


# SLP MP, SLP MDP, MSATS MDM

17 October 2016

PRESENTED BY ROY KAPLAN

# AGENDA

1. Scope and assumptions
  2. SLP – MP
  3. SLP – MDP
  4. MSATS - MDM
  5. Next steps
  6. Questions?
- 
- A decorative graphic at the bottom of the slide consisting of multiple thin, overlapping, wavy lines in shades of orange and red, creating a sense of motion and depth.

# SCOPE AND ASSUMPTIONS

All the analysis in these slides is based on:

- The Metering Competition Rule change (mainly chapter 7) that becomes effective on 1 December 2017;
- The procedures and instruments amended and created as a consequence of this Rule change that become effective on 1 December 2017; and
- The draft WA Rules as at 10 October 2016.

# SERVICE LEVEL AGREEMENTS – CURRENT WA POSITION



- Service Level Agreements are established under the WA Metrology Procedure
- “**service level agreement**” means a written or unwritten agreement that sets out the terms and conditions under which a network operator provides metering services to a user, in respect of a metering point, metering installation or a metering service and is applicable to the metering point, metering installation or metering service.
- “**model service level agreement**” is the default standard agreement used where there is no written SLA
- An SLA may be contained in an access contract

# CURRENT WA ARRANGEMENTS

In the following circumstance:	The applicable service level is found in the following instrument:	And is the service level set out in the instrument for:
There is a <i>service level agreement</i> governing the provision of the <i>metering service</i> .	The <i>service level agreement</i>	The <i>relevant metering service</i>
There is no written <i>service level agreement</i> in respect of the <i>metering service</i> , but the <i>network operator</i> <sup>142</sup> has a <i>model service level agreement</i> for the <i>network</i> .	The <i>model service level agreement</i> for the <i>network</i>	Whichever <i>metering service</i> in the instrument most closely approximates the <i>relevant metering service</i>
There is no <i>service level agreement</i> governing the provision of the <i>metering service</i> , and the <i>network operator</i> does <sup>143</sup> not have a <i>model service level agreement</i> for the <i>network</i> .	The <i>model service level agreement</i> for the <i>South West interconnected system</i>	



# SERVICE LEVEL PROCEDURE FOR METERING PROVIDERS (SLP MP)



# SLP MP - RELATED DOCUMENTS



Procedure Title	Location
Retail Electricity Market Procedures – Glossary and Framework	<a href="http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework">http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework</a>
Metering Service Provider Accreditation Procedure	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Service Provider Compliance Assessment and Deregistration Procedure	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Metrology Procedure: Part A	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering</a>
CATS Procedures	<a href="http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions</a>
NMI Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>



- Requirements for SLP MP: NER 7.16.6
  - “AEMO must establish, maintain and publish the service level procedures that will apply to the relevant categories of registration that apply to Metering Providers and Metering Data Providers, in accordance with this Chapter 7 and this clause 7.16.6.”
- The Retail Electricity Market Procedures – Glossary and Framework:
  - is incorporated into and forms part of this Procedure; and
  - should be read with this Procedure.

This Procedure was amended as part of the Power of Choice/Metering Competition consultation to:

1. Reflect changes in the Rule; and
2. Amend the style of the Procedure to be consistent with the Procedure Framework described in the Glossary and Framework referenced above.

# SLP MP - CONTENTS



- Introduction
- General requirements
- Device management and test equipment
- Installation and commissioning requirements
- Metering Installation Maintenance
- Systems and Administration

# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- INTRODUCTION

- Purpose and Scope
- Definitions and Interpretation
- Related AEMO Documents

- GENERAL REQUIREMENTS

- Metering Provider Capability and Competency
  - Describes capabilities and competencies an MP must have in addition to those prescribed in the NER
- Use of sub-contractors
  - Provisions for when subcontractors are used by an MP to perform their obligations
- Insurance
  - Details of insurance an MP must hold

# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- DEVICE MANAGEMENT AND TEST EQUIPMENT
  - Procurement
    - Processes and systems in place for the procurement of meters, instrument transformers and any other devices that can be installed by the MP
  - Storage, Handling and Transport
  - Management of Test Equipment
    - Requirements for management of test equipment, including storage of test records and calibration certificates
  - Management of Meter Programming and Authorised Software
    - Maintain records of software installed and updates applied to metering installations

# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- INSTALLATION AND COMMISSIONING REQUIREMENTS
  - General Commissioning Requirements
    - Processes/procedures for installation and commissioning metering installations
  - Metering Data Validation Requirements
    - For remote acquisition, to ensure that communications are working correctly and data is transmitted/received
  - MSATS updates and notifications following Metering Installation Commissioning
    - Ensuring that relevant NMI standing data is updated within required timeframes
  - Meter Churn
    - Process around when and how a meter churn happens



# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- METERING INSTALLATION MAINTENANCE
  - Test Plan
    - In accordance with NER or AEMO approved asset management strategy
  - Management of Metering Installation Malfunctions
    - When meter fails, plans to repair and manage lost data
  - Telecommunications
    - Plan B for when remote communications fail
  - Non-Conforming Test Results or Calibrations
    - What to do when things go wrong

# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- SYSTEMS AND ADMINISTRATION
  - Metering Register
    - Register of metering installations as required in S7.1.2(b), and requirements for archiving
  - Disaster Recovery
    - Ensure continuity of service when it all goes wrong, including IT systems failures
  - Audits undertaken by AEMO
    - AEMO does periodic random audits of metering installations to make sure all is as it should be
  - Review of Accreditation
    - An MP's accreditation can be reviewed if they have a change of registration status, performance issues, or significant changes due to Rule changes or mergers/acquisitions

# SERVICE LEVEL PROCEDURES FOR METERING PROVIDERS



- Quality Systems
  - MP must operate and retain a quality system that meets the requirements of clause S7.2.3(f) of the NER, ie ISO9000
- Disputes
  - Disputes are dealt with using the NER dispute resolution process in Chapter 8.

# SERVICE LEVEL PROCEDURE FOR METERING DATA PROVIDERS (SLP MDP)



# SLP MDP - RELATED DOCUMENTS



Procedure Title	Location
Retail Market Procedures – Glossary and Framework	<a href="http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework">http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework</a>
Metrology Procedure: Part A	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering</a>
Metrology Procedure: Part B	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering</a>
Default and Deregistration Procedure	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Metering Service Provider Accreditation Procedure	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
MSATS Procedures	<a href="http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions</a>

# SLP MDP - RELATED DOCUMENTS



Procedure Title	Location
MSATS Procedures	<a href="http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/Policies-and-Procedures/Market-Settlement-and-Transfer-Solutions</a>
MDM Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
NMI Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Metering Data File Format	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Data Delivery Calendar	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
B2B Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Business-to-business-procedures">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Business-to-business-procedures</a>
List of Special and Technology Related Sites	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>



- Requirements for SLP MP: NER 7.16.6
  - “AEMO must establish, maintain and publish the service level procedures that will apply to the relevant categories of registration that apply to Metering Providers and Metering Data Providers, in accordance with this Chapter 7 and this clause 7.16.6.”
- The Retail Electricity Market Procedures – Glossary and Framework:
  - is incorporated into and forms part of this Procedure; and
  - should be read with this Procedure.

This Procedure was amended as part of the Power of Choice/Metering Competition consultation to:

1. Reflect changes in the Rule; and
2. Amend the style of the Procedure to be consistent with the Procedure Framework described in the Glossary and Framework referenced above.

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- INTRODUCTION
  - Purpose and Scope
  - Definitions and Interpretation
  - Related AEMO Documents
- OBLIGATIONS
  - Metering Data Services
    - Details the services that an MDP must deliver, including participation in ROLR events
  - Use of Sub-Contractors
    - Provisions for when subcontractors are used by an MDP to perform their obligations

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- Specific obligations for MDP - Category D
  - Including validation, substitution and estimation of metering data, datastream management, maintenance of metering data services database, metering installation commissioning, metering data for reactive energy, and servicing technically complex sites (“special and technical sites”)
- Specific obligations for MDP - Category C
  - Only collect and validate metering data.

