

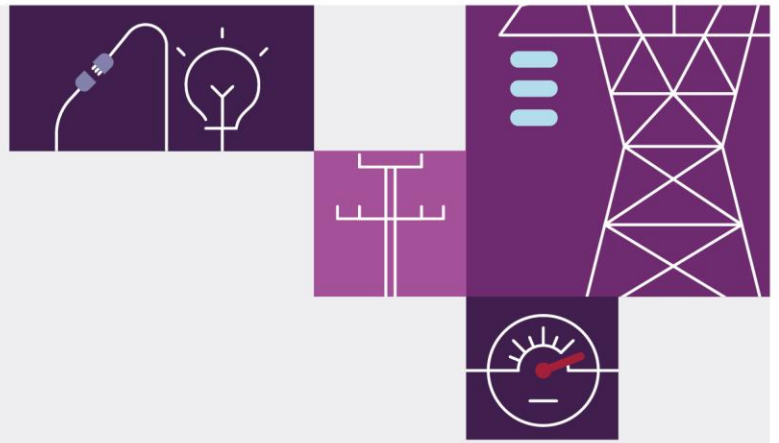
EMMS - Technical Specification – Data Model v5.8 - October 2026

2.00 September 2026

Pre-production: 22 September 2026

Production: 20 October 2026





Important notice

Purpose & audience

This document describes the technical changes required to participant's systems for the EMMS - Technical Specification – Data Model v5.8 - October 2026 (Release). The Australian Energy Market Operator (AEMO) provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Electricity Rules (Rules), as at the date of publication.

How to use this document

- If you have questions about the business aspects of these changes, please see Consultations on AEMO's website.
- The references listed throughout this document are primary resources and take precedence over this document.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- **Text in this format** is a link to related information. Some links require access to MarketNet.
- **Text in this format**, indicates a reference to a document on AEMO's website.
- **Text in this format** is an action to perform in the Markets Portal.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules and information or a term in this document, the Rules take precedence.
- Rules Terms have the meaning listed against them in the **National Electricity Rules** (Rules).

Privacy and legal notices

The material in this publication may be used in accordance with the [privacy and legal notices](#) on AEMO's website.

Trademark Notices

Microsoft, Windows and SQL Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

UNIX is a registered trademark of The Open Group in the US and other countries.

© 2015 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Distribution

Available to the public.

Document Identification

Prepared by: AEMO Digital

Last update: Wednesday, 23 September 2026 12:52 PM

Version History

2.00

Documents made obsolete

The release of this document changes only the version of EMMS - Technical Specification – Data Model v5.8 - October 2026.

Support Hub

To contact AEMO's Support Hub use Contact Us on AEMO's website or for urgent matters phone: 1300 AEMO 00 (1300 236 600).



Contents

1	Introduction	5
1.1	Audience.....	5
1.2	Objective	5
1.3	Status	5
1.4	Release dates.....	6
1.5	Rule and procedure changes	6
1.6	Related technical specifications	6
1.7	Related documents	6
1.8	Approval to change	7
1.9	Market systems user group meetings	7
1.10	Version numbers.....	7
1.11	Changes in this version.....	8
2	Proposed Timeline	9
3	Participant Impact	11
3.1	Electricity data model v5.8	11
3.2	Data population dates	11
3.3	New transaction type support	11
3.4	Regulation FCAS usage information table.....	12
3.5	Data Model Manager update	12
3.6	Data subscription	12
3.6.1	Auto-subscription	12
3.6.2	Legacy files.....	12
4	Electricity Data Model 5.8	13
4.1	Data model changes summary.....	13
4.2	Package: BILLING_CONFIG	14
4.2.1	Modified table: BILLINGCALENDAR.....	14
4.3	Package: PRUDENTIALS.....	16
4.3.1	New table: BANK_GUARANTEE.....	16
4.3.2	New Table: CASH_SECURITY.....	17
4.4	Package: BILLING_RUN	18
4.4.1	New Table: BILLING_CASHSEC_INTEREST_PAY	18

4.4.2	New table: BILLING_IRSR_NSP_ALLOCATION	20
4.5	Package: DISPATCH	21
4.5.1	New Table: DISPATCH_AGC_DATA.....	21
4.6	Package: PARTICIPANT_REGISTRATION	22
4.6.1	Modified table: PASA_INTERZONAL_MAPPING	22
4.6.2	New table: PASA_DUID_SUBSTATION_MAPPING	23
4.6.3	New table: PASA_INTERCONNECTOR_BOUNDARY	24
4.6.4	New table: PASA_INTERCONNECTOR_MAPPING.....	25
4.6.5	New table: PASA_INTERZONAL_BOUNDARY	27
4.6.6	New table: PASA_SUBSTATION_ZONE_MAPPING	28
4.7	Package: SETTLEMENT_DATA	29
4.7.1	New table: SET_IRSR_DIRECTIONAL_LINK	29
4.7.2	New table: SET_IRSR_LOOP_REGION_SUMMARY	31
4.7.3	New table: SET_IRSR_LOOP_NSP_ALLOCATION	32
4.7.4	New table: SET_IRSR_LOOP_NETTRADE_AMOUNT	34
4.8	File interface changes.....	35
4.9	Data model loader mappings	36
4.10	Discontinued reports.....	38
5	Reports.....	39
6	FAQs	40
6.1	Why are certain tables not populating in pre-production?	40
7	Implementation	41
7.1	Transition.....	41
7.2	Upgrading	41
7.3	Implications	41
7.4	Risks.....	41
8	Terms	42
8.1	Rules Terms	42

1 Introduction

1.1 Audience

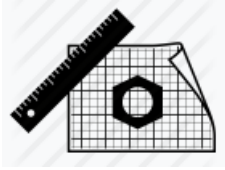
AEMO provides this information as a service targeting business analysts and IT staff in Registered Participant companies.

