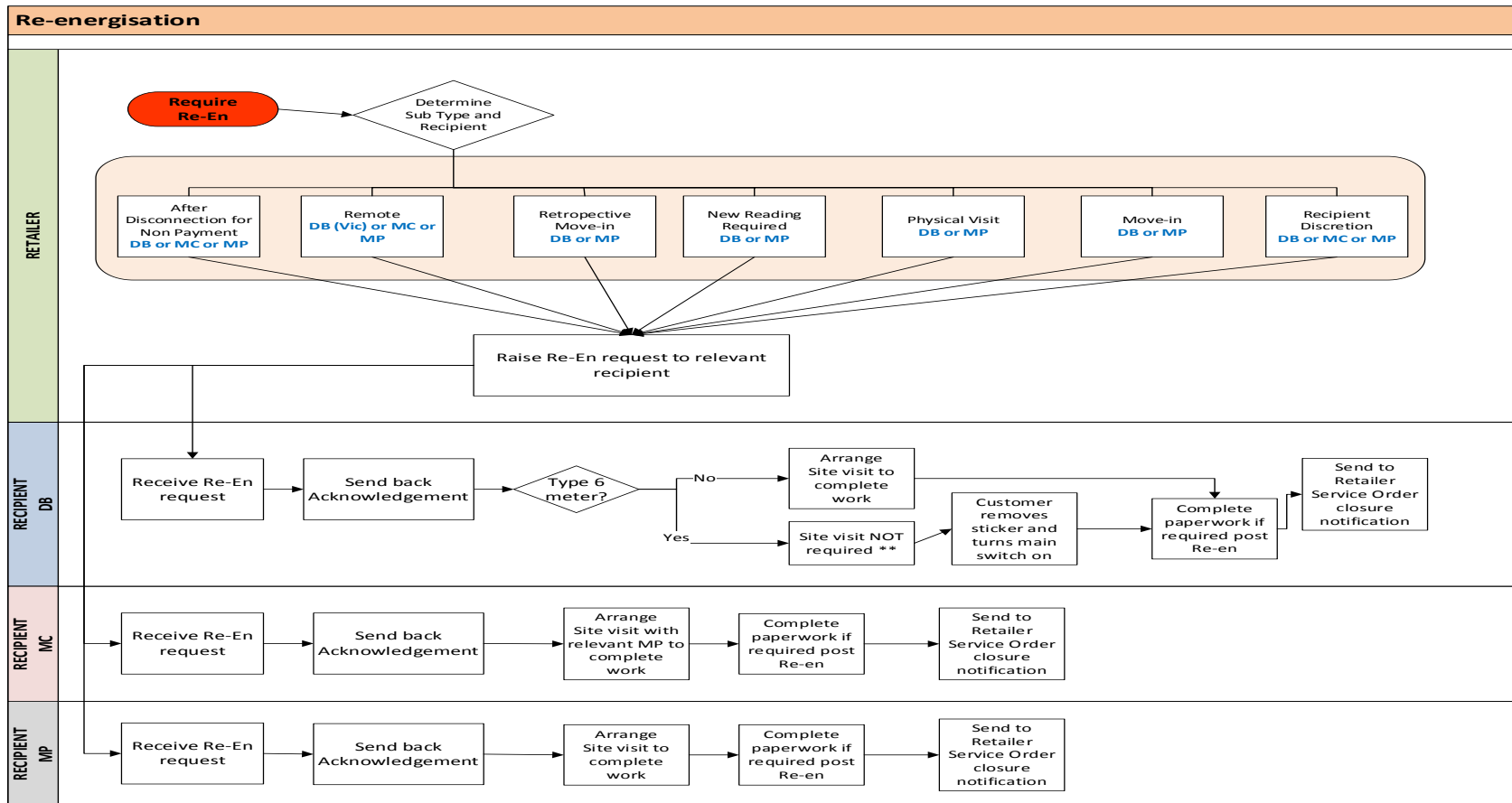
NEM Re-energisation Service Order Type includes Service Order Sub Types:

- After disconnection for non-payment.
- Remote.
- Retrospective move-in.
- New reading required.
- Physical visit.
- Move-in.
- Recipient discretion.

Analysis shows that the WEM only utilise ‘After disconnection for non-payment’.

Assumption: WA to adopt the NEM Re-energisation Service Order Sub Types.

HIGH LEVEL RE-ENERGISATION PROCESS



NEM notice period and timing requirements for Re-Energisation service orders can vary jurisdictionally

Analysis: WA follows similar process to the NEM shown above for RB to DB however doesn't consider multiple recipients.

SERVICE TIME OBLIGATIONS FOR RE-EN SERVICE ORDERS



In the NEM a Retailer is required to:

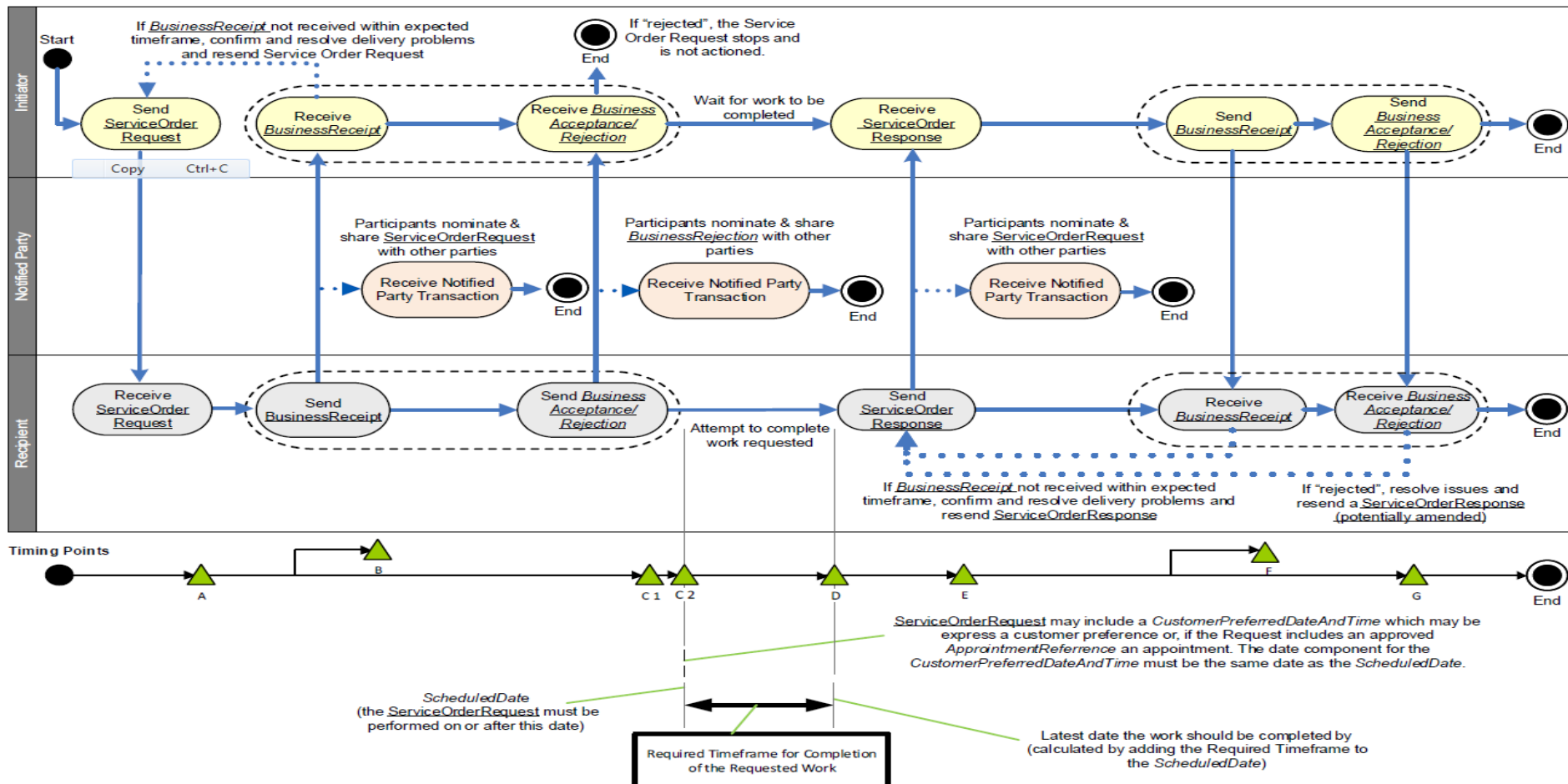
- Specify Service Time as ‘Non-Business Hours’.
- Ensure the information in the Special Instructions field provides the detail and reason for the “Non-Business Hours” request.
- Accept charges related to raising a ‘Non-Business Hours’ request.
- If the Retailer does not wish to pay an after-hours fee a Service Time of “Business Hours” should be used. This indicates that the Retailer accepts a delay in service completion (within the bounds of agreed service levels) in preference to undertaking the work after-hours.
- The Timing Requirements do not take precedence over Jurisdictional requirements and any contract service levels agreed between Participants.

Analysis highlighted that:

- WA automatically converts any ‘Non-Business Hours’ Service Time values to ‘Business Hours’.
- After hours Re-En is only available in WA via a consultation process.

Assumption: WA adopts the NEM process, to specify a service time of “ Non business Hours” or “Business Hours”.

NEM TIMING REQUIREMENTS FOR REQUESTING SERVICE ORDERS



Identified variances:

1. WEM accepts a retrospective scheduled date and time whereas NEM rejects.
2. Notified Party currently not used in WEM.
3. Specific Service Request Notice Period guidelines are not provided in WA B2B Procedure.

NEM RE-ENERGISATION REQUEST NOTICE PERIOD



A Re-energisation request must be received within the following timeframes:

SO TYPE	BUSINESS DAY TIME FRAME	ACT	NSW	QLD	SA	VIC	TAS
RE-EN	Same day	2:00pm	Not Available	1:00pm	3:00pm	Not Available	3:00pm
RE-EN (disconnection for non payment)	Same day	Not Available	Not Available	Not Available	5:00pm	3:00pm	Not Available
RE-EN - After hours	Same day	9:00pm	Not Available	Not Available	3:00pm to 9:00pm	Not Available	Not Available
RE-EN – After hours (disconnection for non -payment)	Same day	9:00pm	Not Available	Not Available	5:00pm to 9:00pm	3:00pm to 9:00pm	Not Available
RE-EN	Next day	3:00pm	3:00pm	5:00pm	10:00pm	3:00pm	3:00pm

Analysis: WEM - WA B2B Procedure does not have specific timeframes regarding the Network Operator Service Level Agreement

Assumption: Timeframes can be updated to the Procedure to include WA timeframes.

DE-ENERGISATION AND SPECIAL READ REQUEST NOTICE PERIOD



A De-energisation and Special Read requests must be received within the following timeframes:

SO TYPE	ACT	NSW	QLD	SA	VIC	TAS
DE-EN	5.00pm	No Notice Period	No Notice Period	3:00pm, 2 business days	3:00pm, 2 business days	3:00pm 1 business day
SPECIAL READ	No Notice Period	No Notice Period	No Notice Period	3:00pm, 3 business days	No Notice Period	3:00pm 1 business day

NEM timings for Re-energisation, De-energisation and Special Reads vary by jurisdiction - any request received outside of the specified time frame will be rejected. Other Service Order types do not have notice periods.

Analysis: WEM - WA B2B Procedure does not have specific timeframes regarding the Network Operator SLA.

Assumption: Timeframes can be updated to the B2B Procedure to include WA timeframes.

NEM TIMING PERIOD FOR COMPLETION OF REQUESTED WORK



Once the completed Service Order paperwork has been received by the DNSP it must use reasonable endeavours to complete a service order request within the applicable timeframe.

This:

- Applies to regulated businesses.
- Does not apply to NMIs with a NMI Classification code in MSATS of 'LARGE'. (>160MWh VIC/SA/ACT/SA, >100MWh QLD, >150MWh Tas)
- Refers to business days only.
- Refers to jurisdictional differences.

Analysis: WA B2B Procedure does not refer to specific timeframes making reference to Network Operator SLA.

Assumption: Timeframes can be updated to the B2B Procedure to include WA timeframes

SERVICE ORDER TRANSACTION DATA



The table below compares WA and NEM Service Order Transaction Data requirements.

DATA FIELD	NEM OR WEM	ALLOCATE NMI	ESTABLISH TEMP/TP/P (NC)	SUPPLY ALTERATION (A&A)	TEMPORARY ISOLATION - ALL	SUPPLY ABOLISHMENT	TARIFF CHANGE (MR)	RE-ENERGISATION	DE-ENERGISATION	SPECIAL READ	INSTALL METER (NC)	MOVE METER	EXCHANGE METER (A&A)	REMOVE METER (A&A)	INSTALL CONTROLLED LOAD	METER RECONFIGURATION	INVESTIGATION - ALL AND RESEAL DEVICE	MISCELLANEOUS
ServiceOrder SubType	NEM	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
	WEM	N	R/N	R/N	**	N	R/N	R/N	R/N	R/N	R/N	**	R/N	R/N	**	R/N	R/N	N
NMI Checksum	NEM	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	WEM	N	M	M	**	M	M	M	M	M	M	**	M	M	**	M	M	M
MeterSerial Number	NEM	N	N	N	N	N	M/N	N	N	N	N	M/N	M/N	M/N	R/N	M/N	M/N	R/N
	WEM	N	N	R/N	**	N	R/N	N	N	N	N	**	R/N	R/N	**	R/N	R/N	R/N

Key

- M = Mandatory (must be provided in all situations).
- R = Required (must be provided if this information is available or has changed).
- O = Optional (may be provided and should be used by the Recipient if provided).
- N = Not required (not required and may be ignored by the Recipient if provided).

** = SO Not found in WA

SERVICE ORDER TRANSACTION DATA (CONT.)



DATA FIELD	NEM OR WEM	ALLOCATE NMI	ESTABLISH TEMP/TP/P (NC)	SUPPLY ALTERATION (A&A)	TEMPORARY ISOLATION - ALL	SUPPLY ABOLISHMENT	TARIFF CHANGE (MR)	RE-ENERGISATION	DE-ENERGISATION	SPECIAL READ	INSTALL METER (NC)	MOVE METER	EXCHANGE METER (A&A)	REMOVE METER (A&A)	INSTALL CONTROLLED LOAD	METER RECONFIGURATION	INVESTIGATION - ALL AND RESEAL DEVICE	MISCELLANEOUS	
Customer Type	NEM	M/N	M/N	M/N	N	N	N	N	N	N	R/N	N	N	N	N	N	N	N	O
	WEM	M/N	M/N	R/N	-	N	N	N	N	N	M/N	-	R/N	R/N	-	N	N	N	O
Average DailyLoad	NEM	M/N	M/N	M/N	N	N	N	N	N	N	M/N	N	N	N	N	N	N	N	O
	WEM	M/N	M/N	R/N	-	N	N	N	N	N	M/N	--	R/N	R/N	-	N	N	N	O
Installation Type	NEM	R/N	M/N	M/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	O
	WEM	N	M/N	R/N	-	N	N	N	N	N	M/N	-	R/N	R/N	-	N	N	N	O
Proposed Tariff	NEM	N	N	N	N	N	M/N	N	N	N	M/N	N	M/N	N	N	R/N	N	N	O/N
	WEM	N	O/N	O/N	-	N	O/N	N	N	N	O/N	-	O/N	O/N	-	O/N	N	N	O/N

Assumption: WA adopts the NEM Service Order Transaction Data rules. SLIDE 92

TRANSACTION DATA VARIANCE



The table below compares the NEM and WEM Transaction Data fields.

FIELD	NEM REQUIREMENT	WEM VARIANCE
ServiceOrderID	M	Field Name = RetServiceOrder
InitiatorID	M	Field Name = RetailerID
RecipientID	M	Field Name = ServiceProviderID
LifeSupport	M	Included in Sensitive Load exception code (not a standalone SO field)
CoordinatingContactName	M/N	Field Name = ContactName
CoordinatingContactTelephoneNumber	M/N	Field Name = ContactTelephoneNumber
OffPeakRequirement	R/N	Mandatory for a New Connection in WA
Switching Service Required	Varchar40 (free text)	YES/NO option used in WA

Assumption: WA adopts the NEM Transaction Data field formats.

NEM TRANSACTION DATA NOT USED IN WEM



The table identifies the NEM Transaction Data fields that the WEM does not use

FIELD	REQUIREMENT	WEM VARIANCE
NotifiedPartyID	O/N	Not used
De-EnergisationReason	N	Not used
MeteringSafetyCertificateID	R/N	Not used
MeteringSafetyCertificateMethodSent	R/N	Not used
ServiceOrderCoordinationRequired	M/N	Not used
RP	M/N	Not used (mandatory for NMI allocation)
MDP	M/N	Not used (mandatory for NMI allocation)
MPB	M/N	Not used (mandatory for NMI allocation)
MPC	M/N	Not used (mandatory for NMI allocation)

Assumption: WA adopts the NEM Transaction Data field formats.

SERVICE ORDER REJECTION EVENT CODES



The following NEM Events and corresponding Event Codes are used for rejected Service Order Requests:

BUSINESS DOCUMENT	BUSINESS SIGNAL	BUSINESS EVENT	EVENTCODE
<u>ServiceOrderRequest</u>	<u>BusinessAcceptance/Rejection</u>	Unable to perform the work due to unacceptable notice period provided, alternative time provided in Explanation	2002
		Unable to perform Service Order due to communications disabled.	2004
		Unable to perform Service Order as communications does not exist.	2005
		Service Not Provided	2006
		No Contract for service	2007
		No Comms	2009
		Unknown Connection Status	2010
		Meter Not Retrieved	2011
		Site Already Energised	2012
		Shared Supply Point	2013
		Tariff Change Not Approved	2014
All	All	Recipient did not initiate Request	206
		Recipient is not responsible for the supplied NMI	1923

Assumption: WA will adopt the NEM Transaction Data field formats.

CUSTOMER SITE DETAILS NOTIFICATION



- Specifies the standard process and data requirements for the communication, updates and reconciliation of Customer and, Site and Pre-Installation details.
- Has effect only for the purposes set out in the NER and NERR. All other national and jurisdictional regulatory instruments and codes prevail over this Procedure to the extent of any inconsistency.
- All times (related to the conduct of the work) refer to the local time for the Site (where the work requested is to be carried out).

- Customer Site and Details Notification Process B2B Procedure documents for the:
 - NEM:
 - Final Procedures effective 1 December 2017. Version 3.
 - <http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Power-of-Choice-B2B-consultation-2>
 - WEM:
 - [Western Power Build Packs](#)
 - [WA B2B Procedures: customer and site details process](#)
 - <https://www.westernpower.com.au/media/1931/wa-b2b-procedures-customer-and-site-details-process.pdf>

WA Procedure last updated in 2008, based on the NEM Version 1.4 (published 30 June 2007).

- NEM:
 - The B2B Procedure: Customer and Site Details Notification Process (Procedure) is *published* by AEMO in accordance with clause 7.17.3 of the NER.
- WEM:
 - The B2B Procedure: Customer and Site Details Notification Process (Procedure) comes into operation in accordance with the WA Electricity Industry Customer Transfer Code 2004 and the WA Electricity Industry Metering Code 2005 ("Rules").