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- SERVICE REQUIREMENTS FOR MDPS – CATEGORY D
  - System Requirements
    - Operation of the metering data services database
  - Metering Data Services Database
    - Requirements for audit trail and version control functionality in relation to metering data services database
  - Exception Reports
    - Reports available to support the detection of system of process errors, e.g. missed reads, missing intervals, failed batch processing, status management for B2B e-Hub and MSATS interfaces, and status management of metering installation malfunctions.
  - Collection Process Requirements
    - Requirement to use reasonable endeavours to ensure Actual Meter Readings and occurrences of Meter Alarms are collected for all connection points

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- Specific Collection Process Requirements for Metering Installations with Remote Acquisition of Metering Data
  - Requirement for MDPs using remote acquisition to have processes for when reads are missed or fail
- Specific Collection Process Requirements for Manually Read Metering Installations
  - Reading schedule and processes (for manually read metering installations)
- Metering Data Processing Requirements
  - Processes for management of metering data once collected, e.g. date/time stamps, quality flags, aggregation and notifications
- Specific Metering Data Processing Requirements for Metering Installation Types 1, 2, 3 and 4
  - Calculation of cumulative and subtractive processes
- Specific Metering Data Processing Requirements for Special Sites
  - Requirements for management of interconnectors, generators, cross border supplies.

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- Specific Metering Data Processing Requirements for Metering Installation Type 7
  - Processes for calculation of unmetered (type 7) loads
- Specific Metering Data Estimation Requirements for Manually Read Metering Installations and Calculated Metering Data
  - Process for the creation of estimated metering data for metering installation types 4A, 5, 6 and 7.
- Delivery Performance Requirements for Metering Data
  - Ensure only validated metering data is delivered to AEMO, new MDPs, Registered Participants,



# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- Delivery of Metering Data for Prudential Purposes
  - AEMO may request an MDP to provide metering data for the purposes of assessing one or more Market Participant's ability to meet its prudential requirements.
- Interface Requirements
  - Technical requirements to interface to MSATS
- SERVICE REQUIREMENTS FOR MDPS - CATEGORY C
  - System Requirements
    - Requirements for operating a metering data collection systems
  - Metering Data Collection and Transfer Requirements
    - Requirements for actual reads, and data collection in general

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- METER CHURN DATA MANAGEMENT
  - Meter Churn Scenarios
    - Scenarios to assist in changes to MDFF or MDM as a result of a meter churn

- **SYSTEM ARCHITECTURE & ADMINISTRATION**
  - Metering Data Archival and Recovery
    - Requirements for archiving and retrieving metering data
  - Data Backup
    - All metering data and metering register information must be backed-up, at a minimum, on a daily basis and held in a secure environment.
  - Disaster Recovery
    - Each MDP must ensure that a disaster recovery plan is established and in place to ensure that in the event of a system failure, its IT systems can be returned to normal operational service within two business days

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- System Administration and Data Management
  - Requirements for controlling access to the metering data services and related databases.
- Non-Public Telecommunications Networks
  - Requirements for use of a non-public telecommunications network for the collection of metering data by an MDP is subject to approval by AEMO

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- QUALITY CONTROL
  - Scheduled Audits
    - Requirements and timing for regular self audits and AEMO audits
  - Other Audits
    - Requirements for audits that are undertaken following a request from a registered participant
  - Corrective Action
    - Processes for corrective actions undertaken as a result of adverse audit findings
  - Review of Accreditation
    - AEMO can review an MDPs accreditation if they change registration status, performance issues, or significant changes due to Rule changes or mergers/acquisitions

# SERVICE LEVEL PROCEDURES FOR METERING DATA PROVIDERS



- ADMINISTRATION
  - Bilateral Agreements
    - Provisions to allow a registered participant to request metering data and/or metering data services in an alternative format, method or timeframe to those specified .
  - Quality Systems
    - MDP must operate and retain a quality system that meets clause S7.3.3 of the NER and to the satisfaction of AEMO, which is at least equal to a quality accreditation to the ISO9001 or ISO9002 standards
  - Disputes
    - Disputes are dealt with using the NER dispute resolution process in Chapter 8.



# MP SLA – KEY DIFFERENCES



- In current WA arrangements, the service level agreements are intended to define service levels for services delivered to a ***user*** by the ***network***.
- In current NEM arrangements, the SLP defines the performance requirements for MPs and MDPs to deliver their services for the purpose of NEM settlement.