1.2 Objective

The EMMS - Technical Specification – Data Model v5.8 - October 2026 describes the projects planned by AEMO from a participant perspective and includes any system related changes for participants.

1.3 Status

Version	Status
2.00	The Data Model design is ready for participants' builds. The design is certified so no major changes are planned. However, there may be minor changes due to current testing.
1.02	In progress. The design is not ready for participants' builds Cash Security – Design complete estimation – 70% STPASA Replacement Project - Design complete estimation – 75% Regulation FCAS usage information – 75% Project Energy Connect - Market Integration (PEC-MI) - Design complete estimation –75% Shortening the Settlement Cycle– 75%
1.01	In progress. The design is not ready for participants' builds Cash Security – Design complete estimation – 65% STPASA Replacement Project - Design complete estimation – 70% Regulation FCAS usage information – 70% Project Energy Connect - Market Integration (PEC-MI) - Design complete estimation –70%
1.00	In progress. The design is not ready for participants' builds Cash Security – Design complete estimation – 60% STPASA Replacement Project - Design complete estimation – 60% Regulation FCAS usage information – 60% Project Energy Connect - Market Integration (PEC-MI) - Design complete estimation –60%

Version	Status
0.01	 Initial Draft for review. The design is not ready for participants' builds Presents the EMMS - Technical Specification – Data Model v5.8 - October 2026 evolving design. Please send feedback to Contact Us. In the Details of your enquiry section, mention the EAS Knowledge Management as the Resolver group.

1.4 Release dates

Scheduled for implementation in:

- Pre-production: 22 September 2026
- Production: 20 October 2026

1.5 Rule and procedure changes

The following rules and procedures take precedence over technical specifications and guides.

For details, see the **Rule and procedure changes** section in the technical specifications mentioned in Related technical specifications.

1.6 Related technical specifications

Title	Description
EMMS - Cash Dashboard - October 2026	Changes related to Cash Security

1.7 Related documents

Once published, these resources take precedence over this technical specification

These guides and resources are updated according to this technical specification and published for the pre-production Release Date.

Title	Description	Publish date
Data Interchange Online Help	Help for participants using Data Interchange and the Data Model	20 October 2026
Data Model Reports	Explains the packages, tables and reports in the Electricity and Gas Data Models	
Release Documents	Release Notes	
Data Model Bundles	All the components necessary for a new installation of Data Interchange. Each bundle has the latest Data Model release	Post production release

1.8 Approval to change

AEMO request approval to proceed from all participant change by close of business Monday, 18 May 2026.

1.9 Market systems user group meetings

The Market Systems User Group (MSUG) is an industry user group established to discuss NEM wholesale and retail IT systems releases. Its purpose is to facilitate the continuing improvement of AEMO's IT systems by seeking feedback and collaboration from participants.

MSUG meetings are open to all interested parties, with invitations sent to all included on the distribution list. If you have a technical question for a project and want to attend the MSUG ask your company's support team to include your email address in their AEMO Help Desk Bulletin (CRM) distribution list.

1.10 Version numbers

AEMO releases new versions of this document as the technical requirements are streamlined.

Incremental version numbers such as 1.01, 2.01 and so on mean there is a minor change to the technical specification.

Major version numbers such as 1.00, 2.00 means there are substantial changes to the technical specification. Participants must carefully review these changes, detailed on page 8.

1.11 Changes in this version

Updates to Data model loader mappings.

Updates to Auto-subscription

2 Proposed Timeline

The dates for the Market System User Group Meetings (MSUG) are tentative. We will provide an invitation one week prior to the meeting.

Milestone	Date	Description
Approval required	18 May 2026	AEMO requested approval to proceed from all participants by close of business 18 May 2026
Revised Technical Specification	September 2026 (TBC)	AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth From the production release, the technical specification becomes final and the related documents become the source of truth Technical Specification Portal
Related Documents publication	22 September 2026	Release of guides and resources.
Next MSUG meeting	28 October 2026	Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions This date is tentative. The Knowledge Management Team provides the invitation prior to the meeting
Pre-production Data Model auto subscription	22 September 2026	For any existing files with modified or new tables, if participants are subscribed, AEMO moves them to the Legacy version
Pre-production Data Model release	22 September 2026	Participant Data Model scripts released
Pre-production refresh	March 2027 (TBC)	Refresh of the pre-production system with data refreshed from the production system. An outage of up to five days can occur to the pre-production environment during this period. Participant access is not restricted, however, AEMO do not guarantee the pre-production data content or system availability. During the refresh, access to other AEMO systems such as AWEFS, EMMS, OPDMS, and STTM may be intermittently affected

Proposed Timeline

Milestone	Date	Description
Pre-production implementation	22 September 2026	AEMO implements components of the Release to pre-production for participant testing AEMO has full access to the system during this period Participant access is not restricted; however, the data content or system availability is not guaranteed
Pre-production available	22 September 2026	Testing period begins for participants
Participant Testing	22 September 2026 - 20 October 2026	Unstructured participant testing in the pre-production environment
Production implementation	20 October 2026	AEMO implements the release to production
Production Data Model auto subscription	20 October 2026	For any existing files with modified or new tables, if participants are subscribed, AEMO moves them to the Legacy version
Production Data Model release	20 October 2026	Participant Data Model scripts released

3 Participant Impact

3.1 Electricity data model v5.8

Participants must upgrade to the latest version of Data Model 5.8 to receive the new and updated Data Model information in their Data Interchange environments.