CUSTOMER DETAIL TRANSACTION TYPE



TRANSACTION TYPE	PURPOSE	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Customer Details Request	Request from a DNSP or a MP to a Retailer to supply the customer & life-support details	Yes	DB or MP or [MC]	RB	X	Reconciliation Process and Life Support Process. NEM has additional Reason codes. Recipient and Initiators
Customer Details Notification	Customer and Life support details issued to DNSP or MP after update or on request	Yes	RB	DB or MP or [MC]	X	Reconciliation Process and Life Support Process. NEM captures email address. WA has 'move in' as Movement Type and still captures Rebate Code/Pension/Health Card Number
Site Access Request	Request from a Retailer to obtain a copy of the Site access and hazard information	No	RB or MP or DB or [MC]	RB or MP or DB or [MC]	X	WA does not appear to have a Site Access Request

* WA Transactions are currently between DB and RB only.

TRANSACTION TYPE

TRANSACTION TYPE	PURPOSE	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES	VARIANCE BETWEEN NEM AND WA
Site Access Notification	Publication of Site access and hazard information. Typically this is from a Retailer to a DNSP or MP wherever the data changes, but can also be from a DB or MP to a Retailer based on receiving a site access request	Yes	RB or MP or DB or [MC]	RB or MP or DB or [MC]	X	Hazard Description Codes. NEM has additional. Recipient & Initiator variances
Site Address Notification	Request from a retailer to DNSP to update its address records	Yes	N/A	N/A	N/A	This transaction is not used in the NEM, was removed in 2013. The basis was due to the significant effort and rejections for the transaction by the DNSP with limited value for the DNSP in receiving this information from the retailer. DNSP is responsible for site address.

* WA Transactions are currently between DB and RB only.

Summary of Variances between NEM and WEM:

- WA transaction between RB to DB only.
- Differences between Sensitive Load Reconciliation Process and CDN allowed values.
- WA still captures Rebate Code/PensionHealthCardNumbers, although usage suggests “N” Not required.
- NEM captures Email Address.
- WEM still uses SiteAddress Notification.
- NEM includes SiteAccessRequest Transaction.
- Variances in some timing obligations.
- NEM includes additional Hazard Descriptions.
- Variances in use of Business Events.

CUSTOMER DETAIL NOTIFICATION VARIANCES



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
<p>Recipient of Notification Transaction</p> <p>NEM considers additional recipients whereas WEM only considers DB</p>	<p>Recipient = DB and can also include MP/MC</p>	<p>Recipient = DB</p>	<p>Until Meter Competition is introduced, WP will maintain the role/s of DB/MP/MC. Retailers will continue to send notification to WP as the DB</p>
<p>Notification Transaction Field: Business Contact Name</p> <p>Difference between use of "Business Contact Name"</p> <p>Is Required in the NEM where business name is provided whereas it is optional in the WEM</p>	<p>Format: Person Name Key to Usage: "R" Required where Business Name is Provided</p> <p>Must be the name of the person who is the contact for the management of outages and supply issues for each <i>connection point</i>.</p>	<p>Format: Person Name Key to Usage: "O" Optional Field</p> <p>Where there are several contact types for a business (billing contact, outage contact), the Retailer must use reasonable endeavours to transmit the appropriate contact for the purpose of contacting the customer for supply related issues. Only one <i>BusinessContactName</i> must be supplied.</p>	<p>National Consistency Recommend Key to Usage for WA to change to "R" Required where Business Name is provided</p>
<p>Notification Transaction Field: Email Address</p> <p>NEM includes Email Address whereas WEM does not.</p>	<p>Field: EmailAddress Format: VARCHAR(100) Key to Usage: Optional Field</p>	<p>Does not include Email Address</p>	<p>National consistency Recommend WEM introduce this 'optional' field.</p>
<p>Notification Transaction Field: Movement Type</p> <p>WA includes Movement Type of Move In, NEM does not (was removed years before, other categories e.g move out/transfer etc not captured – update is used and Transfer/Service Order is the record)</p>	<p>Field: Movement Type Format: VARCHAR(20) Use: M (Mandatory)</p> <ul style="list-style-type: none"> • Site Vacant • Update • Reconciliation 	<p>Field: Movement Type Format: VARCHAR(20) Use: M (Mandatory)</p> <ul style="list-style-type: none"> • Site Vacant • Move In • Update • Reconciliation 	<p>National consistency Recommend WEM align to NEM</p>
<p>Notification Transaction Special Notes</p> <p>Special Notes are Mandatory if Reason is Data Quality issue for the NEM whereas WEM is not mandatory or include this other reason</p>	<p>Definitions: If any additional information the Recipient wishes to convey to the Initiator. Mandatory if Reason is "Other" or "Data Quality Issue".</p>	<p>Does not require mandatory notes for Reason 'Data Quality Issue'</p>	<p>National consistency. Recommend WEM align to the NEM</p>

CUSTOMER DETAIL NOTIFICATION VARIANCES



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
<p>Notification Field: Rebate Code</p> <p>NEM no longer captures this information. Not required for Networks to manage outage notifications. Retailers are responsible for obtaining/maintaining.</p> <p>WEM is still capturing this, although Usage in Procedure advises 'N' – Not Required</p>	<p>This field is no longer captured in the NEM, removed approx. 2013/14. Information captured by RB</p>	<p>Format: VARCHAR(20)</p> <p>Allowed Values</p> <ul style="list-style-type: none"> • Pension Card • Health Care Card • Health Benefit Card • Veteran Affairs Card <p>Not Required where the site is vacant</p>	<p>National Consistency. Recommend WA align to the NEM, WA by adopting the latest NEM schema version will not be required to exchange this field</p> <p>Is WEM using this? Procedures advise Usage - "N" – Not required</p>
<p>Notification Field: PensionHealthCardNumber</p> <p>Refer to comments above under Rebate Code</p>	<p>Refer to above comments</p>	<p>Format: VARCHAR(10)</p>	<p>Refer to above comments</p>
<p>Notification Field: FromDate</p> <p>Effective Date at which card is valid</p> <p>Refer to comments above under Rebate Code</p>	<p>Refer to above comments</p>	<p>Format: DATE</p>	<p>Refer to above comments</p>
<p>Notification Field: ToDate</p> <p>Refer to comments above under Rebate Code</p>	<p>Refer to above comments</p>	<p>Format: DATE</p> <p>Date at which card expires</p>	<p>Refer to above comments</p>

CUSTOMER DETAIL REQUEST VARIANCES



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
<p>Initiator of Request Notification</p> <p>NEM considers additional recipients whereas WEM only considers DB</p>	<p>Initiator = DB or MP or [MC]</p>	<p>Initiator = DB</p>	<p>Until Meter Competition is introduced, WP will maintain the role/s of DB/MP/MC. Retailers will continue to send notification to WP as the DB</p>
<p>Request Notification Reason Field Allowed Values</p> <p>NEM has additional Values which were introduced as part of enhancements in 2013.</p>	<p>Additional Allowed Values:</p> <ul style="list-style-type: none"> • No response to rejected CDN • Transfer Complete, no CDN Received • New Connection, no CDN Received • Data Quality Issue • Rec – Confirm no Sensitive Load (Reconciliation only) 	<p>Does not include these Allowed Values</p>	<p>National Consistency</p> <p>Adoption of a national Sensitive Load Reconciliation Process is recommended, would require WEM to adopt the NEM values.</p>

SITE ACCESS REQUEST & NOTIFICATION VARIANCES



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
WA does not include Site Access Request Notification Transaction.	Initiator = RB or MP or DB or [MC]	Initiator = RB	National Consistency Recommend WA align to the NEM. Refer to next slide for details of Transaction
Recipient of Site Access Notification NEM considers additional recipients whereas WEM only considers DB	Recipient = DB & MP or RB or [MC]	Recipient = DB	Until Meter Competition is introduced it is assumed WP will be the DB, MP and MC therefore they will not initiate transactions to themselves as another role (e.g. DB to MP) Retailers will continue to send notification to WP as the DB
Site Access Notification Transaction Field: Hazard Description NEM has additional standard values with the WEM does not	Additional Standard Values for Hazard Description: Electrical Safety Issue Asbestos Fuse Asbestos Board	WA does not include these additional standard values for Hazard Description	National Consistency. Recommend WA align to the NEM, WA by adopting the latest NEM schema version will include these additional standard values

SITE ACCESS REQUEST



Request from a Retailer to obtain a copy of the Site access and hazard information

Data Requirements for SiteAccessRequest

FIELD	FORMAT	USE	DEFINITION
<i>NMI</i>	CHAR(10)	M	NMI
NMIChecksum	CHAR(1)	O	NMI Checksum
Reason	VARCHAR(40)	M	The Initiator should provide a Reason for the request in this field, Allowed Values: <ul style="list-style-type: none">- New Retailer for site- Records old and need to be updated- No Access details on file for NMI- No Hazard Details on file for NMI- Site Visit Required- Other
SpecialNotes	VARCHAR(240)	O/M	Any additional information the Initiator wishes to convey to the Recipient. Mandatory if Reason is "Other".

TIMING REQUIREMENT COMPARISON



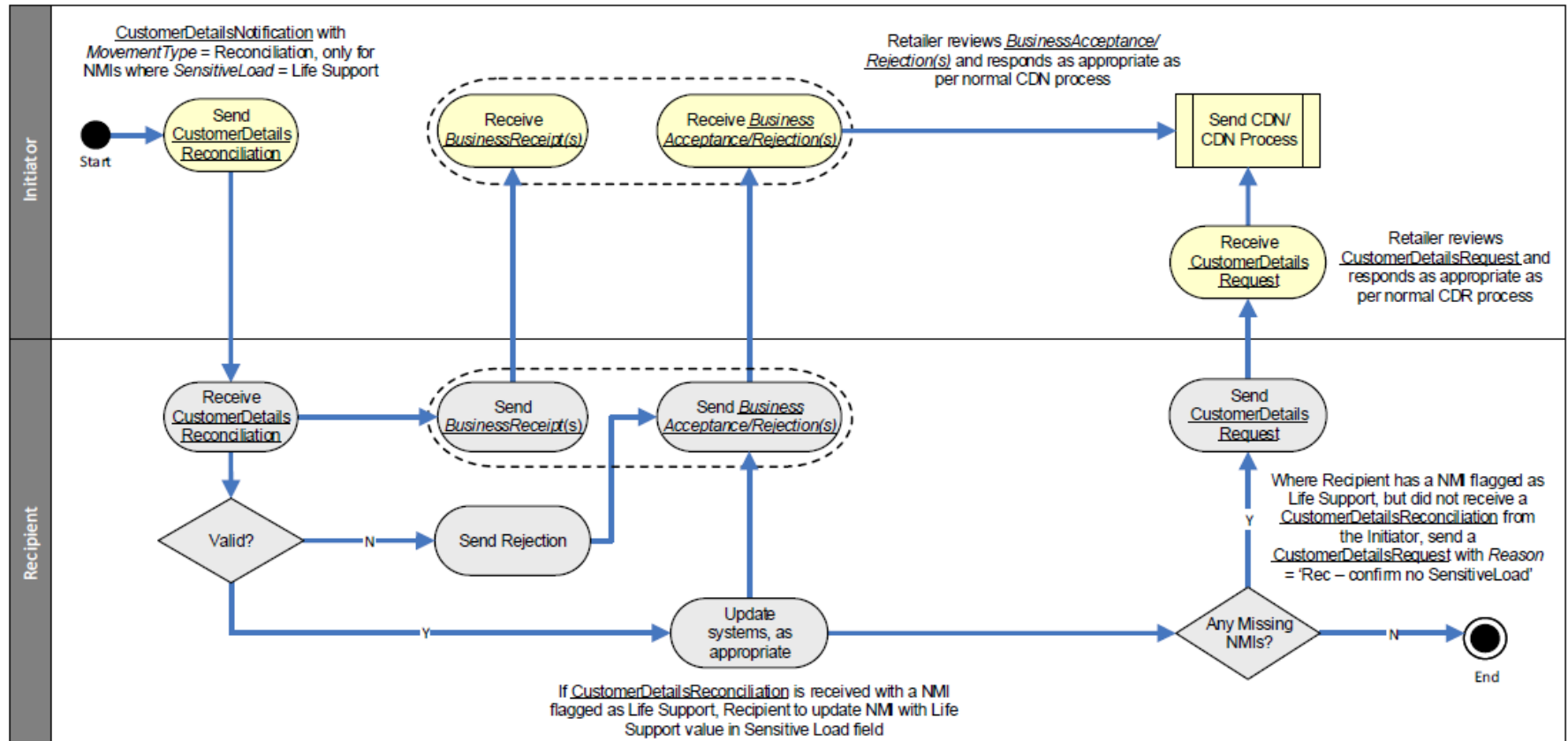
TRANSACTION TYPE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	VARIANCE BETWEEN NEM AND WA
Customer Details Request	<p>In absence of a CDN and following a receipt of the completion of the CATS Change Retailer Transaction and or following notification of an energised NMI may send after fifth business day</p> <p>If parties wish to obtain mass updates of information, parties must reach agreement to use this transaction.</p>	<p>The DNSP must not send before the Close of Business of the business day following the completion of the Transfer of the Connection Point</p> <p>The DNSP must not use this transaction to obtain mass updates of information. If a mass update of information is required, the Reconciliation Process must be used.</p>	<p>NEM = > 5 bus day WA = > 1 bus day</p> <p>Recommend WA align to the NEM (caters for CATS completion transactions)</p>
Customer Details Notification	<ul style="list-style-type: none"> • Timing Requirements can be agreed between the initiator and recipient • Retailer to provide within 2 business days of Receiving a CDR • In absence of CDR, within 1 bus day of the relevant data being updated or changed • A Retailer must send a CDN: <ul style="list-style-type: none"> ➢ following completion of the CATS change retailer process ➢ For a new connection, once site has been energised 	<ul style="list-style-type: none"> • Retailer to provide within 2 business days of receiving the CDR • In all other situations, must be provided within 1 bus day of the relevant data being updated or changed 	<p>NEM timing explanations are more specific following completion of a CATS change retailer process and new connection.</p> <p>Recommend WEM align to the NEM</p>
Rejections outlined in the B2B Technical Delivery Specification	<p>The Initiator must investigate and provide an updated notification where necessary within 5 business days upon receiving a rejection of a notification transaction.</p>		<p>NEM timing explanations are more specific following completion of a CATS change retailer process and new connection.</p> <p>Recommend WEM align to the NEM</p>

TIMING REQUIREMENT COMPARISON



TRANSACTION TYPE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	VARIANCE BETWEEN NEM AND WA
Site Access Request	<ul style="list-style-type: none"> Any authorised party entitled to the information can generate a SiteAccessRequest to another related party for the <i>NMI</i> An Initiator must only send a maximum of one SiteAccessRequest per <i>NMI</i> per day The Recipient must provide a SiteAccessNotification in response to a valid SiteAccessRequest If parties wish to obtain mass updates of information, parties must reach agreement to use this transaction 	WA does not appear to include a Site Access Request Transaction	WA does not appear to have a Site Access Request
Site Access Notification	<ul style="list-style-type: none"> Can be agreed between the initiator and recipient The Current Retailer must send the SiteAccessNotification to the Recipient(s) whenever they become aware of Site Access Changes Parties that are not the Retailer should only send a SiteAccessNotification on receipt of a valid SiteAccessRequest The Recipient must provide a SiteAccessNotification in response to a valid SiteAccessRequest. 	Not specific in Procedures	NEM timing explanations are more specific in Procedures. Recommend WEM align to the NEM
Site Address Notification	Transaction decommissioned in 2013 in the NEM. Not used	Business Acceptance/Rejection to the retailer within 15 business days of receiving a SAD	Transaction decommissioned in 2013 in the NEM. Not used

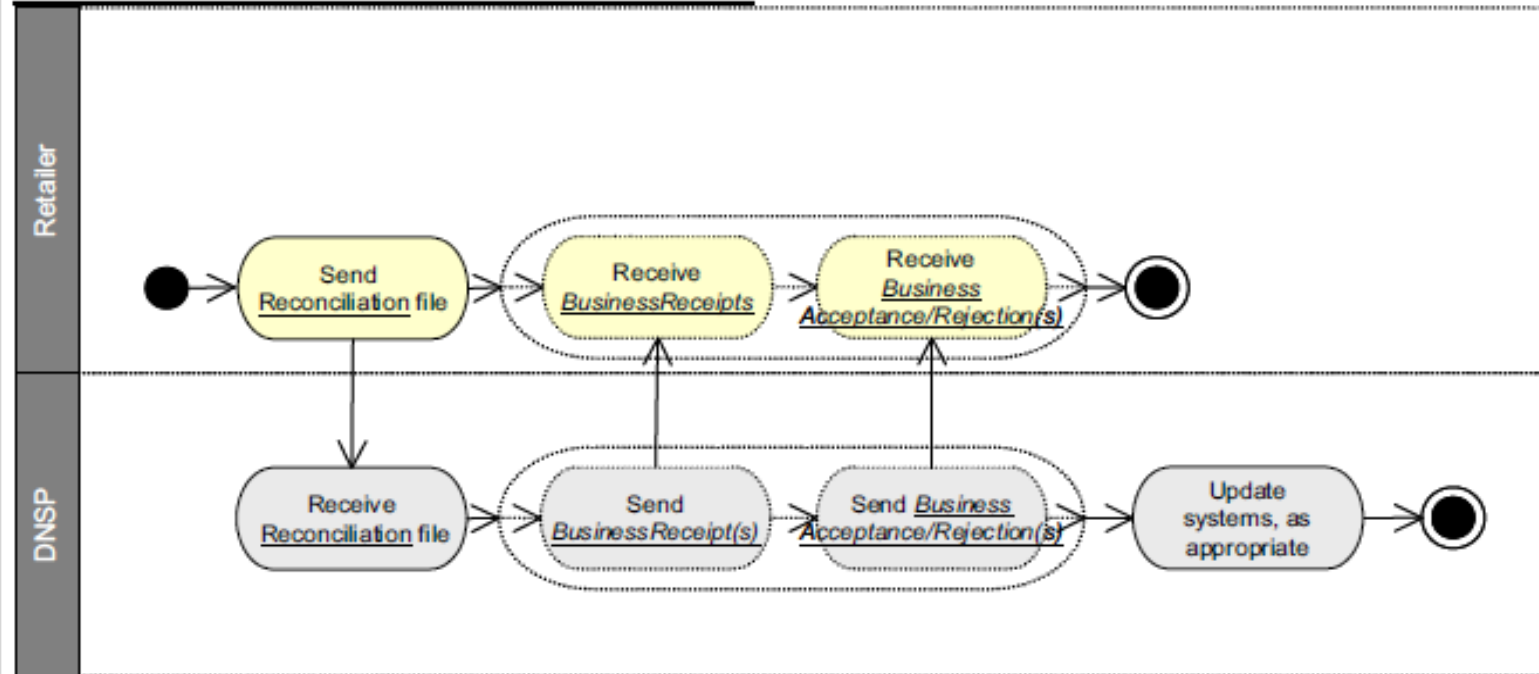
NEM OVERVIEW OF CUSTOMER DETAILS RECONCILIATION PROCESS



Updates were made to the NEM Reconciliation Process/Procedures in May 2014 as part of a comprehensive Industry review

WA CUSTOMER DETAILS RECONCILIATION PROCESS

Customer Details Reconciliation Process



Note: Use if BusinessReceipts is to be agreed between the Participants.