# METERING SERVICE PROVIDERS IN THE NEM



# METERING PROVIDERS



- Metering Providers are contestable service providers accredited to provide metering services in the NEM.
- For each connection point, the Metering Coordinator is required to appoint a Metering Provider to provide the required metering services.
- Metering services include the provision, installation and maintenance of metering installations.
- Metering providers are accredited by AEMO to meet the requirements listed in Schedule 7.4 of the NER.

# METERING DATA PROVIDERS



- Metering Data Providers are contestable service providers accredited to provide metering data services in the NEM.
- For each connection point, the Metering Coordinator is required to appoint a Metering Data Provider to provide the required metering data services
- Metering data services include the collection, processing storage and delivery of metering , and the management of relevant NMI standing data.
- Metering providers are accredited by AEMO to meet the requirements listed in Schedule 7.4 of the NER.

# MSATS PROCEDURE: MDM PROCEDURE



# MSATS: MDM - RELATED DOCUMENTS



Procedure Title	Location
Retail Electricity Market Procedures – Glossary and Framework	<a href="http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework">http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework</a>
CATS Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
WIGS Procedures	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
Metrology Procedure: Part A	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering</a>
Metrology Procedure: Part B	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering</a>
CATS Hints and Tips	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
NMI Procedures	<a href="http://www.aemo.com.au/media/Files/Other/electricityops/0610-0008%20pdf.pdf">http://www.aemo.com.au/media/Files/Other/electricityops/0610-0008%20pdf.pdf</a>

# MSATS: MDM - RELATED DOCUMENTS



Procedure Title	Location
Service Level Procedure (MDP)	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
Service Level Procedure (MP)	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes</a>
aseXML Guidelines	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Guidelines">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/IT-systems-and-change/aseXML_standards/aseXML-Guidelines</a>
Introduction to MSATS	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
Guide to MSATS Web Portal	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>
Guide to MSATS B2B	<a href="http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions">http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions</a>

- Requirements for MSATS: MDM Procedures - NER 7.16.2
  - “AEMO must establish, maintain and publish Market Settlement and Transfer Solution Procedures.”
- The Retail Electricity Market Procedures – Glossary and Framework:
  - is incorporated into and forms part of this Procedure; and
  - should be read with this Procedure.

This Procedure was amended as part of the Power of Choice/Metering Competition consultation to:

1. Reflect changes in the Rule; and
2. Amend the style of the Procedure to be consistent with the Procedure Framework described in the Glossary and Framework referenced above.



- MSATS is divided into two major modules – CATS and MDM.
- CATS (Consumer Administration and Transfer Solution) deals with managing all aspects of customer transfer and will be covered in workshop #3.
- MDM (Metering Data Management) deals with data storage and use for AEMO internal settlements.

- MDM is essentially a data store (which, to distribute the processing load, is on multiple satellite servers):
  - Metering data store
  - Aggregated metering data
  - Profile shapes calculated by MSATS
- The following software processes are implemented:
  - Profiling
    - This is the process by which Basic meter data is turned into ½ hourly reads and is required for all Basic meters with an active data stream
    - The final WA position on profiles is under consideration and will be covered in a future workshop when known.
  - Substitution
  - Aggregation
  - Enquiry and reporting

# MSATS: MDM – COMMON REPORTS



- Metering data reports
  - NMI data streams History (RM13)
    - For a single NMI
    - Often used by Retailers
  - Interval Data report (RM18)
    - Selected NMIs for a TNI, FRMP, LR, & MDP combination
    - Only interval data
    - Generally used for settlement purposes
- Only 13 months of data available for either report

# MSATS: MDM – COMMON REPORTS

- FRMP/LR/MDP monitoring of MDP performance
  - Reporting tools to check timeliness and quality of data being submitted:
    - Missing Data (Null) report (RM11)
    - MDM Data Estimation Report (RM22) (MDM substitutions for a settlement case run)
    - MDP Substitution and Estimation Report (RM26)
  - Reports on MDP submitted data report the last 13 months' data
- MDP Estimation and Substitution Report (RM26)
  - Reports on data with 'E' and 'S' status flags

# MSATS: MDM – COMPLETE LIST OF REPORTS



The only aspect of MDM that directly impacts participants is the reporting. The following reports are available:

- **MDM RM9      Actual Versus Estimate Data Report**
  - The purpose of this report is to allow AEMO and Participants to compare the number of Estimates and Actual Meter Readings in the system.
- Parties that have access to the report:
  - AEMO, FRMP, LR, MDP.