3.2 Data population dates

Project	Total tables = 16	Data in pre-production	Data in production
Cash Security	3	01 October 2026 (TBC)	29 October 2026 (TBC)
STPASA Replacement Project	6	October (TBC)	November (TBC)
Project Energy Connect - Market Integration (PEC-MI)	5	01 October 2026 (TBC)	2 November 2026 (TBC)
Regulation FCAS usage information	1	TBC	TBC
Shortening the Settlement Cycle	1	28 September 2026 (TBC)	28 October 2026 (TBC)

3.3 No auto-subscription to public files

This release removes automatic subscriptions for new public (next day public) reports introduced in Data model 5.8 and onwards and participants must subscribe these reports manually.

For more details on reports subscription, see [Data Subscription](#).

3.4 Update to INTERCONNECTEDID column

Data type for INTERCONNECTED ID column is updated from VARCHAR(10) to VARCHAR(20) in all the tables. The update is automatic and supports the tables introduced in Data Model 5.7.

3.5 New transaction type support

The TRANSACTION_TYPE field in the [BILLING_GST_DETAIL](#) table now supports MAKEUP_AMOUNT as a valid value. This change adds a new supported transaction type only. There is no change to the table structure or column definitions.

3.6 Regulation FCAS usage information table

New Table: DISPATCH_AGC_DATA includes the table structure only. We will communicate data population dates once available.

3.7 Data Model Manager update

Data Model Manager (DMM) upgrades to version 1.3.0. This release includes :

- Update to the licence agreement
- Security to the application.

The release does not introduce any functional changes to DMM.

Note: Data Model Manager v1.3.0 is **not mandatory** to implement the Data Model v5.8 release. Upgrading to latest version is recommended to improve security.

3.8 Data subscription

3.8.1 Auto-subscription

Registered participants are auto subscribed to their own confidential (private) files **only** when they upgrade to the latest data model version. Participants must manually review and subscribe to new public files. Participants are **no** longer auto-subscribed public files. The list of files is in Data model loader mappings

3.8.2 Legacy files

On the [Release Dates](#), AEMO moves participants subscribed to existing files to the Legacy version. After you have upgraded to v5.8 subscribe to the current files in [Data Subscription](#). For help, see [Subscribe to Files](#).



4 Electricity Data Model 5.8

Participant systems incorrectly configured and not compliant with the Baseline Assumptions in the Data Interchange Framework and Glossary may suffer data loss.

This Release contains an updated version of the Electricity Data Model 5.8. This section describes the affected packages, tables, files, reports, and interfaces.

4.1 Data model changes summary

4.1	Data model changes summary	13
4.2	Package: BILLING_CONFIG	14
4.2.1	Modified table: BILLINGCALENDAR	14
4.3	Package: PRUDENTIALS	16
4.3.1	New table: BANK_GUARANTEE	16
4.3.2	New Table: CASH_SECURITY	17
4.4	Package: BILLING_RUN	18
4.4.1	New Table: BILLING_CASHSEC_INTEREST_PAY	18
4.4.2	New table: BILLING_IRSR_NSP_ALLOCATION	20
4.5	Package: DISPATCH	21
4.5.1	New Table: DISPATCH_AGC_DATA	21
4.6	Package: PARTICIPANT_REGISTRATION	22
4.6.1	Modified table: PASA_INTERZONAL_MAPPING	22
4.6.2	New table: PASA_DUID_SUBSTATION_MAPPING	23

4.2 Package: BILLING_CONFIG

4.2.1 Modified table: BILLINGCALENDAR

© AEMO 2026 | EMMS - Technical Specification – Data Model v5.8 - October 2026

Comment	BILLINGCALENDAR sets out the billing calendar for the year, with week number 1 starting on 1 January. BILLINGCALENDAR advises preliminary and final statement posting date and corresponding settlement for each billing week.
Trigger	Triggered when inserting billing weeks for a future contract year
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	CONTRACTYEAR, WEEKNO
Project	Shortening the Settlement Cycle

New columns

Field name	Data type	Primary key	Comment
REVISIONS_ATTACHED_TO_FINAL	VARCHAR2(50)	No	The list of Revisions that are attached in the FINAL Statement of the week
REV0_FINAL_ATTACH_WEEK	VARCHAR2(10)	No	The FINAL Week where the R0 will be attached.
REV0_PAYMENT_DATE	DATE	No	The payment date of the FINAL week in REV0_FINAL_ATTACH_WEEK.
REV1_FINAL_ATTACH_WEEK	VARCHAR2(10)	No	The FINAL Week where the R1 will be attached.
REV1_PAYMENT_DATE	DATE	No	The payment date of the FINAL week in REV1_FINAL_ATTACH_WEEK.
REV2_FINAL_ATTACH_WEEK	VARCHAR2(10)	No	The FINAL Week where the R2 will be attached.
REV2_PAYMENT_DATE	DATE	No	The payment date of the FINAL week in REV2_FINAL_ATTACH_WEEK.