Figure 4: Overview of Customer Details Reconciliation process

OBLIGATION VARIANCES - CUSTOMER DETAILS RECONCILIATION PROCESS



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
NEM obligation requires Retailers and DNSP's to conduct a reconciliation at least four times a year whereas WEM obligations are not as specific.	<p>Current Retailers can agree with any party to conduct regular reconciliations and can adopt the following processes described in the clauses below.</p> <p>Current Retailers and DNSPs must conduct a reconciliation of Customer Details for NMLs with Life Support customers at least four times per year.</p> <p>Where agreed between Participants, the Customer Details Reconciliation Process may be conducted more frequently.</p>	<p>Participants can agree to conduct a reconciliation of Customer Details on a regular or as required basis.</p> <p>The Timing Requirements for the use of the CustomerDetailsReconciliation transaction and its Business Signals will be as agreed between the Participants using the Transaction.</p>	NEM timing explanations are more specific in Procedures. Recommend WEM align to the NEM.
Slight variance with wording of obligation between NEM and WEM with respect to what the Retailer must do when conducting the Reconciliation.	<p>The Current Retailer must conduct the Customer Details Reconciliation with the DNSP.</p> <p>The CustomerDetailsReconciliation must use the CustomerDetailsNotification with <i>MovementType</i> of 'Reconciliation'.</p>	<p>The Reconciliation Process must use the CustomerDetailsNotification transaction with <i>MovementType</i> equals "Reconciliation".</p> <p>This form of the CustomerDetailsNotification transaction is called the CustomerDetailsReconciliation Transaction.</p>	NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM
NEM Procedure has additional description for Notes in CDR, whereas WEM does not.	<p>Notes Regarding Allowed Value In Customer Details Request</p> <p>For Reason – Rec confirm no SensitiveLoad"</p> <p>Means the DNSP/ has a NMI is flagged for Life Support, but it was not included in the CustomerDetailsReconciliation transaction(s) provided by the Retailer.</p>	Does not include additional description for Notes	NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM

OBLIGATION VARIANCES - CUSTOMER DETAILS RECONCILIATION PROCESS



VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
<p>Variance with the use of BusinessAcceptance/Rejections between the NEM and the WEM.</p> <p>NEM advises will be a subset to that used for the Customer Details Notification whereas WEM advises will be identical.</p>	<p>The use of <i>BusinessAcceptance/Rejections</i> for the CustomerDetailsReconciliation will be a subset to that used for the CustomerDetailsNotification.</p> <p>The DNSP can only reject for reasons as specified in Table 12. If the DNSP finds an issue with the customer data other than the Life Support flag provided in the CustomerDetailsReconciliation, the DNSP must use the CustomerDetailsRequest process in this Procedure</p>	<p>The use of <i>BusinessAcceptance/Rejections</i> for the CustomerDetailsReconciliation will be identical to that used for the CustomerDetailsNotification.</p>	<p>NEM subset are more specific in Procedures. Recommend WEM align to the NEM</p> <p>Refer to relevant slides outlining Variances in Event Codes</p>
<p>NEM has additional obligations, specific to:</p> <p>The Retailer and DNSP must agree the timing.</p> <p>Outlining where the DNSP must accept sites that are not flagged as having LF as having LS if the Retailer sends with the LS flag in the Reconciliation Transaction.</p>	<p>The Retailer and DNSP must agree the timing of the Customer Details Reconciliation. Some considerations for this agreement are listed in the B2B Guide.</p> <p>For NMIs provided by the Current Retailer in the CustomerDetailsReconciliation transaction(s) that are not flagged by the DNSP, or other party as having Life Support, the DNSP or other party must accept the transaction(s) and update its records accordingly with Life Support.</p>	<p>Does not consider these additional obligations</p>	<p>NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM</p>
<p>NEM has additional obligations specific to:</p> <p>Obligations on the DNSP to send a CDR with Reason value 'Rec – confirm no Sensitive Load' within 2 business days of receiving the last CD Reconciliation Transaction where the DNSP has a NMI flagged as LS in their system.</p>	<p>For NMIs in the DNSP's system flagged with Life Support, but not provided by the Retailer in the Customer Details Reconciliation, the DNSP must send a CustomerDetailsRequest using the Reason value 'Rec – confirm no Sensitive Load' within 2 business days of receiving the last CustomerDetailsReconciliation transaction.</p>	<p>Does not consider these additional obligations</p>	<p>NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM</p>

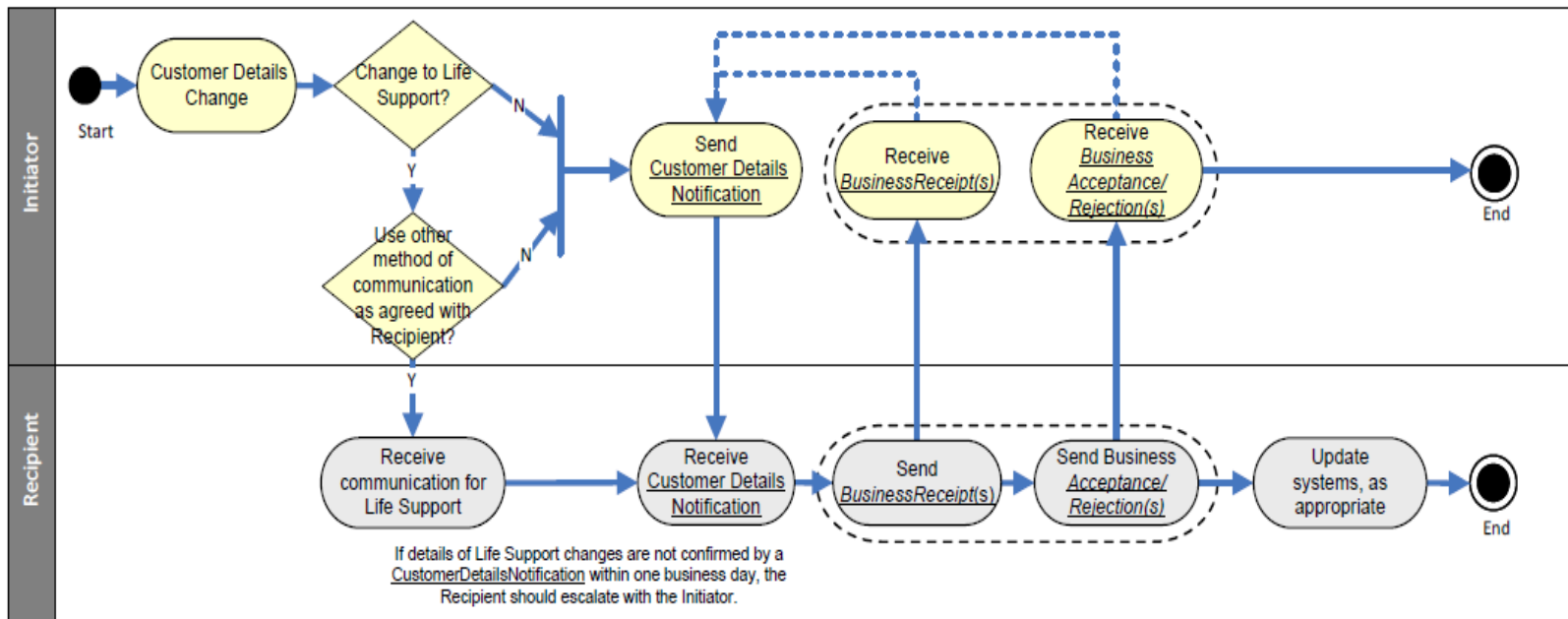
OBLIGATION VARIANCES - CUSTOMER DETAILS RECONCILIATION PROCESS



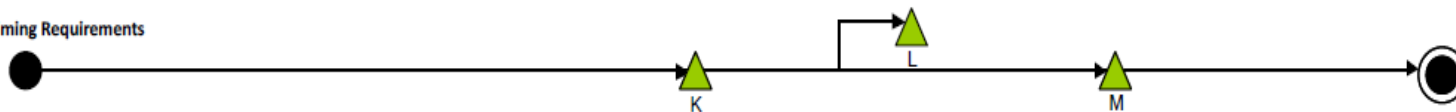
VARIANCE	NEM B2B PROCEDURE	WEM B2B PROCEDURE	ASSUMPTIONS
NEM has additional obligations, specific to when the Reconciliation is considered to have been completed.	If no CustomerDetailsRequests with Reason value 'Rec – confirm no SensitiveLoad' have been received by the Current Retailer from the Recipient after 2 business days of sending the last CustomerDetailsReconciliation transaction, the Customer Details Reconciliation is considered to have been completed.	Does not consider these additional obligations	NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM
NEM has additional obligations, specific to the Retailer validating if a customer/NMI has LS within 5 business days of receiving a CDR with Reason "Rec – confirm no Sensitive Load	The Current Retailer must validate whether a customer at a NMI has Life Support and provide the Recipient with a CustomerDetailsNotification within 5 business days of receiving a CustomerDetailsRequest with Reason value 'Rec – confirm no SensitiveLoad'	Does not consider these additional obligations	NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM
NEM has additional explanation/obligations with respect to the delivery Method and Signals NEM advises must be via B2B whereas WEM advises can be bilaterally agreed. Size must not exceed an uncompressed message size of 1MB and the Retailer must send the messages within a 6 hour period from the first message of the Customer Details Reconciliation being sent.	The required delivery method for the CustomerDetailsReconciliation transaction and its Business Signals is the B2B e-Hub. A Retailer must send only one message for a Customer Details Reconciliation for each DNSP, unless the message size would exceed the allowable size or as otherwise agreed between Participants. If multiple messages are required, a Retailer must send the messages within a 6 hour period from the first message of the Customer Details Reconciliation being sent. Outlined in the Technical Specification Size of aseXML Messages (a) Participants must ensure that Messages containing B2B aseXML Transactions do not exceed an uncompressed Message size of 1 MB. (b) Participants acknowledge and accept that the e-Hub will reject Messages that exceed the 1 MB limit. AEMO must use reasonable endeavours to ensure that the e-Hub rejects Messages which exceed 1MB with an Event Code (ase:Code) of "6", i.e.. "Message too big".	The delivery method for the CustomerDetailsReconciliation transaction and its Business Signals must be agreed bilaterally. If the agreed delivery method is via the B2B e-Hub and the number of files exceeds 100, the Participant must agree the timing of the Reconciliation with NEMMCO the Network Operator before commencing the Reconciliation. If the CustomerDetailsReconciliation transaction is sent via the B2B e-Hub, the transaction must be sent as a Low Priority aseXML document.	NEM explanation/obligations are more specific in Procedures. Recommend WEM align to the NEM

NEM LIFE SUPPORT B2B PROCESS

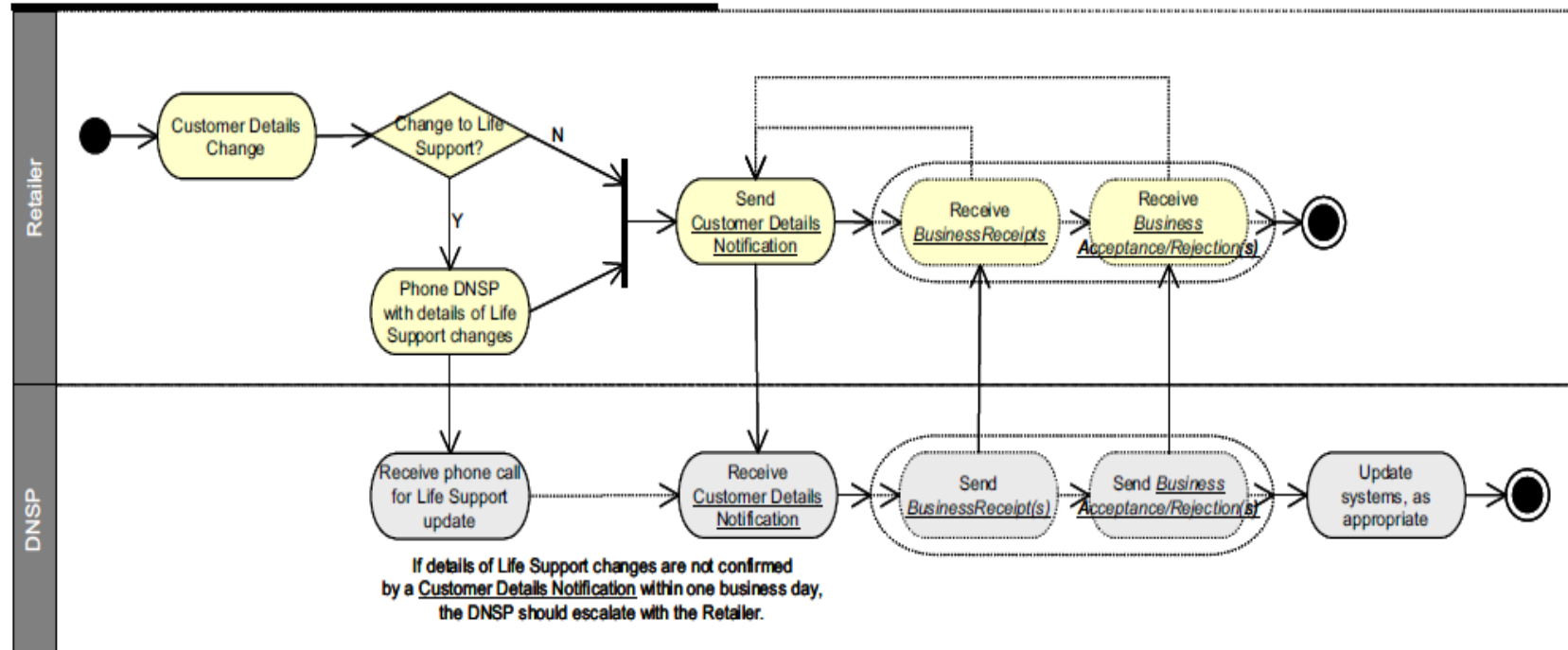
Customer Details Notification Process (notification sent by an Initiator)



Timing Requirements



Customer Details Notification Process



Timing Requirements



- NEM Obligations are outlined in the NERL, NERR and civil penalties are applied.
- WEM Obligations are outlined in the WA Code of Conduct for the Supply of Electricity to Small use Customers 2016 and WA Electricity Industry Metering Code 2012

POTENTIAL NERR CHANGES FOR LIFE SUPPORT



Pending Rule Change with AEMC: Strengthening protections for customers requiring life support equipment

Refer to: <http://www.aemc.gov.au/Rule-Changes/Strengthening-protections-for-customers-requiring>

On 28 February 2017, the AEMC received a rule change request from the Australian Energy Regulator (AER) to amend the NERR. The AEMC has not yet initiated this rule change request. When the AEMC initiates this process, the AEMC will publish a Consultation Paper to facilitate stakeholder consultation on the request.

Refer to AER's current rule change request recently submitted to the AEMC

<http://www.aemc.gov.au/Rule-Changes/Strengthening-protections-for-customers-requiring>

The NEM B2B Guide under 6.2.3 (effective 1 Dec 17) has been updated to consider the following:

6.2.3. Life Support

- (a) The effective management of Life Support information becomes more complex with the introduction of the Metering Competition rule changes. In particular with the increase in on-market sites within embedded networks and the involvement of new participants that may need to obtain or share Life Support information.
- (b) Changes to Life Support processes have been extended (via simple manual notification) to the DNSP to meet the NERR obligations and to the retailer of a child customer within an embedded network
- (c) More complex changes to Life Support are awaiting the outcome of the changes being developed by the AER.