- **MDM RM11                      Missing Data Report**
  - The purpose of this report is to allow AEMO and Participants to find out what metering data is missing from MDM.
- **Parties that have access to the report:**
  - AEMO, FRMP, LR, MDP.
- **MDM RM13                      NMI Datastreams History Report**
  - The purpose of the this report is to allow AEMO and Participants to retrieve the history of a NMI Datastream's *metering data* for a specified period. This report will return all versions of *metering data* that exist in the system for that *NMI* for days within the report period.
- **Parties that have access to the report:**
  - AEMO, MC, FRMP, LR, LNSP, ENM, NSP2, MPB, MPC, MDP

- **MDM RM14 MDP Data version Comparison Report**
  - This report allows the comparison of *meter readings* loaded on 2 separate date times for a single *NMI*. Parties that have access to the report:
  - AEMO, MC, FRMP, LR, LNSP, ENM, NSP2, MPB, MPC, MDP
- **MDM RM15 Multiple Versions Report**
  - The purpose of this report is to provide information on the number of versions of metering data that have been supplied to the system by an MDP. Parties that have access to the report:
  - AEMO, MC, FRMP, LR, LNSP, ENM, NSP2, MPB, MPC, MDP.

- **MDM RM16 - Level 1 Settlement Reconciliation Report**
  - This report provides aggregated interval metering data grouped by TNI, FRMP, LR, MDP, and Datastream type that was used during a settlements run. Parties that have access to the report:
    - AEMO, FRMP, LR, and MDP.
- **MDM RM17 - Level 3 Settlement Reconciliation for Non-Aggregated Data**
  - This report provides interval data for all suffixes of a particular NMI that was used during a settlements run. Parties that have access to the report:
    - AEMO, FRMP, LR, and MDP



- **MDM RM18 - Electricity Interval Data Report**
  - The purpose of this report is to allow AEMO and Participants to retrieve all the metering data for a particular combination of TNI, FRMP, LR, and MDP..
- Parties that have access to the report:
  - AEMO, MC, FRMP, LR, LNSP, ENM, NSP2, MPB, MPC, MDP.
- **MDM RM20 - PPS Report**
  - The purpose of this report is to allow AEMO and Participants to retrieve profile shape data. Parties that have access to the report:
  - All Participants

- **MDM RM21 - Level 2 Settlement Reconciliation Report & MDM RM27 - Level 2 Settlement Reconciliation Report (Automated on Settlement Case Approval)**
  - For a settlements run, this report will provide the daily totals of load data for each TNI's (supplied as an input) NMIs.
- **MDM RM22 - Data Estimation Report**
  - The purpose of this report is to allow AEMO and Participants to obtain details of Substitutions that have been made during a settlements run for missing interval metering data and Accumulation Meter readings
- **Parties that have access to the report:**
  - AEMO
  - A Participant that has a MDP, FRMP or LR association with the Substituted NMI Datastream.

- **MDM RM26 - MDP Substitution and Estimation Report**
  - The purpose of this report is to allow AEMO and MDPs to obtain details of Substitutions and Estimations that are still current in MDM for a specified settlement week.
- Parties that have access to the report:
  - AEMO, MDP

# NEXT STEPS



## NEXT STEPS

Based on our analysis to date based on draft Rules received, we do not anticipate changes to the MPB and MDP SLPs to incorporate WA. Nothing in the draft Rules we have seen impacts any of these provisions.

AEMO's assumption is that these Procedures will supercede the WA SLAs.

We also do not anticipate changes to MSATS: MSM Procedures. These are largely for AEMO internal settlements, and nothing seen in the draft Rule will affect these provisions.

Based on these positions, AEMO expects to commence consultation on this Procedure in March 2017.

# QUESTIONS



For further questions and feedback: [WAMRPRetail@aemo.com.au](mailto:WAMRPRetail@aemo.com.au)