4.3 Package: PRUDENTIALS

4.3.1 New table: BANK_GUARANTEE

Comment	Indicates the amount of bank guarantee the Company has with AEMO
Visibility	Private
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	GUARANTEE_ID
Project	Cash Security (C4C)

New columns

Field name	Data type	Primary key	Comment
GUARANTEE_ID	VARCHAR2(30)	Yes	The Bank Guarantee ID
COMPANY_ID	VARCHAR2(20)	No	Company ID owning the Bank Guarantee
PARTICIPANTID	VARCHAR2(20)	No	Participant Id belonging to the company (Even though BG belongs to a Company, Participant Id is also added as all reports are published to the Participants)
CREDIT_PROVIDER	VARCHAR2(20)	No	Bank Guarantee Provider Id



Field name	Data type	Primary key	Comment
COMMENCEMENT_DATE	DATE	No	Date AEMO received the bank guarantee details
TERMINATION_DATE	DATE	No	Date of Termination
RETURN_DATE	DATE	No	Date of Return
GUARANTEE_AMOUNT	NUMBER(18,8)	No	Dollar Amount of the bank guarantee
LASTCHANGED	DATE	No	The last changed date time of the record

4.3.2 New Table: CASH_SECURITY

Comment	Indicates the amount of cash security the participant has with AEMO
Visibility	Private
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	CASH_SECURITY_ID
Project	Cash Security (C4C)



New columns

Field name	Data type	Primary key	Comment
CASH_SECURITY_ID	VARCHAR2(20)	Yes	Unique ID for each cash security record
PARTICIPANTID	VARCHAR2(20)	No	Participant ID (Provider of the Cash Security)
TRANSACTION_DATE	DATE	No	Date when the CS was received by AEMO
CASH_AMOUNT	NUMBER(18,8)	No	Cash security amount (in dollars)
RETURNED_AMOUNT	NUMBER(18,8)	No	Cash amount returned (In dollars)
INTEREST_ACCT_ID	VARCHAR2(20)	No	Interest Account id used for daily interest calculation
STATUS	VARCHAR2(10)	No	Active/Closed
LASTCHANGED	DATE	No	The last changed date time of the record

4.4 Package: BILLING_RUN

4.4.1 New Table: BILLING_CASHSEC_INTEREST_PAY

Comment	Indicates the amount of cash security interest payment the participant receives
Visibility	Private
Data volume	Small

Comment	Indicates the amount of cash security interest payment the participant receives
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	CONTRACTYEAR, WEEKNO, BILLRUNNO, CASH_SECURITY_ID
Project	Cash Security (C4C)

New columns

Field Name	Data type	Primary Key	Comment
CONTRACTYEAR	NUMBER(4,0)	Yes	ContractYear/ WeekNo/ BillRunNo for the Interest payment
WEEKNO	NUMBER(3,0)	Yes	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	Yes	The Billing RunNo
CASH_SECURITY_ID	VARCHAR2(20)	Yes	The Cash Security ID
PARTICIPANTID	VARCHAR2(20)	No	Unique identifier for the Participant lodging the cash security
CASH_AMOUNT	NUMBER(18,8)	No	Dollar amount of the cash security
INTEREST_ACCT_ID	VARCHAR2(20)	No	The interest account ID for calculating the interest payment
INTEREST_AMOUNT	NUMBER(18,8)	No	Interest amount calculated for the billing week
LASTCHANGED	DATE	No	The last changed date time of the record



4.4.2 New table: BILLING_IRSR_NSP_ALLOCATION

Comment	The report is used to show the participants the negative residue amount to TNSP based on regional share
Visibility	Private
Data volume	Medium
Trigger	Daily Billing Run & Posting a PRELIM/FINAL and REVISE Billing Run.
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	CONTRACTYEAR, WEEKNO, BILLRUNNO, PARTICIPANTID, REGIONID
Project	Project Energy Connect - Market Integration (PEC-MI)

New columns

Field name	Data type	Primary key	Comment
CONTRACTYEAR	NUMBER(4,0)	Yes	The Billing Contract Year.
WEEKNO	NUMBER(3,0)	Yes	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	Yes	The Billing RunNo
PARTICIPANTID	VARCHAR2(20)	Yes	TNSP Participant Identifier
REGIONID	VARCHAR2(20)	Yes	The Region Identifier
RESIDUE_AMOUNT	NUMBER(18,8)	No	Calculated Amount based on regional share

Field name	Data type	Primary key	Comment
LASTCHANGED	DATE	No	The last changed date time of the record

4.5 Package: DISPATCH

4.5.1 New Table: DISPATCH_AGC_DATA

Comment	THIS report delivers 4-second system data from the AEMO AGC system		
Visibility	Public		
Data volume	Large		
Trigger	Every 5 minutes		
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports		
Primary key (in order)	MEASUREMENT_DATETIME, VERSIONNO, AGC_AREA, AGC_DATA_TYPE		
Project	Regulation FCAS usage information		

New columns

Field name	Data type	Primary key	Comment
MEASUREMENT_DATETIME	DATE	Yes	Date and time of the SCADA data (DD/MM/YYYY HH24:MI:SS) fixed to the UTC+10 time zone (NEM time)

Field name	Data type	Primary key	Comment
VERSIONNO	NUMBER(3)	Yes	Count of version
AGC_AREA	VARCHAR2(20)	Yes	AGC Control Region
AGC_DATA_TYPE	VARCHAR2(20)	Yes	AGC parameter type
AGC_VALUE	NUMBER(15,5)	No	AGC parameter value
LASTCHANGED	DATE	No	Last date and time record changed