WEM LIFE SUPPORT OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>Definition “life support equipment” means the equipment designated under the Life Support Equipment Electricity Subsidy Scheme.</p>	<p>WEM references ‘electricity subsidy Scheme whereas the NEM definition is articulated in the NERL as life support equipment means life support equipment of a kind or kinds defined in the Rules;</p>
<p>“re-certification” means confirmation from an appropriately qualified medical practitioner that a person residing at the customer’s supply address continues to require life support equipment.</p>	<p>Re-certification does not appear as a current requirement in the NEM under the NERL, NERR or NER. It is not specifically articulated currently under the WEM B2B Procedures.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>7.7 Life Support</p> <p>(1) If a customer provides a retailer with confirmation from an appropriately qualified medical practitioner that a person residing at the customer's supply address requires life support equipment, the retailer must—</p> <p>(a) register the customer's supply address as a life support equipment address;</p> <p>(b) register the customer's contact details;</p> <p>(c) notify the customer's distributor that the customer's supply address is a life support equipment address, and of the contact details of the customer—</p> <p>(i) that same day, if the confirmation is received before 3pm on a business day; or</p> <p>(ii) no later than the next business day, if the confirmation is received after 3pm or on a Saturday, Sunday or public holiday; and</p> <p>(d) not arrange for disconnection of that customer's supply address for failure to pay a bill while the person continues to reside at that address and requires the use of life support equipment.</p> <p>(2) If a customer registered with a retailer under subclause (1) notifies the retailer—</p> <p>(a) that the person residing at the customer's supply address who requires life support equipment is changing supply address; (b) that the customer is changing supply address but the person who requires life support equipment is not changing supply address;</p> <p>(c) of a change in contact details; or</p> <p>(d) that the customer's supply address no longer requires registration as a life support equipment address, the retailer must—</p> <p>(e) register the change;</p> <p>(f) notify the customer's distributor of the change—</p> <p>(i) that same day, if the notification is received before 3pm on a business day; or</p> <p>(ii) no later than the next business day, if the notification is received after 3pm or on a Saturday, Sunday or public holiday; and</p> <p>(g) continue to comply with subclause (1)(d) with respect to that customer's supply address.</p>	<p>The WEM code is more specific to timings with respect to the Retailer notifying the Distributor of a Life Support situation, if received before 3pm on a business day or no later than the next business day if received after 3pm or on a Saturday, Sunday or Public Holiday.</p> <p>The WEM B2B Procedures however do advise that a Retailer must immediately advise the DNSP which is in alignment to the NEM.</p> <p>The NEM B2B Procedures are more broader to consider obligations on the 'initiator' as the NEM considers that a customer may notify either the Retailer and or Distributor. This will require further discussion with respect to the WEM obligations on the Distributor if a customer should approach them directly.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>(3) If a distributor has been informed by a retailer under subclause (1)(c) or by a relevant government agency that a person residing at a customer's supply address requires life support equipment, or of a change of details notified to the retailer under subclause (2), the distributor must—</p> <p>(a) register the customer's supply address as a life support equipment address or update the details notified by the retailer under subclause (2)—</p> <p>(i) the next business day, if the notification is received before 3pm on a business day, or</p> <p>(ii) within 2 business days, if the notification is received after 3pm or on a Saturday, Sunday or public holiday, and</p> <p>(b) if informed by a relevant government agency, notify the retailer in accordance with the timeframes specified in subclause (3)(a).</p>	<p>The WEM code is specific to timings for registering and updating the details notified by the retailer.</p> <p>The NEM Rules advises the distributor must register the premises as having life support where a retailer advises a distributor or a customer provides confirmation to the distributor. (this is taken to be as soon as they receive notification)</p>
<p>(4) If life support equipment is registered at a customer's supply address under subclause (3)(a), a distributor must—</p> <p>(a) not disconnect that customer's supply address for failure to pay a bill while the person continues to reside at that address and requires the use of life support equipment, and</p> <p>(b) prior to any planned interruption, provide at least 3 business days written notice or notice by electronic means to the customer's supply address and, unless expressly requested in writing by the customer not to, use best endeavours to obtain verbal acknowledgement, written acknowledgement or acknowledgement by electronic means from the customer or someone residing at the supply address that the notice has been received.</p> <p>(4A) Notwithstanding clause 7.7(4)(b)—</p> <p>(a) an interruption, planned or otherwise, to restore supply to a supply address that is registered as a life support equipment address is not subject to the notice requirements in clause 7.7(4)(b); however</p> <p>(b) a distributor must use best endeavours to contact the customer, or someone residing at the supply address, prior to an interruption to restore supply to a supply address that is registered as a life support equipment address.</p>	<p>The WEM code appears to put more onus on the Distributor to ensure they must not disconnect for failure to pay a bill.</p> <p>The NEM model simply advises under 125 distributor's obligations under (2) (B) the distributor must except in the case of an interruption, not de-energise.</p> <p>The WEM code advises the Distributor must use best endeavours to contact the customer prior to an interruption. The NEM model requires the distributor to give the customer at least 4 business days written notice (civil penalty)</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>(5) If a distributor has already provided notice of a planned interruption under the Electricity Industry Code that will affect a supply address, prior to the distributor registering a customer's supply address as a life support equipment address under clause 7.7(3)(a), the distributor must use best endeavours to contact that customer or someone residing at the supply address prior to the planned interruption.</p>	<p>NEM Rules do not appear to consider this scenario and simply advise that 4 business days notice is required in writing.</p> <p>The WA Procedures do not specify timings for planned interruptions.</p> <p>The NEM B2B Procedure – One Way Notification Process does advise that a Planned Interruption Notification must be sent at least 4 business days before the date of the expected interruption.</p>
<p>(6) (a) No earlier than 3 months prior to the 12 month anniversary of the confirmation from the appropriately qualified medical practitioner referred to in subclause (1), and in any event no later than 3 months after the 12 month anniversary of the confirmation, a retailer must contact a customer to—</p> <p>(i) ascertain whether a person residing at the customer's supply address continues to require life support equipment; and</p> <p>(ii) if the customer has not provided the initial certification or re-certification from an appropriately qualified medical practitioner within the last 3 years, request that the customer provide that re-certification.</p> <p>(b) A retailer must provide a minimum period of 3 months for a customer to provide the information requested by the retailer in subclause (6)(a).</p>	<p>NEM model does not currently consider re-certification.</p> <p>The WA B2B Procedures do not currently consider re-certification, however if changes were required as a result of a change to the Life Support Flag this would be managed via the Notification process.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>(7) (a) When—</p> <p>(i) a person who requires life support equipment, vacates the supply address; or</p> <p>(ii) a person who required life support equipment, no longer requires the life support equipment; or</p> <p>(iii) subject to subclause (7)(b), a customer fails to provide the information requested by a retailer for the purposes of subclause (6)(a)(i) or the re-certification referred to in subclause (6)(a)(ii), within the time period referred to in subclause (6)(b), or greater period if allowed by the retailer, the retailer's and distributor's obligations under subclauses (1) to (6) terminate and the retailer or distributor (as applicable) must remove the customer's details from the life support equipment address register upon being made aware of any of the matters in subclauses (7)(a)(i), (ii) or (iii)—</p> <p>(iv) the next business day, if the retailer or distributor (as applicable) becomes aware of the relevant matter in subclause 7(a)(i), (ii) or (iii) before 3pm on a business day; or</p> <p>(v) within 2 business days, if the retailer or distributor (as applicable) becomes aware of the relevant matter in subclause 7(a)(i), (ii) or (iii) after 3pm or on a Saturday, Sunday or public holiday.</p> <p>(b) A customer will have failed to provide the information requested by a retailer for the purposes of subclause (6)(a)(i) or the re-certification referred to in subclause (6)(a)(ii) if the contact by the retailer consisted of at least the following, each a minimum of 10 business days from the date of the last contact—</p> <p>(i) written correspondence sent by registered post to the customer's supply address and any other address nominated by the customer; and</p> <p>(ii) a minimum of 2 other attempts to contact the customer by any of the following means—</p> <p>(A) electronic means;</p> <p>(B) telephone;</p> <p>(C) in person;</p> <p>(D) facsimile; or</p> <p>(E) by post sent to the customer's supply address and any other address nominated by the customer.</p> <p>c) If a distributor's obligations under subclauses (1),(3),(4), (5) and (6) terminate as a result of the operation of subclause (7)(a)(iii), a retailer must notify the distributor of this fact as soon as reasonably practicable, but in any event, within 3 business days.</p> <p>(d) For the avoidance of doubt, the retailer's and distributor's obligations under subclauses (1) to (6) do not terminate by operation of subclause 7.7(7) if the retailer or distributor has been informed in accordance with clause 7.7(1) that another person who resides at the supply address continues to require life support equipment.</p>	<p>The NEM model under 124 Retailers obligations (2) Cessation of requirement for LS equipment requires the retailer to inform the distributor as soon as possible of the advise received from the customer (civil penalty).</p> <p>The WEM code is specific to timings if the retailer or distributor becomes aware and has not been notified by a customer, it includes obligations for written correspondence to be via registered mail for the purpose of re-certification and a minimum of 2 other attempts to contact the customer which the NEM model does not currently consider.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT - CODE OF CONDUCT FOR THE SUPPLY OF ELECTRICITY TO SMALL USE CUSTOMERS 2016	VARIANCE TO THE NEM?
<p>9.5 Life support equipment</p> <p>(1) If a <i>pre-payment meter customer</i> provides a <i>retailer</i> with confirmation from an <i>appropriately qualified medical practitioner</i> that a person residing at the <i>pre-payment meter customer's supply address</i> requires <i>life support equipment</i>, the <i>retailer</i> must not provide a <i>pre-payment meter service</i> at that <i>supply address</i> and the <i>retailer</i> must, or must immediately arrange to—</p> <p>(a) remove or render non-operational the <i>pre-payment meter</i> at no charge;</p> <p>(b) replace or switch the <i>pre-payment meter</i> to a standard <i>meter</i> at no charge; and</p> <p>(c) provide information to the <i>pre-payment meter customer</i> about the <i>contract</i> options available to the <i>pre-payment meter customer</i>.</p> <p>(2) If a <i>retailer</i> requests a <i>distributor</i> to revert a <i>pre-payment meter</i> under subclause (1), the <i>distributor</i> must revert the <i>pre-payment meter</i> at that <i>supply address</i> as soon as possible and in any event no later than—</p> <p>(a) for <i>supply addresses</i> located within the <i>metropolitan area</i>—</p> <p>(i) within 1 <i>business day</i> of receipt of the request, if the request is received prior to 3pm on a <i>business day</i>; and</p> <p>(ii) within 2 <i>business days</i> of receipt of the request, if the request is received after 3pm on a <i>business day</i> or on a Saturday, Sunday or <i>public holiday</i>;</p> <p>(b) for <i>supply addresses</i> located within the <i>regional area</i>—</p> <p>(i) within 9 <i>business days</i> of receipt of the request, if the request is received prior to 3pm on a <i>business day</i>; and</p> <p>(ii) within 10 <i>business days</i> of receipt of the request, if the request is received after 3pm on a <i>business day</i>, or on a Saturday, Sunday or <i>public holiday</i>.</p>	<p>Similar arrangements for the NEM under 59 Persons on life support equipment.</p> <p>Both the NEM and WEM must not provide a pre-payment meter to a premise and if one exists must organise for it to be removed at no cost.</p> <p>Under the NEM this holds a civil penalty provision.</p> <p>The WEM does not to reference penalties</p> <p>WA obligations are more specific with respect to timing obligations on the distributor with reverting back to a non pre-payment meter and timing varies between metro versus non metro (regional) areas.</p> <p>Timing obligations specifically outlined in the Code do not appear to be currently outlined specifically in the current WEM B2B Procedures/build Pack/Technical specification.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT – WA ELECTRICITY INDUSTRY METERING CODE 2012	VARIANCE TO THE NEM?
<p>Definition “life support equipment” has the meaning given to it in the <i>Code of Conduct</i>.</p>	<p>WEM definition points to the Code of Conduct. If the Metering Code is to be dis-applied for the WEM, definition will need to be updated to the WEM Retail Rules.</p> <p>NEM definition is outlined in the NERL and points to the NERR</p>
<p>5.19 User must provide customer information (2) A <i>user</i> must, to the extent that it is able, collect and <i>maintain</i> a record of the following information in relation to the site of each <i>connection point</i> with which the <i>user</i> is associated: (c) for each <i>customer</i> associated with the <i>connection point</i>, the following “customer attributes”:(i) the <i>NMI</i> of each <i>connection point</i> with which the <i>customer</i> is associated; and (ii) the <i>customer’s</i> name; and (iii) the <i>customer’s</i> postal address (and, if a person residing at the site requires <i>life support equipment</i>, the person’s street address) for outage notification purposes, in a format specified in the <i>communication rules</i>; and (iv) one or more phone numbers to enable the <i>network operator</i> to contact the <i>customer</i> (and, if a person residing at the site requires <i>life support equipment</i>, a phone number to enable the <i>network operator</i> to contact the person); and (v) whether a person residing at the site requires <i>life support equipment</i>.</p>	<p>WEM refers to ‘user’, whereas NEM refers to Retailer Obligations. WEM refers to network operator whereas NEM refers to distributor.</p> <p>The WEM Code is more specific to customer attributes to be collected, maintained and to be provided to the network operator, whereas the NEM advises the Retailer must ‘give the distributor relevant information about the premises for the purposes of updating the distributor’s distribution records and registers.</p> <p>The NEM B2B Customer and Site Detail Transaction does contain the customer attributes currently outlined in the WA Electricity Metering Code.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT – WA ELECTRICITY INDUSTRY METERING CODE 2012	VARIANCE TO THE NEM?
<p>5.19 User must provide customer information 2A) For the purposes of clause 5.19(2)(c)(v): (a) a <i>user</i> must record that a person residing at the site requires <i>life support equipment</i> if the <i>customer</i> associated with the <i>connection point</i> provides the <i>user</i> with confirmation from an appropriately qualified medical practitioner that the person requires <i>life support equipment</i>, and (b) a <i>user</i>, acting in accordance with <i>good electricity industry practice</i>, is not obliged to record that a person residing at the site requires <i>life support equipment</i> if the <i>customer</i> associated with the <i>connection point</i> does not provide the <i>user</i> with confirmation from an appropriately qualified medical practitioner that the person requires <i>life support equipment</i>, and (c) a <i>user</i> must record that there is no longer a person residing at the site who requires <i>life support equipment</i>, if the <i>customer</i> associated with the <i>connection point</i> notifies the <i>user</i> of this fact.</p>	<p>The WEM is specific with advising the user must record confirmation from an appropriately qualified practioner and that they are not obliged to record a person residing at the site if as requiring Life Support if confirmation is not provided.</p> <p>The NEM NERR advises '<u>where</u> a customer provides a retailer with confirmation from a registered medical practitioner the retailer must register the premises as having LS, however does not advise they are not obliged to record a person as LS if confirmation is not provided. This obligation under the NERR holds civil provisions under the NERL</p> <p>Both WEM and NEM Codes/Regulations include requirement for a user to record if a customer/person no longer requires LS.</p> <p>The NEM B2B Procedures includes obligation on Retailer and DNSP to inform each other if LS is no longer required/no longer meets jurisdictional requirements.</p>
<p>5.19 User must provide customer information (3) Subject to clause 5.19(3A) and 5.19(6), the <i>user</i> must, within 1 <i>business day</i> after becoming aware of any change in an attribute described in clause 5.19(2), <i>notify</i> the <i>network operator</i> of the change. {Note: <i>Customer</i>, <i>site</i> and <i>address attributes</i> may require updating in the following situations:</p> <ul style="list-style-type: none"> • on completion of a <i>customer</i> transfer to that <i>user</i>; • for a new <i>connection</i> where the <i>customer</i> details and access requirements are assigned to the new <i>NMI</i>; • when the <i>customer</i> moves out or moves in; • upon receipt of updates provided by the existing <i>customer</i>;} {Note: to the extent that items listed in clause 5.19(2) are <i>standing data</i> items, there is also a general obligation under clause 4.5 for <i>Code participants</i>, including the <i>user</i>, to keep the <i>registry</i> accurate and to <i>notify</i> other, relevant, <i>Code participants</i> of discrepancies.} 	<p>The WEM is specific to advise that a user must within 1 business day notify the network operator after becoming aware of any change.</p> <p>The NEM NERR advises under Miscellaneous transitional rule that the premises will be taken to be the premises to which the arrangements apply <u>as advised in connection with a registration, identification.</u></p> <p>The NEM NERR is not specific with respect to timing other to advise if LS is no longer required, it advises the retailer must inform the distributor as soon as possible. (civil penalty under NERL)</p> <p>The NEM B2B Procedures includes requirement for CDN to be provided within one business day of the relevant detain being updated or changed and following completion of a transfer, new connection, energisation.</p>

WEM VERSUS NEM OBLIGATIONS



INSTRUMENT – NATIONAL ENERGY RETAIL LAW	VARIANCE TO THE WEM?
<p>140—Transfer of responsibility (4) The designated RoLR must, if it is notified by the AER, the failed retailer, an insolvency official or a distributor that the premises of a customer of the failed retailer has life support equipment, comply with the obligations as to life support equipment that apply to retailers under the Rules as if the designated RoLR had been notified by the customer.</p>	<p>WA Code does not consider Life Support in the event of a SoLR event. In the NEM the Sensitive Load Flag is also articulated in the NEM RoLR Processes (Part B) and exchanged in the event of a RoLR between the failed retailer and designated RoLR.</p> <p>Assumption to-date pending Policy outcome is that the WEM would pick up the B2B Procedures for RoLR in the unlikely event of a SoLR</p>

KEY OBLIGATION VARIANCES - B2B PROCEDURES



VARIANCE	NEM B2B PROCEDURES	WEM B2B PROCEDURES	ASSUMPTIONS
<p>Variance between the NEM and WEM with respect to notifying the DNSP and Acceptance.</p> <p>NEM Retailers advise DNSP by Telephone, Whereas WA Retailers must email a copy of the LS Documentation.</p> <p>In the NEM the site is considered LS effective from the phone call from a Retailer, whereas in the WEM effective from the time the DNSP verifies the documentation provided by the Retailer</p>	<p>In addition to information a DNSP via the B2B e-hub, Retailer must immediately advise the DNSP by telephone when they become aware of a LS situation., then subsequently send a CDN. Changes are effective from the time of the phone call from Retailer to the DNSP</p>	<p>Retailer must email a copy of the documentation verifying the LS requirements for the Site to the DNSP.</p> <p>Business Acceptance/Rejection does not indicate formal acceptance of LS information</p> <p>Changes are effective from the time the DNSP verifies the documentation provided by the Retailer.</p>	<p>Neither the NEM Rules or WEM Code of Conduct specify the notification method.</p> <p>The WEM Code of Conduct does not specifically advise that the Retailer must email a copy of the documentation verifying the LS requirements and that the validation must be done by the distributor. It only appears to advise providing it to the user who validates. Does this require further discussion with respect to ownership of validation moving forward? In the NEM the Retailer is considered the source of truth for this information</p>
<p>NEM has additional obligations, specific to the scenario where a DNSP (or MP/MC) becomes aware of a change to LS. The DNSP must phone and also send an email to the Retailer as soon as practicable with a minimum set of information and the changes are effective from the time to the email being received by the Retailer. The WA B2B Procedures does not consider this.</p>	<p>The initiator can be either the DNSP or the Retailer under the NERL and NER. Civil Liabilities can apply to both.</p> <p>It also outlines that there must be a contact email address located in the Retail Operation Contact List</p>	<p>The WA B2B Procedures does not consider this specifically and does not specifically consider a Retail Operational Contact List</p>	<p>Recommend WEM align to the NEM to consider this scenario and also for WA Participants to be updated/included in the National Retail Operation Contact List</p>
<p>The WA B2B Procedures contains little information with respect to LS in comparison to the NEM B2B Procedures and the B2B Guide.</p>	<p>NEM Procedures and B2B Guide includes Example of Process Flows involving Life Support Data, considering both CDN with LS non retailer initiated and retailer initiated</p>	<p>The WA B2B Procedures does not consider this specifically</p>	<p>Recommend WEM align to the NEM</p>

NEM Procedures includes a Table of Business Events and Event Codes.