4.6 Package: PARTICIPANT_REGISTRATION

4.6.1 Modified table: PASA_INTERZONAL_MAPPING

Comment	PASA_INTERZONAL_MAPPING shows inter-zonal mapping details, including operating status.
Visibility	Public
Data volume	Small
Trigger	On change
Participant file share location	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	INTERZONALCONNECTORID, EFFECTIVEDATE, VERSIONNO
Project	STPASA Replacement project



New columns

Field name	Data type	Primary key	Comment
INTERZONALCONNECTOR_FULLNAME	VARCHAR2(50)	No	Full Name for this Interzonal connector

4.6.2 New table: PASA_DUID_SUBSTATION_MAPPING

Comment	PASA_DUID_SUBSTATION_MAPPING shows the mapping of each DUID to its Energy Management System Substation ID
Visibility	Public
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	DUID, SUBSTATIONID, EFFECTIVEDATE, VERSIONNO
Project	STPASA Replacement project

New columns

Field name	Data type	Primary key	Comment
DUID	VARCHAR2(20)	Yes	The dispatchable unit identifier
SUBSTATIONID	VARCHAR2(30)	Yes	The Energy Management System identifier of the Substation to which this DUID belongs

Field name	Data type	Primary key	Comment
EFFECTIVEDATE	DATE	Yes	Effective date of this DUID to Substation ID mapping
VERSIONNO	NUMBER(3,0)	Yes	Version number for the Effective date
OPERATINGSTATUS	VARCHAR2(20)	No	Active or inactive indicator
LASTCHANGED	DATE	No	Date time this record was created

4.6.3 New table: PASA_INTERCONNECTOR_BOUNDARY

Comment	PASA_INTERCONNECTOR_BOUNDARY shows the mapping of each Interconnector boundary to its constituent Energy Management System Branch IDs
Visibility	Public
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	INTERCONNECTORID, EFFECTIVEDATE, VERSIONNO, BRANCHID, BRANCHSUBID
Project	STPASA Replacement project



New columns

Field name	Data type	Primary key	Comment
INTERCONNECTORID	VARCHAR2(20)	Yes	The identifier of the Interconnector
EFFECTIVEDATE	DATE	Yes	Effective date of this Interconnector Boundary mapping
VERSIONNO	NUMBER(3,0)	Yes	Version number for the Effective date
BRANCHID	VARCHAR2(50)	Yes	Branch Identifier
BRANCHSUBID	VARCHAR2(50)	Yes	Branch Sub-Identifier
BRANCHFROMSUBSTATION	VARCHAR2(30)	No	Branch FromSubstation. Positive BranchFlow from FromSubstation to ToSubstation.
BRANCHTOSUBSTATION	VARCHAR2(30)	No	Branch ToSubstation. Positive BranchFlow from FromSubStation to ToSubStation.
BRANCHTYPE	VARCHAR2(10)	No	Branch Type (LN = Line, XF = Transformer, ZBR = Zero Impedance Branch)
BRANCH_TO_INTERCONN_FLOWMULT	NUMBER(1,0)	No	Multiplier (1 or -1) used to convert from Branch Flow direction to Interconnector flow direction
OPERATINGSTATUS	VARCHAR2(20)	No	Active or inactive indicator
LASTCHANGED	DATE	No	Date time this record was created

4.6.4 New table: PASA_INTERCONNECTOR_MAPPING

Comment	PASA_INTERCONNECTOR_MAPPING shows the mapping of each Interconnector to its From Region ID and To Region ID
Visibility	Public

Comment	PASA_INTERCONNECTOR_MAPPING shows the mapping of each Interconnector to its From Region ID and To Region ID
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	INTERCONNECTORID, EFFECTIVEDATE, VERSIONNO
Project	STPASA Replacement project

New columns

Field name	Data type	Primary key	Comment
INTERCONNECTORID	VARCHAR2(20)	Yes	The identifier for this Interconnector
EFFECTIVEDATE	DATE	Yes	Effective date of this Interconnector mapping
VERSIONNO	NUMBER(3,0)	Yes	Version number for the Effective date
FROMREGIONID	VARCHAR2(20)	No	From Region ID for this Interconnector
TOREGIONID	VARCHAR2(20)	No	To Region ID for this Interconnector
INTERCONNECTOR_FULLNAME	VARCHAR2(50)	No	Full Name for this Interconnector
OPERATINGSTATUS	VARCHAR2(20)	No	Active or inactive indicator
LASTCHANGED	DATE	No	Date time this record was created



4.6.5 New table: PASA_INTERZONAL_BOUNDARY

Comment	PASA_INTERZONAL_BOUNDARY shows the mapping of each Interzonal connector boundary to its constituent Energy Management System Branch IDs
Visibility	Public
Data volume	Small
Trigger	On change
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	INTERZONALCONNECTORID, EFFECTIVEDATE, VERSIONNO, BRANCHID, BRANCHSUBID
Project	STPASA Replacement project

New columns

Field name	Data type	Primary key	Comment
INTERZONALCONNECTORID	VARCHAR2(50)	Yes	The identifier for this Interzonal connector
EFFECTIVEDATE	DATE	Yes	Effective date of this Interzonal connector boundary definition
VERSIONNO	NUMBER(3,0)	Yes	Version number for the Effective date
BRANCHID	VARCHAR2(50)	Yes	Branch Identifier
BRANCHSUBID	VARCHAR2(50)	Yes	Branch Sub-Identifier
BRANCHFROMSUBSTATION	VARCHAR2(30)	No	Branch FromSubstation. Positive Branch Flow from FromSubstation to ToSubstation.



Field name	Data type	Primary key	Comment
BRANCHTOSUBSTATION	VARCHAR2(30)	No	Branch ToSubstation. Positive Branch Flow from FromSubstation to ToSubstation.
BRANCHTYPE	VARCHAR2(10)	No	Branch Type (LN = Line, XF = Transformer, ZBR = Zero Impedance Branch)
BRANCH_TO_INTERZONAL_FLOWMULT	NUMBER(1,0)	No	Multiplier (1 or -1) used to convert from Branch Flow direction to Interzonal connector flow direction
OPERATINGSTATUS	VARCHAR2(20)	No	Active or inactive indicator
LASTCHANGED	DATE	No	Date time this record was created

4.6.6 New table: PASA_SUBSTATION_ZONE_MAPPING

Comment	PASA_SUBSTATION_ZONE_MAPPING shows the mapping of each Energy Management System Substation ID to its parent Zone ID
Visibility	Public
Data volume	Small
Trigger	On change
Participant file share location	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	SUBSTATIONID, EFFECTIVEDATE, VERSIONNO
Project	STPASA Replacement project



New columns

Field name	Data type	Primary key	Comment
SUBSTATIONID	VARCHAR2(30)	Yes	The Energy Management System identifier for this Substation
EFFECTIVEDATE	DATE	Yes	Effective date of this Energy Management System Substation ID to Zone ID mapping
VERSIONNO	NUMBER(3,0)	Yes	Version number for the Effective date
ZONEID	VARCHAR2(30)	No	The identifier of the Zone to which this Energy Management System Substation ID belongs
OPERATINGSTATUS	VARCHAR2(20)	No	Active or inactive indicator
LASTCHANGED	DATE	No	Date time this record was created

4.7 Package: SETTLEMENT_DATA

Results from a published Settlements Run. The settlement data and billing run data are updated daily between 6 am and 8 am for AEMO's prudential processes. In a normal week, AEMO publishes one PRELIM, one FINAL and two REVISION runs in addition to the daily runs

4.7.1 New table: SET_IRSR_DIRECTIONAL_LINK

Comment	This report contains the MW Flow and Inter-Regional Residue Amounts for all primary interconnectors.
Visibility	Public
Data volume	Medium
Trigger	Daily Billing Run & Posting a PRELIM/FINAL and REVISE Billing Run.



Comment	This report contains the MW Flow and Inter-Regional Residue Amounts for all primary interconnectors.
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	SETTLEMENTDATE, VERSIONNO, PERIODID, INTERCONNECTORID, FROMREGIONID
Project	Project Energy Connect - Market Integration (PEC-MI)

New columns

Field name	Data type	Primary key	Comment
SETTLEMENTDATE	DATE	Yes	The Settlement Date of the Billing Week
VERSIONNO	NUMBER(3,0)	Yes	The Settlement Run No
PERIODID	NUMBER(3,0)	Yes	The Settlement Period Id (1-288)
INTERCONNECTORID	VARCHAR2(20)	Yes	The Interconnector Identifier
FROMREGIONID	VARCHAR2(20)	Yes	The Exporting Region Identifier
INTERCONNECTORLOOPID	VARCHAR2(20)	No	The Interconnector Loop Identifier, Blank if Interconnector not part of the loop
MWFLOW	NUMBER(18,8)	No	Consumed Energy in MWh
SURPLUSVALUE	NUMBER(18,8)	No	Updated Surplus Value for the primary interconnector
ORG_SURPLUSVALUE	NUMBER(18,8)	No	Original Surplus Value
LASTCHANGED	DATE	No	The last changed date time of the record



4.7.2 New table: SET_IRSR_LOOP_REGION_SUMMARY

Comment	This report contains Inter-Regional Net Loop Allocations and Net Regional Export Quantities.
Visibility	Public
Data volume	Medium
Trigger	Daily Billing Run & Posting a PRELIM/FINAL and REVISE Billing Run.
Participant file share location	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	SETTLEMENTDATE, VERSIONNO, PERIODID, REGIONID, INTERCONNECTORLOOPID
Project	Project Energy Connect - Market Integration (PEC-MI)

New columns

Field name	Data type	Primary key	Comment
SETTLEMENTDATE	DATE	Yes	The Settlement Date of the Billing Week
VERSIONNO	NUMBER(3,0)	Yes	The Settlement Run No
PERIODID	NUMBER(3,0)	Yes	The Settlement Period Id (1-288)
REGIONID	VARCHAR2(20)	Yes	The Region Id
INTERCONNECTORLOOPID	VARCHAR2(20)	Yes	The Interconnector Loop Identifier
POSLOOPALLOCATION	NUMBER(18,8)	No	Total Positive Allocation across the Loop

Field name	Data type	Primary key	Comment
NEGLOOPALLOCATION	NUMBER(18,8)	No	Total Negative Allocation across the Loop
NLA	NUMBER(18,8)	No	Net Loop Allocation (can be positive or negative)
EXPORT_MWH	NUMBER(18,8)	No	Total Export Flow in MWh for the Region
IMPORT_MWH	NUMBER(18,8)	No	Total Import Flow in MWh for the Region
NETREGIONAL_MWH	NUMBER(18,8)	No	Net Flow for the Region
LASTCHANGED	DATE	No	The last changed date time of the record.