Table 10: Business Events

Business Document	Business Signal	Business Event	Explanation Required	Severity	Event Code	Notes
<u>CustomerDetailsRequest</u>	<u>BusinessAcceptance/Rejection</u>	Participant is not authorised to receive the requested data	No	Error	1932	
<u>CustomerDetailsNotification</u>	<u>BusinessAcceptance/Rejection</u>	Data not fit for purpose. Details provided in <i>Explanation</i> .	Yes	Error	1970	Not applicable for <u>CustomerDetailsReconciliation</u> .
<u>SiteAccessRequest</u>	<u>BusinessAcceptance/Rejection</u>	Participant is not authorised to receive the requested data	No	Error	1932	
<u>SiteAccessNotification</u>	<u>BusinessAcceptance/Rejection</u>	Data not fit for purpose. Details provided in <i>Explanation</i> .	Yes	Error	1970	
All Notifications	<u>BusinessAcceptance/Rejection</u>	Recipient is not responsible for the supplied NMI.	Yes	Error	1923	
		Not Current FRMP	No	Error	1939	
		Data missing (mandatory fields). Details provided in <i>Explanation</i> .	Yes	Error	201	Standard aseXML.
		Invalid data. Details provided in <i>Explanation</i> .	Yes	Error	202	Standard aseXML. Not applicable for <u>CustomerDetailsReconciliation</u> .
<u>All</u>	<u>All</u>	Accept.	No	Information	0	Standard aseXML

WEM BUSINESS EVENTS

Business Document	Business Signal	Business Event	Explanation Required	Severity	Document Reference or Notes
<u>CustomerDetailsRequest</u>	<u>BusinessAcceptance/Rejection</u>	Participant is not authorised to receive the requested data	No	Error	
<u>CustomerDetailsNotification</u>	<u>BusinessAcceptance/Rejection</u>	Medical Certificate not received in time	Yes	Error	Only used in SA.
<u>SiteAccessNotification</u>	<u>BusinessAcceptance/Rejection</u>				
<u>SiteAddressNotification</u>	<u>BusinessAcceptance/Rejection</u>	Address identical to address held by DNSP	No	Information	2.2.6
		Address not accepted. MSATS correct.	No	Error	2.2.6
		Address not accepted. MSATS to be updated.	No	Error	2.2.6
All Notifications	<u>BusinessAcceptance/Rejection</u>	Not Current FRMP	No	Error	
<u>All</u>	<u>All</u>	Accept.	No	Information	Standard aseXML Code
		Data missing. Details provided in <i>Explanation</i> .	Yes	Error	Standard aseXML Code

EVENT CODE VARIANCES

VARIANCE	NEM	WEM	ASSUMPTIONS
<p>WEM has business event for Customer Details Notification ‘Medical Certificate not received in time’</p> <p>NEM does not have this as a business event</p>	<p>NEM does not have this as a business event. A DNSP cannot reject a CDN from a Retailer on the basis that the DNSP did not receive a medical certificate.</p>	<p>Business Event for Customer Details Notification ‘Medical Certificate not received in time’</p> <p>However Procedure advises under Document Reference or Notes – ‘Only used in SA?’</p>	<p>Question. Is this used in WA? Why can a DNSP reject if the Retailer is managing the process with the customer?</p> <p>Post workshop confirmation was received that DNSP does not receive copy of medical certificate.</p>
<p>NEM Procedure includes Business Event 1970 “Data not fit for purpose”, WEM does not</p>	<p>Business Event:</p> <ul style="list-style-type: none"> Customer Details Notification And Site Access Notification <p>BusinessAcceptance/Rejection</p> <p>‘Data not fit for purpose. Details provided in Explanation</p> <p>Event Code 1970</p>	<p>WA Procedure does not include this Business Event.</p>	<p>National Consistency. Recommend WA align to the NEM, National Consistency. Recommend WA align to the NEM, WA by adopting the latest NEM schema version will include this Event Code</p>
<p>NEM Procedure includes Business Event 1923 “Recipient is not responsible for the supplied NMI”, WEM does not</p>	<p>Business Event:</p> <p>All Notifications</p> <p>BusinessAcceptance/Rejection</p> <p>Recipient is not responsible for the supplied NMI</p> <p>Event Code 1923</p>	<p>WA Procedure does not include this Business Event.</p>	<p>National Consistency. Recommend WA align to the NEM, WA by adopting the latest NEM schema version will include this Event Code</p>

EVENT CODE VARIANCES

VARIANCE	NEM	WEM	ASSUMPTIONS
NEM Procedure includes Business Event 202 “Invalid Data”, WEM does not	<p>Business Event: All Notifications</p> <p>BusinessAcceptance/Rejection</p> <p>Invalid Data, Details provided in Explanation</p> <p>Event Code 202</p>	WA Procedure does not include this Business Event.	National Consistency. Recommend WA align to the NEM, WA by adopting the latest NEM schema version will include this Event Code
<p>WEM has business events for Site Address Notification Transaction.</p> <p>As this Transaction was removed for the NEM in 2013 this is a variance. The basis was due to the significant effort and rejections for the transaction by the DNSP with limited value for the DNSP in receiving this information from the retailer. DNSP is responsible for site address.</p>	Site Address notification Transaction was moved for the NEM in 2013	<p>Site Address Notification Business Event</p> <ul style="list-style-type: none"> • Address Identical to address held by DNSP • Address not accepted. MSATS not correct • Address not accepted. MSATS to be updated 	National Consistency. Recommend WA align to the NEM, the event codes for Site Address Notification will no longer be required

METER DATA PROCESS



The NEM Meter Data Process (procedure):

- Specifies the standard MDFF Data Request and Remote Service request processes.
- Provides Participants a standard format for:
 - Receiving, requesting and querying meter data
 - Receiving and requesting remote services for on demand reads, scheduling reads and metering installation inquiries.
- Is published by AEMO in accordance with NER clause 7.17.3.

B2B Procedure Meter Data Process references in this presentation are based on:

- NEM:
 - Final Procedures Effective 1 December 2017. Version 3.
 - <http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Power-of-Choice-B2B-consultation-2>
- WEM:
 - [Western Power Build Packs](https://www.westernpower.com.au/media/1930/wa-b2b-procedures-meter-data-process.pdf)
<https://www.westernpower.com.au/media/1930/wa-b2b-procedures-meter-data-process.pdf>

WA Procedure last updated in 2008, based on the NEM Version 1.4 Published June 2007

METER DATA PROCESS TRANSACTION TYPE



PROCESS NAME	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES
Meter Data Notification (<u>MeterDataNotification</u>)	Includes Scheduled Meter Readings, Meter Readings taken by an MDP in response to a <u>Service Order Request</u> and other MDFF data (such as Estimations).	Yes	MDP	RB or DB or MDP or [MC]	X
Provide Meter Data (<u>ProvideMeterDataRequest</u>)	An Initiator can request the provision of the latest version of MDFF data held by the Recipient	Yes	RB or DB or MDP	MDP	X

Analysis: WA Transactions are currently between DB and RB only.

METER DATA PROCESS TRANSACTION TYPE (CONT.)

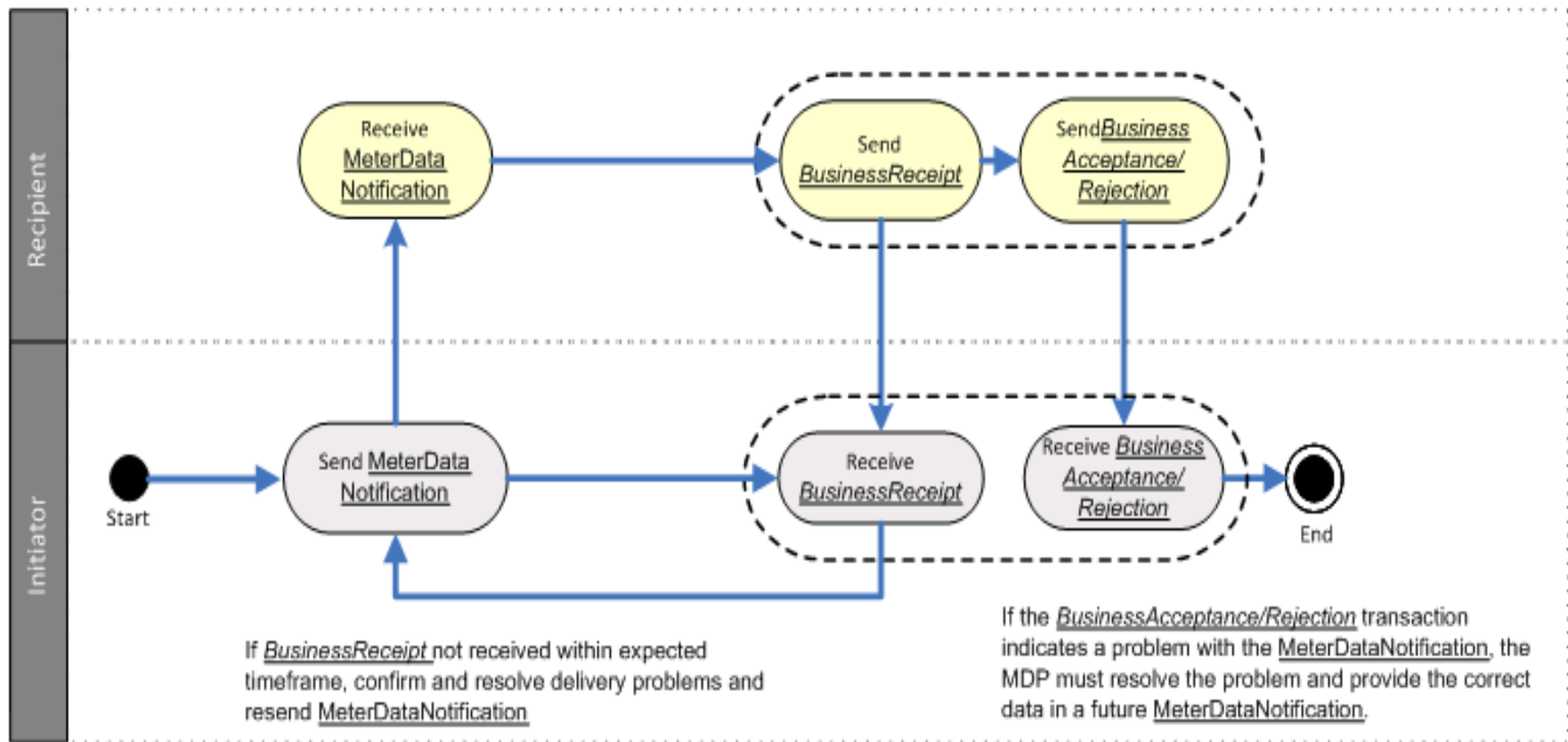


PROCESS TRANSACTION TYPE	DESCRIPTION	EXISTS IN WA	NEM INITIATOR	NEM RECIPIENT	NOTIFIED PARTIES
Verify Meter Data (VerifyMeterDataRequest)	An Initiator can query MDFF data to ensure that the latest version is being supplied.	Yes	RB or DB or New MDP	MDP	X
Remote Service (RemoteServiceRequest)	Request for a demand read, meter installation inquiry or scheduled read.	No	DB or RB or [MC]	MP or [MC]	X
Remote Service (RemoteServiceResponse)	A Recipients response to a RemoteServiceRequest .	No	MP or [MC]	DB or RB or [MC]	X

Analysis/Variations:

- WA Transactions are between DB and RB only.
- WA does not have Remote Service Meter Data Process Transactions.

METER DATA NOTIFICATION PROCESS



Analysis shows that WA and the NEM follow the same process.

METER DATA NOTIFICATION GUIDELINES



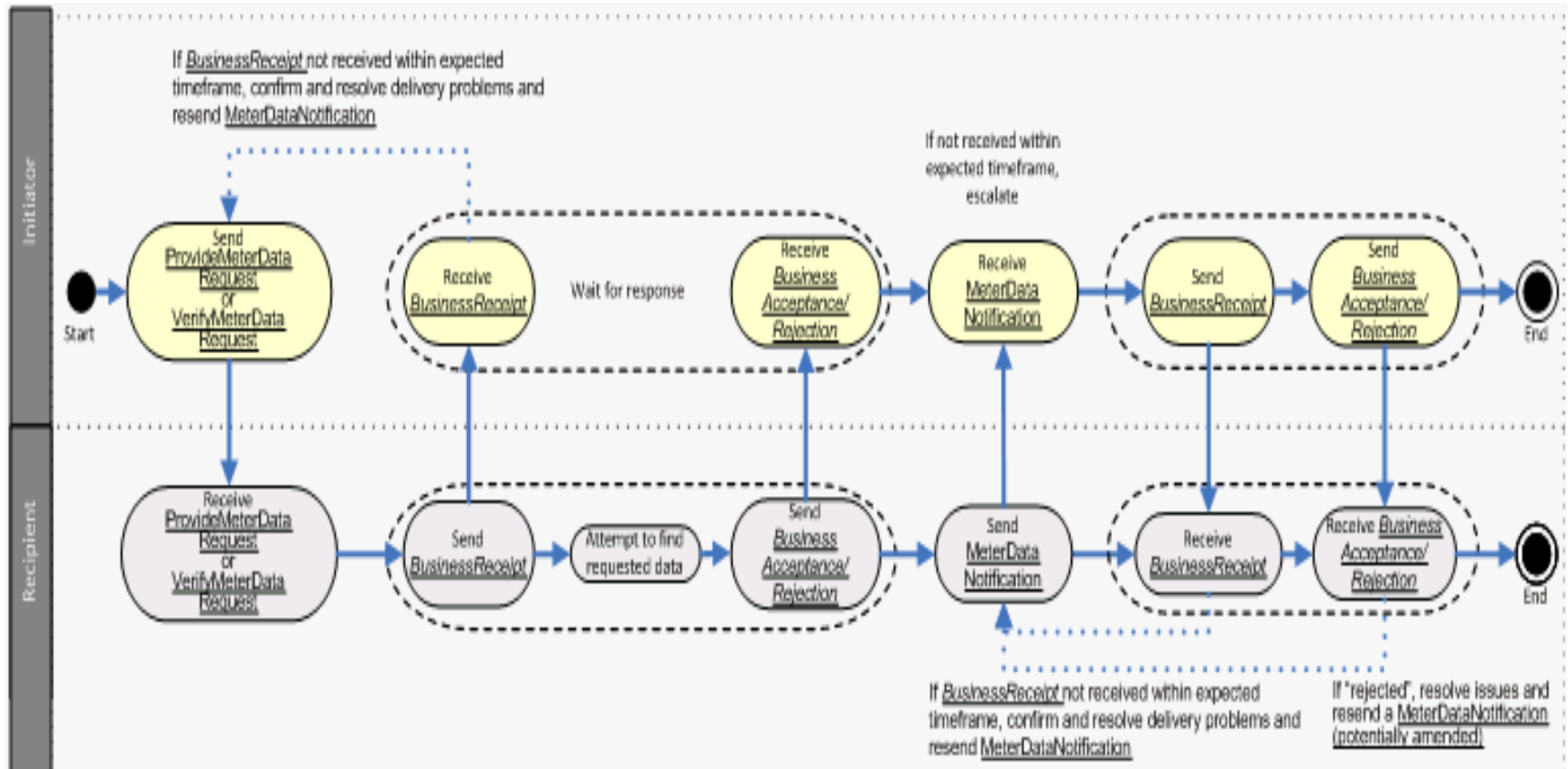
REQUEST STATUS	DESCRIPTION	RB OR DB OR MDP OR (MC) RESPONSE
Accept	Status used to indicate entire file has been accepted.	The Recipient (RB or DB or MDP or [MC]) must send a <u>BusinessAcceptance/Rejection</u> with a Status of “Accept” to the MDP and send a <u>MeterDataNotification</u> in response to the <u>VerifyMeterDataRequest</u>
Reject	Status used to indicate that the entire file has been rejected.	the Initiator (MDP) must resolve the problem and resend the data if appropriate. If the file format is invalid, the Initiator must resolve the problem and resend the data if appropriate, otherwise the Initiator must communicate the results of the investigation to the Recipient (RB or DB or MDP or [MC]) who sent the <u>BusinessAcceptance/Rejection</u>
Partial	Status must be used to indicate a rejection, that relates to only part of the file. The data to be returned by the Initiator (MDP) must include all data relating to each NMI that relates to a line number in the <u>BusinessAcceptance/Rejection</u> .	the Initiator (MDP) must investigate the rejection. If valid, the Initiator must resolve the problem and resend the data. If the rejection is not valid, the Initiator must communicate the results of the investigation to the Recipient (RB or DB or MDP or [MC])

Assumption: WA adopts the NEM model.

An Initiator (MDP) issuing a MeterDataNotification must:

- Ensure that it contains Accumulation Meter or Interval Meter data, not a mix of both.
- Ensure that the MDFF data provided in a MeterDataNotification is the latest version of that data.

PROVIDE OR VERIFY METER DATA PROCESS



Analysis: WA adopts the same method as the NEM.

PROVIDE METER DATA GUIDELINES

An Initiator (MDP) can send a ProvideMeterDataRequest for:

- MDFF Data it is entitled to under the NER.
- Historical metering data it is entitled to under the CATS Procedure or a Jurisdictional instrument.
- A Recipient to re-send specified MDFF Data.

A Recipient must respond to the Initiator (MDP) using a response in the table below.

REQUEST STATUS	DESCRIPTION	MDP RESPONSE
Accept	The MDP is able to fully satisfy the request	The MDP must send a <u>MeterDataNotification</u> in response to the <u>ProvideMeterDataRequest</u>
Partial	If the MDP can partially satisfy the request	The MDP must provide appropriate Event Codes and associated details in the <u>BusinessAcceptance/Rejection</u> to explain why the <u>ProvideMeterDataRequest</u> cannot be fully satisfied.
Reject	MDP is unable to satisfy the request	The MDP must send a <u>BusinessAcceptance/Rejection</u> with a Status of “Reject” with the appropriate EventCodes.

Assumption: WA adopts the NEM process, transactions will continue to be between DB and RB only as WP will retain existing roles (DB, MDP, MC, MPB).

VERIFY METER DATA PROCESS GUIDELINES



An Initiator may commence the Meter Data Verification Process if the:

- MDFF Data specified in the MeterDataNotification is erroneous.
- Response provided to a previous ProvideMeterDataRequest or VerifyMeterDataRequest has not resolved its query.

REQUEST STATUS	DESCRIPTION	MDP RESPONSE
Accept	MDP is able to fully satisfy the <u>VerifyMeterDataRequest</u>	The MDP must send a <u>BusinessAcceptance/Rejection</u> with a Status of “Accept” and send a <u>MeterDataNotification</u> in response to the <u>VerifyMeterDataRequest</u>
Partial	If the MDP can partially satisfy the <u>VerifyMeterDataRequest</u>	The MDP must provide to the requestor (RB or DB or MDP) appropriate Event Codes. The Event Codes in the <u>BusinessAcceptance/Rejection</u> must have a Severity of “Information” or “Error”.
Reject	MDP is unable to satisfy the <u>VerifyMeterDataRequest</u>	The MDP must send to the requestor (RB or DB or MDP) a <u>BusinessAcceptance/Rejection</u> with a Status of “Reject” and must not send a <u>MeterDataNotification</u> in response to the <u>VerifyMeterDataRequest</u> . The MDP must provide appropriate Event Codes and associated details including the Severity of “Error” in the <u>BusinessAcceptance/Rejection</u> .

PROVIDE METER DATA - TIMINGS

The timing guidelines for issuing a MeterDataNotification are:

EVENT	REASON	BUSINESS DAY	INITIATOR
Scheduled Reading	Following the read event for remotely read metering installations	Fourth	RB or DB or MDP
Scheduled Reading	Following the published Next Scheduled Read Date for manually read metering installations	Sixth	RB or DB or MDP
Scheduled Reading	For the previous month's MDFF data, for Controlled Unmetered Devices	Seventh (of the calendar month)	RB or DB or MDP

PROVIDE METER DATA NOTIFICATION – TIMINGS (CONT.)



EVENT	REASON	BUSINESS DAY	RECIPIENT
<u>ServiceOrderRequest</u> (following the receipt of the completed <u>ServiceOrderResponse</u>)	For a manually read metering installation	Fourth	RB or DB or MDP
<u>MeterDataNotification</u>	Response to a <u>ProvideMeterDataRequest</u>	One	RB or DB or MDP or [MC]
<u>MeterDataNotification</u>	<u>VerifyMeterDataRequest</u>	One	RB or DB or MDP or [MC]

PROVIDE METER DATA – RECIPIENT BUSINESS RULES



A Recipient (MDP) who receives a ProvideMeterDataRequest must determine which Meter Readings the Initiator (RB or DB or MDP) has requested based on the the following:

- For accumulation meters: provide all available MDFF data that the Initiator is entitled to for the inclusive period specified in the ProvideMeterDataRequest, including:
 - All reading periods that ended in the requested date range.
- For interval meters: provide all available MDFF data that the Initiator is entitled to for the inclusive period specified in the ProvideMeterDataRequest.

If the *EndReadDate* is not provided in a ProvideMeterDataRequest, the Recipient must provide all MDFF data on and after the *StartReadDate* that the Initiator is entitled to receive.

- Initiators must not repeatedly request MDFF data as a result of a fault within the processing of the data by the Initiator's systems.
- Where an Initiator requests MDFF data in a ProvideMeterDataRequest for a period that covers a change between an Accumulation Meter and an Interval Meter, the Recipient must provide to the Initiator MeterDataNotifications with the MDFF data required for each date range applicable to each metering installation type.