4.7.3 New table: SET_IRSR_LOOP_NSP_ALLOCATION

Comment	This report contains Inter-Regional Negative Residue Amounts to allocate to TNSPs.
Visibility	Private
Data volume	Medium
Trigger	Daily Billing Run & Posting a PRELIM/FINAL and REVISE Billing Run.
Participant file share location	<#INTERFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	SETTLEMENTDATE, VERSIONNO, PERIODID, REGIONID, PARTICIPANTID, INTERCONNECTORLOOPID
Project	Project Energy Connect - Market Integration (PEC-MI)



New columns

Field name	Data type	Primary key	Comment
SETTLEMENTDATE	DATE	Yes	The Settlement Date of the Billing Week
VERSIONNO	NUMBER(3,0)	Yes	The Settlement Run No
PERIODID	NUMBER(3,0)	Yes	The Settlement Period Id (1-288)
REGIONID	VARCHAR2(20)	Yes	The Region Identifier
PARTICIPANTID	VARCHAR2(20)	Yes	The TNSP Participant Identifier
INTERCONNECTORLOOPID	VARCHAR2(20)	Yes	The Interconnector Loop Identifier
ALLOCATION	NUMBER(18,8)	No	Participant Portion % (e.g. 100)
NLA	NUMBER(18,8)	No	Net Loop Allocation (negative only)
AVGREGION_MWH	NUMBER(18,8)	No	Annual Regional Demand for the Region
TOTALREGION_MWH	NUMBER(18,8)	No	Total Annual Regional Demand for all Regions in the Loop
RESIDUE_AMOUNT	NUMBER(18,8)	No	Calculated Negative Residue Amount based on regional share
LASTCHANGED	DATE	No	The last changed date time of the record.



4.7.4 New table: SET_IRSR_LOOP_NETTRADE_AMOUNT

Comment	This report contains the final net trade amount for the two directional interconnectors to allocate.
Visibility	Public
Data volume	Medium
Trigger	Daily Billing Run & Posting a PRELIM/FINAL and REVISE Billing Run.
Participant file share location	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	SETTLEMENTDATE, VERSIONNO, PERIODID, INTERCONNECTORID, FROMREGIONID, INTERCONNECTORLOOPID
Project	Project Energy Connect - Market Integration (PEC-MI)

New columns

Field name	Data type	Primary key	Comment
SETTLEMENTDATE	DATE	Yes	The Settlement Date of the Billing Week
VERSIONNO	NUMBER(3,0)	Yes	The Settlement Run No
PERIODID	NUMBER(3,0)	Yes	The Settlement Period Id (1-288)
INTERCONNECTORID	VARCHAR2(20)	Yes	The Interconnector Identifier
FROMREGIONID	VARCHAR2(20)	Yes	The Exporting Region Identifier
INTERCONNECTORLOOPID	VARCHAR2(20)	Yes	The Interconnector Loop Identifier

Field name	Data type	Primary key	Comment
NLA	NUMBER(18,8)	No	Net Loop Allocation (can be positive or negative)
NETREGIONAL_MWH	NUMBER(18,8)	No	Net Flow for the Region
REGIONRRP	NUMBER(18,8)	No	Exporting Region RRP
RRPDIFF	NUMBER(18,8)	No	Importing and Exporting Region RRP difference
NOTIONALAMOUNT	NUMBER(18,8)	No	Notional Amount for each direction interconnector
PROVNETTRADEAMOUNT	NUMBER(18,8)	No	Provisional Net Trade Amount based on the Positive Allocation
FINALNETTRADEAMOUNT	NUMBER(18,8)	No	Final Net Trade Amount
LASTCHANGED	DATE	No	The last changed date time of the record

4.8 File interface changes

Package	File ID	Description	Batcher file masks	Frequency	Change	Auto-subscription
BILLING_CONFIG	BILLINGCALENDAR		PUBLIC_BILLINGCALENDAR_*.CSV	Yearly	Modified	No
BILLING_RUN	BILLING		*_BILLING_*.CSV	Daily	Modified	No
	BILLING_INIT		*_BILLING_INIT_*.CSV	Daily	Modified	No
DISPATCH	DISPATCH_AGC_DATA		PUBLIC_DISPATCH_AGC_DATA_*.CSV	Every 5 minutes	New	No
PARTICIPANT_REGISTRATION	PASA_INTERZONAL		PUBLIC_PASA_INTERZONAL_*.CSV	On change	Modified	No

Package	File ID	Description	Batcher file masks	Frequency	Change	Auto-subscription
	PASA_INTERCONNECTOR		PUBLIC_PASA_INTERCONNECTOR_*.CSV	On change	New	No
PRUDENTIALS	BANK_GUARANTEE		*_BANK_GUARANTEES_*.CSV	On change	New	Yes
	CASH_SECURITY		*_CASH_SECURITY_*.CSV	On change	New	Yes
SETTLEMENT_DATA	SETTLEMENTS_EXTN		*_SETTLEMENTS_EXTN_*.CSV	Daily	Modified	No
	SETTLEMENTS_INIT		PUBLIC_SETTLEMENTS_INIT_*.CSV	Daily	Modified	No