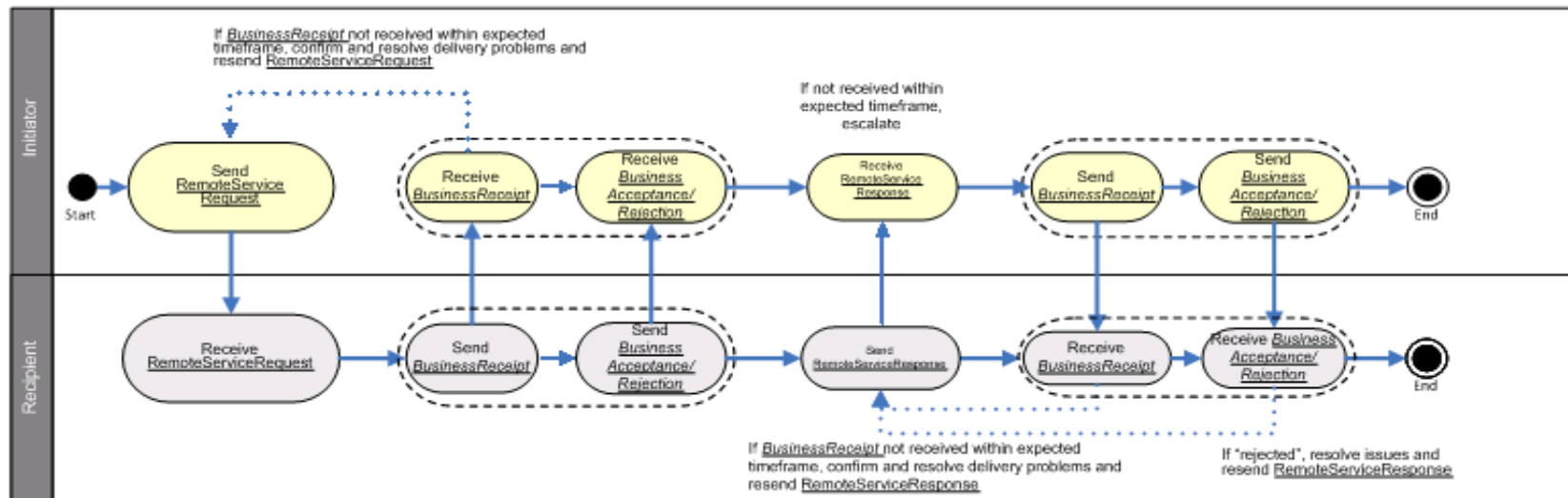
An Initiator (RB or DB or MDP) must provide values in the fields in the VerifyMeterDataRequest to match the level of the data being queried:

- If the data being queried is at the NMI level, only the NMI needs to be provided.
- If the data being queried is at the single meter level, the NMI and the MeterSerialNumber must be provided.
- If the data being queried is at an individual DataStream level, the NMI, MeterSerialNumber and NMI Suffix must be provided.
- If the data being queried relates to the configuration of a Site, the NMI and NMI Configuration must be provided.
- The Initiator must ensure that the Investigation Code and Investigation Description match the level of data provided.

REMOTE SERVICE REQUEST

An Initiator (DB or RB or [MC]) may commence a RemoteServiceRequest process if it:

- Is authorised to receive the requested information; and
- Require remote retrieval of information from a specified metering installation, or
- require a reading on demand, or
- require a scheduled reading to commence, end or change.



Analysis indicates that currently WA does not use remote service requests and response methods for Meter Data Processes.

REMOTE SERVICES REQUEST AND RESPONSE GUIDELINES



A Recipient must respond to the Initiator (MDP) using a response in the table below.

REQUEST STATUS	DESCRIPTION	MP OR (MC) RESPONSE
Accept	MP or [MC] is able to fully satisfy the Request.	<u>BusinessAcceptance/Rejection</u> with a Status of “Accept”
Reject	MP or [MC] is unable to satisfy the <u>RemoteServiceRequest</u>	<ul style="list-style-type: none">• <u>BusinessAcceptance/Rejection</u> with a Status of “Reject”• Appropriate EventCodes and associated details in the <u>BusinessAcceptance/Rejection</u> must be provided including a Severity of “Error”

- RemoteServiceRequest does not have a partial status response.
- Timing requirements for RemoteServiceRequest are as agreed between the Recipient and the Initiator.

METER DATA PROCESS INVESTIGATION CODES



The Initiator must use the appropriate Investigation Code for a VerifyMeterDataRequest, these are:

INVESTIGATION CODE	USE
Confirm Reading For Vacant Site	Used where substituted metering data or estimated metering data is provided for a vacant site and the Initiator reasonably believes the consumption is overstated.
Confirm Zero Consumption	Used where the Initiator requires confirmation of a zero consumption value.
Incomplete Data	Used where the Initiator reasonably believes that they have not received a complete set of data.
Invalid MDFF Data	Used where the Initiator reasonably believes that data in the MDFF data does not match the configuration information in the MDFF data .
Invalid Standing Data	This code is used where the Initiator reasonably believes that the configuration data in the MDFF data is inconsistent with MSATS.
Missing DataStream	Used where the Initiator reasonably believes that the channel/s are incomplete based on the configuration information provided. This could be in the MDFF file or information obtained elsewhere.
Require Actual Reading or Substitute	Used where the Initiator reasonably believes that they are entitled to Actual metering data or substituted metering data for a specified period.
Require Final Substitute	Used where the Initiator has received a Substitution and reasonably believes they should have received a Substitution with a quality flag of 'F'

METER DATA PROCESS INVESTIGATION CODES



INVESTIGATION CODE	USE
Scheduled Reading Required	Used where the Initiator reasonably believes that the NSRD has lapsed and the MDFF data has not been provided within the required timeframe.
Service Order Reading Required	Used where the Initiator has received a <u>ServiceOrderResponse</u> with a ServiceOrderStatus of 'Partially Completed' or 'Completed' and the associated MDFF data has not been provided within the required timeframe.
Verify High Reading	Used where the Initiator reasonably believes the Meter Reading is too high compared to Historical Data, or following a customer complaint.
Verify Low Reading	Used where the Initiator reasonably believes the Meter Reading is too low compared to Historical Data, or following a customer complaint.
Verify/Missing Register	Used where the Initiator reasonably believes that the registers received in the MDFF do not align with those in MSATS.
Require Estimate Data	Used where the Initiator reasonably believes they are entitled to an Estimation.
Meter Churn	Used where the Initiator reasonable believes that they have not received actual Meter Churn data.
Other	Any other reason not covered by any other Investigation Code.

PROVIDE METER DATA REQUEST FIELDS



Initiators (RB, DB or MDP) must ensure that the ProvideMeterDataRequest conforms to the usage, format and definitional rules

NEM FIELD	FORMAT	USE	DEFINITION
InitiatorRole	VarChar(4)	M	The Initiator's Role requesting the MDFF Data. Participant Role as published in MSATS.
RequestID	VarChar(15)	M	Initiator defined reference, used for reference and tracking. Must be a new (unused) number, unique for the Initiator.
NMI	Char(10)	M	NMI for the connection point missing data.
NMIChecksum	Char(1)	O	NMI Checksum for the connection point missing data.
StartReadDate	DATE	M	The start date for the period for which the Initiator is requesting MDFF data.
EndReadDate	DATE	O	The end date for the period for which the initiator is requesting MDFF data.

Analysis indicates that WA use the same fields.
NEM InitiatorRole = WEM Participant Role.

VERIFY METER DATA REQUEST DATA



For a Verify Meter Data Request the Initiator (RB, DB, MDP) must include:

FIELD	FORMAT	USE - INTERVAL DATA	USE - ACCUMULATION DATA	DEFINITION / RULES
InitiatorRole	VarChar(4)	M	M	Participant Role as published in MSATS.
RequestID	VarChar(15)	M	M	Unique Reference number
NMI	Char(10)	M	M	Connection Point NMI
NMIChecksum	Char(1)	O	O	NMI Checksum for connection point.
NM Configuration	VarChar(240)	M/N	M/N	If this value is provided, the expected NM Configuration or the perceived problem of the configuration must be provided in the Investigation Description field.
MeterSerial	VarChar(12)	M/N	M/N	Only required if the data being queried is at the single meter level or an individual DataStream level.
NM Suffix	Char(2)	M/N	M/N	Example = 'E1','K1','Q2' etc. Mandatory if at an individual DataStream level or if a CurrentRead is provided.
RegisterID	VarChar(10)	O	O	Matching MSATS RegisterID

Analysis shows that WA use the same VerifyMeterDataRequest fields.
NEM InitiatorRole = WEM Participant Role.

VERIFY METER DATA REQUEST DATA (CONT.)



FIELD	FORMAT	USE - INTERVAL DATA	USE - ACCUMULATION DATA	DEFINITION / RULES
CurrentRead	VarChar(15)	N	M/N	Mandatory for Accumulation Meters if any of the following InvestigationCodes are used: <ul style="list-style-type: none"> Confirm Reading For Vacant Site Verify High Reading Verify Low Reading Confirm Zero Consumption
CurrentReadDate	DATE	N	M/N	Date of the Meter Reading in the MDFF data being queried.
CurrentConsumption	Numeric(15,3)	N	M/N	Original consumption figure (in kWh) in the MDFF data being queried. Must be provided if CurrentRead is populated.
StartReadDate	DATE	M	M	The first day of the period the Initiator is querying.
EndReadDate	DATE	M	O	The last day of the period the Initiator is querying.
Investigation Code	VarChar(40)	M	M	Examples: <ul style="list-style-type: none"> Confirm Reading For Vacant Site Confirm Zero Consumption Incomplete Data Invalid MDFF Data
InvestigationDescription	Varchar(240)	M	M	Free text

METER DATA NOTIFICATION FIELDS

For a Meter Data Notification the Initiator (MDP) must include:

FIELD	FORMAT	USE	DEFINITION
RecipientRole	VarChar(4)	M	The Recipient's Role as published in MSATS.
RequestID	VarChar(15)	M/N	Not required when transaction sent as part of the normal Meter Data Notification Process. Mandatory when the transaction is sent to the requesting Initiator as a response to a <u>ProvideMeterDataRequest</u> , <u>VerifyMeterDataRequest</u> or <u>RemoteServiceRequest</u> .
CSVConsumptionData	CSVDATA	R	Contains embedded data in CSV format for Accumulation Meters.
CSVIntervalData	CSVDATA	R	Contains embedded data in CSV format for Interval Meters.

Analysis shows that WA uses the same fields.
InitiatorRole = WEM Participant Role.

WEM REQUEST FIELDS VARIANCE

The WEM data fields for ProvideMeterDataRequest, VerifyMeterDataRequest and MeterDataNotification that are not used in the NEM are:

FIELD	FORMAT	USE	DEFINITION
ParticipantID	VarChar(10)	M	The Participant requesting the MDFF Data. Participant ID as published in MSATS.
MDPID	VarChar(10)	M	Identifier of the MDP asked to provide MDFF Data.

Assumption: WA will adopt to the fields used in the NEM transactions (Initiator Role/Recipient Role)

REMOTE SERVICE REQUEST FIELDS



For a Remote Service Request the Initiator (DB, RB or [MC]) must include:

FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
RequestID	VARCHAR(15)	M	Initiator defined reference, used for reference and tracking. Must be a new (unused) number, unique for the Initiator.	Yes
NMI	CHAR(10)	M	NMI for the connection point.	Yes
NMIChecksum	CHAR(1)	O	NMI Checksum for the connection point.	Yes
MeterSerialNumber	VARCHAR(12)	O	Meter Serial ID(s). This is a repeatable field to allow for the provision of multiple meters.	Yes
ServiceType	VARCHAR(40)	M	Describes the specific service required Standard Values: <ul style="list-style-type: none"> • Remote On Demand Meter Read • Metering Installation Inquiry • Start Remote Scheduled Meter Read • Stop Remote Scheduled Meter Read • Change Remote Scheduled Meter Read • <User Defined> 	WA B2B Procedures define Service Type as type of Telephone service? Varchar(12)

REMOTE SERVICE REQUEST FIELDS (CONT.)



FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
<i>RequestCode</i>	VARCHAR(40)	M	Standard values: <ul style="list-style-type: none"> • Meter Contactor Status • Voltage • Current • Average Voltage • Events • Frequency • Active Energy • Reactive Energy • Index Read • <User Defined> 	Not found in WA Build Pack List of Codes or WA B2B Procedure
<i>ResponseFormat</i>	VARCHAR(20)	M	Standard Values: <ul style="list-style-type: none"> • MDN • CSV • MDFF • XML • BASE64 • <User Defined> 	Not found in WA Build Pack List of Codes

REMOTE SERVICE REQUEST FIELDS (CONT.)



FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
FromDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)
ToDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)
UserDef1 to UserDef10	VARCHAR(240)	O	Usage agreed between initiator and recipient. Can be used for example to define different measurement periods for the response, or measurement such as power factor, or request secondary data streams in the response.	Assumption is Yes

Analysis:

- WA does not have currently use Remote Service Requests.
- WA will adopt the NEM data fields if these types of transaction are used.

REMOTE SERVICE RESPONSE FIELDS



Recipients (DB, RB or [MC]) must ensure that the RemoteServiceResponse includes:

FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
RequestID	VARCHAR(15)	M	unique number.	Yes
NMI	CHAR(10)	M	NMI for the connection point.	Yes
NMIChecksum	CHAR(1)	O	NMI Checksum for the connection point.	Yes
MeterSerialNumber	VARCHAR(12)	M	repeatable field to allow for the provision of multiple meters.	Yes
ServiceType	VARCHAR(40)	M	Examples: <ul style="list-style-type: none"> Remote On Demand Meter Read Metering Installation Inquiry Start Remote Scheduled Meter Read Stop Remote Scheduled Meter Read 	WA B2B Procedures define Service Type as type of Telephone service? Varchar(12)
RequestCode	VARCHAR(40)	M	Examples: <ul style="list-style-type: none"> Meter Contactor Status Voltage Current Average Voltage Events Frequency Active Energy 	Not found in WA Build Pack List of Codes or WA B2B Procedure

REMOTE SERVICE RESPONSE FIELDS (CONT.)



FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
ResponseFormat	VARCHAR(20)	M	<p>This defines the structure of the response payload</p> <p>Standard Values:</p> <ul style="list-style-type: none"> • MDN • CSV • MDFF • XML • BASE64 • <User Defined> <p>Where MDN is used the response will follow existing meter data delivery mechanisms. Otherwise the return data will be in the response payload</p>	Not found in WA Build Pack List of Codes or WA B2B Procedure
FromDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)
ToDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)

REMOTE SERVICE RESPONSE FIELDS (CONT.)



FIELD	FORMAT	USE	DEFINITION	FIELD AVAILABLE IN WEM?
UserDef1 to UserDef10	VARCHAR(240)	O	Usage agreed between initiator and recipient. These 10 fields can be used for example to define different measurement periods for the response, or measurement such as power factor, or request secondary data streams in the response.	Assumption is Yes
ResponseFormat	VARCHAR(20)	M	This defines the structure of the response payload Standard Values: MDN, CSV, MDFF, XML, BASE64, <User Defined> Where MDN is used the response will follow existing meter data delivery mechanisms. Otherwise the return data will be in the response payload	Not found in WA Build Pack List of Codes
FromDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)
ToDateTime	DATETIME	O	When blank assumes current date and time. The time will be EST unless otherwise agreed.	WEM uses Western Standard Time (WST)
UserDef1	VARCHAR(240)	O	Usage agreed between initiator and recipient. Can be used for example to define different measurement periods for the response, or measurement such as power factor, or request secondary data streams in the response.	Assumption is Yes

Assumption: WA will adopt the NEM data fields if these types of transactions are used.

REMOTE SERVICES REQUEST AND RESPONSE GUIDELINES



A Recipient must respond to the Initiator (MDP) using a response in the table below.

REQUEST STATUS	DESCRIPTION	MP OR (MC) RESPONSE
Accept	MP or [MC] is able to fully satisfy the Request.	<u>BusinessAcceptance/Rejection</u> with a Status of “Accept”
Reject	MP or [MC] is unable to satisfy the <u>RemoteServiceRequest</u>	<ul style="list-style-type: none">• <u>BusinessAcceptance/Rejection</u> with a Status of “Reject”• Appropriate EventCodes and associated details in the <u>BusinessAcceptance/Rejection</u> must be provided including a Severity of “Error”

- RemoteServiceRequest does not have a partial status response.
- Timing requirements for RemoteServiceRequest are as agreed between the Recipient and the Initiator.

METER DATA PROCESS - APPLICABLE EVENTS



Participants must use the most relevant Business Event(s) as set out in the table. These are also used in the WEM.

- Where multiple EventCode(s) are applicable these may be provided.

BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY	<u>METERDATA</u> <u>NOTIFICATION</u>	<u>PROVIDEMETER</u> <u>DATAREQUEST</u>	<u>VERIFYMETER</u> <u>DATAREQUEST</u>	<u>REMOTESERVICE</u> <u>REQUEST</u>	EVENT CODE
Requested data has previously been sent in response to a previous <u>ProvideMeterDataRequest</u>	No	Error	-	Yes	-	-	1936
Participant is not entitled to requested data for part of the date range requested	No	Information	-	Yes	-	-	1934
Participant is not entitled to requested data for part of the date range requested	No	Error	-	-	Yes	-	1934

METER DATA PROCESS - APPLICABLE EVENTS (CONT.)



BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY	<u>METERDATA</u> <u>NOTIFICATION</u>	<u>PROVIDEMETER</u> <u>DATAREQUEST</u>	<u>VERIFYMETER</u> <u>DATAREQUEST</u>	<u>REMOTESERVICE</u> <u>REQUEST</u>	EVENT CODE
Insufficient information provided to action Request.	Yes	Error	-	-	Yes	-	1958
NSRD not past yet (ie allowed timeframe to provide reading has not expired yet).	No	Error	-	-	Yes	-	1948
Query has been investigated and no change made to the MDFF Data.	Yes	Error	-	-	Yes	-	1959
<i>StartReadDate</i> is before the MDP SLP on-line storage requirement.	No	Information	-	Yes	Yes	-	1960
Requested data is no longer on-line	No	Error	-	Yes	Yes	-	1946
No data found	No	Error	-	Yes	Yes	-	1931
Recipient is not the MDP for the whole period.	No	Information	-	Yes	-	-	1963

METER DATA PROCESS – APPLICABLE EVENTS (CONT.)



BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY	<u>METERDATA NOTIFICATION</u>	<u>PROVIDEMETER DATAREQUEST</u>	<u>VERIFYMETER DATAREQUEST</u>	<u>REMOTESERVICE REQUEST</u>	EVENT CODE
Recipient is not responsible for the supplied NMI	Yes	Error	-	Yes	Yes	Yes	1923
Format problem found in MDFF	Yes	Error	Yes	-	-	-	1925
Required timeframe for updating MSATS has not passed	No	Error	-	-	Yes	-	1968
Invalid Request	Yes	Error	-	-	Yes	-	1969
Recipient did not initiate request	Yes	Error	Yes	-	-	-	206
Request matches an existing Request.	Yes	Error	-	-	Yes	-	1965
No further data available.	No	Information	-	Yes	-	-	1966

METER DATA PROCESS – APPLICABLE EVENTS (CONT.)



Analysis indicates WA does not use the Business Events for Remote Service Requests/Response Process in the table:

BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY	<u>METERDATA</u> <u>NOTIFICATION</u>	<u>PROVIDEMETER</u> <u>DATAREQUEST</u>	<u>VERIFYMETER</u> <u>DATAREQUEST</u>	<u>REMOTESERVIC</u> <u>EREQUEST</u>	EVENT CODE
Participant is not entitled to requested data for date range requested	No	Error	-	Yes	Yes	Yes	1933
New request with previously used <i>RequestID</i> .	Yes	Error	-	Yes	Yes	Yes	1913
NMI abolished.	No	Error	-	Yes	Yes	Yes	1961
No active meters.	No	Error	-	Yes	Yes	Yes	1962
Accept	No	Information	Yes	Yes	Yes	Yes	0
Data missing. Details provided in <i>Explanation</i>	Yes	Error	Yes	Yes	Yes	Yes	201
Invalid data. Details provided in <i>Explanation</i>	Yes	Error	Yes	Yes	Yes	Yes	202
No Contract for service	No	Error	-	-	-	Yes	2007
Service Not Provided	No	Error	-	-	-	Yes	2006
No Comms	No	Error	-	-	-	Yes	2009

METER DATA PROCESS APPLICABLE EVENTS



Analysis indicates that the following WEM Business Event for VerifyMeterDataRequest Business Event is not used in the NEM:

BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY
Agree that NMI is not Sender's	No	Information

An alternative in the NEM is to use 'Participant is not entitled to requested data for date range requested'.

ONE WAY NOTIFICATION

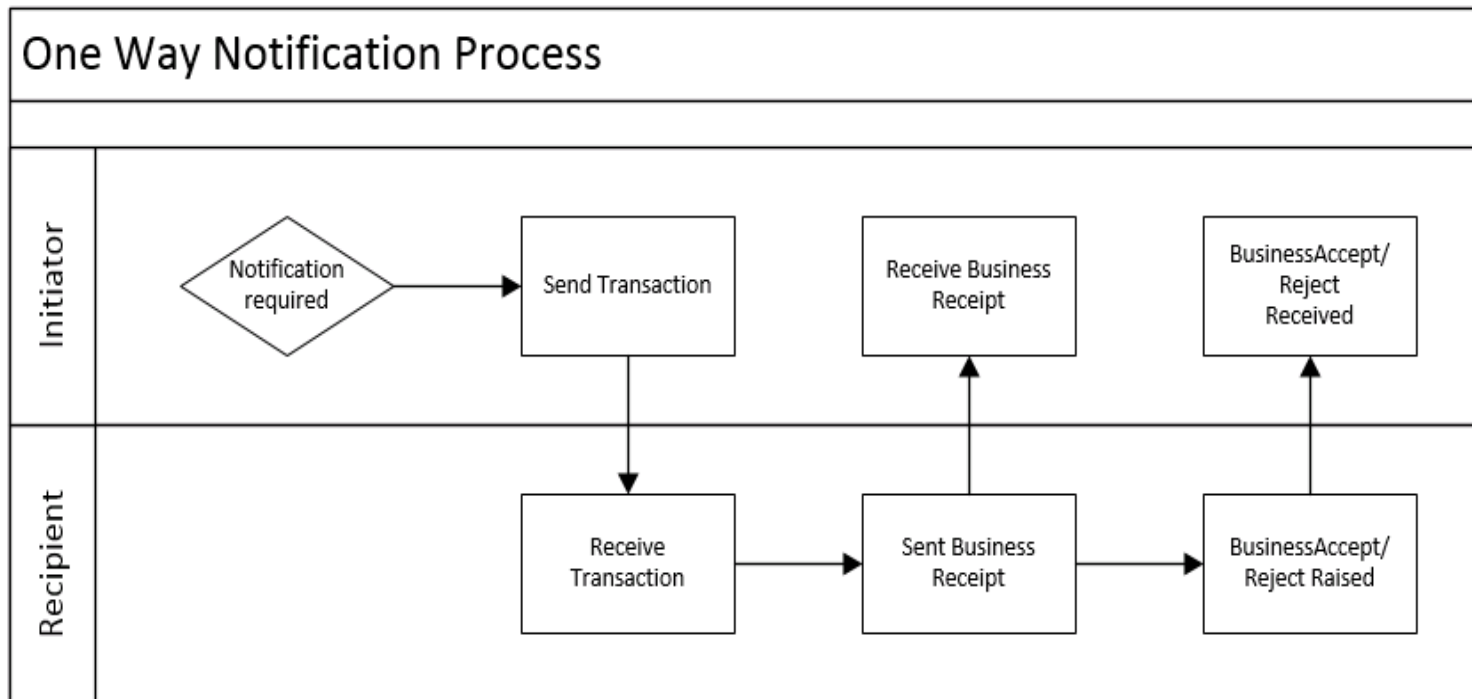


The B2B Procedure: One Way Notification Process:

- Is published by AEMO in accordance with NER clause 7.17.3. See: <http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Power-of-Choice-B2B-consultation-2>.
- Details the processes and data requirements concerning the use of One Way Notifications.
- Enables Participants to send information to each using CSV Payload or XML regarding:
 - Tariff changes
 - Metering changes – i.e., faults, mass meter replacements, completion of meter works
 - Planned interruptions
 - Issuing a notification of a service order to a notified party.
- Has effect only for the purposes set out in the NER.

ONE WAY NOTIFICATION TYPES

Using the One Way Notification process an Initiator can send a single transaction for one or more NMs (via CSV Payload or XML information) or messages for information purposes.



Analysis indicates WA does not use One Way Notifications.

Assumption: WA will adopt the NEM One Way Notification process.

CSV PAYLOAD NOTIFICATION

CSV Payload transactions include:

NOTIFICATION TYPE	DESCRIPTION	METHOD	INITIATOR	RECIPIENT
Meter Exchange Notification (MXN)	A transaction to support forward planning of bulk meter rollouts.	CSV Payload	RB or MP or MC	Any
Network Tariff Notification (NTN)	Informs a retailer about an intent to change network tariffs	CSV Payload	DB	RB

ONE WAY NOTIFICATION FIELD – CSV FIELD VALUES



A successful OneWayNotification CSV payload transaction must:

- Only contain a single CSVNotificationDetail payload.
- Follow the usage, format and definitional rules in the table:

FIELD	FORMAT	USE	DEFINITION
InitiatorID	VarChar(10)	M	Participant ID that initiates the OWNP transaction
RecipientID	VarChar(10)	M	Participant ID to whom the data is being provided.
TransactionGroup	VarChar(25)	M	The OWNP (OneWayNotificationPayload) is provided by the initiating participant. This indicates the type of Business Document.
Priority	Enumerated Value	M	Priority value for One Way Notification is “Low”.
CSVNotificationDetail	DATA	M/N	Contains embedded data for a <u>OneWayNotification</u> . Each transaction can only carry one CSVNotificationDetail payload type.

METER EXCHANGE NOTIFICATION – MXN



Additional information required for a Meter Exchange Notification (MXN) CSV Transaction:

FIELD	FORMAT	USE	DEFINITION
RECORDINDICATOR	CHAR(1)	M	Indicates the type of record, “I” for information and “D” for data
RECORDNUMBER	VARCHAR(5)	M	Unique incrementing row number for each record
MESSAGENAME	CHAR(3)	M	“MXN”.
VERSION	CHAR(1)	M	Identifies the version of the CSVNotificationDetail content. For MXN this is “2”.
NMI	CHAR(10)	M	NMI where the meter exchange is planned to occur.
NMICHECKSUM	CHAR(1)	M	NMI Checksum for the NMI.
METERSERIALNUMBER	VARCHAR(12)	O/N	Not Required if all current meters and devices are being exchanged
NOTBEFOREDATE	DATE(8)	O	The earliest date provided to the customer for the meter exchange. Format: YYYYMMDD
NOTAFTERDATE	DATE(8)	O	The latest date provided to the customer for the meter exchange. Format: YYYYMMDD
NOTICEDATE	DATE(8)	O	The date on the notice issued to the customer by the Initiator. Format: YYYYMMDD
STARTDATE	DATE(8)	O	The proposed start date of the Meter Exchange by the Initiator. Format YYYYMMDD
STARTTIME	VARCHAR(4)	O	The time the Meter Exchange is proposed for that NMI. Format HHMM
ENDDATE	DATE(8)	O	Used to advise the Recipient that they have a program of works which may go over an extended period. YYYYMMDD
DURATION	VARCHAR(5)	O	The duration of the Meter Exchange for that NMI. HH:MM

NETWORK TARIFF NOTIFICATION - NTN



Additional information required for a Network Tariff Notification (NTN) CSV Transaction:

FIELD	FORMAT	USE	DEFINITION
RECORDINDICATOR	CHAR(1)	M	Indicates the type of record, "I" for information and "D" for data
RECORDNUMBER	CHAR(5)	M	Unique incrementing row number for each record
MESSAGENAME	VARCHAR(3)	M	NTN
VERSION	CHAR(1)	M	For NTN this is "2".
NMI	CHAR(10)	M	NMI where the network tariff change is proposed to occur.
NMICHECKSUM	CHAR(1)	M	NMI Checksum for the NMI.
METERSERIALNUMBER	VARCHAR(12)	M	Meter Serial ID
NMISUFFIX	CHAR(2)	M	As defined in the National Metering Identifier Procedure E.g. "11", "E1", "B1".
NTPROPOSEDDATE	DATE(8)	M	YYYYMMDD
NOTICEENDDATE	DATE(8)	R	The latest date the Initiator can effect a network tariff change. YYYYMMDD
PROPOSEDNTC	VARCHAR(10)	M	The new network tariff code being proposed for that NMISUFFIX/Register.
REASONFORCHANGE	VARCHAR(50)	M	The reason for network tariff change. Allowable values: <ul style="list-style-type: none"> • No Change • DNSP Review • Change of NMI Classification • Retailer/MC Meter Roll Out • Regulator Review • Cust Request • Other
NOTES	VARCHAR (240)	M/O	Free text Mandatory when REASONFORCHANGE 'Other' is used.

One Way Notifications using aseXML:

- Planned Interruption Notification – used to inform of a planned interruption to supply at a site.
- Meter Fault and Issue Notification – used to send information relating to a meter fault or issue to a Recipient, including:
 - Meter faults and meters that require changes due to the meter not meeting Metrology requirements.
- Notice of Metering Works – used to notify the completion of meter works including metering devices exchanged, installed, removed or relocated at a Site.
- Notified Party – used for notifications of service order requests and responses to and from Notified Parties.

Assumption: WA currently uses waeXML and will adopt NEM aseXML.

ASEXML ONE WAY NOTIFICATION TYPES



AseXML transactions include:

NOTIFICATION TYPE	DESCRIPTION	METHOD	INITIATOR	RECIPIENT
Planned Interruption Notification	Informs a DNSP about planned interruptions on the network	XML	RB or MC	DB
Meter Fault and Issue Notification	Informs a retailer about a meter fault	XML	MP or DB or MC	RB
Notice of Metering Works	Informs the DNSP about the details of a recently completed metering works	XML	MP or MC	DB
Notified Party	used to inform Notified parties about the state of a service order process	XML	RB or MC	Any

PLANNED INTERRUPTION NOTIFICATION



Planned Interruption Notification field requirements in aseXML format:

FIELD	FORMAT	USE	DEFINITION
NMI	Char(10)	M	NMI where the planned interruption to supply is proposed to occur.
NMIChecksum	Char(1)	M	NMI Checksum for the NMI.
StartDate	DATE	M	The proposed start date of the planned interruption to supply by the Initiator.
StartTime	TIME	M	The time the planned interruption to supply is proposed for that NMI.
EndDate	DATE	O	This can be used where the Initiator wants to advise the Recipient that they have a program of works which may go over an extended period.
Duration	VARCHAR(5)	M	Format HH:MM
ReasonForInter	VARCHAR(50)	O	<p>The reason for planned interruption.</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Meter Exchange - Individual • Meter Exchange - Rollout • Meter Replacement – Family Maintenance • Meter Test • Meter Fault Investigation • Distribution Works • Other
Notes	VARCHAR (240)	M/O	Free text - Mandatory when ReasonForInter 'Other' is used.

METER FAULT AND ISSUE NOTIFICATION



Meter Fault and Issue Notification field requirements in aseXML format:

Field	Format	Use	Definition
NMI	CHAR(10)	M	NMI where the meter fault or issue has occurred.
NMIChecksum	CHAR(1)	M	NMI Checksum for the NMI.
Date	DATE	M	The date of the meter fault or issue was identified by the Initiator.
StartDate	DATE	O	Can be used by the Initiator to inform the recipient of an intended exchange date if the Initiator is intending to offer an meter exchange service.
StartTime	TIME	O	Can be used by the Initiator to inform the recipient of the intended exchange time window if the Initiator is intending to offer an meter exchange service
EndDate	DATE	O	Can be used by the Initiator to inform the recipient of the end of the proposes exchange window if the Initiator is intending to offer an meter exchange service.
Duration	VARCHAR(5)	O	The duration of the Meter Exchange for that NMI Format HH:MM
SupplyOn	CHAR(1)	M	Allowed values: Y or N
SupplyOff	CHAR (40)	M/N	An indicator to advise what method was used to de-energise the site. Allowed values: Remove Fuse, Remote, Local Meter Disconnection, Pillar-Box Pit Or Pole-Top Mandatory when SUPPLYON value is No
MeterSerialNumber	VARCHAR (12)	O	Meter Serial ID. This field repeats to allow the reporting of multiple Meters.
ReasonForNotice	VARCHAR(50)	M	Allowed values: Meter Family Failure, Accuracy Failure, Timeswitch/Controlled Load Failure, Contactor Failure, No Display, Communication Failure, Meter Verification, Malfunction, Area Event, Metrology Threshold Breach, Meter Bypassed, Physical Damage, Theft/Tampering, Other
Notes	VARCHAR (240)	M/O	Free text. Mandatory when <i>ReasonForNotice</i> Other is used.

NOTICE OF METERING WORKS



Notice of Metering Works Notification field requirements in aseXML format:

- Designed to capture information from the field technician about the equipment added/removed on site.

FIELD	FORMAT	U S E	DEFINITION
NomwID	VARCHAR(12)	M	Must be a new (unused) number, unique for the Initiator.
NMI	CHAR(10)	M	NMI where the metering work has occurred.
NMIChecksum	CHAR(1)	M	NMI Checksum for the NMI.
WorkType	VARCHAR(50)	M	Allowed values: <ul style="list-style-type: none">• Exchange Equipment• Install Equipment• Remove Equipment• Relocate
FieldWorkDateTime	DATETIME	M	The date and time of when the field work was completed.
CustomerClassificationCode	VARCHAR(15)	M	Residential or Business
EnergisationStatus	VARCHAR (50)	M	Allowed values: <ul style="list-style-type: none">• Active• Not Connected• Deenergised Before Meter• Deenergised At Meter• Deenergised After Meter

NOTICE OF METERING WORKS (CONT.)



FIELD	FORMAT	USE	DEFINITION
PrimaryVoltage	VARCHAR(8)	M	Allowed values: 230V, 400V, 11KV, 22KV, 33KV, 66KV, 132KV, Other HV
Latitude	NUMERIC (s2.7)	R	Eg -37.8886755
Longitude	NUMERIC (s3.7)	R	Eg +145.1410361
ParticipantID	VARCHAR(10)	M	The Participant ID of the Metering Provider (MPB) the work is performed for.
TotalInstalledMeters	NUM(2)	M	Number of new meters installed at the site.
MeterSerialNumber	VARCHAR(12)	M/N	This field repeats if more than one meter has been installed at the completion of the field work.
SupplyPhase	VARCHAR(20)	M/N	Allowed values: 1-Phase, 2-Phase, 3-Phase, Other Multi-Phase This field repeats for each MeterSerialNumber.
GeneralSupply	VARCHAR(3)	M/N	Allowed values: Yes or No. This field repeats for each MeterSerialNumber.
ControlledLoad	VARCHAR(3)	M/N	Allowed values: Yes or No. This field repeats for each MeterSerialNumber.
GenerationType	VARCHAR(5)	M/N	Allowed values: Net, Gross, None. This field repeats for each MeterSerialNumber.
TotalInstalledNetworkDevices	NUM(2)	M	Number of new network devices installed at the site.
NetworkDeviceNumber	VARCHAR(12)	M/N	Faceplate serial number of the network device that has been installed.
NetworkDeviceLocation	VARCHAR(14)	M/N	Allowed values: Before Meter, After Meter This field repeats if more than one network device has been installed at the completion of the field work.
ControlEquipmentNumber	VARCHAR(12)	R/N	Faceplate serial number of the control equipment. If the control equipment is part of a meter then this should match the MeterSerialNumber.
ControlEquipmentType	VARCHAR(25)	R/N	Allowed values: Internal Relay, External Relay, Internal Time Switch, External Time Switch.

NOTICE OF METERING WORKS (CONT.)



FIELD	FORMAT	USE	DEFINITION
ControlChannel	VARCHAR(12)	R/N	Required for each ControlEquipmentNumber provided.
ControlConnectedMeterNumber	VARCHAR(12)	R/N	Meter Serial ID of the meter connected to the control equipment.
TransformerNumber	VARCHAR(12)	M/N	Faceplate serial number of the instrument transformer that has been installed.
TransformerType	VARCHAR(2)	M/N	Allowed values: CT, VT
TransformerRatio	VARCHAR(20)	M/N	Describes the instrument transformer connected ratio. E.g. 100/10.
TransformerConnectedMeterNumber	VARCHAR(12)	R	Meter Serial ID of the meter connected to the instrument transformer.
TotalRemovedMeters	NUM(2)	R	Number of existing meters removed from the site.
TotalRemovedOther	NUM(2)	R	Number of existing network or other devices removed from the site.
RemovedEquipmentNumber	VARCHAR(12)	M/N	Faceplate serial number of the removed equipment.
RemovedEquipmentType	VARCHAR(25)	M/N	Allowed values: Basic Meter, Interval Meter, Network Device, Control Equipment, Instrument Transformer Mandatory for each RemovedEquipmentNumber provided.
RemovedRegister	VARCHAR(10)	M/N	Register identifier of the removed basic meter. Register reads to be recorded as displayed in the meter.
RemovedMeterReading	VARCHAR(15)	M/N	Register read for the corresponding register. Values must include any leading zeros and trailing zeros as per the physical dial format. Values must be exclusive of meter multipliers.
Notes	VARCHAR(240)	O	Free text.