4.9 Data model loader mappings

Package	Data model table	File ID	CSV report type	Change
BILLING_CONFIG	BILLINGCALENDAR	BILLINGCALENDAR	BILLING_CONFIG,BILLINGCALENDAR,4	Modified
BILLING_RUN	BILLING_CASHSEC_INTEREST_PAY	BILLING	BILLING,CASHSEC_INTEREST_PAY,1	New
	BILLING_CASHSEC_INTEREST_PAY	BILLING_INIT	BILLING,CASHSEC_INTEREST_PAY,1	New
	BILLING_IRSR_NSP_ALLOCATION	BILLING_INIT	BILLING,IRSR_NSP_ALLOCATION,1	New
	BILLING_IRSR_NSP_ALLOCATION	BILLING	BILLING,IRSR_NSP_ALLOCATION,1	New
DISPATCH	DISPATCH_AGC_DATA	DISPATCH_AGC_DATA	DISPATCH,AGC_DATA,1	New
PARTICIPANT_REGISTRATION	PASA_INTERZONAL_MAPPING	PASA_INTERZONAL	PARTICIPANT_REGISTRATION,PASA_INTERZONAL_MAPPING,1	Modified



Package	Data model table	File ID	CSV report type	Change
	PASA_DUID_SUBSTATION_MAPPING	PASA_INTERZONAL	PARTICIPANT_REGISTRATION,PASA_DUID_SUBSTATION_MAPPING,1	New
	PASA_INTERCONNECTOR_BOUNDARY	PASA_INTERCONNECTOR	PARTICIPANT_REGISTRATION,PASA_INTERCONNECTOR_BOUNDARY,1	New
	PASA_INTERCONNECTOR_MAPPING	PASA_INTERCONNECTOR	PARTICIPANT_REGISTRATION,PASA_INTERCONNECTOR_MAPPING,1	New
	PASA_INTERZONAL_BOUNDARY	PASA_INTERZONAL	PARTICIPANT_REGISTRATION,PASA_INTERZONAL_BOUNDARY,1	New
	PASA_SUBSTATION_ZONE_MAPPING	PASA_INTERZONAL	PARTICIPANT_REGISTRATION,PASA_SUBSTATION_ZONE_MAPPING,1	New
PRUDENTIALS	BANK_GUARANTEE	BANK_GUARANTEE	PRUDENTIAL,BANK_GUARANTEE,1	New
	CASH_SECURITY	CASH_SECURITY	PRUDENTIAL,CASH_SECURITY,1	New
SETTLEMENT_DATA	SET_IRSR_DIRECTIONAL_LINK	SETTLEMENTS_EXTN	SETTLEMENTS,IRSR_DIRECTIONAL_LINK,1	New
	SET_IRSR_DIRECTIONAL_LINK	SETTLEMENTS_INIT	SETTLEMENTS,IRSR_DIRECTIONAL_LINK,1	
	SET_IRSR_LOOP_REGION_SUMMARY	SETTLEMENTS_EXTN	SETTLEMENTS,IRSR_LOOP_REGION_SUMMARY,1	
	SET_IRSR_LOOP_REGION_SUMMARY	SETTLEMENTS_INIT	SETTLEMENTS,IRSR_LOOP_REGION_SUMMARY,1	New
	SET_IRSR_LOOP_NSP_ALLOCATION	SETTLEMENTS_EXTN	SETTLEMENTS,IRSR_LOOP_NSP_ALLOCATION,1	
	SET_IRSR_LOOP_NSP_ALLOCATION	SETTLEMENTS_INIT	SETTLEMENTS,IRSR_LOOP_NSP_ALLOCATION,1	New
	SET_IRSR_LOOP_NETTRADE_AMOUNT	SETTLEMENTS_EXTN	SETTLEMENTS,IRSR_LOOP_NETTRADE_AMOUNT,1	
	SET_IRSR_LOOP_NETTRADE_AMOUNT	SETTLEMENTS_INIT	SETTLEMENTS,IRSR_LOOP_NETTRADE_AMOUNT,1	New



4.10 Discontinued reports

Data model table	File ID	Delivered in file	CSV report type	Replaced by
BILLINGCALENDAR	BILLINGCALENDAR	*_BILLINGCALENDAR_LEGACY*.CSV	BILLING_CONFIG,BILLINGCALENDAR,2	BILLING_CONFIG,BILLINGCALENDAR,4

5 Reports

No non-data model reports in the this version

6 FAQs

6.1 Why are certain tables not populating in pre-production?

The billing tables are only populated when a billing run is executed. If no billing run has occurred, the tables will remain empty. ST PASA Tables are not scheduled to populate until end of year. System Security Management tables are either quite new or still not active.

7 Implementation

7.1 Transition

See Participant Impact.

7.2 Upgrading

You can upgrade your pre-production or production Data Model environments once you receive the Data Model scripts. Applying the scripts sets up the new Data Model structure on your local database. You receive the same data until the new versions of fields, files, and reports are released into pre-production or production and you update your subscriptions.

For help, see:

- [Upgrading your DI environments](#)
- [Updating your subscriptions](#)

7.3 Implications

To maintain systems in-line with AEMO's market systems, participants need to:

- Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.
- Change their systems prior to the implementation of this Release.
- Schedule staff and resources to upgrade their market systems for the production implementation of this Release.

7.4 Risks

See Participant Impact.

8 Terms

8.1 Rules Terms

You can find the following terms defined in the [National Electricity Rules \(NER\)](#) and the [Settlements Residue Auction Rules](#).

Term
AEMO
AEMO Website
Cash Security
Market Participants
NEM
Prudential Approved Participant
Prudential Exposure
Region
Regional reference prices
Registered Participant
Units