NOTIFIED PARTIES – ASEXML FIELD VALUES



Notified Parties field requirements in aseXML format:

FIELD	FORMAT	USE	DEFINITION
InitiatorID	VARCHAR(10)	M	Initiator's Participant ID of the ServiceOrderRequest.
SORecipientID	VARCHAR(10)	M	Recipient's Participant ID of the ServiceOrderRequest.
NMI	CHAR(10)	M	NMI that the notification relates to.
NMIChecksum	CHAR(1)	O	NMI Checksum for the NMI.
ServiceOrderID	VARCHAR(15)	M	A defined reference, used for reference and tracking. Format must exactly match that used in the ServiceOrderRequest (including leading or trailing zeros and spaces).
ServiceOrderType	VARCHAR(22)	M	ServiceOrderType as specified in the ServiceOrderRequest; the list of codes are specified in the B2B Procedure Service Order Process.
ServiceOrderSubType	VARCHAR(40)	M	ServiceOrderSubType as specified in the ServiceOrderRequest; the list of codes are specified in the B2B Procedure Service Order Process.
ScheduledDate	DATE	M	ScheduledDate as specified in the ServiceOrderRequest.
ActualDateAndTime	DATETIME	R	ActualDateAndTime as specified in the ServiceOrderResponse.
NotificationStatus	VARCHAR(30)	M	Allowed values: SO Requested, SO Rejected, SO Completion, Accepted by Notified Party, Rejection by Notified Party, Notified Party Stopped.
RefTransaction	aseXML	M/N	Copy of the transaction the notification relates to. Depending on the NotificationStatus of the notification, the contents must be one of the following: <ul style="list-style-type: none"> ServiceOrderRequest BusinessAcceptance/Rejection (sent by the Recipient in response to the ServiceOrderRequest) ServiceOrderResponse BusinessAcceptance from Notified Party BusinessRejection from incorrect Notified Party

ACCEPTANCE/REJECTION TRANSACTION DATA



An **acceptance** of a CSV Payload requires an 'Accept' status response sent to the Initiator.

A CSV Payload **rejection** requires additional information to be provided.

FIELD	FORMAT	USE	DEFINITION
EventCode	NUMERIC(4)	M	Acceptance or Rejection Code
KeyInfo	NUMERIC(15)	O/N	Record number within the <u>NotificationDetail</u> that the event occurred
Context	EventContext	O/N	The data element in the received Business Document that caused the event.
Explanation	Unlimited Varchar	M/O	An explanation of the event. Mandatory where the business event requires an explanation.

An **acceptance or rejection** for an XML Payload requires:

FIELD	FORMAT	USE	DEFINITION
EventCode	NUMERIC(4)	M	Acceptance or Rejection Code
KeyInfo	VARCHAR(15)	M	<ul style="list-style-type: none"> <u>NoticeOfMeteringWorks</u>, the NomwID <u>NotifiedParty</u> transaction, the ServiceOrderID <u>PlannedInterruptionNotification</u> or <u>MeterFaultandIssueNotification</u>, the NMI
Context	EVENT CONTEXT	O	The Data Element in the received Business Document (eg. MeterSerialNumber)
Explanation	UNLIMITED VARCHAR	M/O	An explanation of the event. Must be provided where the Business Event requires an Explanation.

BUSINESS EVENT NOTIFICATION DATA



Business Event responses used for CSV Payload and XML Notifications.

- Multiple EventCodes can be used where applicable.

BUSINESS EVENT	EXPLANATION REQUIRED	SEVERITY	CSV PAYLOAD	PLANNED INTERRUPTION NOTIFICATION	METEFAULT AND ISSUE NOTIFICATION	NOTICE OF METERING WORKS	NOTIFIED PARTY	EVENT CODE
Accept	No	Information	Y	Y	Y	Y	Y	0
Data Missing. Details provided in explanation	Yes	Error	Y	Y	Y	Y	Y	201
Invalid Data. Details provided in explanation	Yes	Error	Y	Y	Y	Y	N	202
Data format is invalid.	Yes	Error	Y	N	N	N	N	2003
Recipient not responsible for the supplied NMI	No	Error	N	Y	Y	Y	Y	1923
Invalid Meter Readings – Removed Meter	Yes	Error	N	N	N	Y	N	2008

NEM ROLR PROCESS – PART B



NEM RoLR Processes: Part B – B2B Procedure:

- Defines the processes that participants and AEMO must follow to manage market transactions and communicate customer and site information if a RoLR event occurs.
- Is made under section 144 of the National Energy Retail Law (NERL) and allows inclusion of:
 - Any matter regarding the operation or implementation of the RoLR scheme
 - The transfer of a failed retailer's customers to the designated RoLR
 - The acceleration of cancellation of open transactions
 - Audits and reviews
 - Any matter the Retail Market Procedures (including B2B Procedures) deal with relating to RoLR events.
- Has effect only for the purposes set out in the NERL and NER.

Note, Part A – MSATS Procedure: RoLR Procedures was presented at the October meeting. These procedures are made under NER clause 7.17.

- Under the NERL, a failed Retailer is required to provide customer and site details and information (i.e., name, billing address, metering identifier) to the designated retailer.
- Key terms include:
 - RoLR event – means an event that triggers the operation of the Retailer of Last Resort scheme under the National Energy Retail Law. It includes either:
 - The revocation of a retailer’s retail authorisation
 - The retailer’s right to acquire electricity from the NEM is suspended
 - The retailer ceases to be a Registered Participant in the NEM.

NEM OBLIGATIONS AND KEY TERMS (CONT.)



- Under the NERL, a failed Retailer is required to provide customer and site details and information (i.e., name, billing address, metering identifier) to the designated retailer.
- Key terms include:
 - Failed retailer – a retailer (or former retailer) in relation to whom a RoLR event has occurred
 - Default RoLR – a retailer appointed and registered as a default RoLR
 - Designated retailer – for a small customer's premises means—
 - where there is no existing connection—the local area retailer for the relevant geographical area, premises or customer
 - where there is an existing connection (including where a connection alteration to an existing connection is required)—the financially responsible retailer for the premises.

- Part 5 of the Electricity Supply Act 2004 includes the head of power for Supplier of Last Resort (SoLR).
- In 2009, the ERA designated SWIS to be an area that needed a SoLR plan.
- ERA notified Synergy that it was to prepare a SoLR plan for the SWIS.

As discussed in the October forum:

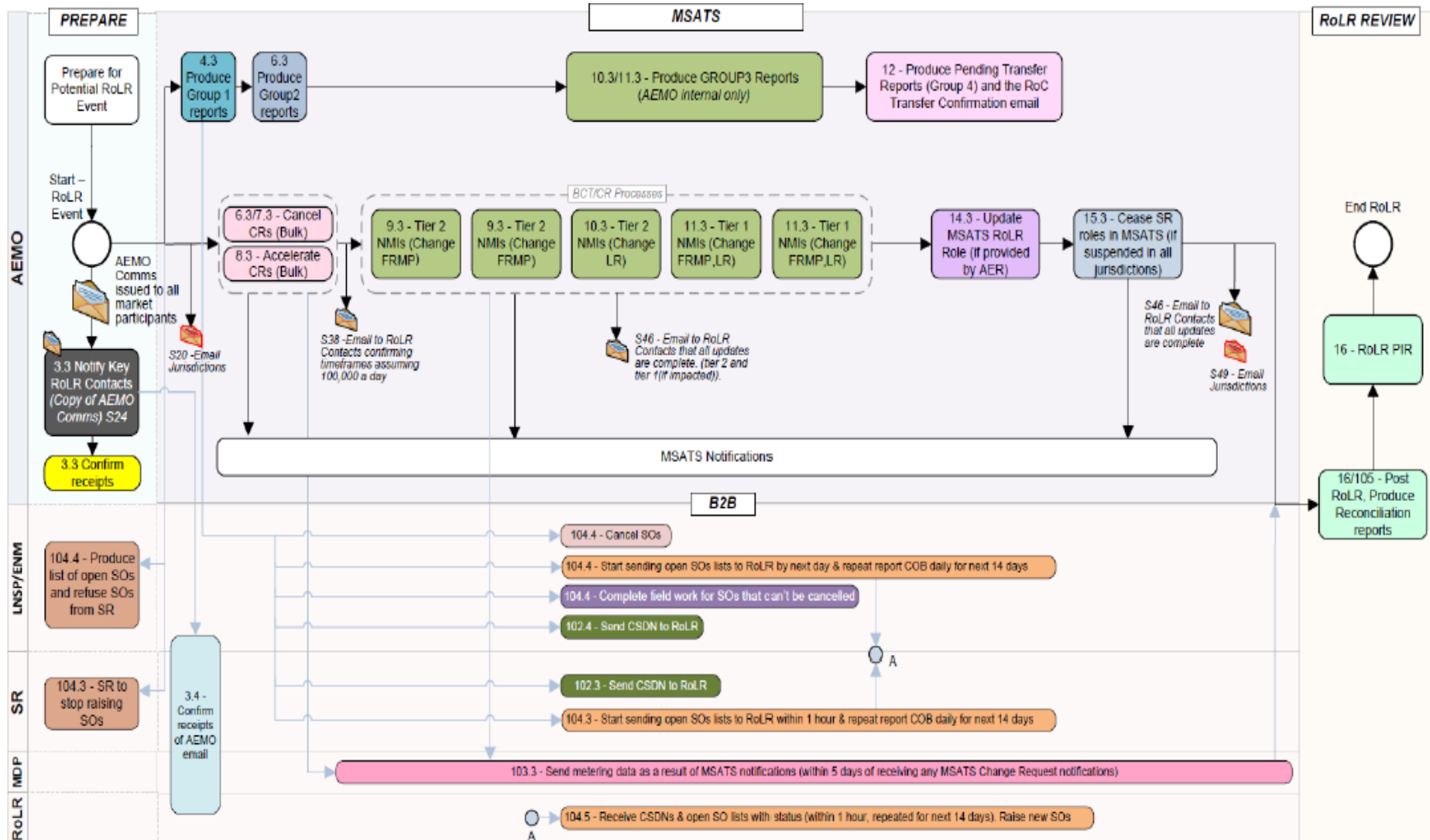
- Synergy has noted there are insufficient institutional arrangements to support the SoLR scheme.
- PUO are reviewing these arrangements.
- Currently, since WA has not adopted the National Energy Customer Framework (NECF), the WA SoLR arrangements remain the responsibility of the ERA and Synergy.

ASSUMPTIONS FOR FUTURE WA ARRANGEMENTS



- As the RMO, AEMO will provide input into the development of the WA SoLR arrangements to:
 - Ensure adequate processes and systems are in place to efficiently transfer NMI from the ‘failed retailer’ to the ‘new retailer’
 - Cancellation of open transactions.
- For NEM consistency and efficiency reasons, it is assumed that AEMO’s existing RoLR processes will be used.
- RoLR field in related NEM systems and transactions will not be changed to SoLR.

NEM RoLR PROCESSES



TECHNICAL DELIVERY SPECIFICATION



The B2B Procedure: Technical Delivery Specification (Procedure):

- Is published by AEMO in accordance with NER clause 7.17.3.
- Specifies the technical requirements for the delivery of B2B Transactions using the e-Hub.

Participants must ensure that all B2B Interactions comply with the requirements for the aseXML protocol as defined in the aseXML Guidelines, see:

http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Guidelines

aseXML Acknowledgements:

- For each Message received an ase:MessageAcknowledgement must be generated.
- For each Transaction an ase:TransactionAcknowledgement is generated for every Business Document that has passed validations.

The following 2 slides outline the Business Document to aseXML mapping:

PROCESS AREA	BUSINESS DOCUMENT	aseXML TRANSACTION	TRANSACTION GROUP	DESCRIPTION
Meter Data	<u>MeterDataNotification</u>	<u>ase:MeterDataNotification</u>	MTRD	Meter Readings (includes CSV component in a valid MDFF).
	<u>ProvideMeterDataRequest</u>	<u>ase:MeterDataMissingNotification</u>	MTRD	Request for meter data
	<u>VerifyMeterDataRequest</u>	<u>ase:MeterDataVerifyRequest</u>	MTRD	Request for meter data to be verified
	<u>RemoteServiceRequest</u>	<u>ase:RemoteServiceRequest</u>	MRSR	Remote Meter service request
	<u>RemoteServiceResponse</u>	<u>ase:RemoteServiceResponse</u>	MRSR	Response to remote meter service request
Service Orders	<u>ServiceOrderRequest</u>	<u>ase:ServiceOrderRequest</u>	SORD	Service Order Request
	<u>ServiceOrderResponse</u>	<u>ase:ServiceOrderResponse</u>	SORD	Service Order Response
Customer Data	<u>CustomerDetailsNotification</u>	<u>ase:CustomerDetailsNotification</u>	CUST	Customer Details Notification
	<u>CustomerDetailsRequest</u>	<u>ase:CustomerDetailsRequest</u>	CUST	Request for a customer details notification
	<u>SiteAccessRequest</u>	<u>ase:SiteAccessRequest</u>	SITE	Request for a site access details notification
	<u>SiteAccessNotification</u>	<u>ase:AmendMeterRouteDetails/AmendSiteAccessDetails</u>	SITE	Updated site access details notification

aseXML TRANSACTIONS



PROCESS AREA	BUSINESS DOCUMENT	aseXML TRANSACTION	TRANSACTION GROUP	DESCRIPTION
One Way Notification	<u>OneWayNotification</u>	<u>ase:CSVNotificationDetail</u>	OWNP	The payload for the One Way Notification Process.
	<u>PlannedInterruptionNotification</u>	<u>ase:PlannedInterruptionNotification</u>	OWNX	Notification of a planned interruption
	<u>MeterFaultandIssueNotification</u>	<u>ase:MeterFaultandIssueNotification</u>	OWNX	Notification of a meter fault or issue
	<u>NoticeOfMeteringWorks</u>	<u>ase:NoticeOfMeteringWorks</u>	OWNX	Notice of metering works
	<u>NotifiedParty</u>	<u>ase:NotifiedPartyNotification</u>	NPNX	Used to facilitate interaction with Notified Parties

Analysis shows that WA does not use One Way Notification transactions.

Assumption: WA adopts the NEM One Way Notification transaction process.

MULTIPLE aseXML TRANSACTIONS

An aseXML Message may contain one or more aseXML transactions.

Where there are more than one transaction a Participant must:

- Use reasonable endeavours to bundle Transactions to support efficient Message handling.
- Ensure that only Transactions of the same Transaction Group are included in the same Message.
- Use reasonable endeavours to ensure that only Transactions of the same Transaction Priority are included in the same Message.

Analysis shows that WA follows the same principles for multiple transactions.

FIELD FORMAT

Analysis indicates that WA and NEM use the same field format conventions for B2B Procedures, which follow Australian Standard AS4590-1999, except for the variances shown in the table.

FIELD NAME	WEM	NEM
HouseNumber	The combination of House Number and House Number Suffix may occur only once	The combination of House Number and House Number Suffix may occur up to two times
HouseNumberSuffix	The combination of House Number and House Number Suffix may occur only once	The combination of House Number and House Number Suffix may occur up to two times
Location Number	Location Number related to survey details in WA.	Not used
StreetName	The combination of Street Name, Street Type and Street Suffix may occur only once	The combination of Street Name, Street Type and Street Suffix may occur up to two times.

Further clarification is required from WP to determine whether these variances are material.

MESSAGE TERMINOLOGY BY PROTOCOL



B2B Messages and transactions between protocols:

MESSAGE	FTP TERM	WEBSERVICE TERM	DESCRIPTION
Hub Acknowledgement	.ac1	HTTP Response with Hub MessageAcknowledgement payload MACK (positive/negative)	Hub response on receipt of a message to signify the successful transfer of a B2B Transaction to the intended Recipient..
Message Acknowledgement	.ack MsgAck (positive) MsgNack (negative)	HTTP Response with MessageAcknowledgement payload MACK (positive/negative)	Recipient/Notified Party acknowledges receipt of the message from the Initiator/e-Hub.
Transaction Acknowledgement	TranAck	TACK (positive/negative)	Recipient/Notified Party provides a business/logical acceptance or rejection of the contents of the transaction.

Analysis shows that WA does not currently use Hub Acknowledgement .ac1.

Assumption: WA will use Hub Acknowledgment protocol .ac1.

MESSAGE TERMINOLOGY BY PROTOCOL



B2B Messages and transactions between protocols:

MESSAGE	FTP TERM	WEBSERVICE TERM	DESCRIPTION
Hub Acknowledgement	.ac1	HTTP Response with Hub MessageAcknowledgement payload MACK (positive/negative)	Hub response on receipt of a message to signify the successful transfer of a B2B Transaction to the intended Recipient..
Message Acknowledgement	.ack MsgAck (positive) MsgNack (negative)	HTTP Response with MessageAcknowledgement payload MACK (positive/negative)	Recipient/Notified Party acknowledges receipt of the message from the Initiator/e-Hub.
Transaction Acknowledgement	TranAck	TACK (positive/negative)	Recipient/Notified Party provides a business/logical acceptance or rejection of the contents of the transaction.

Analysis shows that WA does not currently use Hub Acknowledgement .ac1.

Assumption: WA will use Hub Acknowledgment protocol .ac1.

TIMING REQUIREMENTS

Timing requirements for the delivery of aseXML Transactions and Acknowledgements via the National B2B Infrastructure are summarised in the table.

CYCLE	LOW PRIORITY	MEDIUM PRIORITY	HIGH PRIORITY	RESPONSIBLE PARTY	DETAILS
Hub Transmission Time	30 minutes	15 minutes	5 minutes	AEMO	Time from a Participant placing a file in their Inbox to the Handler moving the file to the other Participant's Outbox
MsgAck Cycle Time	240 minutes	60 minutes	30 minutes	Participant	For a valid Message, the MsgAck Cycle Time includes two Hub Transmission Times
TranAck Cycle Time	By end of next business day	By end of next business day	60 minutes	Participant	For a valid Message, the TranAck Cycle Time includes two Hub Transmission Times

Analysis shows that WA does not use Hub capabilities.

Assumption: WA will use e-Hub.

TIMING REQUIREMENTS

Timing requirements for the delivery of Webservices are summarised below:

CYCLE	LOW PRIORITY	MEDIUM PRIORITY	HIGH PRIORITY	RESPONSIBLE PARTY
Hub Transmission Time	5 seconds	5 seconds	5 seconds	AEMO
MsgAck Cycle Time	10 seconds	10 seconds	10 seconds	Participant
TranAck Cycle Time	By end of next business day	By end of next business day	60 minutes	Participant

Analysis shows that WA does not currently use Hub capabilities.

Assumption: WA will use e-Hub.

TRANSACTION LOGGING



e-Hub provides a complete audit trail of the delivery and Acknowledgement of a B2B Message/Message Acknowledgement cycle.

The following information is stored:

DATA	SOURCE
User identification fields	FROM and TO in aseXML header
Timing fields	Date Time Created / Date Time Acknowledged
Incoming Message ID	XML Header
Hub Ack Receipt ID	unique B2B receipt ID – this is only for .ac1 or negative .ack files generated by B2B Handler
Ongoing Receipt ID	Extracted from Recipient Acknowledgement
Transaction Group	XML header
Date/time of delivery of Message	.ac1 <i>ase:MessageDate</i>
Message priority	FTP: File name / Webservices: XML header

Analysis shows that WA does not currently maintain a logging process.

Assumption: WA will use e-Hub.

NEXT STEPS



- AEMO expects to undertake a further review of the B2B Procedures once the WA policy direction is certain, including: identifying procedure changes required to incorporate WA, IT business requirements and market readiness activities
- Next forum date to be determined

QUESTIONS



For further questions and feedback: WAMRPRetail@aemo.com.au